

Audit insights: construction

BIDDING FOR LASTING VALUE, DELIVERING FOR SUCCESS



Lessons from the past remain relevant today



External auditors encounter many business issues during their work in auditing the financial statements of a company, including matters related to its assets, people and markets. Sometimes they take time to work through into the financial data.

In this *Audit insights: construction* report, auditors with many years' experience of independently examining and auditing construction firms have returned to look again at the sector five years after we published their first report.

Our shared objective is to promote the long-term success of the construction sector and the businesses that work within it. There are many contributors to that success including boards, management, employees, shareholders, clients, regulators and policy makers, as well as auditors. This report and its recommendations are addressed to them to achieve this shared objective.

The issues we highlighted five years ago still remain relevant. They are that the whole sector should:

- procure and bid responsibly and deliver consistently across the lifetime of a contract;
- work collaboratively with stakeholders to help plan for the future;
- address the shortage of skilled labour;
- be more transparent in its reporting; and
- provide more investment in commercial and operational technology advances and R&D.

This report offers insights into what is happening in these key areas and makes recommendations to help the industry and its stakeholders meet these challenges before they become apparent in the financial statements and impact the audit. It also alerts auditors to some of the issues they should consider when planning their audits.

Individual contributors and representatives from the following firms formed the *Audit insights* working group that produced this construction report: BDO, Deloitte, EY, Grant Thornton, KPMG, Mazars, The Orange Partnership, PwC and RSM.

Executive summary

When construction companies and clients get it right – through project selection based on their ability to deliver, responsible tendering, diligent monitoring, and a proactive attitude to deal with issues such as cost and timetable overruns – they achieve contracts that are more profitable and provide more enduring value to society. This, in turn, improves their balance sheet strength, reduces risk and delivers better access to a wider range of finance, enabling construction firms to pursue growth opportunities.

The construction sector continues to be a key driver of growth for the UK economy. It contributes more than £110bn per annum to the economy (6% of GDP) and is a significant employer, with more than 2.4 million people working in the industry¹.

Construction is also a fragile sector that suffers from low margins and high risk where even the largest firms can find themselves just a few contracts away from slipping into the red. This pressure is further compounded by the longest decline in bank lending for construction companies since 2011 – because of fears of a downturn in the economy and the impact of Brexit – at a time when firms need to manage their debt.

The demise of Carillion and the failures at Grenfell are just two examples of the hugely significant risks affecting the sector. While each of these specific issues are being addressed separately, it is vital that construction companies also address other significant risks in their quest to run sound, well-managed businesses.

There are four key goals for the industry that deserve particular emphasis:

- bidding for lasting value;
- delivering for success;
- rebuilding confidence through increased transparency; and
- getting fit for the future.

BIDDING FOR LASTING VALUE

If construction businesses want to generate sustainable profits, they need to get the price right at the tendering stage. Some companies have become better at pricing their services realistically to reflect their true cost. But we are also seeing businesses bidding at too low a price for large complex contracts in the expectation that they will improve their profit margins because some aspect of the project will change. This is a risky strategy as unforeseen changes can quickly turn small profits into losses, and make it difficult to return to profitability. If contracting businesses continue to underbid for contracts, the risk is that there will be more failures which, as we have already seen in this sector, can damage not only supply chains, but also the wider UK economy.

Businesses need to adopt a robust approach to bidding for projects and be selective when choosing those projects. To ensure that opportunities align with agreed corporate strategies, and the risks are properly understood, we recommend completing a bid/no bid checklist and formally documenting the assessment made. This assessment should then be independently challenged within the business before it is signed off by executive management and the board. We provide guidance on some of the key questions that should be asked.

¹ 'Construction industry: statistics and policy', Briefing paper, House of Commons Library, December 2018.

DELIVERING FOR SUCCESS

In the construction sector it is especially important that financial rigour is applied to key estimates and judgements throughout the project's life cycle. Competition is so fierce and margins are so thin that reliable financial information and analysis can determine a project's success. One way to achieve this objective is to form strong delivery teams where project managers work closely with finance/commercial teams. We do not see enough evidence of this in practice, and urge firms to remedy any lack of collaboration.

REBUILDING CONFIDENCE THROUGH INCREASED TRANSPARENCY

The UK construction sector continues to suffer from a reputation of lacking transparency, particularly on cost and performance. In many cases, poor or unexpected results are caused by a lack of internal transparency. Executive management and boards need to ensure the tone from the top encourages and supports employees early reporting when problems occur. Without early reporting, projects are less likely to remain on track and management may be unaware of a problem until it becomes significant.

Management reward structures should also align remuneration more suitably to longer-term measures of a company's achievements. These measures include evidence of successful project completion in accordance with key contract requirements and performance indicators, and delivery of both profits and other measures of real value (eg, enduring asset quality, compliance with prompt payment requirements, and other relevant regulations for the sector/company).

GETTING FIT FOR THE FUTURE

The highly fragmented nature of the sector and lack of training and innovation has been contributing to low productivity. Low profit margins make it hard to invest in training and research and development, which in turn means that the industry has not embraced innovation. Although this attitude is changing and we are seeing more investment in new technologies, much more needs to be done by construction firms to drive further operational efficiencies.

Government can help to build confidence in the construction sector by showing more ambition and urgency in facilitating a reliable pipeline of major infrastructure projects. The introduction of the National Infrastructure Pipeline was meant to herald a sea-change in public asset procurement. And yet, there are still delays and slippages in projects coming to market. The consequences of these programme delays and the related cost pressures can be severe. The requirements of employment regulations and the need for reasonable strategic planning to determine a suitable level of headcount for contract tender success mean that overhead expenditure cannot be turned on and off like a tap.

We welcome the Government's announcement of £600bn in infrastructure investment over the next ten years. However, major infrastructure programmes have historically been difficult to implement within expected timescales. The Government will need to commit to specific timings to guarantee that projects will be tendered. In turn, construction firms can develop their own responsible tenders and draw up sustainable delivery plans. Firms also require this certainty to assess their supply chains, to ensure they have the resources and talent to deliver the projects to time, cost and quality.

The construction sector is losing many skilled workers to retirement and the continued uncertainty brought about by Brexit. The costs of replacing these employees are impacting already tightly-squeezed margins. Businesses need to form partnerships with their local schools, colleges and universities to educate young people about the wide range of career opportunities available, creating a pipeline of future young talent.

To increase its talent pool, the sector also needs to consider how it can attract more women and ethnic minorities. The construction sector has historically failed to engage with these groups. As well as addressing any pay gaps that exist, the stereotype of the hard hat-wearing construction worker needs to be retired and replaced with the image of the planner, architect, surveyor, engineer and skilled trades person.



Bidding for lasting value

Construction businesses that bid responsibly are more likely to make the right decisions and take on the right contracts they are confident of delivering to a high standard and to contractual terms. They can benefit from benchmarking their supply chain prices to ensure they buy well from required markets. Above all, they should be clear on why they are bidding, confident that they have the necessary skills, resources and experience to deliver the project to a high standard and to time; and they should properly understand the inherent risks.

RESPONSIBLE TENDERING

The construction industry is characterised by risk, uncertainty and complexity. Managing large construction projects involves addressing a number of different challenges. If construction businesses want to generate medium to long term sustainable profits they need to get the price right at the tendering stage. This is challenging because the work is typically contract-based and involves a bidding process in which a significant amount of judgement is required. But getting the price right also demands a responsible tender strategy, and a clear understanding of the needs of a client in terms of project requirements, the proposed scope of the works and the related risks, and the timetable for delivery.

Clients also have a role to play in developing responsible tendering. When creating their bid criteria it is important that clients consider:

- the cost of the work over the lifetime of the project (for example, the people, raw materials, energy, and finance); and
- the wider value of the project that will be delivered. This will include providing a lasting and sustainable benefit for local communities.

Clients in both the public and private sectors that focus primarily on lowest bids, without properly investigating the overall quality and viability of the bid, heighten the risk of additional costs, quality shortfalls and delivery delays to the project. They are also effectively forcing construction businesses to bid at unsustainably low prices just to be competitive, often at the expense of quality.

Too often construction businesses reduce their margins to win contracts on the assumption that they will be able to recover their costs through subsequent changes to the scope of the project. Where contractors lose tenders they sometimes assume that their price was too high and will then aim to be cheaper the next time they bid. But merely cutting margins, without a considered evaluation of where their delivery cost might be reduced (by reference to their operating model, level of resources or capacity for innovation), will not be sustainable in the long run.

ROBUST APPROACH TO BIDDING

Contractors' processes and controls around identifying opportunities and bid submissions should be designed to facilitate a reasoned approach to a bid/no-bid decision. Some of the key questions that bidders should consider, and boards will want to have the answers to if they are being asked to approve individual contracts, will be:

- Are all significant risks identified, understood and appropriately costed? Has a sustainable margin been included (including headroom to cope with risks that might occur)?
- Does the contractor have all of the necessary skills to deliver the proposed project, in particular regarding a requirement which introduces unfamiliar technical necessities/complexity? Has a skill and resource assessment been carried out to ensure at the pre-bidding stage there is the capacity and capability to deliver the required level of quality?

- In relation to the highest profile or riskiest contracts, does the contractor involve a suitably qualified panel of decision-makers to evaluate whether the proposed price/return is adequate in light of the risks accepted – and are the go/no-go reasons and relevant supporting evidence retained for future reference, and for use in future bids? Do the decision-makers actively refer to and consider lessons learnt historically when determining whether to approve the bid?
- Are the right parameters in place to ensure decisions are right for the wider business? For example, does the board have final sign off? Has the board been informed about the risks and costs from the outset to ensure the bid is sustainable?
- If the contractor is relying on its supply chain to deliver additional skills not available in-house or other significant services in connection with the contract, is there sufficient evidence available around previously demonstrated capability, access to necessary resources and financial health? Are key supply chain partners actually in place at the time of the bid's submission and do they have the proper level of involvement in the bid process? Are subcontractors' prices locked in at the bid stage?
- Has the proposed form of contract been reviewed by persons with sufficient expert knowledge to highlight key risk areas and drafting advice designed to provide adequate protection in the event of a dispute? Better still, have the procurer and bidder met in advance of the award to discuss such issues and agree contract changes?
- Does the contract provide common understanding and certainty to all parties? Is it clear what is covered and not covered in the original contract and who will bear the cost of any changes?
- Have anticipated costs been stress tested (looking at potential adverse circumstances and scenarios) to see how the project would be affected by different external factors (for example, supply chain inflation)?

COLLABORATION

Businesses perform better if there is active monitoring and evaluation from a financial view at the heart of operational delivery. In construction businesses it is especially important that financial rigour is applied to key estimates and judgements through the project life cycle. One way to achieve this objective is to form strong delivery teams where project managers and finance/commercial teams work much closer together. We do not see enough evidence of this in practice.

Input and challenge from those with financial skills is critical to project delivery. But the delivery team may see financial monitoring as a threat to the way it manages projects, as delivery teams will regularly deal with the achievement of key performance indicators (KPIs) as part of their contractual obligations. Competition is so fierce and margins are so thin; reliable financial information and analysis can make the difference to the project's success. Any disconnect between finance and operations needs to be remedied quickly if businesses are to avoid costly overruns. Businesses should ensure that project and construction managers are aware of the value that finance teams can bring to a project. In many cases, this will require a culture change in how the business approaches projects, and the attitude shown to the value of finance functions.

Typical KPIs will include delivery against contractual terms, achievement of milestones, and delivery to budget. Achievement of KPIs can improve revenues and profits, for example, in contracts with gain-share arrangements. Where targets are not met it is important that contractors are agile in determining and taking corrective measures.

VISIBILITY OF ALL TENDERS

There is often a focus by management on individual contracts which means that the portfolio effects of multiple contracts can be overlooked. It is good practice for senior management to have better visibility of all tenders in progress, firstly to assess their capability to deliver on individual projects and secondly to decide whether new bids should be made. One option to reduce this type of risk for smaller firms would be that management information which logs and tracks the requirements to deliver each contract is available and actively monitored. This would provide visibility if there is any excess capacity that the business can use on potential new projects.

RESPONSIBLE TENDERING

Government has a key role to play in driving responsible tendering as it often awards the largest contracts. The criticism of competing for public sector contracts is that it often seems that little account is taken of the financial viability of the company tendering or the quality of the product or service it may end up delivering. Only the price tendered seems to be of real interest. When developing their bid criteria, both government and private sector clients need to consider not only the cost of the work over the lifetime of the project, but also how it will assess its quality and viability.

SUMMARY OF RECOMMENDATIONS

CONTRACTORS

Contractors should adopt a robust approach to bidding for projects and be selective over which projects to submit bids for. This should include completing a bid/no-bid checklist and formally documenting the assessment made. This assessment should then be independently challenged before it is signed off by executive management and the board.

Boards should consider how aligned the bid/no-bid checklist is to the company's risk appetite. Factors to be considered will include:

- which projects they are best able to deliver;
- what constitutes acceptable returns;
- the extent of acceptable cash flow; and
- whether it is appropriate to set limits on the level of contracts that firms bid for.

Boards should create and apply a risk framework to decide what contracts require board approval. Some of the factors to consider will be:

- the extent to which the contract price and terms are fixed;
- the size, complexity and delivery schedule of the contract;
- whether this is a new area of involvement for the company;
- whether the resources are available to complete the new contract; and
- the penalty regime, if the project is delivered late.

Any disconnect between finance and operations should be remedied quickly if costly overruns are to be avoided.

Bidders should look to see where they can increase the value of their bid to the client and minimise any potential performance gap between the design and specification proposed and the building outcome. Through metrics, they should be able to demonstrate that they pay their supply chain on time, that they deliver on time and to budget, and that their quality levels are endorsed by others.

CLIENTS

Clients should satisfy themselves that:

- bids are sustainable, which includes understanding the costs over the lifetime of the project;
- bids meet quality standards; and
- risks and uncertainties have been identified and adequately priced.

They should base tenders on best value and past performance rather than cost alone, and incorporate performance incentives.

Considering the use of longer-term frameworks over single-project tender processes is also necessary. The frameworks should be subject to periodic market testing to ensure they deliver value for money.

INVESTORS

Investors should ask the businesses in which they invest to explain how they determine which contracts to bid for, and how they document the risks, assessments and decisions that are then being made.

GOVERNMENT

The government as a major customer needs to ensure that its contractors are able to deliver services sustainably. When developing bid criteria it should consider not only the cost of the work over the project's lifetime, but also how it will assess its quality and viability.

The government should carry out more stress testing of its suppliers' proposals and include factors such as build quality, capability, expertise, financial backing and value to the taxpayer as well as the proposed cost of the project.

Delivering for success

Robust processes and controls enable effective challenges of key assumptions at every stage of the construction project life-cycle. They help to track actual costs against estimates and ensure these are reported on a timely basis to internal stakeholders.

CONTRACT MANAGEMENT IS A KEY FACTOR IN THE SUCCESS OF A PROJECT

There is a necessity for good contract reporting as it has the potential to deliver:

- earlier root cause analysis of issues, which may prompt, for example, a re-think of the project delivery process, and amend the procurement of key resources including changing non- or poor performing sub-contractors; and
- earlier engagement with the client on scope changes, or other client-side solutions, to address cost and delivery issues.

As part of the consideration of good practice, firms should ensure that effective internal controls are in place which address the following key vulnerabilities throughout the project life-cycle.

AT THE PRE-BID AND BID SUBMISSION STAGE

Some of the key risks prevalent at this stage include inadequate definition of scope and specification, inadequate consideration of project risks and uncertainties, and poor commercial terms and conditions at contract inception/agreement.

Typical considerations are as follows.

- Is the project characterised by complex delivery/execution risk?
- Is the company taking on a new role or is a new delivery specialism required?
- Is there significant sub-contractor input or is delivery to a very tight timeframe?
- Has the draft contract been reviewed by an appropriate specialist?
- Does the contractor really 'know' the end-client?
- Does the expectation of return reflect all of the relevant risks?

IN PROGRESS DELIVERY AND MONITORING

Some of the key risks here include inappropriate management of schedule and/or scope changes, the inability to correctly record information required to calculate revenues/margins, and whether the estimates/assumptions underpinning forecast final revenue and costs are inappropriate or unreliable.

Typical considerations are as follows.

- Are processes to identify, agree and document project scope and schedule changes robust and timely?
- Is a reasonable approach being taken to account for key judgement areas, for example, variations or claims on the contract?
- Are appropriate contingencies established that address relevant delivery risk areas and are these subject to regular review?
- Are oversight and review processes effective and objective, operated with suitable precision and undertaken using accurate data?

It is critical that contractors keep records for all contract changes and that early escalation takes place to resolve any disagreements.

PROJECT CLOSE-OUT

A key risk in this phase of the contract will be inappropriate consideration of factors affecting completion of obligations, including risks specific to an agreed warranty period and final account settlement.

Typical considerations are as follows.

- Are liquidated damages and other close-out risks and obligations appropriately addressed and provided for?
- Are learning points from contract delivery absorbed, documented and factored into the acceptance and pricing of future bids?

INVEST IN SKILLS AND TECHNOLOGY

Underpinning effective monitoring systems for all of the above project considerations is the importance of reliable management information. The sector generally affords a low priority to the development of IT systems/solutions designed to provide effective management information. This situation occurs because IT requires financial investment and, when businesses are already working to tight margins, these costs are either not prioritised or funding is not available.

The value of employing staff with the necessary mix of financial and commercial skills to deliver the appropriate challenges has also often appeared to be low on the agenda for construction businesses. Contractors need competent staff producing performance data in areas such as forecasting margins, change in valuations and changing costs to complete a project. There are examples of contractors winning work and then placing the day-to-day management of a contract with third party staff with the expectation they will deliver in line with forecasts.

Long-term contracts in this sector are characterised by the generation of high levels of financial and other performance data. Better informed and progressive sector players are exploiting the rapid development of data analysis techniques to provide an efficient means of capturing the information required to address project performance.

But this assessment will only work if there is clarity around the relevant key performance indicators and other contractual aspects that actually matter, such as:

- cash flow management, including supplier payment dates;
- delivering the project on time, on budget and to the right level of quality;
- health and safety compliance, and accident rates;
- staff turnover;
- carbon emissions and recycling targets; and
- productivity.

Given the pace of technological advancement globally, it is important that more firms start to invest in technology that will enable them to use data analytics to address their information needs.

Contractors are now quite often involved in the design and construction process earlier. They should invest in the right professional management resources to add value at these stages, including sound advice on different construction options and timing considerations. Digital construction techniques can greatly assist here as well.

SUMMARY OF RECOMMENDATIONS

CONTRACTORS

Contractors should ensure that effective controls are in place to address the key risks associated with a project.

They should invest in the right management and design skills and technology to provide sound advice on methodology options and off-site construction, and ensure effective management information is provided during the project's lifecycle.

Providing clarity around KPIs that will be used to assess project performance is also necessary. These KPIs should be regularly reviewed, updated and reported against to aid understanding of the firm's contract performance.

CLIENTS

Where clients enter into collaborative contracts they should follow through with the agreement throughout the lifetime of a project, and not just at its inception, even when it becomes commercially challenging.

They should carefully choose independent consultants to ensure they have the right skills and experience to provide robust assurance that projects are being delivered efficiently, and to cost, quality and time.

INVESTORS

Investors should ask businesses to explain how they plan to manage the key risks throughout a project's lifecycle, and ensure they have the right internal controls in place.

GOVERNMENT

Government should continue to encourage greater use of modern approaches to construction to improve efficiency. This includes the manufacturing of components in factories using the latest digital technology before they are sent for assembly on construction sites.

Rebuilding confidence through increased transparency

The UK construction sector is making progress in terms of transparency, but it could do much more. If firms are more transparent, this will help to rebuild confidence in the sector. Investors want to be able to assess the financial position of a construction business properly, understand its major risks and how they are being addressed, and assess its future prospects.

The construction industry struggles with transparency because it is a sector with high levels of work in progress where estimates and judgements are critical to the assessment of the contract position, which is reflected in the financial statements. The value of sharing the right data with the right people can drastically improve a project's performance. For example, performance is improved by identifying problems earlier, and establishing better communications between the office and the construction site.

The four areas for improved transparency are:

- internal;
- client;
- market; and
- supply chain.

INTERNAL TRANSPARENCY

In many cases, poor and/or unexpected results are caused by a lack of internal transparency and a lack of challenge by contract managers. These inadequacies also increase the risk of a failure to report poor performance, not necessarily for 'fear of consequences', but because the delivery team involved is confident it knows how best to resolve the issue rather than reporting concerns to a higher internal authority. Over-optimism in bidding decisions can be another key cause of projects failing to achieve expected outcomes, resulting in the slow communication of bad news.

These potential failures remain critical risks if they are allowed to go undetected. The tone from the top of the business and its culture remain important influences on transparency. If transparency and the culture of the business are not addressed, it is less likely that projects will remain on track and more likely that management will not become aware of a problem until it becomes significant.

Audit and risk committees need to have access to sufficient information to determine whether a project is being delivered successfully. Transparency can play an important role in helping committees and boards to be open and provide an understanding of how an organisation's reward strategy is being driven with a clear set of expectations and performance levels.

Management reward structures should align remuneration more suitably with longer-term measures of a company's achievements, including evidence of successful project completion in line with key contract requirements and performance indicators, and delivery of both profits and measures of real value (eg, enduring asset quality, compliance with prompt payment requirements, and other relevant regulations for the sector/company).

CLIENT TRANSPARENCY

Businesses with longer-term contracts have recognised the benefit of a more open and collaborative approach illustrated in the rise in use of New Engineering Contracts. But the norm is generally a more adversarial approach (both from clients and sub-contractors), and intense competition that leads firms to take on contracts with levels of risk that are not reflected in the agreed price, particularly during quiet periods.

Clients need to have access to enough information about the way projects are being delivered so they can challenge construction firms over their progress and the way risks are being managed. We recommend that parties use a contract that will facilitate an appropriate level of transparency. In our experience, clients tend to use one type of contract to deal with all types of projects regardless of the scope, risks, responsibilities and obligations involved. The result is that clients will not always receive the most competitive price for a project. A contract that is tailored to a specific project will allow better scoping of the design and construction works and better alignment of risks and responsibilities.

MARKET TRANSPARENCY

Lack of internal transparency also feeds into the external reporting of financial performance. Accounting practices outlining the key areas of judgement affecting the financial statements (for example, the approach to forecasting the cost of completing the project) tend to lack the necessary detail to allow comparability between sector participants and awareness of how they manage their business risks. The impact of additional disclosures required under IFRS 15 Contracts with Customers should improve performance management because it will provide more transparency on contract accounting.

Similarly, the approach to the disclosure of future anticipated activity, chiefly revenues to be achieved in future years from current or projected order backlog, is subject to different approaches being undertaken and assumptions being made. This makes any attempt at comparison a problematic exercise. For example, disparities occur in relation to the following questions.

- What definitions are used to differentiate categories of anticipated revenues?
- What constitutes a secured order?
- What approach is taken to project repeat/annuity work, and the time-frame over which revenues are expected to accrue?

Investors and other key stakeholders do not welcome excessive project data. They need higher standards of transparency where important market information, such as backlog and environmental and safety standards, is communicated clearly. Better market transparency will also lead to improved accountability and quality of governance within construction firms.

Disclosure of contract KPIs can aid market understanding. Construction firms should have a suite of KPIs that are regularly reviewed, updated and reported against, for example in the annual report and in regular updates on firms' websites.

Disclosures made by companies in the sector related to corporate viability comprise another area where more could be done to provide better information in company annual reports and, in particular, the key assumptions and scenarios underlying corporate viability assessment. This is an area where there have been calls for responsibilities of audit firms to be better defined and extended. There is a need for preparers, audit committees, auditors and regulators to work together to respond to these demands to build a disclosure model and related assurance responsibilities which do more to address investor and other stakeholder concerns. In this regard, the FRC's review of corporate reporting and the Brydon review of the quality and effectiveness of audit would appear to be ideal opportunities to consider potential improvements.

SUPPLY CHAIN TRANSPARENCY

Transparency should exist across all parts of the supply chain, from the largest tier one construction companies, who are dealing with contracts in their hundreds of millions or even billions, to the lowest tiers of sub-contractors. Supply chain inflation is a significant risk and construction businesses should seek to ensure that they are able to capture all the key information of their whole supply chain. If businesses throughout the supply chain wrongly assess variables such as price inflation, there is a real risk to their future financial viability.

If long-term contracts are appropriately priced and proficiently delivered based on reliable management information, they should insulate businesses against such risks. This consideration extends to the development of key supply chain estimates. Clients and tier one contractors increasingly carry out due diligence on the financial health of the supply chain, which is a good sign provided they are fair with relevant sub-contractor partners (for example, by helping to underpin their cash flow through reasonable payment terms).

All businesses need to optimise their supply chains and create efficiencies and more transparent management of costs within their control. Companies should stress-test cost projections and embed operational procedures and controls throughout the bidding and delivery life cycle.

SUMMARY OF RECOMMENDATIONS

CONTRACTORS

Contractors should ensure the tone from the top encourages and supports employees early reporting when problems occur. Without this, it is less likely projects will remain on track and more likely management will remain unaware of a problem until it becomes significant.

Management reward structures should be linked to overall contract performance and longer-term business results – not short-term, in-year reported results.

They should check that accounting and contract management processes and systems provide transparency without the need for significant manual processing and support.

CLIENTS

Clients should carry out due diligence to gain assurance that contractors understand their own costs and have robust and well-controlled management information infrastructures in place.

Additionally, they should consider independent assurance for riskier projects where there is a higher level of uncertainty.

INVESTORS

Investors must press for more frequent and improved quality (rather than increased quantity) of information provided on projects. They should seek a fair, balanced and understandable approach so that a representative picture is provided by the contractor.

GOVERNMENT

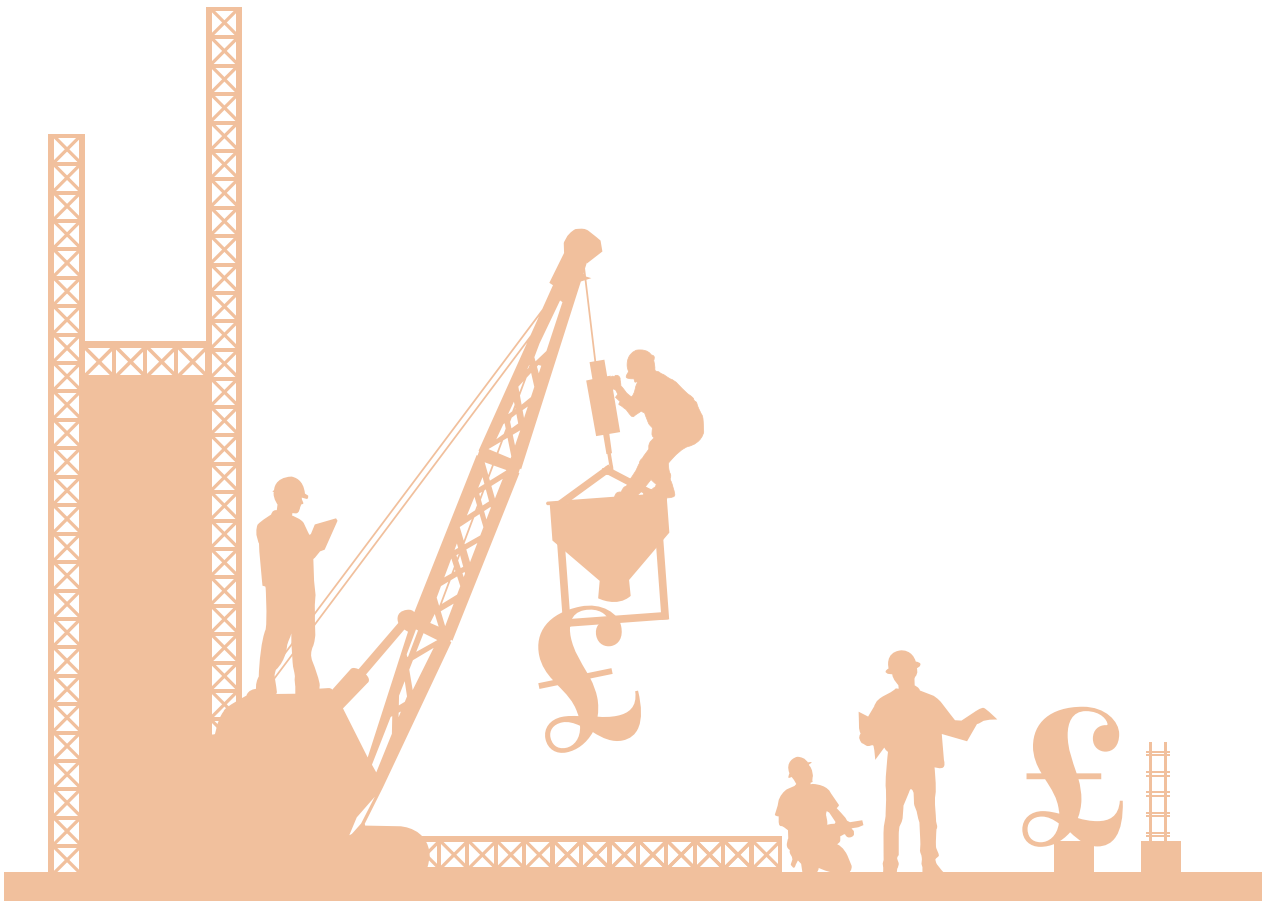
Government should use its purchasing power to play a constructive role in promoting bid transparency.

It should provide fuller explanations of the winning bid to increase understanding.

Government should also continue to make tender processes leaner and more transparent so that projects can be bid for and commissioned efficiently without contractors experiencing large costs.

REGULATORS, STANDARD-SETTERS AND AUDITORS

This group must work together to develop clearer and more effective requirements around the disclosure and review of corporate viability. Such work would be a relevant topic for focus for the Brydon review of quality and effectiveness of the UK audit market.



Getting fit for the future

The construction industry must be ready to embrace innovation, harness new technologies and attract and train enough skilled workers if it is to be fit for the future. Like most other sectors in the economy, it is experiencing the availability of a wave of innovative technologies. Today's offsite construction, where much of the actual 'building' takes place in a factory environment and is transported to the construction site, will be overtaken by tomorrow's disruptor.

This will require a labour force that has the right skill set to work with new technologies and new manufacturing methods. This poses a big challenge: with the sector traditionally dependent on migrant labour from the European Union, how will it cope when the UK leaves the European Union?

NEED FOR YOUNGER TALENT

Never before has the need for the development of home-grown resources in the construction sector been more necessary. Commentators estimate around 10% of construction workers in the UK come from overseas and this figure rises to around 50% in London. In addition, the sector is facing further pressure as existing skilled UK workers decide to work in other countries.

Of equal concern is a steadily aging workforce. With more than 20% of the workforce aged between 50-60 years, the sector is losing many skilled workers to retirement. The costs of hiring labour are impacting already tightly-squeezed margins as the skills gap continues to bite.

It is clear that there needs to be a vigorous effort to develop new talent. This effort needs to start with the youngest members of the workforce, and include tackling the stereotypical male-dominated image where nearly nine out of ten construction workers are men. The industry will need to work more closely with schools, colleges and universities, and provide more opportunities for young people to gain hands-on experience.

Businesses should form partnerships with their local schools and colleges to inspire young people to investigate the wide range of career opportunities available. This will help to provide a pipeline of future young talent for the industry. Some of the activities could include:

- employee volunteers visiting schools and mentoring young people interested in construction;
- encouraging workplace visits, for example, to design offices and sites; and
- offering work experience for young people.

The government's Apprenticeship Levy is now a reality and needs to be embraced much more by the construction sector as a means of introducing young people to a career in construction, otherwise there is a risk that the Levy serves only as a tax on the larger construction companies.

DIVERSITY CHALLENGE

The sector needs to take steps to attract a diverse workforce and to address the pay gap that exists. Women currently make up just 11% of this industry, and are paid 12% less, on average, than men carrying out the same role (data from the Women in Construction summit, March 2018). The statistics are even worse for attracting ethnic minorities, who only make up an estimated 3% of the workforce.

These are talent pools that the sector has historically failed to engage. Businesses should be proactive and show the diverse range of roles that are required for large construction projects. The expected hard hat-wearing construction worker needs to be reimagined into a diversity of roles, including planners, architects, surveyors, engineers or skilled trades people.

HARNESS NEW TECHNOLOGIES

Advances in technology offer the industry opportunities for greater efficiencies, improved build quality and productivity, and further progress in health and safety. Because the industry revolves around physical labour, heavy equipment and materials and unpredictable weather, it is important to mitigate risks wherever possible. We are seeing firms beginning to reap the benefits from the use of drones to survey project sites, cloud-based technology to enable information to be shared digitally and 3D mobile mapping.

Building Information Modelling (BIM) has transformed the way projects are delivered, and innovative production techniques have shown what is possible to improve the construction process. But there remains much that needs to be done, both at the contractor and at the supply chain level, to drive further operational efficiencies and enable more projects to be delivered to time and to budget. Businesses still prioritise avoiding the cost and disruption of new technologies over their potential benefits because this is a low-margin sector.

Now is the time for new thinking on contract delivery mechanisms and greater cooperation between client and customer to develop stronger relationships. This cooperation could extend to joint working on research and development (R&D), an area in which the sector has traditionally lagged behind its competitors. Sharing the risk for a potential mutual benefit (for example, in the embracing of disruptive technologies), might yield better, more efficient ways of working.

Some construction firms are still unaware of the government's R&D tax credits scheme, which rewards companies that develop new products, services and processes, or improve existing ones. The financial benefits can be considerable, and can be applied both in the design and prototype stages and while projects are being carried out on site.

Government can likely do more in this area. For example, it could play a valuable convening role supporting joint ventures between construction firms and research bodies to develop new technologies and processes.

Embracing new technology is also an important way of attracting the younger generation to construction. These potential workers have grown up with and become dependent on technology, and may not be attracted to work in a business that largely depends on manual processes.

INFRASTRUCTURE PIPELINE URGENCY

While there is much that the sector can do to improve its skills base and level of innovation, there are other stakeholders whose actions can help to drive these requirements forward. Principally, the UK government needs to build confidence within the sector by building a more reliable pipeline of major infrastructure projects and programmes. For instance, the introduction of the National Infrastructure Pipeline was meant to herald a sea-change in public asset procurement, but the reality remains that there are delays and slippage in projects coming to market.

The consequences of these programme delays and the related cost pressures can be severe. The requirements of employment regulations and the need to undertake reasonable strategic planning to determine a suitable level of resources to conform with the expectation of contract tender success mean that overhead expenditure cannot always be accessed as and when needed. Furthermore, firms are finding it harder to obtain bank financing because of fears of a downturn in activity.

The National Infrastructure Pipeline is fundamental to creating successful businesses of the future. Government policy needs to be more responsive to UK infrastructure needs, such as more rapid investments to develop, for example, social housing and transport facilities. The tender process should be leaner and more transparent so that projects can be commissioned efficiently and investors can be informed correctly about private finance, how much investment will be needed and how deals will be structured.

We welcome the government's announcement of £600 billion of infrastructure investment over the next 10 years. However, major infrastructure programmes of this scale have historically been difficult to implement within expected timescales, as HS2 (High Speed 2) and the Heathrow third runway have shown. The government will need to commit to specific timescales to provide certainty over when the projects will be tendered and when they are expected to commence. Construction firms can then develop their own responsible tenders and draw up sustainable delivery plans. They will also require this certainty to assess their supply chains to ensure they have the resources and talent to deliver the projects to time, cost and quality.

PROPER PLANNING FOR OVERSEAS MARKETS

UK construction is well placed to benefit from overseas opportunities presented by the global shift to a low carbon economy and green construction. The decision to invest in overseas growth needs to be made at the right time by UK construction firms, when sufficient financial resources are available and a proper investment plan has been developed. Investing overseas may not be the answer if a business is having difficulty succeeding in the UK market. Few businesses in the UK construction sector compete for international contracts as effectively as they should. Some have tried, failed and then retreated back to the UK market.

UK companies involved in construction and engineering should not be afraid to compete overseas. They can bring a wealth of valuable construction experience to projects: professional skills, cost control, health and safety, lean contracting and performance management. Overseas markets represent an opportunity that needs to be considered by UK firms for future growth. However, many UK construction businesses lack the necessary knowledge to successfully benefit from overseas markets. They need to invest time and resources to understand and respect the culture and practices of the international market. For example, contractors will require a supply chain and that tends not to be global. Consequently, construction businesses will need to understand the local subcontracting market to obtain the right quality of product at the required health and safety standards. Working in overseas markets may also require UK businesses to help develop the skill sets of the local population.

SUMMARY OF RECOMMENDATIONS

CONTRACTORS

Contractors should consider forming partnerships with local schools, colleges and universities to inform young people about the wide range of career opportunities available. This will help to provide a pipeline of future talent.

To combat the shortage of skilled labour and increase diversity, contractors should proactively recruit and train women and BME candidates.

Contractors need to learn from other sectors where gender/ethnic background imbalances have been addressed.

They should also invest in emerging technologies to help streamline construction processes. Although we are seeing more uses of new technologies, there remains much more that needs to be done by construction firms to drive further operational efficiencies.

Finally, contractors must build a strategy that considers whether overseas expansion is viable. This will need to consider the risks involved and how these should be managed.

CLIENTS

Clients should drive the use of innovation in processes and technology by encouraging the use of BIM and off-site construction.

They should communicate the importance of equality and diversity as part of the tender and seek to understand the diversity policies of firms that are bidding for contracts.

INVESTORS

Investors need to scrutinise future investment plans and challenge boards to demonstrate how they plan to harness new technologies and attract and retain enough skilled workers to reduce cost and improve profitability.

GOVERNMENT

Government must support joint ventures between construction firms and research bodies to develop new technologies and processes.

They should also show more ambition and urgency in facilitating a reliable pipeline of major infrastructure projects. Finally, they should commit to specific delivery timescales to help construction firms develop sustainable delivery plans.

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ICAEW

Chartered Accountants' Hall
Moorgate Place
London
EC2R 6EA
UK

T +44 (0)20 7920 8100
E generalenquiries@icaew.com
icaew.com

