



CIOB

The Chartered
Institute of Building



Covid-19 and Construction

Learning lessons from the Covid-19 pandemic
to strengthen the construction industry

About us

We are the Chartered Institute of Building, and we stand for the science, ethics and practice of built environments across the world. Everything we do is to improve the quality of life for those using and creating the built environment.

We have a role in the management, leadership, education and development of our industry, guiding and educating our members as they embark on their careers.

Using both the cutting edge of technology and the foundation of hard-earned experience, we train the construction experts of the future. From tools and data for the day-to-day, to degree qualifications for investing in a career. We train and shape workers and organisations who make our industry what it is.

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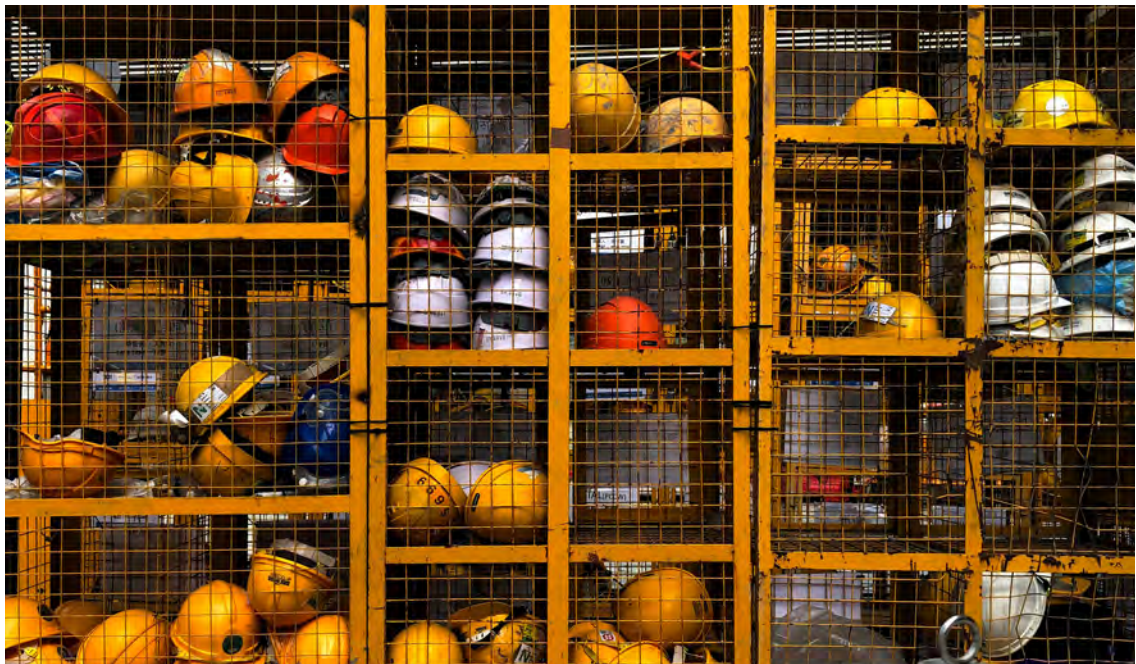
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Executive summary

At the start of 2020, Covid-19 became a global pandemic impacting how we work and live. We saw individuals changing their behaviours to reduce the risk of spreading the virus and businesses adapting how they operate in order to continue functioning while keeping staff safe. The UK construction industry, unlike many sectors, carried on working throughout the lockdowns to help build health facilities, continue important projects, and start new ones that could be conducted safely.

During this time, we saw an improvement in longstanding issues such as lack of collaboration and communication between contractors and clients. In turn, this has enabled flexible working approaches and smoother project delivery, which has benefited the industry. This change in how the construction sector operates has created opportunities for further refinement, which CIOB believes can be achieved through embedding value-added principles to existing and future projects. This paper explores how value-added procurement is the way forward, and why recent changes to communication within the industry indicate clearly that this is the right time to adopt it.

The UK Government has committed to adding value to projects through the introduction of the Green Book and the Construction Playbook. However, these apply only in the public sector, and if we truly seek cultural change in the industry then those operating in the private sector will need to step in and lead by example to embed the idea of added value.



Recommendations

The following recommendations suggest how industry, government and professional bodies might address some of the points made in this paper.

Clients

- Have conversations early in the construction process about what value-added objectives they want from their projects and how they can achieve them within a flexible budget.
- Use mechanisms such as the [Value Toolkit](#) and the [Framework for Defining Social Value](#) in the built environment to understand what value means in the context of their project.

UK Government

- Engage with industry on policy initiatives early on, in order to maximise value.
- Conduct further research into incentivisation for construction businesses to implement value-added projects, at both local and wider geographical levels.
- Increase the number of businesses paying their suppliers in a timely manner by revisiting the Prompt Payment Code.

Professional bodies

- Promote existing guidance and toolkits created by government and other bodies that help create best practice for adding value to projects.
- Continue maintaining an open dialogue with government on issues that affect the industry.



Background

The construction industry, while resilient, is often reactive and slow to adapt. This is partly because of longstanding issues with recruiting and retaining talent. Another factor is that its financial models rely on late payment and survival on tight profit margins, resulting in complex supply chains where risk is shunted down the pipeline. However, during the height of the Covid-19 pandemic the industry showed a new side, with greater communication and collaboration between contractors, clients and other organisations within the built environment.

A key example of this is how the Construction Leadership Council (CLC), an organisation that works between industry and Government, brought together leaders from across the sector, including CIOB, to minimise the impact of Covid-19 by publishing guidance on site operation while maintaining an open dialogue with Government on how the industry was coping during unprecedented times.

Helping businesses remain financially stable throughout the pandemic was paramount, so Chancellor of the Exchequer at the time, Rishi Sunack MP, implemented several measures such as the furlough and self-employment schemes to create a financially resilient country. During an uncertain period for many, the public sector committed to improving value and reducing risk on construction projects through updates to the Treasury's [Green Book guidance](#) on appraising and evaluating policies, projects and programmes. Additionally, the publication of the [Construction Playbook](#) towards the end of 2020 provided further guidance on sourcing and contracting public works projects.

With greater industry collaboration and Government wishing to use the procurement process to garner increased value from construction, Covid-19 may have provided an opportunity for the built environment sector to readjust its processes and work together in more effective and resilient ways.



Covid-19 has shown a new side of the industry, with greater communication and collaboration between contractors, clients and other organisations within the built environment

The issue

Due to the nature of construction and its contribution to GDP, the industry's performance is seen as a good indicator of the health of the wider economy. When the economy falters, construction investment stalls; when the economy flourishes, investment into construction projects follows suit. As evidenced in our report [The Real Face of Construction 2020](#), the sector officially accounts for 6% of economic output, but construction GDP could be close to double that size if the calculations included all aspects of the design and construction process.

According to the Construction Industry Training Board (CITB), the UK building sector employs 2.7 million people. Two-thirds of those are employed by small and medium-sized enterprises (SMEs), which equates to approximately 1.8 million workers. Construction goes beyond the on-site workforce and includes all those who directly contribute towards the making of the built environment. There are a diverse range of occupations in the industry, from traditional trade roles to HR and IT specialists.

The boom-and-bust nature of construction means the sector undergoes turbulence every 10 years or so, resulting in chronic issues with labour shortages, job security, productivity and financial security. Some of these issues are well documented and have continued to function as blockers, preventing many businesses from growing and adapting as quickly as firms in other sectors. Issues such as late payment practices, procuring for the lowest cost, and poor risk management all contribute towards construction's inability to change. With finance the largest constraining factor, the industry tends to take a cautious approach, implementing changes to practice only when legislation or pressure from clients requires that.

Many firms in the sector are SMEs, whose small size often means they need to take on new projects to pay off costs accumulated during their latest project. As a result of late payment practices within the industry, these smaller businesses often cannot afford to inject cash into new methods and processes that bring no short-term benefits. Government has attempted to encourage companies to pay their supply chain promptly after receiving an invoice, in order to improve business resilience and cash flow in the industry. This is something that will be explored later in this paper.

In July 2020, following the first wave of the Covid-19 pandemic, the UK Government introduced the Green Homes Grant to help homeowners in England make energy-saving renovations to their homes through a voucher scheme. The scheme required eligible homeowners to apply for vouchers worth up to £5,000 to undertake energy efficiency work by TrustMark-approved builders. Applicants to the scheme reported issues with the application process, administrators being too slow to distribute the vouchers, and tradespeople being paid less than they had anticipated once the work was completed. To become TrustMark approved, businesses had to take the time to understand how this new

opportunity could be applied to them and to train members of staff up in order to meet the standards required. As highlighted in the Public Accounts Committee report on the Green Homes Grant, it could take between 48 months and four years to train the specialists required to do the work and implement key parts of the scheme. Because of the many issues reported, the scheme was scrapped in March 2021, not even 12 months after its launch. This resulted in businesses making a loss in terms of investment and in further damage to homeowners' confidence in making energy-saving renovations.

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This is not the first time an energy efficiency scheme has been implemented too quickly and without enough collaboration between government departments or consultation with the industry. Schemes that are poorly thought out and implemented have large impacts on businesses which take the risk of adopting them – for construction, they are primarily SMEs operating on tight profit margins. These businesses will invest time and money into adopting the new scheme, perhaps hoping to gain a competitive edge by entering the market early. When the scheme fails or falls short, they are left to pick up the pieces with their customers to maintain a good reputation while also trying

to recover costs elsewhere in the business. Repeated failures of schemes can create a lack of trust between businesses, consumers and Government itself. Engagement with industry and sector bodies in the design of incentives and schemes enables policy issues and challenges to be ironed out prior to launch or in the early days of a scheme. Improving collaboration between Government and industry would help instil trust and confidence, as well as improving the effectiveness of adoption of a scheme.

Regulation requires construction firms to adhere to health, safety and environmental standards. It impacts strategies and operational practices that can support competition and influence speed and direction of technology development. Government has been keen to cut red tape to allow for more seamless business operations while also maintaining high levels of safety, quality and environmental standards. This has led to a rise in voluntary schemes and discrepancies between how projects are approached in both public and private sector work – a point highlighted in the Construction Playbook, launched in December 2020. The Playbook sets out plans for how public sector work will be delivered with sustainability and social value in mind, by procuring for overall value rather than choosing the lowest tender. The document outlines government expectations of how contracting authorities and suppliers, including the supply chain, should engage with each other and are expected to follow on a “comply or explain” basis. Unfortunately, this is purely for public contracts and does not apply to the private sector, which is estimated to account for three-quarters of total construction output.

We therefore see a need for the private sector to step in and start to lead by example, with contractors bidding realistically with value in mind and working closely with the framework that public sector clients use in order to embed this new culture of collaboration and added value.

Why now?

Over the past 24 months, industries in the UK have faced a perfect storm of challenges. Covid-19 has hugely impacted supply and demand of products and materials, in addition to affecting the job market and the availability of existing employees. The UK's departure from the EU has resulted in legislative changes relating to movement of goods, people and data for all UK businesses.

The British Chambers of Commerce's economic report, which surveys businesses across the UK, has stated that the number one issue for businesses is inflation and the cost of materials and products.¹ Government's own figures show that skills shortages accounted for 36% of all construction vacancies and 48% of all manufacturing and skilled trades vacancies.

Usually during times of economic uncertainty we see record lows of construction activity, with many firms going bankrupt and skilled workers retraining in other, more secure industries. This is because a large proportion of the construction sector comprises small and medium-sized businesses which operate on tight profit margins and are unable to offer security of employment.



Covid-19 has created a sense of urgency that businesses need support without completely restructuring how the industry operates, to address longstanding issues centred around finance. During the pandemic, government provided cash injections and mechanisms to allow the sector to continue operating, but now that we are learning to live with the disease, we must look at how to create a more stable industry that can outlast emergencies such as a pandemic.

Businesses in the built environment and construction projects have been hit by price rises for materials, fuel, insurance and wages. It is therefore logical for Government to seek to improve value for money in its public procurement practices, in order to generate economic, social and environmental benefits while creating high-quality assets at reasonable cost for both the client and the wider supply chain.

With so much change over the past two years, procuring for value helps to keep the construction industry stable and provides long-term benefits to businesses, the workforce and the community who work at, live in and use the asset created.

¹British Chambers of Commerce, [Q4 2021 Report](#), January 2022

What else has changed?

Transforming public sector procurement

The UK leaving the EU has created an opportunity to review public procurement frameworks. Government's proposed green paper aims to enshrine in law the principles of public procurement which focus on the public good, value for money, transparency, integrity, fair treatment of suppliers and non-discrimination.

Transforming Infrastructure Performance (TIP) is a programme of work by Government to help transform how Government and industry decide to intervene in the built environment to drive a step change in infrastructure performance through prioritising societal outcomes, using modern technology and improved delivery models.

The Construction Playbook sets out how the public sector can build social value from the start of the process and throughout the life cycle of a building. Central government tenders must include a minimum of 10% of their evaluation criteria for social value.

Transforming private sector procurement

With more workers holding their own value in social issues such as the environment, mental health and diversity, we are seeing more businesses becoming aware of the added value projects can bring to society and the wider economy.

The Value Toolkit, which was developed in partnership with over 200 experts from across industry and Government, has been developed to support better decision-making through from business case to procurement, delivery and operation, with wider social, environmental and economic impact at the heart of the process. The toolkit is applicable for use in both the private and public sector to procure for the better.

Manifesting change

Construction, like many other industries, has had to adapt in the wake of Covid-19 and Brexit. This changed environment has created a sense of greater collaboration and reinforced the need for steady pipelines of activity to provide financial stability for smaller businesses.

A common challenge for numerous construction projects, which is pushed by clients, is to produce built assets as cheaply and quickly as possible – ensuring mere compliance as opposed to producing high-quality buildings that go above and beyond minimum standards. The latter approach is often how we define value-added projects for the industry.

Improving the procurement process plays a large part in setting the tone for any construction scheme. The cyclical nature of construction has resulted in greater focus on lowest-cost projects, which can have detrimental long-term outcomes for the industry, communities and the wider built environment. CIOB would like to see clients recognising the need to understand the wider value that can be extracted from projects – whether that includes apprenticeship programmes, employing local people or using carbon-neutral materials and products – by working with construction companies and stakeholders to understand where and how value can be gleaned.

If clients are to lead by example, they need to understand what value is and what it looks like at the procurement, delivery, operational and post-occupancy stages of a project. Even for those who understand the meaning of value, projects can fail to realise their intended value despite being delivered on time and on budget. Mike Foy OBE, CIOB president for 2021/22, set the main theme for his presidency year as clients, which are often under-represented within the industry and have their own challenges around skills, knowledge and resources. CIOB is in the process of creating a long-term strategy to engage further with clients and to understand how they can be supported to tackle important issues affecting the entire sector.

It is clear that inconsistencies in approach, a lack of alignment in decision-making and a narrow focus on cost and risk are the main issues clients must iron out. There are now frameworks and toolkits to help them make better-informed decisions that will see added value materialise and to help them understand what is meant by the terms “added value” or “social value”. In 2021, the UK Green Building Council (UKGBC) published a [Framework for Defining Social Value in the Built Environment](#), which set out a high-level definition of social value and a framework for individual projects across an asset’s life cycle. The framework was well received by those in the industry, who found having a definition of social value applicable to all projects and places – and one that can be easily used in conversations between contractors and clients – was ultimately helpful in keeping all parties on the same page and improving communication and collaboration.

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CIOB has partnered with the Construction Innovation Hub (CIH) in creating a [Value Toolkit](#), which is aimed at helping clients make informed decisions on enhancing value from construction projects. The Value Toolkit is a suite of tools to support faster value-based decision-making across the whole of the investment life cycle, from defining the types of value the project aims to achieve, to making procurement decisions based on those drivers and even measuring the progress of meeting the intended outcomes throughout the project.

Once clients understand how social value can play a role in enhancing the overall value of a project, it is then up to the contractors to adapt their operations to deliver those outcomes.

Incentivising the supply chain is something that was recently recommended as part of the [Independent Review of Construction Frameworks Report](#) for implementing the Construction Playbook. This review was commissioned by Lord Agnew and led by Professor Mosey, with a brief to create a new

gold standard for public sector frameworks and framework controls. The Construction Playbook details how Government will work with the construction sector to deliver better, faster and greener public sector projects, and the review focused on the components of a gold standard for frameworks to achieve the policies in the Playbook. The review authors also looked further at effective contracting, discussing the principles of improving value and managing risk. However, when it came to providing incentivisation to the supply chain to help deliver on these aspects, they found it unclear as to what that could look like.

Incentivisation could be a key to unlocking cultural change within the industry. The industry's tight profit margins make businesses hesitant to invest if there is no perceived benefit, leaving grants and penalties as potential means of incentivisation for change. If we can provide financial security to businesses to enable them to feel confident in investing and give them the flexibility to innovate, then we must look at effective ways to achieve that.

How do we achieve better value from construction?

When looking at an exemplary project such as the London 2012 Olympics, which prided itself on collaboration and sustainability, we can see that the construction teams involved managed to achieve more than just a sporting facility for the Olympic Games. The velodrome is a key example which brought together architects, structural engineers and a contractor to form a team with the variety of different knowledge and skill sets needed to create a sustainable building.

Through a collaborative approach, they were able to design and cost a target price that left room for flexibility to adapt approaches when necessary. This resulted in a velodrome that came within budget, embodied a carbon saving of over 27%, and achieved 31% energy efficiency savings, which goes over and above meeting Part L (Conservation of Fuel and Power) of the Building Regulations. Additionally, the team were able to build the velodrome without major disruption to other site works occurring nearby, successfully reduced safety risks, and achieved completion six months ahead of schedule. This project clearly demonstrated the power of understanding where client priorities lie – on achieving value and sustainability, for instance – as well as the impact of having a collaborative team with different technical backgrounds, and how project flexibility can help achieve intended outcomes.

Obtaining buy-in at the right levels is important, not only because it enables a project to run more smoothly through improved communication and collaboration, but also because it helps to create a flexible approach in achieving the goals set by the client. Those overseeing the work on site are project managers, who will know how the project is going and whether there are any obstacles, and must communicate to a wide range of workers and stakeholders. Without buy-in from the client, main contractor and subcontractors, this can cause difficulties in how projects are completed. Skilled and competent project managers understand that cost and timing are the priority and will drive work to be as productive, time-efficient and cost-efficient as possible. It is fundamental for clients to be on side with the importance of added value – otherwise project managers will continue to focus only on the cost and time of a project, as this is currently the expected norm.

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If the focus continues to be on lowest cost, then we will continue to see SMEs managing high financial risks. Statista reports that the 55% of firms in the sector that are SMEs were rated as having worse than average financial risk when compared against other industries,² mainly due to tight profit margins, and as often using future work to pay off existing business expenses. Poor payment practices are rife within the industry, with many payments delayed well beyond the current 60-day target set by Government. Carillion's collapse in 2018 demonstrated how late payment can have a huge impact on the supply chain, as it led several companies to collapse as well as causing relatively healthy companies to experience significant financial problems. In 2019, a renewed focus was placed on late payment, with Government announcing a new initiative that would prevent companies from being awarded government contracts if they failed to pay their suppliers within 60 days.

As the Covid-19 pandemic took hold, it was clear Government needed to do more on prompt payment to help small businesses continue to operate. In 2021, the Prompt Payment Code was overhauled; companies that sign up to the code will now be obliged to pay small businesses within 30 days and all suppliers within 60 days. As of January 2022, the code has over 3,500 signatories committing to paying their suppliers within 30 days. This is voluntary for the industry to sign up to, which is why there are low levels of signatories – many do not want to be penalised for slow payments, as this could have a negative impact on their ability to bid for public contracts.

To move away from the cheapest-cost model and towards a value-added mindset for projects, smaller businesses could be given financial security through prompt payment practices, enabling them to work flexibly and to a high standard. Otherwise, the inherent



² Statista, [Distribution of SMEs in the construction sector by financial risk rating](#), January 2022

risk for smaller businesses of investing in new technology, methods and materials is significant and could lead to some companies failing as a result of large upfront costs.

The Conflict Avoidance Coalition Steering Group, which contains professional bodies for construction and engineering, has created a [Conflict Avoidance Pledge](#) for businesses working in the built environment to voluntarily sign up to. By signing the pledge, businesses demonstrate that they are committed to delivering value for money while working collaboratively to ensure projects are delivered on time and on budget, by embedding conflict avoidance mechanisms. To help businesses reduce conflict through policies and strategies, the group has produced a [Conflict Avoidance Toolkit](#) to provide guidance. As of March 2022, the pledge had more than 200 businesses showing commitment to avoiding conflict. However, there is still work to do on upgrading businesses from Bronze to Silver and Gold status, and that is something professional bodies like ourselves must look to support by showcasing the value of toolkits and pledges such as this.

Avoiding conflict not only assists businesses financially but also helps fulfil the human element of adding value to procurement. Issues such as conflict, financial pressure and tight deadlines often contribute negatively to workers' wellbeing. In 2020 CIOB published our research [Understanding Mental Health in the Built Environment](#), which highlighted the serious problem of mental health in the industry. To achieve better value, we should look at the existing and future workforce and what outcomes a project can achieve that will raise these people up. With a large proportion of the UK construction industry comprising white males, there is a significant risk of unconscious bias in decision-making and a tendency for cultures to be shaped around the majority view. This often results in acceptance of inappropriate behaviour and language as "normal" practice, leaving those on the receiving end of discriminatory or

To achieve better value, we should look at the existing and future workforce and what outcomes a project can achieve that will raise these people up. With a large proportion of the UK construction industry comprising white males, there is a significant risk of unconscious bias in decision-making and a tendency for cultures to be shaped around the majority view

offensive comments or behaviour to decide that a career in construction is not for them. Without a diverse workforce, our industry will continue to lack innovation and an ability to consider different viewpoints that enable the creation of a built environment that works for its intended users.

With many people working from home during Covid-19, we saw a shift that enabled more flexible and dynamic working opportunities which could suit people who may not be able to work typical construction site or office hours. Towards the end of 2021, CIOB launched its [Equality, Diversity and Inclusion Charter and Special Report](#), aimed at helping the industry understand how to take opportunities to create and retain a more diverse workforce. Several companies have signed up to the charter, committing to address underrepresentation in their organisations and become equitable in the development of their workers. Businesses undertaking new initiatives such as flexible working policies, mental health support services and inclusion policies are among the ways that projects can add value to the workforce.

Lessons we have learnt

Over the past two years we might consider that, on a global scale, industry and governments have learnt lessons on how best to continue operations in the sector, given its large contribution to the economy.

At the start of the Covid-19 pandemic, it seemed highly likely we would see large-scale insolvencies in construction because sector output correlates with the health of the economy – which still has not recovered since the first lockdown in March 2020. During this time, however, the industry rallied together through better collaboration, flexibility and communication on projects to maintain the status quo during turbulent and uncertain times. We saw greater take-up of staggered working hours, allowing people to work more flexibly on a project, and greater collaboration across the industry to create facilities to treat large numbers of patients suffering with Covid-19 – enabling the Nightingale hospital in London to be built in nine days, for instance. We have also seen changes to how sites operate, with greater focus being placed on hygiene facilities to reduce the spread of the virus, and increased safety protocols to protect workers' physical and mental health, as well as technology to mitigate the impact of fewer workers being allowed on construction sites.

Those working in the public sector are more aware of procuring for value than they were 10 years ago, as profit margins have become tighter alongside societal shifts whereby issues such as safety, sustainability and diversity have become core values for employers. Since this shift, we have seen more [guidance](#) from UK Government on best practice. In January 2022, the Department for Levelling Up, Housing and Communities published guidance on the importance of getting procurement right and how collaborative procurement for design and construction will support improving building safety in the construction industry. There are a range of toolkits and guidance out there for industry to adopt, issued by Government, professional and trade bodies, and industry itself. One way that professional bodies such as CIOB can help is to promote this guidance to our membership to aid in the implementation of best practices that add value.

Building safety is a major issue both in the UK and internationally, and in recent years we have witnessed devastating failures when it comes to the safety and quality of existing and new building stock. During the Covid-19 pandemic the Fire Safety Act came into place, and in 2022 the Building Safety Act received royal assent, placing greater emphasis on procuring competent workers and embedding quality into the materials the industry uses and the buildings we construct.

Procuring for value strengthens all the above, as it places best practice in how businesses procure and operate on construction projects.

The Covid-19 pandemic must be used as a catalyst for change, and we have seen good progress in the industry over the past two years. Now is the time to embed these practices further and to use strategies like procuring for value to act as a framework to reach objectives that provide stability for small businesses and improve worker satisfaction and diversity, in addition to gaining a built environment that provides value for those using the asset and for the wider community. For clients, using existing frameworks and projects that demonstrate best practice can help frame how to procure with value in mind. For contractors, value provides an opportunity to enhance financial stability, innovation and flexible work approaches.

CIOB arose amid the rebuilding efforts of the Second World War, which was a catalyst for professionalism in our industry. We have come a long way since then, but we have continued to strive for our members to be at the forefront of change. We now have members from various backgrounds including students, project managers, academics and clients.

We know that there is a huge opportunity to be grasped by the industry and our members as we emerge from the worst times of Covid-19, to ensure that we build with value in mind and that we do better by the industry and the people for whom we build.



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