

Connected
Procurement:
The Foundation
of Construction
Success

October 2020



# Contents

FOREWARD	3
EXECUTIVE SUMMARY	4
CHAPTER 1	
The Process of Procurement	5
CHAPTER 2	
The Value of Trusted Partnerships	12
CHAPTER 3	
The Impact of Covid-19	19
CHAPTER 4	
Looking to the Future	23
CONCLUSION	30





# **Foreword**

To say that 2020 has been a strange year for construction organisations in the UK and Ireland is an understatement.

Like many other sectors, the construction industry has been severely disrupted by Covid-19 and businesses are facing a highly uncertain future.

But at the same time, construction will be at the heart of each nation's recovery. Construction projects will stimulate the economy and provide crucial jobs.

Infrastructure adjustments like greener transport networks and reimagined town centres will help society adapt to post-pandemic life.

All of this comes against a backdrop of wider changes, which will help to create a more sustainable, productive and quality-focused industry.

No single organisation will do this alone. Construction always has been an industry built on collaboration. Therefore, the trust between owners, main contractors and subcontractors will remain vital.

The importance of partnership makes the preconstruction phase - when organisations decide who to work with and how - so critical to every project's success.

From selecting the best people for the job to mitigating risks, preconstruction is where you make your money and lay the foundations for a successful build.

But preconstruction, and specifically procurement, remains a highly individual process. Many companies make limited or disjointed use of technology, leading to inefficiencies and errors that can compromise the success of the project - and the business.

With research company Censuswide, we have surveyed 375 owners, main contractors and subcontractors in the UK and Ireland, all with direct involvement in tendering or submitting proposals to bids. We have also interviewed 15 respondents, for a more detailed perspective.

This report will explore the experiences of owners, main contractors and subcontractors, including:

- ► How challenges experienced during the process of procurement and tendering can ultimately impact project outcomes.
- ► How establishing trusted relationships with other businesses can positively influence procurement, tendering and overall project success.
- ► How Covid-19 has intensified the situation and disrupted existing partnerships.
- ► How technology can help to overcome issues and prepare for the future of construction.

2020 has been a challenging year for everyone. But making changes to procurement processes can have a significant impact on every organisation's success, to help construction prepare for a bright future, post-Covid-19.

I hope you enjoy the report.

#### Mike Pettinella

Director of EMEA Sales, Autodesk Construction Cloud

# **Executive Summary**

Building companies in the UK and Ireland take a highly varied approach to managing bids, making limited use of technology in many areas. Organisations use a diffuse set of digital tools including email, Google Drive, Microsoft Excel and custom solutions.

- ▶ 12% of owners and 13% of subcontractors say most of their tenders are still paper-based.
- ▶ Only around half of the owners and main contractors surveyed use technology to find new contractors to work with (57% and 52%) and tender comparison (57% and 50%).

This results in inefficiencies and mistakes during the procurement process, with significant consequences for project success.

- ▶ Just 24% of owners and 19% of main contractors say that it's easy to find qualified subcontractors for projects.
- ► Subcontractors are able to submit proposals for only 50% of the projects that they see.
- ▶ 86% of main contractors and 78% of subcontractors admit that errors are routinely made during tendering that impact the project down the line including underestimating the project timeline and overestimating the labour resource required.

Every construction organisation is highly dependent on others for their success. Working with new collaborators for the first time can present significant risks, making trusted partnerships critical.

- ▶ 99% of owners have experienced issues with new collaborators, with a lack of transparency about challenges (48%) and disputes about work quality or completion (46%) the most common.
- ➤ 31% of main contractors have experienced reputational damage to their company due to working with a new subcontractor.
- ▶ 38% of owners say that reliability is more important than cost when it comes to contractors - while main contractors are focused on transparency (35%).

Covid-19 has disrupted many projects with delays and cancellations, unfortunately forcing some organisations out of business and making it even harder to find the skilled labour needed.

▶ 30% of owners, 34% of main contractors and 26% of subcontractors say that as a result of the pandemic, collaborators they work with have gone out of business

As businesses look to work in new areas to mitigate the damage of the pandemic, finding new partners will be critical.

- ▶ 24% of owners and 23% of main contractors are expecting the kinds of projects they do to change following Covid-19.
- ▶ 28% of subcontractors say that Covid-19 has prompted their business to work in new sectors.

Despite current challenges, construction businesses are looking ahead to wider transformation in the industry, including the adoption of technology.

- 79% of owners are focused on adopting new sustainable construction designs or methodologies
   and 41% are incorporating sustainable construction requirements into tender invitations.
- ▶ There's growing interest in using technology on the site: 31% of owners and 19% of main contractors will require subcontractors to adopt technology for projects going forward.
- ▶ 43% of owners and 24% of main contractors are considering moving to off-site manufacturing methods.

Owners and main contractors are looking for new partners to adapt to industry-wide trends but procurement processes will need to evolve to enable these changes.

- ▶ 33% of owners and 21% of main contractors say that pressure to use more sustainable construction methods is driving their organisation to find new subcontractors and vendors.
- ▶ 25% of main contractors are focused on finding new qualified subcontractors in response to their current challenges.
- ▶ However, 24% of subcontractors report that owners' internal procurement processes are a roadblock to adopting innovative construction methods like off-site manufacturing and 26% of owners agree.

# Chapter 1:

# The Process of Procurement



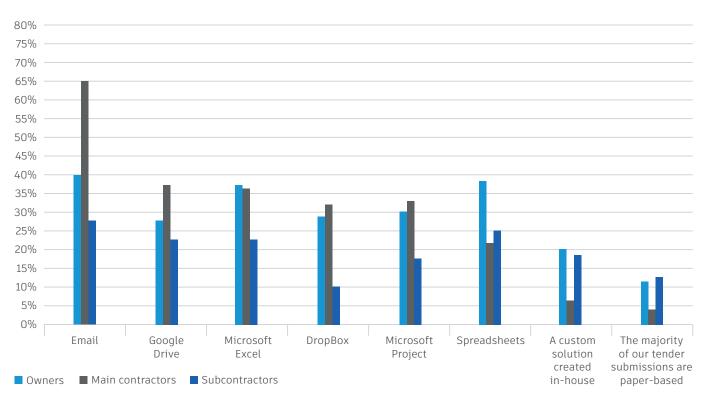
# The mechanics of tender management

Inviting, tendering and submitting bids involves interactions between a large number of construction organisations. But currently there's little consistency across the industry in the technologies used for this crucial process.

Construction firms use a diffuse set of software to manage bids. Email is the most popular tool across owners, main contractors and subcontractors, followed by a combination of Google Drive, Microsoft Excel and DropBox. Notably, a fifth of owners (20%) and subcontractors (19%) use a custom-solution that has been created in-house.

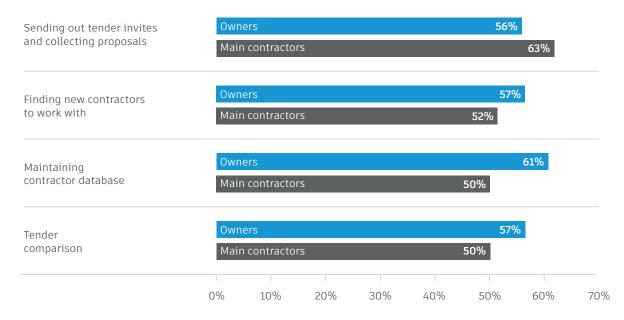
A significant proportion of companies don't use technology at all. More than a tenth of owners (12%) and subcontractors (13%) say that most of their tenders are still paper-based, although this trend is less prominent amongst main contractors.

#### Which, if any, technologies do you use to invite, submit and review tenders?



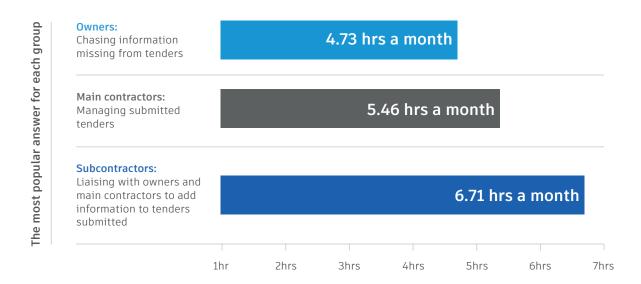
Owners and main contractors use technology to varying degrees to support the wider tender management process. Just over half of each group use software for sending out tender invites and collecting proposals, finding new contractors to work with, maintaining their contractor database and tender comparison - leaving a large proportion of teams completing these tasks manually.

#### Where, if anywhere, do you currently use technology in your tender management process?



Teams dedicate a range of time to each part of the tender management process every month - which is likely to reflect the varying sizes of business and complexities of projects involved. But interestingly, across all three groups the biggest time drain involves managing or adding information to proposals after they have been submitted. This could point to inefficiencies in the process.

In an average month, how much time does your team together spend on each of the below elements of a tender management process?



# Complications & frustrations

Issues with procurement processes are causing challenges across the construction industry. For owners and main contractors, managing and reviewing tenders can clearly become a frustrating process.

Considering their routine activities, owners are most likely to say that chasing information missing from bids is a task that they do not enjoy (13%). But for the contractors submitting bids, lacking information is a common challenge. According to one main contractor, "you have to make some assumptions, as you can't ask clients to clarify every bit of information."

Another subcontractor notes that "too often invitations are sent out on a Friday afternoon without enough context or the immediate opportunity for clarification."

Meanwhile, a fifth of main contractors believe that the process of reviewing tenders is harder than it should be (20%). This can be made more challenging by the way that information is stored. "People storing files locally on their computers can be a nightmare when you're tracking down a file," says one owner. "They're not meant to do this but it happens all the time."

New data regulations have added to the challenge; over a quarter of owners (28%) and main contractors (25%) say that GDPR has made maintaining the information needed for tender management more difficult.

Finding the right partner for the project can be hard. Only a quarter of owners (24%) and a fifth of main contractors (19%) say that it's easy to find qualified subcontractors for projects. Specialists in the mechanical (26%), plumbing (26%) and electrical (24%) trades are the hardest to find. Meanwhile three quarters of owners say that difficulties finding qualified contractors is a concern for the future (78%).

The subcontractors submitting proposals experience difficulties too, starting with the sheer range of processes that they need to follow. Over two fifths of subcontractors believe that receiving tender invitations in different formats is an administrative headache (42%). Across the board, over a quarter of subcontractors conclude that the process of submitting quotes is harder than it should be (27%).

### Problems on projects

The procurement process isn't only frustrating in itself. Errors can take place that compromise the project later on - and unfortunately, this isn't a rare occurrence. The majority of main contractors (86%) and subcontractors (78%) admit that errors are made during the tender submission process that impact the project down the line. In fact, a quarter of main contractors say this happens on the majority of projects (24%).

The most common mistakes relate to timelines and the labour needed for the job. Main contractors point to underestimating the project timeline (39%), lacking the skilled labour needed in the business (35%) and incomplete scope of works (33%) as their most common errors.

For subcontractors, overestimating the labour resource required (34%), a lack of accurate information (31%) and underestimating the timeline (30%) are the proposal errors most likely to impact the project later. Mistakes can be caused by simple human error, especially due to time pressure and the reliance on manual processes. One main contractor admits "I have put in an incorrect digit. It just takes one small slip in attention to make a big difference."

Each of these errors can have a significant impact the outcome of a project. But critically, it appears that because of gaps in the procurement process, these mistakes can keep happening again and again. That's because nearly three tenths of owners (29%) and main contractors (28%) have failed to spot previous problems with a contractor when reviewing tenders.

#### Barriers for the business

Beyond individual projects, problems with procurement can cause wider business challenges for construction organisations. A quarter of owners agree that it's difficult to identify where contractors work with other parts of their business - and they miss out on discounts as a result (25%).

Issues with procurement can lead to reputational damage for main contractors. According to an estimator, "I'm judged on commercial returns. No one wants to have a job with a negative profit against their name."

Meanwhile, subcontractors say that they are able to submit proposals for only 50% of the projects that they see, in part indicating the time drain that tendering can represent for these often-small businesses. Importantly, three tenths of subcontractors have missed out on projects because of problems with their tender management (30%).

Even the process of uploading proposals can lead to lost business. One subcontractor notes, "I just know not to upload tenders at the last minute, because they can take a while. I've missed deadlines in the past because of this."

Many construction businesses are considering finding ways to adopt or improve their use of technology to address their procurement issues. But there are currently barriers within the business. Having multiple software systems in place is the most common blocker preventing both owners (46%) and main contractors (31%) from making better use of technology.

Meanwhile, subcontractors are most likely to either lack the time to consider new solutions (26%) or lack the staff to train employees and maintain new systems (25%). The fact that contractors use a variety of systems is also a common challenge for subcontractors (25%).



# The view from the industry: Procurement problems impact everyone

The construction professionals interviewed shared a range of experiences of procurement processes - and particularly the technology used. Although some owners and main contractors have adopted construction software, manual processes - such as templates and spreadsheets - play an important role and are often preferred.

Where organisations do use construction software, there can be challenges with consistency. One owner says, "It's not used enough. At the end of the week there's lots of data missing, but everyone's asking for overtime by then."

Some professionals simply aren't comfortable enough with technology to use it. One subcontractor is more focused on sitework and gets support for the technical parts of bidding: "My secretary sends my bids via email. I'll help with the costing, but I'm no good with computers."

Most people report issues with tendering that can cause problems for their organisations. Challenges include misinterpreting the brief, sending the wrong information or not having enough time to gather accurate costs.

Owners even admit to mistakes in tender packages: "I have known colleagues to send out the wrong information, which obviously causes confusion and means you have to follow up with everyone. It can even lead to delays to the tenders."

Professionals are using a number of coping mechanisms to avoid these issues. Developing custom Excel sheets is a common approach. "I have a comprehensive Excel sheet that I've built up over 20 years," says one main contractor. "It's a monster - it covers everything."

Many people ask for a second pair of eyes to check materials, whether that's having colleagues review tenders or paying an external consultant. One main contractor hires a quality surveyor to come into the business twice a week: "He helps to check over the figures and the legal bits, and he helps me put it into the right format."

There is some appetite for using technology in the procurement process, to improve efficiency, support better communication and even create a competitive advantage. One main contractor persuaded their client to adopt their construction management tool: "Once it was in place, they wanted to use it more and more. It's got us noticed with them and they see us as more innovative. It'll hopefully help us win more work."

But there are barriers to adopting new digital tools. Reluctance in the leadership team can be a significant hurdle; one owner confirms, "I'm all up for it, but the Directors are stuck in their ways. They wouldn't be interested."

Another owner recalls, "There was an IT guy who was driving the adoption of our software, but when he left people stopped using it."

Digital confidence is also important, but those that have persevered have seen the benefits. "I was quite nervous using software at the beginning," recalls a subcontractor. "It took a while for me to accept it and feel comfortable with it."

To help organisations realise the benefits of technology in procurement, it will be important to focus on improving digital comfort levels and supporting culture change - as well as ensuring that any new technology is easy to use.



66

Preconstruction is the bridge between the design and build phases of construction. It's the opportunity for owners to ensure their vision comes to life in the most cost-effective manner, with the least amount of risk possible and the highest quality available.

The procurement process is the chance to award projects to the right contractors, who are fully qualified to deliver them. It is also the process in which construction firms and vendors can optimise their profit margins. Without a proper procurement process in place, owners, main contractors, and subcontractors have much to lose - whether that be their dream project, business or reputation.

At the centre of high quality, increased productivity, efficiencies in processes and the reduction of overall project risks is the data. However, construction professionals take a highly individual approach to managing and submitting tenders, which means that a wide range of technology is used from business to business, and in some cases none at all. Teams lose time dealing with different data formats, while transferring information from system to system increases the risk of errors, omissions and versioning mistakes.

Often the software used isn't tailored to the specific needs of the construction procurement process. Even the custom-solutions created in-house will require constant updates and maintenance - and create issues for the contractors that will need to navigate the system to submit bids.

These desperate modalities in managing the procurement process only create disconnected workflows and teams, leading to mistakes that can damage outcomes for projects and the organisations themselves. For example, the fact that many main contractors compare bids manually makes it difficult to spot the inconsistencies, gaps, errors and even hidden costs that can so often impact the project later. Organisations are also missing out on the opportunity to use analytics to improve their performance in the future.

At the centre of a successful procurement process that sustains construction growth is the ability to keep teams connected with real-time technology - that ensures businesses can protect current profit margins, future investment and their reputation.

Mike Pettinella
Director of EMEA Sales,
Autodesk Construction Cloud





#### Collaboration is crucial

Collaboration is central to the construction industry in the UK and Ireland. Owners hire an average of five main contractors for each project; most receive full services from their main contractor, including design, engineering, preconstruction, construction management, and operations management (60%).

Tendering is also important for both main contractors and subcontractors to recruit the skills needed for each project. Subcontractors themselves often put work out to tender, with sitework (24%), services (24%) and electrical (23%) the most common specialisms.

With such a wide range of organisations involved in each project, every construction organisation is dependent on others for their success - and influences the results of others in their turn. As a result, professionals are often concerned about the performance of their contractors.

More than three quarters of owners worry that the work delivered by their contractors will be either poor quality (78%) or delivered late (81%). Around half of main contractors share the same concerns about their subcontractors' quality (46%) and punctuality (56%).

In their turn, main contractors and subcontractors are concerned about the performance of their own businesses - and their ability to meet agreed deliverables for projects.

Half of main contractors are concerned about the quality of the work delivered by their business (49%) and whether it will be on time (47%), figures that fall slightly for subcontractors (36% and 41% respectively).

# The risk behind relationships

Dependence on other businesses increases the risk of every project. And importantly, a significant proportion of every group believes that their organisation bears the greatest risk on projects compared to their counterparts:



of subcontractors say that their business bears the greatest risk on projects, compared to contractors or owners



of main contractors believe that their business bears the greatest risk on projects, compared to owners or subcontractors



of owners say their business bears the greatest risk on projects, compared to main contractors or subcontractors

Unsurprisingly, when it comes to how projects are managed, owners are clearly focused on reducing risk as much as possible. The majority are focused on mitigating financial risk (86%) and safety risk (86%) as far as they can.

Particularly in sectors like healthcare, owners want to avoid taking any unnecessary chances. "It is crucial to work with trusted contractors that know us and our specific processes," says one owner. "At the hospital you really can't take any risks with someone untested. There's too much at stake."

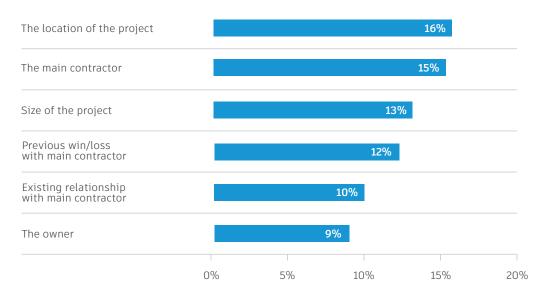
For main contractors and subcontractors, the issue of risk is linked to money and trust. Around half of main contractors (53%) and subcontractors (43%) are concerned about owners failing to uphold financial agreements – potentially compromising both their performance on projects and the overall success of the business.

### Why past experience matters

With so much risk involved in each project, working with someone that you know and trust can be a significant advantage. For subcontractors, knowing the owner or main contractor on a project frequently determines whether they submit proposals for work at all.

On average, each subcontractor submits proposals for half of the projects they see - and the identity of the main contractor (15%), an existing relationship with the contractor (10%) and the owner (9%) are all significant factors in deciding whether to bid.

When deciding whether to submit a tender, what is usually the main criteria that you use?



Similarly, relationships are an important factor for both owners and main contractors when selecting subcontractors to work with. After risk management controls (50%), owners point to experience of working with the business previously as the most influential factor for selecting a subcontractor (42%).

Likewise, a third of main contractors say that having an existing relationship with the business or individual is the most influential factor when selecting a subcontractor (33%) – alongside cost (38%) and reputation (38%).

In their turn, main contractors appreciate the importance of developing strong relationships with owners from the very beginning. Nearly a fifth say that giving the best customer experience is their biggest concern when aiming to win a contract with an owner (16%).

# Unknown quantities

This may be because both owners and main contractors report challenges when working with contractors for the first time - which can have serious consequences for the success of the project and even the organisation.

Almost every owner surveyed has experienced issues with new collaborators (99%), with the most common being a lack of transparency about project challenges (48%), followed by disputes about work quality or completion (46%).

Main contractors most commonly point to work not being completed on time (38%), disputes about work quality or completion (37%) and poor quality work (32%). Three tenths have even experienced reputational damage to their company (31%).

One main contractor recalls, "I had a new subcontractor that walked away without sorting out the snagging because they had already been paid. My regular contractors would have fixed it no questions asked, as they'd have known it wasn't up to our usual expectations."

Equally, contractors can be at risk when working with new clients. A main contractor reports losing 10% of their job fee "for no justifiable reason" when working with a new owner in the hospitality space.

Many businesses simply say that it's even more important to start projects in the right way when working with new collaborators: "A new subcontractor can be great on paper, but the initial handover is probably even more important with them. You need to be extremely clear who's doing what and where lines are drawn."



# Quality partnerships above cutting costs

Construction professionals from all three groups have clear ideas about the qualities that would make them want to collaborate with a business again in the future - and communication, as well as reliability, is an important factor.

For subcontractors, regular communication and project updates (31%) and the timely completion of work (29%) are the attributes that would make them most likely to work with an owner again in the future.

Turning to main contractors, the quality of handover delivered by subcontractors (46%) is the most influential attribute, followed by them completing work on budget (41%) and on time (40%). Notably, the use of digital technology on-site is also an appealing trait for both main contractors (31%) and subcontractors (25%).

Owners say that their main concerns when considering how contractors manage their projects are that they stay on budget (88%) and the quality execution of the project (87%). Again though, communication is important; when it comes to how projects could be most improved, most owners would like to see a smoother transition between construction and handoff to building operations (34%).

Which attributes, if any, would make you most likely to collaborate with an owner or contractor on future projects?

#### **Owners**

- 1. Staying on budget
- Quality execution of the project
- **3.**Timely communications during the project

#### Main contractors

- 1. Quality of handover
- **2.** Completing work on budget
- **3.**Completing work on time

#### Subcontractors

- **1.** Regular communication and project updates
- 2. Completing work on time
- **3.** Shared ownership of project objectives

Budget is of course a critical concern - and the cost of contractors helps to determine the profitability of every project. But nonetheless, working with contractors that you can trust can be more important than getting the cheapest quote.

Over a third of owners (38%) and nearly a quarter of main contractors would go so far as to say that reliability is more important than cost when it comes to subcontractors (23%). Transparency is also a valuable quality; a third of main contractors (35%) and a quarter of subcontractors (25%) say that it is the attribute most likely to make them work with a collaborator again.

Being open when things go wrong is vital. "If there are any delays it is always best to inform the client straight away," notes one subcontractor. This includes delays in payments. "When we're open and transparent with suppliers about their payment taking longer because our clients haven't paid us yet, they tend to be understanding," notes one main contractor.

Good communication is even more important given the disruption caused by Covid-19. According to one main contractor, "Clients want to stay more updated about what is happening on site."

Building strong relationships, then, can not only improve project outcomes but win more business in the long run. Technology has an important role to play, by underpinning the regular communication that enables teams to identify issues early - and stay on time and on budget.

# The view from the industry: Trust beats cost

The construction professionals interviewed underline the value of trusted relationships on a project. For owners, a long-standing partnership leads to better prices - and better service. "By having a good relationship with subcontractors, you get better rates," notes a main contractor. "Most importantly, you can trust them to do a good job and you have more peace of mind all round."

Working together on multiple projects makes it easier for businesses to collaborate. One subcontractor has built strong relationships with his suppliers over 15 years in the industry: "With some of the guys, we know each other more like mates and completely trust each other. They know how I like to work, and I know how they work at their best." As one main contractor says, "It just makes your life easier. Who doesn't want that?!"

There are also signs that construction organisations are becoming even more risk-averse and thorough in their qualification process. That includes reviewing insurance policies and DBS checks more closely, as well as ensuring that Covid-19 safety processes are in place.

This can add significant time for the contractors preparing bids. One contractor reports that pre-qualification questionnaires "can be easy and take 15 minutes, but I also notice with some clients they are getting more and more involved and can take some hours."

Ensuring collaborators' financial solvency is a priority, especially in the current environment. "The worst thing that can happen is a main contractor going bankrupt," notes one owner. "You really have to be diligent in your financial checks."

But despite the risks involved, many professionals are open to the value of working with new collaborators. "I'm all for giving new people a chance," says a main contractor. "Regular contractors get complacent.

And it's good to learn new ways of doing things."

Contractors view new relationships as an important source of new business and an opportunity to increase their margins. "It's very hard to increase your costs with regular clients," notes a subcontractor. "A new client can be a chance to re-evaluate your true value."

Although price is important when it comes to selecting contractors, owners want to avoid compromising on quality and reliability. An owner says, "I have learnt to avoid any contractors that are really low, as it can end up being a fight all the way through the project."

Good communication is at the core of building strong relationships - and this is an area where contractors are focusing even more attention given the uncertain climate. "I'm checking in with clients a lot more than I ever have before," reports a main contractor. "I never used to have to as we had a steady stream of work."

By prioritising clear and consistent communication during a project, supported by digital tools where appropriate, firms can build the strong relationships that are key to winning further business.



44

We know that the trust held between owners, main contractors and subcontractors is the centripetal force behind successful projects. Strong collaboration - that can scale to increases in project scope - underpins every successful delivery. This is why it is so beneficial to rely on technology that can keep everyone on the same page, while facilitating the timely decision-making that ensures the whole team is marching towards shared goals.

Whether the focus is to stay within budget, improve the quality of handover or enhance communication and transparency, relying on a single source of truth to manage procurement processes and increase trust is fundamental.

And while there are plenty of digital solutions that can facilitate this, only those that can provide real-time updates to project information - and connect this information to the right project members at the right time - are most likely to bolster their partnerships.

Every organisation in the construction industry should spend time building strong relationships. Focusing on transparency, communication and trust is key, as those qualities are often worth more than the immediate cost-savings of choosing the lowest bidder. But it's also important that owners and main contractors can get a wider view of the suppliers available when needed, rather than relying on the same contacts every time.

Owners and main contractors can integrate relational characteristics with historical performance, by using procurement tools to help them identify the most qualified partners. In the long term, this will undoubtedly improve the health of their business as well as their standing relationships.

Mike Pettinella
Director of EMEA Sales,
Autodesk Construction Cloud



# Pressure on performance

Covid-19 has impacted the operations of organisations across the construction lifecycle, putting working practices - and relationships - to the test. Social distancing has forced organisations to work in new ways, creating some teething troubles; 83% of owners, 45% of main contractors and 45% of subcontractors are concerned about collaborating with the remote workforce due to Covid-19.

Projects have been disrupted by the pandemic. Over three quarters of owners (79%), 53% of main contractors and 43% of subcontractors have experienced delayed project start dates due to Covid-19.

Despite these lags, a quarter of subcontractors say that their organisation has faced increased pressure to complete projects on time as a result of Covid-19 (26%). According to one subcontractor, "even though sites have been closed and other obvious delays have happened, we can get penalised for not pulling out all the stops to get it done on time."

And this comes at a time when three tenths of subcontractors have downsized their workforce as a result of Covid-19 (29%) - presumably putting these businesses under pressure to deliver more with even less

# Disrupting plans & relationships

Beyond the operational impact of Covid-19, professionals from every group foresee long-term consequences for their organisation's success. A quarter of owners (23%) and main contractors (23%) say that as a result of Covid-19, their organisation has cancelled or suspended projects. And when considering their biggest concerns for the future, 81% of owners point to lower budgets following the pandemic.

Perhaps unsurprisingly, contractors are worried about a poor pipeline of new projects; 49% of main contractors and 43% of subcontractors are concerned about a lack of new business in the current environment. Even where new business is available, profitability may be squeezed. Nearly half of the subcontractors surveyed worry about low margins (46%) and the industry underquoting (46%) as a result of Covid-19.

Unfortunately, the pandemic has disrupted many of the existing relationships between owners, main contractors and subcontractors. A main contractor notes, "I have had a couple of situations where I have not been able to work with favoured contractors as I found out that my go-to men there had been furloughed." Owners are even delaying projects significantly in response. "I have had to put a project back to 2021 because lead contractors are on furlough," reports one.

Unfortunately, three tenths of owners (30%), a third of main contractors (34%) and a quarter of subcontractors (26%) say that as a result of Covid-19, collaborators or vendors that they work with have gone out of business.

### Adapting to the crisis

The pandemic is likely to drive organisations to diversify and work in new areas. Nearly two tenths of subcontractors (16%) and nearly a quarter of owners (24%) and main contractors (23%) are expecting the kinds of projects they do to change following Covid-19.

A third of owners say that as a result of Covid-19, their organisation is now working in new sectors (35%); likewise, a quarter of subcontractors say that the pandemic has prompted their business to work in new sectors (28%).

Technology has also played an important role in enabling many businesses to respond to the pandemic. Over two fifths of owners (43%) and subcontractors (43%) and a fifth of main contractors (21%) have adopted technology in response to Covid-19. Going forward, half of the main contractors (47%) are introducing new remote working tools for the organisation.

Interestingly, nearly a quarter of subcontractors (24%) and a quarter of main contractors (25%) are expecting an increase in business following Covid-19 – perhaps as governments invest in infrastructure to revitalise the economy. Being able to find qualified subcontractors and work in new ways will be important for organisations to overcome the challenges and realise the opportunities ahead.

# The view from the industry: Adapting to succeed

The construction professionals interviewed underline the disruption caused by Covid-19 across the industry. Where projects are going ahead, businesses are encountering significant operational concerns.

"Our supply of materials has been hit, but you still have to meet the schedule," reports a subcontractor. "It means if you can't order enough materials ahead, you're having to get creative about the order of works on a job, which is a bit of a nightmare really."

Some report concerns over other subcontractors on site who aren't adhering to Covid-19 safety procedures in a bid to get jobs done quicker or cheaper: "We're all wearing masks and maintaining social distancing on-site. But you see other tradesmen there at the same time who aren't respecting safety."

The pandemic is already having an impact on business success. "Everyone's fighting over price," notes one subcontractor. "I think people are increasingly going in at rock bottom price and then hoping that they'll be able to sell in some extras afterwards."

Nonetheless, work in some sectors has been unaffected or actually increased, with lockdown and restrictions minimising public access and making it easier for construction works to be completed. "Work has been unaffected at the hospital," reports one owner. "We have had to put some things in place quicker but with fewer people at the hospital it has been easier in many ways. Contractors with us have been busier than ever."

As a result, main contractors and subcontractors are looking to minimise the impact of the pandemic by diversifying into new sectors and types of work. "Our utilities work has dried up, whereas rail work is doing really well, so that's where we're really focusing," reports one main contractor. "We have made a decision to focus a bit more on domestic jobs such as residential extensions, instead of our usual office fit outs," says another subcontractor.

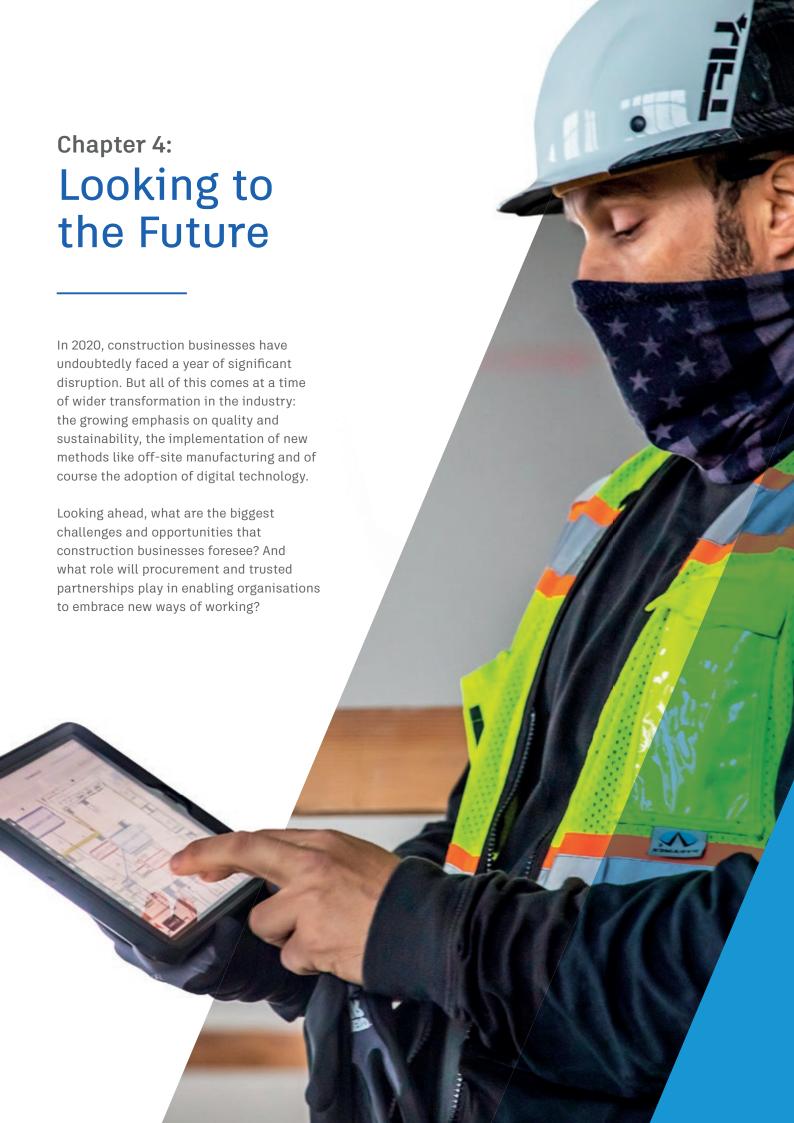
Communicating with clients is seen as even more important in the face of the pandemic. "We're having more Zoom meetings that we ever had physical meetings," reports a main contractor.

There are also some very encouraging stories about companies looking out for the "smaller guys" during this difficult time. One main contractor notes that "Network Rail have brought their payment terms down to just two weeks and require contractors to provide proof of payment of subcontractors before they are payed."

"We have some long term subcontractors that rely on our work," reports another subcontractor. "They're almost like family, so we are very mindful to try to support them if they aren't furloughed."

By working together and continuing to build strong relationships, many construction organisations will overcome the current disruption and be ready for a new, brighter period in construction.





#### The hurdles ahead

Looking to the future, owners, main contractors and subcontractors see a wide range of challenges ahead. For owners, external developments appear especially important. The most common concern is acquiring funding for future developments (79%), presumably given budgetary constraints following Covid-19.

Owners are also concerned about adapting to wider industry change. Pressure to adopt sustainable construction designs or methodologies (79%) is another prominent concern, while difficulty meeting new regulations such as the *Building a Safer Future* legislation in the UK registers highly too (77%).

By contrast, main contractors see their biggest challenges originating within the business - namely, productivity and labour shortages. Main contractors report that they are most concerned about poor productivity (59%), an ongoing issue for businesses in both the UK and Ireland. Employee retention in a difficult landscape (58%) and labour shortages in the business (53%) are also key concerns, which may make productivity shortfalls all the more problematic.

For subcontractors, the biggest concern for the future is poor profitability (48%), possibly reflecting the increased pressure on margins during the pandemic. A shortage of labour in the business is also an important worry (46%), followed by poor on-site safety (44%) - which might be a reflection of concerns about infection control methods during Covid-19.

Considering the challenges your business might be facing, what are your top concerns?

#### Owners:

- 1. Funding for future developments
- 2. Pressure to adopt sustainable construction designs or methodologies
- **3.** Difficulty meeting new regulations
- 4. Productivity
- Profitability

#### Main contractors

- 1. Poor productivity
- **2.** Employee retention in a difficult landscape
- **3.**Labour shortages in the business
- 4. Poor profitability
- **5.** Difficulty meeting new regulations

#### Subcontractors

- 1. Poor profitability
- **2.** Labour shortages in the business
- 3. Poor on-site safety
- **4.** Difficulty meeting new regulations
- **5.** Poor productivity

Interestingly, all three groups are concerned about their ability to keep up with another cross-industry trend: digitalisation. Nearly three quarters of owners (72%), 56% of main contractors and 41% of subcontractors are concerned by poor technology adoption in their business.

Many professionals want to see their organisation making more targeted investments in new digital tools. Three quarters of owners (76%), nearly half of contractors (47%) and half of subcontractors (50%) are worried about the lack of an internal strategy for new technology - and how that might be hindering the business.

### Using digital to adapt

Many businesses are looking to adopt more technology to improve the way they work – and deal with the challenges ahead. Importantly, these technologies will span both the office and the site. Over a third of main contractors have started to focus on on-site digital transformation (37%), as well as off-site tools (41%). Likewise, a quarter of subcontractors will invest in technology for the site (23%) as well as the rest of the business (28%).

Interestingly, owners are looking to promote this trend through their procurement policies. Around a fifth of main contractors (19%) and a third of owners (31%) will require subcontractors to adopt technology for projects going forward.

Some owners are also looking to use technology during preconstruction to reduce their risk profile and help to identify the best partners for the project. A third of owners (36%) are planning to adopt prequalification tools to understand risk before engaging contractors.

Training staff to use new technologies will be an important part of this process. Over a third of owners (37%) and main contractors (28%) are focused on digitally upskilling their own staff in the months ahead.

# The importance of data insights

Both collecting and acting on comprehensive data will play a key part in the evolution of construction businesses. And across the board, organisations are already starting to reap the benefits of data analytics in a number of areas:

- ▶ 98% of owners use data analytics, most commonly for analysing project budgets (64%).
- ▶ 95% of main contractors use data analytics, most commonly for analysing tender wins and losses (35%).
- ▶ 95% of subcontractors use data analytics, most commonly for analysing profitability (33%).

Most owners (91%) and main contractors (80%) believe that the use of data analytics has enabled the business to make actionable changes to how it works - although this falls to 63% of subcontractors. Many are still sceptical about basic data management at their organisation: 71% of owners, 54% of main contractors and 42% of subcontractors are concerned about double handling and manual entry of data.



# Where does your organisation use data analytics to assess performance? (Top three responses in each group)







Given the current levels of disruption, it's harder than ever to plan for the future – and construction professionals are aware of the importance of access to the right data to guide the business. The majority of main contractors are concerned about forecasting the pipeline of new work (56%), while half of subcontractors worry about predicting project and company budgets (50%).

Finding representative data is a key part of this challenge: 78% of owners, 39% of main contractors and 44% of subcontractors are concerned about finding accurate data to report on for future performance. Being able to use data to the fullest extent will be an important advantage in navigating the current uncertainty.

# **Evolving ways of working**

Organisations throughout construction are looking to evolve how they work in the future, to keep up with wider industry changes - although owners appear further ahead than their main contractors and subcontractors. Half of owners are planning to set new quality deliverables for projects (49%), while 41% of owners are incorporating sustainable construction requirements into tender invitations.

Given this growing emphasis on quality and sustainability, some organisations are looking to make greater use of prefabrication. Two fifths of owners are considering moving to off-site manufacturing methods (43%) - followed by a quarter of main contractors (24%) and a fifth of subcontractors (19%).

These developments are prompting organisations to look for new partners to work with. A third of owners (33%) and fifth of main contractors (21%) say that pressure to use more sustainable construction methods is driving their organisation to find new subcontractors and vendors. A quarter of main contractors (25%) are likewise focused on finding new qualified contractors and subcontractors in response to their current challenges.

But changes to procurement processes will also be important for enabling change. A fifth of main contractors (19%) and a quarter of subcontractors (24%) report that owners' internal procurement processes are a roadblock to adopting innovative construction methods like off-site manufacturing - and 26% of owners agree.

Organisations throughout construction have the opportunity to embrace new ways of working, improving quality, sustainability and ultimately profitability as a result. But it seems that procurement will need to play a key role, both for identifying new qualified contractors and enabling owners to work with them in the years ahead.



# The view from the industry: The opportunities ahead

In the short term at least, the construction professionals interviewed see uncertainty ahead.

"Our client's new budgets are in April," reports a main contractor. "We're optimistically looking at that for some clarity."

Some subcontractors are holding on for now, with the hope that business will improve in the months ahead: "We're just surviving on reserves now. My hopes are pinned on things picking up in January." As well as Covid-19, issues like the impact of Brexit on supplies and adapting to BCAR are weighing on people's minds.

Nonetheless, there is a sense of optimism for the longer term, including the trends that are transforming the industry. Many organisations have made greater use of technology during the pandemic, and are interested in how other digital tools can improve their performance.

"Some of the new things you can do with technology are really exciting," notes a subcontractor. "For example, I know someone who uses an amazing app to load pictures and details of jobs as he does them. They go straight to his client, for which he gets paid."

In the view of one main contractor, "What's happening with 3D modelling is really interesting for the industry." Meanwhile, another reports, "I've seen some great examples of software that help clients to visualise layering of materials on projects. This will help massively in the near future."

Sustainability is also high on the agenda, particularly for owners. "Government departments are really hot on sustainable materials and processes," says a main contractor. "I learn lots of new things myself from their tenders."

Another highlights that "London is at the forefront of the green revolution, and I am noticing that other large UK city councils are looking to emulate some of London's green initiatives."

There is a greater focus on the origins of materials. "Some larger clients are now asking for proof of source of timber. It's a big concern given all the news about rainforest destruction," says a main contractor.

Importantly, some firms see sustainability as a potential source of competitive advantage. "We make a big deal about our new electrically operated vans. We also make a big point about recycling," says one main contractor. "It wins us work."

Many professionals are keen to see further change across the industry, including a greater focus on quality and new ways of working. However, there is a sense that this change will need to be driven by owners. As one subcontractor says, "If a client came to me and asked me to use a new piece of technology, I would be really open and excited to give it a go."

For now, it looks like owners will need to be at the forefront of transformation. With a focus on quality, sustainability and innovation, owners can spur improvements across the construction industry, one project at a time.



In both the UK and Ireland, construction industry leaders are keen to use the period following the Covid-19 outbreak to not only recover from the crisis, but to transform the industry. From the Construction Leadership Council's Roadmap to Recovery to Ireland's strategy for Our Shared Future, there is a focus

on improving the performance of the

sector in a number of areas.

66

Technology will play a key role in that transformation, by enabling businesses to work more productively together, deliver higher quality builds and better manage risk. There is also clear appetite amongst owners to adopt new methods, like off-site manufacturing – and the contractors that can offer those services first will stand to gain.

But procurement has a critical part to play, both in finding the right partners and enabling changes in approach. Construction networks and the platforms that carry the tools to manage procurement workflows can help builders identify the right contractor for the right job.

In the face of labour shortages, construction networks can provide greater visibility of the suppliers available, to ensure projects can access the talent needed. Meanwhile, adopting digital tools to manage tenders can help main contractors and subcontractors to expand their networks, to see - and win - more projects.

With openness to change, owners, main contractors and subcontractors can work together to deliver better outcomes throughout the construction industry - ultimately delivering projects with improved quality, sustainability and cost-efficiency.

Mike Pettinella Director of EMEA Sales, Autodesk Construction Cloud

77

#### Conclusion:

#### The Foundation for Success

Construction will be at the heart of the recovery of the UK and Ireland.

But as the experiences of our respondents show, it's not just the work that's done on the site, but the decisions made far earlier, that underpin every project.

In many organisations, procurement processes are leaving businesses exposed to risk. Mistakes are often made in these early stages that cause challenges down the line.

Unproven partners can compromise not only the project, but other organisations. And without data on previous projects, businesses are open to making the same mistakes in preconstruction over and over again.

Covid-19 has made it even more critical that organisations can find trusted partners, invite and submit proposals efficiently and accurately compare tenders to make the best decisions.

At a time when budgets and timelines are under unprecedented pressure, owners, main contractors and subcontractors must be able to set themselves up for success.

It's time to reconsider legacy procurement processes, and look at how technology tailored to the construction industry can support vital decisions during preconstruction. Digital tools are available, such as:

- Networks of construction professionals, for finding both qualified collaborators with proven track records and new projects to bid on
- ▶ Digital tools to support the tender management process, centralising bids in one place and streamlining administrative tasks
- In-built data analytics, to help spot mistakes in tenders and mitigate risks

Preconstruction can make or break a project. The right procurement processes can set businesses up for a successful and profitable project. Procurement can also enable construction organisations to embrace longer term changes, including the digitalisation of the site, sustainable construction and new methods like off-site manufacturing.

Adopting new tools isn't always easy. Technological change requires leadership within the business - and collaboration with your partners.

But by working together to improve this crucial part of the construction process, organisations can create better outcomes across the construction industry - and ultimately help to spur recovery throughout the UK and Ireland.

### Methodology

This research was carried out by Censuswide in August 2020 through an online quantitative survey of 375 owners, main contractors and subcontractors in the UK and Ireland, all with direct involvement in tendering or submitting proposals to bids. This was followed by qualitative interviews with 15 owners, main contractors and subcontractors in the UK and Ireland, conducted by phone in September and October 2020.

