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Radius Payment Solutions HQ, Crewe.

SonaSpray K-13 in grey applied to soffits throughout restaurant and breakout areas to create calm and relaxing spaces in which to unwind. Chosen for its deliberately textured and seamless finish, SonaSpray K-13 achieves superb acoustics without design compromise.

Range of 5 finishes from textured to the smoothest acoustic plaster available.

Credit to Space Invader Design, Overbury & Andrew Smith SG Photography.



















07/21

Contents

Welcome

This issue is about clients. We welcome the new CIOB president Mike Foy (profile, p16-17), who begins his term this month with a promise to make clients a central theme of his 12 months in office.

As Foy puts it, clients are "key to all our big challenges as an industry and an institute: net zero, building safety and quality, digital technology, training and apprenticeships, diversity and inclusion, to name a few. The CIOB has a lot of 'client side' members so can we help clients be a force for positive change?"

A selection of the CIOB's client members are also profiled this issue (p18-22), working for organisations including the New York City Metropolitan Transit Authority, the University of Oxford and pharmaceutical giant AstraZeneca.

Our cover feature also has a client theme and is surely one of the most unusual projects a CIOB member will work on this year: construction of Scotland's first gold mine at Cononish in the Highlands (p24-27). Jason Saint not only worked as project manager for the build, he has now moved across to the operations site, working for the client Scotgold.

The roles of these members serve to demonstrate just how varied and influential the CIOB membership is.

Foy has already been busy setting up and will now chair a new CIOB clients group. It aims to help construction's clients tackle the major issues of the day, and has the bold ambition to make the institute the "professional body of choice for clients worldwide".

As Foy says: "Clients have challenges around skills, knowledge and resources - but this is where there is a role for the CIOB, because we have members in clients and down through the supply chain."



Will Mann Editor, **Construction Manager** and BIMplus





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News: Cladding installer scheme

Matt Brooker on a perfect storm

Caroline Gumble welcomes

Mike Foy as new president

New CIOB president Mike Foy

Why clients are key to change

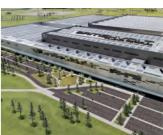
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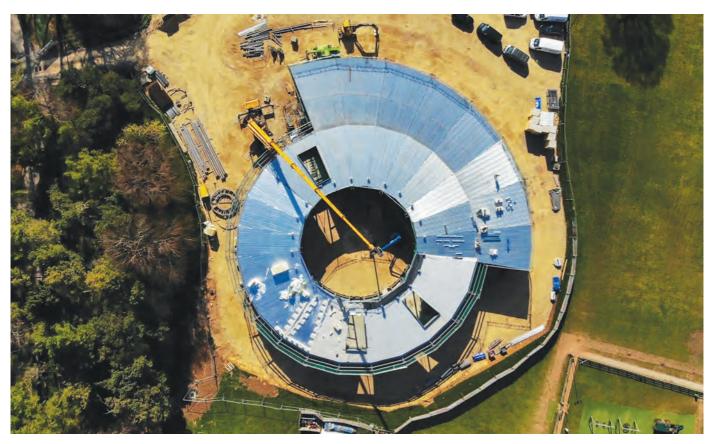
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Diary dates

What's on over the next month Highlights of the CIOB calendar

News





▲ One of Europe's largest indoor play centres takes shape

Sutcliffe Construction is constructing a £3.5m indoor children's adventure park at Stockeld Park near Wetherby in Yorkshire, set to be one of Europe's largest, with a floor area of nearly 1,900 sq m. Designed by Corstorphine + Wright, the timber-framed Playhive will feature a series of themed adventure zones in a doughnut-shaped building with a 10m-tall tower at its centre.

◄ Cemex launches cyclist warning system

Cemex has teamed up with FHOSS Illuminated Safety Solutions to launch a new cyclist warning system that aims to save lives when commercial vehicles turn left. The system is fitted with a Gobo lens, which projects an image onto the road, to give an alert when a manoeuvre is about to take place.



▲ Graphene-enhanced concrete promises material and cost savings

Graphene-enhanced concrete has been used to lay the floor slab of a new gym in Amesbury, Wiltshire, in what its developers claim is a world first. 'Concretene', produced in joint venture between the University of Manchester and alumni-led construction firm Nationwide Engineering, requires 30% less material and removes all steel reinforcement.

Job spotlight: Trafford Housing Trust's Lisa Leather has taken on the vital new role of building safety manager, p46





HOC/JESSICA TAYLOR

▲ Specialist restores 19th century Palace of Westminster flooring

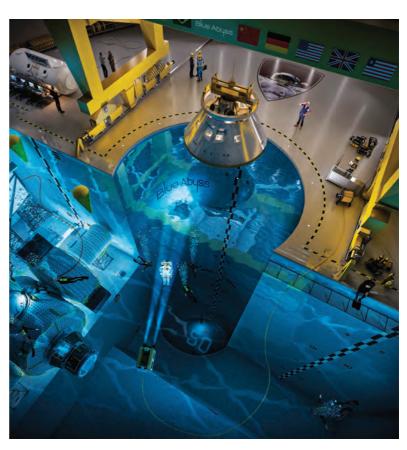
Conservation specialist DBR has restored the Palace of Westminster's 19th century flooring to its original splendour. DBR has been working since 2013 on restoring the 'encaustic' tiles, first added to the building by Gothic revivalist Augustus Welby Northmore Pugin in the 19th century.

▶ World's deepest pool planned for Cornwall

A £150m project to build the world's biggest and deepest pool for testing underwater technology and training astronauts is being planned for Cornwall.

The Blue Abyss project, supported by British astronaut Tim Peake, has been proposed for the Aerohub Enterprise Zone at Cornwall Airport Newquay. The centrepiece would be an aquatic centre featuring a 50m by 40m steeped pool with a 50m deep shaft.

Construction is expected to cost £50m and take 18 months.

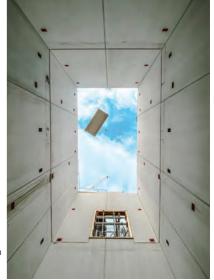


■ BAM backs veterans' tree-planting business

BAM is sponsoring The Green Task Force, which retrains armed forces veterans to deliver tree planting and tree surgery. Founded by Dr Andrew Steel (pictured with business partner Gail Acaster), it has been certified as a Constructionline 'Gold' supplier.

▶ Laing O'Rourke prefabricates 70% of university building off site

Laing O'Rourke's specialist Expanded business has conducted 70% of the construction of a new university building in London off site. It installed bespoke staircases, precast linings, twin walls, perimeter beams and columns in the London College of Fashion campus in Stratford, for the University of the Arts London.





Membership of the Chartered

Institute of Building (CIOB) stayed strong during the 2020 covid-19 pandemic and new membership admissions actually increased, as the body was swift to offer support throughout the crisis.

Introducing the CIOB's annual review and accounts for 2020, chief executive Caroline Gumble listed some of the organisation's actions as the pandemic took hold, including the offer of financial flexibility to members, with extended payment periods and some discounts. The CIOB also froze its subscription rates for 2021 at 2020 levels.

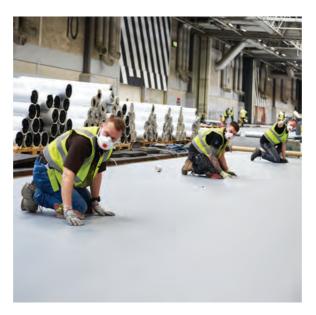
It has also now formalised a 'covid-19 support fund' for CIOB members across the world who suffer financial difficulties as a result of the pandemic.

Gumble said: "We reached out to members on multiple platforms to make sure they knew about the support offered via our Benevolent Fund, including access to the services provided by Anxiety UK for those living with anxiety, stress or anxiety-based depression.

She added that the CIOB's events and training courses moved online, including Construction Manager of the Year, while collaboration between the CIOB and industrywide groups such as Build UK and the Construction

CIOB membership stays strong amid pandemic

CIOB CEO Caroline Gumble proud of rapid reaction to covid-19 crisis in 2020



Leadership Council has increased during the pandemic in advocating the necessary measures to keep the sector going.

She said: "I am proud of the fact that CIOB adapted fast to the challenges encountered during the pandemic. We

Tilbury Douglas delivered phase one of Birmingham's Nightingale Hospital in seven days in April 2020. The project was led by CIOB member Dan Harmer

implemented processes that are more environmentally sound and cost effective, while delivering a better customer experience, and have taken many of these new ways of working into 2021."

The number of CIOB members across the world rose by 3.4% during the year to 45,475, with 1,712 new chartered members (up by 18%). The CIOB's customer satisfaction score throughout the year was 95%+. Meanwhile, its reach has increased. with 3.4 million users of its online services during the year, up 84%. The CIOB also made 19 submissions to UK government and 33 briefings for UK parliament.

The publication of the figures came after the CIOB unveiled a new look, which signals its intention to be at the forefront of a cultural shift in the industry, as well as acting as construction's "moral compass". The CIOB is also seeking to reflect how it engages with a younger, more inclusive global community.

 Members of the Chartered Institute of Building (CIOB) will be recognised in public procurement in Northern Ireland in future. The news means that members now have access to a range of public sector building projects, achieving recognition for CIOB members at the pre-qualification stage of public procurement processes.

CIOB launches new client group

The CIOB has launched a new group to help construction's clients tackle the industry's major issues, including building safety, quality, net zero and digital technology.

The group has been set up and will be chaired by incoming CIOB president Mike Foy, who works for the Department for Education (DfE).

"The group's ambition is to be the professional body of choice for construction clients globally," says Foy.

"There is a lot of work ahead on our client strategy, but I'll be very happy if I can kickstart it by developing a strategy and start implementing the roadmap during the next 12 months."

Group members are: Mike Foy OBE (chair),

- **Department for Education** Caroline Gumble, CEO, CIOB
- Virginia Borkoski, senior vice president, program planning and delivery, New York City Metropolitan **Transportation Authority**
- Gren Tipper, operations

director, Construction Clients Leadership Group

- Mike Smith, managing director, **Corniche Construction**
- Jennifer Makkreel, deputy head of capital projects, University of Oxford.

An additional international member will also be recruited to the group.



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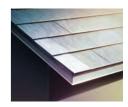








Tesla Solar Roof: The electric car giant targets the UK roofing market, p32



Plan for new cladding installer certification scheme

Roofing sector model could be used to certify installers of rainscreen cladding

A new third-party certification scheme for operatives who install cladding is in development.

The National Federation of Roofing Contractors (NFRC) is working on the CITB-funded project to define competency for rainscreen cladding installation. Since the Grenfell Tower tragedy of 2017, cladding remediation work has been undertaken on hundreds of buildings around the UK.

"A lot of cladding remediation is going on currently, and we need to be sure the people who are doing that are competent to do so," says NFRC CEO James Talman.

"Our scheme would initially involve assessment of operatives, whereby they would come to a test centre and work on a rainscreen cladding section so we can see how competent they are."



"A lot of cladding remediation is going on currently and we need to be sure the people who are doing that are competent to do so"

James Talman, NFRC

The cladding certification scheme is based on the NFRC's existing RoofCERT model, where successful candidates must demonstrate knowledge (through a test), competency (through an NVQ or by showing their experience on a one-day assessment), and through mandatory health and safety courses.

An independent auditor reviews each candidate and those who pass must renew their certification after three years.

Talman believes the RoofCERT model could be a template for accreditation of other specialist construction operatives.

The scheme has been praised by the chair of one of the 11 groups set up following the Hackitt review to develop competency frameworks.

Working group 2, which the NFRC sits on, is chaired by Build UK and Stanhope's project executive for offices, Nick Jarman, who said: "The working group obviously welcomes a collaborative approach in improving installer competence which the NFRC is clearly focused on."

Left: Cladding remediation on a Galliard site in Greenwich, London

'Workers' watchdog' for modern slavery in construction

New body brings protection from abuse under one roof

A new single enforcement body aimed at tackling modern slavery and protecting the minimum wage will engage with worker groups in construction amid fears the sector is subject to a higher level of abuse than other industries.

The Department for Business, Energy and Industrial Strategy (BEIS) said the body would bring responsibility for these areas - currently spread across the Gangmasters and Labour Abuse Authority, the Employment Agency Standards Inspectorate and HMRC's National Minimum Wage Enforcement under one roof to create a new authority.

According to the International Labour Organisation (ILO), construction is second only to domestic work in terms of the risk it presents for forced labour, with 18% of all forced labour victims working in construction.

The new watchdog will also provide a single port of call for workers, which the government said would make it easier for workers to know their rights and blow the whistle on bad behaviour. It will provide guidance on companies' obligations to staff and BEIS pledged an increase in enforcement.

In addition to existing powers of the three agencies, the new body will also have the ability to ensure vulnerable workers get the holiday pay and statutory sick pay they are entitled to without having to go through an employment tribunal process.

BEIS said the organisation would look to foster relationships with community and worker groups to spread awareness and support engagement from at-risk groups.

It added that the new enforcement body will be established through primary legislation "when parliamentary time allows".

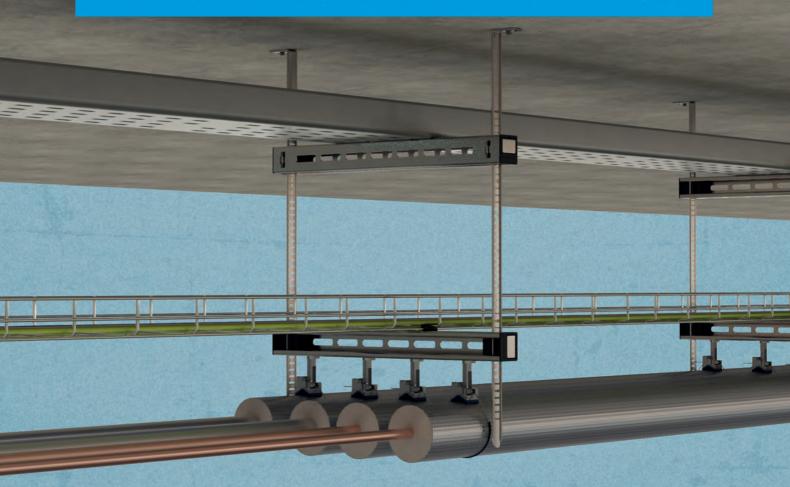
Business minister Paul Scully said: "This new workers' watchdog will help us crack down on any abuses of workers' rights and take action against companies that turn a blind eye to abuses in their supply chains, while providing a one-stop shop for employees and businesses wanting to understand their rights and obligations."





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Construction workers required by 2025 in the UK according to a new Construction Skills Network forecast. published by the CITB

Regional investment can be a tool for levelling up

Building construction capability in the regions will help with levelling up and create a more resilient industry, says Kris Hudson



After the recent local elections where metro mayors dominated the headlines, the government has

promised a new levelling up white paper this summer to replace its mothballed one on devolution. When it lands, it is expected to articulate muchtrailed plans to raise up regions beyond the South East by boosting investment.

Construction has a pivotal role to play in this levelling up process, as the government has chosen the built environment as one of the main investment areas for its new policy programme. Yet after years of solid output growth, the shock of the pandemic and the UK's exit from the EU have taken a toll.

The Office of National Statistics (ONS) shows overall output is not far off reaching recovery, with Q1 2021 only down -1.7% compared with on prepandemic levels. But this is propped up by repair and maintenance, increasing by 6.4%, while the more significant metric of new work is -5.9% below its pre-pandemic peak. The challenge is getting back to these higher levels of new work output, strengthening the sector's position and ability to support the government's investment drive.

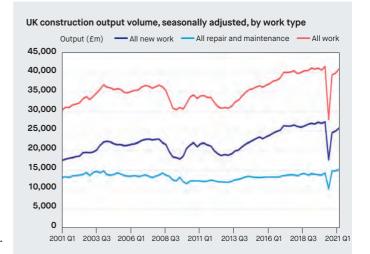
But where is most in need? While rhetoric focuses on North versus South. or South East versus South West, the latest quarterly construction output

figures from the ONS hint at how disparate and complex the situation is.

Despite the variability of postpandemic, non-seasonally adjusted regional output data, there is evidence to suggest that growth doesn't always stick neatly to North and South labels. For Q1 2021 versus Q1 2020, Yorkshire & Humber saw growth of 11.5%, while its neighbour the North East fell -17.2%. Similarly, the South West saw growth while the South East contracted.

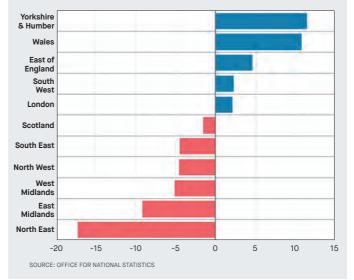
'Levelling up' is often used to mean narrowing the gap between London and elsewhere - and a gap isn't in dispute, with output in Yorkshire & Humber still 39.4% below London. Yet the picture is diverse. For instance, within the North, the spread of output ranges significantly from £1,233m in the North East to £4,544m in the North West.

Policy would do well to address such intra-regional disparity - preferably with an integrated and targeted approach that stops areas being left behind. Supply chain growth must also match spending commitments. Left unaddressed, constraints on labour, skills and materials can contribute to cost-push inflationary pressures and hamper recovery as it takes a foothold. Whereas building capability and capacity in the regions will both help to deliver on levelling up and to create a more resilient and robust industry. Kris Hudson is an economist and associate director at Turner & Townsend.



UK construction output growth, non-seasonally adjusted, by region

Q1 2021 versus Q1 2020 percentage change



News in numbers

Percentage cost increase of a 40ft (12m) shipping container from Asia to northern Europe from summer 2020 to spring 2021, according to the **Construction Products Association.**

Percentage by which infrastructure output in Q1 2021 exceeds pre-pandemic levels - the only major subsector of new work output back above pre-covid levels, according to the ONS.

Percentage of construction firms the Civil Engineering Contractors Association says have experienced material cost increases in May 2021 compared to May 2020.

Ranking of the UK in the Institute for Fiscal studies' Q4 2020 report showing the most regionally unequal countries.

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Opinion



Matt Brooker

Weathering the perfect storm

Materials shortages, but rising demand – how can construction ride out the current challenges? By **Matt Brooker**



The last 18 months have been a turbulent period for the industry and there looks likely to be plenty more stormy weather ahead. Product price increases have hardly been surprising after the disruption to production of material and components during the pandemic, exacerbated by the recent Suez Canal blockage.

There have also been regulation and governance changes as a fallout of the Brexit hangover that affect the import of material into this country. Unless our government continues to recognise the European Product Safety Mark on 1 January 2022 all imports into the UK will be subject to our own new standard, the UKCA Certificate. This brings with it the concern that suppliers will focus on alternative markets outside of Britain rather than put

their materials and products through a new testing and compliance regime.

Combined with the lack of raw materials and supply chain delays, there is an increase in global demand driven by China and the USA's public spend programmes, not to mention the UK's. In this perfect storm, with supply unable to meet demand, the inevitable result is price inflation – in the cost of materials, components and equipment – and longer lead-in times.

How will the construction market react to this? We could see a reduction in fixed price periods, additional price risks, increased construction programmes reflecting supply risk and contractor and supply chain failures, as costs increase in excess of the fixed price allowances.

"We could see a reduction in fixed price periods, additional price risks, increased construction programmes reflecting supply risk and contractor and supply chain failures"

Here are six questions that construction project teams should be asking:

- **1.** On existing projects where does the burden for these increased costs and delays sit?
- **2.** Is this a temporary state that will level out or is this a sign of long-term construction inflation?
- **3.** How do we work with design teams and clients to ensure that we can still meet their overall value aspirations as prices are rising?
- **4.** How can we help designers innovate and produce solutions that still work within the constraints that we find ourselves?
- **5.** Will price inflation lead to schemes being cancelled? What is sensible advice on tender returns and risk transfer?
- **6.** What can we do to ensure that we remain as resilient as possible for the foreseeable future?

The answer to that last question is that we should stay close to the supply chain and maintain a united front. Discuss with designers, architects, planners, contractors and suppliers what alternative design solutions may be available that offer mitigation to price increase and supply risk. Work collaboratively, stay informed and gather the information that will help us work through these industry challenges together.

Someone far smarter than me once said: "Forecasting is really easy until you start talking about the future." If the last 18 months have taught us anything, it's that there will be curveballs along every journey.

Matt Brooker is national head of sectors from RLB.



Caroline Gumble

Supporting client leadership

The CIOB's new president will bring a welcome focus to construction client relationships, writes **Caroline Gumble**

Our annual Members' Forum, just a few

weeks ago, was a chance to reflect on the past year and celebrate what we've accomplished. I was delighted to report on progress with many of our projects and we'll be sharing some of those updates with members via our online channels.

This column, however, is forward looking. One of the key elements of Members' Forum is the handover to a new president – I'd like to welcome Mike Foy OBE as our president for 2021-2022. I'd also like to extend my thanks to Mark Beard for his contribution as president over the last year.

Each president selects a relevant and meaningful theme for their presidential year, to work with CIOB members and colleagues, raising awareness of an issue or focusing on policy work. I am delighted to support Mike Foy's choice of clients and construction client relationships as the theme for his year as president.

We have had, for some time, a positive working relationship with the Construction Clients' Leadership Group (CCLG). Supporting client leadership in our industry is important and the working relationships between contractors and clients are critical.

Mike's focus on these relationships will help enormously in our ongoing work to bring CIOB closer to client-focused members and construction clients and add to our understanding of their issues.

As a wider issue, a deeper understanding of how to encourage and support client leadership feeds into other important "Supporting client leadership in our industry is important and the working relationships between contractors and clients are critical"

areas. As Mike mentions elsewhere in this issue of CM (p16-17): "Clients are key to all our big challenges as an industry and an institute." The continuing drive to raise quality standards, our ongoing efforts to improve collaborative working in the industry, the push to achieve net zero, encouraging innovation, delivering greater diversity – these are just some of the issues where clients can have an enormous influence and potentially be a force for good.

Strategic client working group

I'm very much looking forward to working with Mike, who will be chairing our strategic client working group, ably supported by CIOB members Jennifer Makkreel, Virginia Borkoski, Gren Tipper, Mike Smith and by CIOB directors Eddie Tuttle and Amy Gough.

I'm also looking forward, now that restrictions are slowly easing, to being able to meet with the working group in person and to more face-to-face meetings with members as we move into the autumn.

Caroline Gumble is CEO of the CIOB.

Mentors can be key to careers

A new CIOB mentoring service gives members insights from people who have been through the same experience. By **Tony Ginda**



How many of you reading this have had someone else in your career support you, guide you and help you learn the job? We know from

many of our members that is exactly how their career in construction started. And we also know that many of our members want to help others in the same way.

As we enhance the tailored support and personalisation for those joining the CIOB, so too we have put in place the start of a new mentoring service that will help those on their journey to chartership or fellowship. You could be at the start of your career or some way into it. A mentor might just be what you need.

This new mentoring service builds on the existing professional review champion model and connects members who want to mentor with those who need additional support, giving them access to insights from someone who has been through the same experience.

This also provides the opportunity for mentors to raise their profile, give back to the industry and assist in developing future talent. Typically, a mentor will gain confidence and learn new skills, which is why this programme counts towards CPD. Mentoring is also a way to differentiate yourself from the competition and can be used as an example for competency-based interview questions.

The CIOB is so special in that we represent an incredible range of disciplines across the built environment, and of course everyone is different. This service supports candidates across a full range of pathways to membership, with written and video guidance and access to a mentor and management tool that gives candidates a way of setting and delivering development goals.

Because our members, along with staff, have been driving the development for this mentoring guidance we are confident that it hits the mark and will resonate with those who access it. Aiding both the creation of a community of competent individuals, but also supporting new candidates in their career.

If this has struck a chord with you and you are either interested in becoming a mentor or wish to be mentored then please email mentoringCIOB@ciob.org.uk.

Tony Ginda is associate director retention at the CIOB.



A selection of readers' comments about news and issues in the industry from www.constructionmanagermagazine.com



454 hard hats laid out at the Leeds College of Building to represent the number of construction workers who commit suicide every year

CM 12/05

454 hard hats represent construction suicides

The industry must tackle mental health issues

Mark Swanborough

A sobering thought. We need to break the stigma surrounding mental health. It is not a sign of weakness to admit you need help - this is an issue that can affect anyone.

The industry needs to take a long hard look at itself: there are contributing issues involved, such as demands to meet the programme, lack of resources, working away from home during the week, long hours and being unable to switch off from work at the weekend

Christopher Eddon

The whole industry needs a radical overhaul, especially the housing industry. I talk to site managers and all they say is that they would love to do something different with less stress, but it's hard given the wages being paid, and it's easier to transfer skills into this industry rather than the other way around.

Just do a survey of the numbers of managers who stay with one company for five years or more and I think you will find this number is a low one compared to other jobs in other industry sectors.

CM 28/05

Grenfell Tower: More robust propping needed

Stewart Craven

If floor slabs and columns are deteriorating at such a rate then pull it down and replace it. If left in-situ it will always be a reminder of the tragedy which no-one will take the blame for.

David Nattress

After all this time, sufficient details of the whole terrible circumstances of this incident must have been established and recorded.

Surely then, the building must be carefully deconstructed starting as soon as possible. Four years on, what 'value' is there is keeping this structure in place?

CM 24/05

Asbestos recycled to create cement

Kenneth Ferguson

Absolutely brilliant, although it would have been more useful 50 or 60 years ago, when the risks of asbestos were first understood and there was a huge amount of asbestos around.

Paul Koning

A very interesting development. Are the asbestos fibres converted to a health and environmentally friendly state, or is there a hazardous waste element?

Graham Gould

Chairman of Thermal Recycling, which recycles asbestos into new construction products

Thank you for your comments: Mr Ferguson - it would have been better if they had stopped using asbestos 50 or 60 years ago rather than 20 or 30, but at least we can now provide a better way of disposing of it.

Mr Koning - the asbestos is converted to a new substance that is no longer asbestos and is no more harmful than the original asbestos from which it was derived. Our process has achieved end-of-waste status so there is no longer any waste element.

CM 02/06

Turner & Townsend to lead national retrofit centre

Any news which aids the rollout of retrofit nationally is welcome, given the huge numbers of social homes - estimated as over four million requiring energy-efficient measures to reduce carbon emissions if we are to achieve net zero by 2050.

Privately owned homes and non-domestic properties need a similar framework though, as these are the majority of buildings needing retrofit energy-efficiency interventions.

CM 02/06

English schools repair bill rises to £11.4bn

Peter Madeley

I was involved in a similar data-gathering exercise during my career. An enormous sum has already been spent on condition surveys but a completely inadequate sum has been spent on the huge backlog of repairs or replacements.

Mark Adams

Hopefully the £11.4bn represents the costs of all of the items within the surveys. If this is not the case the total is being wildly underestimated.

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Profile

'LET'S MAKE CLIENTS A FORCE FOR POSITIVE CHANGE'

NEW CIOB PRESIDENT MIKE FOY HAS A CLIENT BACKGROUND – AND HE BELIEVES THAT'S WHERE CONSTRUCTION'S BIGGEST CHALLENGES WILL BE SOLVED. **WILL MANN** SPOKE TO HIM



"Clients are key to all our big

challenges as an industry and an institute: net zero, building safety and quality, digital technology, training and apprenticeships, social value, diversity and inclusion, procurement practices, to name a few. The CIOB has a lot of 'client side' members – so can we help clients be a force for positive change?"

Mike Foy is talking enthusiastically about one of the main themes of his CIOB presidency, which starts this month. And through his career working in local government and at the Department for Education (DfE), he can speak with considerable authority about the client role in construction.

"The client role is frequently undervalued within the industry," believes Foy, a CIOB member for 51 years, who received an OBE in 2017 for services to education.

"Clients have challenges around skills, knowledge and resources – but this is where there is a role for the CIOB, because we have members in clients and down through the supply chain," he says.

Working with CEO Caroline Gumble, Foy has already helped set up and will chair a new CIOB group developing a client strategy and roadmap, with the ambition to be the "professional body of choice for construction clients globally".

"It's a bold headline, and there's a vast amount of work to be done," says Foy. The CIOB has engaged a consultant to add fresh perspective.

A hurdle, Foy admits, is that many clients perceive CIOB members as site managers.

"The DfE has few CIOB members, with other professional bodies more prominent," he says. "But CIOB members work with the whole project team - client, architect, surveyor, engineer - from project inception through to demolition, recycling and

possibly reuse: the whole life cycle. They have the skills, knowledge and experience to represent the client through the whole process.

"One of our challenges is to define construction management more clearly and the role of CIOB members, so clients understand that better.

"Eleven years ago, CIOB past presidents John Bale and the late Li Shirong, defined it as 'embracing the entire construction value stream, from inception to recycling, with a commitment to sustainable construction'. That's still the case today."

Through the CIOB client strategy group, Foy hopes more clients will recognise the benefits of a collaborative culture.

"I am still a passionate fan of Latham and Egan, and parts of the Construction Playbook repeat points they made," he says. "We implemented those principles of teamwork and collaboration 20 years ago when I worked at St Helens Council.

"During that era, we worked on projects with Willmott Dixon with an emphasis on collaboration. We agreed overheads and profit, which meant the whole project team was then focused on agreeing a fair price, delivery, quality and problem solving.

"There may be a view in some clients that the private sector is there to rip them off. That they run two sets of books. I advised the council at the time 'you have to recognise, private contractors have overheads, and yes they will make a profit'. That understanding enabled us to build collaborative relationships which served us well with contractors.

"Let's get away from the blame culture. If there's a problem, and it will cost more money, let's tackle it together and find a compromise that works. Value engineering is not a



CV: Mike Foy

- Regional head, assisting with initiatives including MMC, DfE, since September 2018
- Regional head, free schools (Midlands and north-west), DfE, 2012-18
- Project director, free schools, DfE. 2011-12
- Assistant CEO/ BSF project director, St Helens Council, 2007-11
- Various St Helens Council roles, 1987-2007
- Education:
 Liverpool
 Polytechnic
 (College of Building);
 Open University MBA,
 1990-92
- Became CIOB member in July 1970, now a fellow and trustee since 2011
- Awarded OBE for services to education, 2017

well-regarded term these days some see it as simply cost-cutting but used as intended it has a role."

With collaboration comes innovation, and at the DfE Foy has helped with MMC adoption. He praises clients including Heathrow Airport and Highways England, among others, for their commitments to MMC and feels a tipping point may be approaching.

"We are seeing the housing sector setting up MMC factories and Laing O'Rourke has a great manufacturing facility which I was privileged to visit," Foy says.

"The Construction Playbook talks about MMC, including the 'platforms' concept, which is a very sensible idea; having standardised components is more efficient, saves money and means a better quality product because operatives are doing the same thing over and over again. That in turn helps the client becoming more trusting because they know what they're going to get.

"There is still a perception of bad 'prefab' schools that lingers among clients, but is misleading. Current MMC school buildings are designed with a minimum 60-year life, just like any other school that's built. And they aren't 'identikit'; you can't tell the design difference compared to traditional buildings, but you would hopefully recognise the quality difference."

While praising leading clients, Foy notes that some are "less informed".

"They are less inclined to collaborate and look at innovations like MMC," he says. "This can be circumstantial. Councils have had their technical departments slashed over the years."

But this is where CIOB members can come in, Foy says.

"CIOB can help clients create a collaborative environment for

Foy on...

Equality, diversity and inclusion

"There are clear business benefits and construction could learn from public sector clients on this. HS2 has set diversity criteria. But with some exceptions, construction sees it as a negative or a cost."

Industry recruitment

"Some employers tend to recruit people in their own mould – usually the extroverts, the people who shout the loudest. But tap into the introverts, and who knows what brilliance you might find."

Societal value

"What bigger example of societal value is there than a construction project, which people will live in and work in? Construction has a huge impact on society, but not a great image; we need to change that."

delivering projects and address their major challenges. Thanks to the work of my predecessors as president and the work currently underway at CIOB, we are well placed to guide them on issues such as quality and building safety."

Foy's presidency will be marked by two new CIOB award categories which reflect his passion areas: client and team.

"There is a lot of work ahead on our client strategy, but I'll be happy if I can kickstart it by developing a strategy and start implementing the roadmap during the next 12 months," he says. "Hopefully that will foster a culture of greater collaboration and teamwork in our industry."



WHAT CLIENTS WANT

CONSTRUCTION CLIENTS ARE KEY TO ALL THE INDUSTRY'S MAJOR CHALLENGES, INCLUDING NET ZERO, BUILDING SAFETY, SKILLS, DIGITAL TRANSFORMATION AND PLENTY MORE. **WILL MANN** SPEAKS TO A CROSS SECTION OF 'CLIENT SIDE' CIOB MEMBERS ABOUT THEIR POST-PANDEMIC PLANS

"We have to think about the long-term effects of covid-19"

Virginia Borkoski FCIOB

Senior vice president, program planning and delivery, Metropolitan Transportation Authority, New York City



A lifelong New Yorker, Virginia Borkoski graduated from the city's Pratt Institute, took a master's at New York University, The MTA has been

able to accelerate

construction

pandemic

work during the

and is now in her second spell at the Metropolitan Transportation Authority (MTA). Her office is at 2 Broadway, in Lower Manhattan, where she was working on '9/11'. "We watched the towers burn, and felt them fall" is how she remembers it.

She began her current role as senior vice president, program planning and delivery in 2017, and is one of over 2,000 construction and development staff at the MTA, which had projected

annual capital spending of \$51.5bn (£36.4bn) before covid-19.

"I lead the external partner programme, guiding private-sector designers and contractors through the technical implementation of projects that require MTA review and approval," Borkoski explains. "This includes design and constructability reviews, construction initiation and oversight, and project 'close-outs'. My unit is only about 30 people, so for major projects we would bring in expertise from other MTA units."

Her team's work covers three types of project: 'adjacencies' are projects being delivered by other developers and agencies within 200ft of MTA property; public agencies projects involve partnering with bodies such as utilities; developer improvements involve working with property owners to incorporate improvements to stations in their developments.

"A developer improvement example is the new subway entrance to Grand Central at One Vanderbilt Avenue, a 77-storey skyscraper in Midtown, part of \$220m [£155m] of transit improvements bundled into the project," Borkoski says.

Despite the pandemic, she has remained "as busy as ever". "There were delays to some projects, but generally, the MTA has been able to accelerate construction work," she says. "For the first time in the history of the subway, we shut down overnight, from lam to 5am. Publicly, the reason was we were disinfecting. But we have also used those shutdowns to advance work such as track repairs and accessibility upgrades."

She thinks the fall in ridership will affect project planning. "We are looking at a multi-billion-dollar deficit and we have no federal funding," she says. "The subway is safe – there are 18 air changes per hour – and people are coming back but not that quickly, so we have to think about the long-term effects of covid-19 on ridership."

But there is still a huge amount of development going on in Manhattan, she adds. "In the East Midtown rezoning, developers are taking down 100-storey buildings to



At £200m, the Life and Mind Centre is the largest building project ever undertaken by Oxford University

£200m

"In the East Midtown rezoning, developers are taking down 100-storey buildings to put up 130-storey buildings because that's better value" Virginia Borkoski, MTA

put up 130-storey buildings because that's better value."

While quality is a major concern in UK construction, Borkoski says there is a "different mindset" in the USA because of how the built environment professions are regulated.

"Architects, engineers and contractors must be licensed to operate here, and the testing for that is regulated very tightly by the government," she says. "So, when you put your signature on a set of drawings as a regulated architect, it is a very big deal.

"We have a very rigorous project review system in New York, detailed quality plans, tight building regulations and lengthy 'punch lists' which must be followed.

"We also have Local Law 11 in New York City, our 'Facade Inspection Safety Program', which requires owners of buildings with more than six storeys to have their exterior walls inspected to a prescribed reporting schedule. That was introduced after incidents where pieces of facade fell off. So when quality issues surface, we are pretty quick at correcting the problems."

Borkoski has been a fellow of the CIOB for almost 10 years and a trustee for three, which gives her "a different perspective and allows me to see what the rest of the world is doing".

"It has also been critical to hear how other CIOB client members have managed construction during covid-19," she adds.



The Student Hub for Kellogg College is the university's first Passivhauscertified building

"Passivhaus is an effective way of ensuring high quality"

Jennifer Makkreel MCIOB
Deputy head of capital projects,
University of Oxford

"My message to contractors is that everyone wins if you deliver right first time"

Jennifer Makkreel, University of Oxford



Jennifer Makkreel worked client side in the Canadian construction industry before moving to the UK in 2008, working

for Oxfordshire County Council, then taking her current role as deputy head of capital projects at the University of Oxford in 2014.

"It is challenging; there are conservation and aesthetic considerations – we have many historic buildings – as well as the end user requirements, plus sustainability," Makkreel explains.

She juggles "35 live projects at any given time" and her pipeline runs

to more than 160 projects with a total value of £1.7bn, at various RIBA stages from 0 to 7. These include major schemes such as the Life and Mind Centre, a partnership with L&G.

"At £200m, this is the largest building project ever undertaken by the university," she explains. "But at the other end of the spectrum, we have much smaller projects such as a £180,000 library refurbishment."

In the pandemic, she found it "very helpful" to connect with other CIOB client members, praising AstraZeneca's Brian Street for his "fantastic covid risk assessment document".

Covid has created uncertainty with the university's capital works programme. "No one is expecting a cost-neutral scenario," she says.

"We have demonstrated we can work more flexibly, so do we need the same office footprint? It is a fluid situation, but we may have to tighten our belts."

Quality is now coming to the top of agenda. "My message to contractors is that everyone wins if you deliver right first time," she explains. "We have found that the Passivhaus

methodology is a very effective way of ensuring high-quality construction. The university now aims to deliver all projects worth over £1m to Passivhaus standard. This requires the right attitudes, the right materials, early engagement with the supply chain and absolute precision in execution.

"Main contractors haven't quite bought into it yet; they tend to see the risks before the benefits. But by spending more time up front and working to an efficient programme. you deliver a high-quality product and spend less time having to fix those issues that typically come up towards the end of projects."

The university has completed one Passivhaus-certified building to date: the Student Hub for Kellogg College.

"It is not always possible to deliver a Passivhaus-certified building but the EnerPHit retrofit Passivhaus standard is available for refurbishment projects," Makkreel says.

"Also, we have become more aware of the carbon footprint of new build, and that now goes into our thinking when deciding on refurbishment or building from scratch."

She reports "positive experiences" from offsite construction, citing some temporary faculty buildings which had to be operational for five years, with teaching and research laboratories. "We were able to engage with modular contractors, deliver and open the buildings within nine months - and we're talking really high-quality space," she says. "We always ask the question on what's the way to deliver the building, rather than just get an architect to design it."

Makkreel has been a CIOB member for 13 years and chairs her local hub. "As a client, we are one step removed from the coal face of construction delivery, so the CIOB helps us to be part of that conversation," she says.

AstraZeneca's campus at Macclesfield has 4,000 workers



"A completely different attitude to lump sum contracting"

Brian Street MCIOB Construction lead. AstraZeneca



Brian Street started out in construction with Wimpey Group in 1986, later setting up his own consultancy. He

began working for pharmaceutical giant AstraZeneca in 2001 and is currently construction lead on its Alderley Park campus and construction SHE lead at its Macclesfield site.

"In a typical year, we might deliver 80 to 100 projects with £25m in total construction spend," Street says. "Work ranges from lab refurbishments to offices. The campus at Macclesfield is like a small town, with over 4.000 people working there, plus another 400 at Alderley Park, so all our projects have to be delivered in a busy operational environment."

Street's team acts as principal contractor and principal designer, with 40 self-delivery staff.

"We are very hands-on; we don't just appoint a contractor and wait for the keys to be handed over," Street explains. "Because of this, we have fewer issues with defects and delays. We still have a budget and timescales we must work to, but there is a completely different attitude to what you'd find with lump sum contracting."

As a manufacturer of critical medicines. AstraZeneca continued operating through the pandemic. Street developed his own covid-19 risk assessment for construction operations, based around the Construction Leadership Council guidelines, which was widely shared and praised by other CIOB client members.

"We can take some positives from the pandemic," says Street. "We have been forced to 'microplan', so we could know not just which subcontractors were coming onto the site but also the names of individuals, a week in advance. The benefits have been fewer surprises:

"They operate to very high standards in terms of drug manufacture and that culture steers us too" **Brian Street, AstraZeneca**

£2.5m

One of Braintree's live projects is the £2.5m I-Construct Innovation Hub, where construction SMEs can learn about BIM, modular building, robotics and other innovations

our suppliers have had to plan better else they cannot bring workers or deliveries onto the site."

Street says there is a very heavy quality focus at AstraZeneca. "We can't hand over a production line to the operations team which doesn't work," he says. "They operate to very high standards in terms of drug manufacture and that culture steers us too.

"Quality management KPIs exist on all projects here and we set the bar high – at zero defects. We achieved that on 87% of all projects in 2019.

"We have a long-term relationship with our supply-chain partners and they understand our quality expectations – they don't just rely on an end-of-project snagging process."

Street became a CIOB member early in his career. "I saw it as a key professional qualification and I still do," he says. "As a client, the networking benefits have enabled us to share experiences about many issues affecting construction and this has been very valuable professionally."

"We work with 'Premier League' main contractors and expect compliance and excellent quality"

Ray Ford, Braintree District Council

Braintree's Manor Street town centre regeneration

"We take a progressive approach to working with contractors"

Ray Ford FCIOB
Construction director, strategic
investment, Braintree District Council



Ray Ford has worked in construction for over 40 years, for major contracting names including Taylor

Woodrow and Bovis Lend Lease, before switching to the client side a decade ago. For the past 18 months he has been construction director for Braintree District Council's strategic investment team.

"Braintree created the team to manage their £100m investment in property development which helps augment their spending budget," Ford explains.

Braintree has three projects under construction, with several others in

the pipeline, and uses frameworks to appoint the project team.

The biggest live project is Manor Street, the £35m redevelopment of Braintree town centre, where Kier is contractor. Horizon 120 is the £24m transformation of a 26ha field on the A131 into a business innovation park, where Balfour Beatty is delivering the infrastructure works.

Braintree's third live project is the £2.5m I-Construct Innovation Hub, where construction SMEs can learn about BIM, modular building, robotics and other innovations.

"Investing in BIM and other associated technologies is expensive for SMEs," says Ford. "Here, they can learn how these technologies work, how it can help develop their businesses, and make an informed investment decision with potential grants."

Braintree has taken "a progressive, collaborative approach to working with contractors" through the pandemic, Ford says. Manor Street was on site when covid-19 struck and delays to utility works outside the contractor's control caused an eight-week hold-up.

"We worked alongside Kier to re-sequence the project, paying them a premium so we didn't lose time; we have tenant agreements to honour," he explains. "On I-Construct, we extended contractor Beardwell's contract from 38 weeks to 42, recognising that social distancing meant the interior fit out would take longer."

Most of Braintree's property falls outside the scope of the Building Safety Bill but, even so, it has changed the specification in places. "On Manor Street, the balcony decking was designed as timber, a Class B fire-rated material, but we've gone for a Class A ceramic decking material," Ford says. "We've also appointed a consultant to check all the cladding specification and installation."



£16.8m

McCann Estates' latest project is the £16.8m Danderhall Community Hub, a primary school with library, leisure centre, nursery and cafe, for Midlothian Council

On the Manor Street residential units, Ford says Kier is taking photos of every fire barrier in every flat, to be incorporated into the health and safety file and handover pack.

"We work with 'Premier League' main contractors and expect compliance and excellent quality," Ford says. "I also insist that every scheme has a resident clerk of works."

Ford believes CIOB membership is an "extremely important badge and an indicator of a quality and professional manager".

He adds: "I look at the contractor teams working on our projects, and if any of them are not CIOB members, I will mentor them, as is the case currently with a Kier project manager on Manor Street."

The Danderhall Community Hub for Midlothian Council



"There is a push for more community benefits from projects"

Maurice McCann MCIOB Director, McCann Estates



Maurice McCann spent 15 years with Ogilvie Construction before moving client side with developer

Macdonald Estates in 2007. In 2009 he started McCann Estates.

"We act as development managers, pulling together and delivering projects, helping public clients achieve better outcomes from their investments," he explains.

His first scheme was Lasswade Centre in Edinburgh, a pilot for the Scottish Futures Trust, and the latest is the £16.8m Danderhall Community Hub, a primary school with library, leisure centre, nursery and cafe, for Midlothian Council. "Our approach has strengthened communities and improved income streams for our clients so services become much more sustainable," he says.

Since covid-19 struck, McCann says clients are looking to bring their capital plans forward. "One is bringing forwards schools planned for delivery in 2026 to the next two years," he says.

"Sharing the pain" has been his policy on contracts during the pandemic. "Our contractor on Danderhall was meant to hand over in October but we moved that date to February," he says. "We know we will all pay the price as clients if in three years these companies disappear and prices in the industry begin to increase."

Edinburgh is where quality concerns first emerged, after the Oxgang School wall collapse. Standards are being watched "closely" in Scotland, he says.

"We oblige designers to report back to us on work progress and our appointment documents are set up to reduce the contractor design portions to a minimum," he says. "Too often consultants tendering for work will increase the number of contractor design portions to keep their fees low.

"This is counterproductive for clients who end up paying for the lack of clarity through quality of the product.

"We have an obligation to ensure the specification is clear so contactors price product rather than risk. Contractors are good at buildability and logistics, not sorting out a design that hasn't been put together properly. Because we put the work in before we go to tender, we tend to achieve a better quality of product at a more economical price.

"We need quality to be on a level with safety and I want to see contractors treating it just as seriously."

He also wants contractors to deliver more training: "In Scotland, there is a big government push for more community benefits from developments, including apprenticeships, and we include these obligations into all of our contracts."

McCann is pleased by the "huge drive" to adopt digital technology in Scottish public sector investment but warns of "a digital skills shortage".

"We advise our clients to approach the digital agenda with a collaborative agenda, developing the skills working with contractors," he says.

Through the CIOB, McCann finds knowledge-sharing of best practice with other clients "really useful" and would like to involve contractors "so that both sides can have open and collaborative dialogue around issues faced by construction".

"The CIOB is uniquely placed with members from all areas of our industry," he adds.



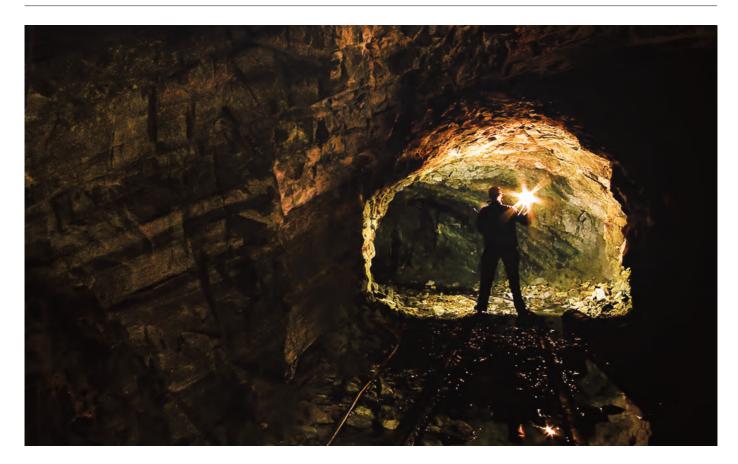
BUILT FOR THIS MOMENT

On the ground and in the sky, the building goes on. The air is buzzing. The team's all here – still digging, lifting; still sawing and shouting. But this time, it's different. Now the teamwork – and the fist bumps – mean a little bit more. Now you're working together like never before. On beams and girders, in hoists and trailers, you're building our future – right now. And we're here to help you do it.

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Technical



GOING FOR GOLD

UP IN THE WILDS OF SCOTLAND, A CIOB MEMBER HAS BEEN OVERSEEING THE CONSTRUCTION OF A GOLD MINE.

KRISTINA SMITH MET HIM

Construction managers often claim

that their projects are unique. In Jason Saint's case, that would be hard to argue with. Because CIOB member Saint managed the construction of Scotland's very first commercial gold mine, where he continues to work on the operations side.

With experience on mining sites worldwide - and on major construction projects - the gold mine has been an experience like no other for Saint. The mine is in a National Park, which means that the list of planning constraints and conditions is a long one.

"The biggest challenge has been the variability," says Saint, who is employed by Scotgold Resources, the company set up to extract gold at the site. "Here, you have to cover

Above: Scotland's first commercial gold mine at Cononish

all the disciplines - legal, planning, environment, health and safety, civil structural, electrical, comms, IT, metallurgy, mining. Usually you would have at least one person for each of those disciplines."

Other factors which made the construction process difficult included planning struggles, extremely wet weather and larger depths of peat than predicted. And all was documented by a BBC film crew, leading to a three-episode series called Gold Town.

Saint, who has been based at Tyndrum, a village in the Grampian Highlands on the northern edge of the Loch Lomond and Trossachs National Park, has taken it all in his stride.

Cononish gold mine in numbers

£34.012.963

capital costs over

lifetime

£81.196.935 operating costs over lifetime

666.2kg target annual gold production rate

72.000 tonnes target annual ore production rate

price of gold per g (June 2021)

"I am a people person - it's part of our nature in construction," he says. "You have to like people because they deliver our end product. The BBC film crew soon became part of the team; they weren't aggressive or pushy."

The project story begins in the 1980s, when gold production was first attempted by Ennex International with a 900m-long exploration adit dug between 1989 and 1991. In 1991, the price of gold fell, and the company pulled out.

In 1996, Caledonian Mining took up the golden mantle, only to be thwarted when the National Park was established in 2002, introducing more stringent planning constraints. Scotgold took over the site in 2007 and finally secured permission after negotiations and some compromises on how the land would be reinstated.

Judging from the BBC documentary, local people are supportive of the mine. Saint confirms this: "The community have been very good. We have been very fortunate." Support for the development of the mine was boosted by the creation of 50 additional jobs.



Above: A wheeled loader in an adit during construction of the Cononish mine Below: The processing building is cut into the mountainside

The mine is named after the farm to which the land belongs, Cononish; Scotgold leases the land from the farmer. The vein of quartz ore, which contains both silver and gold, varies in width up to 8m, although its average width is 2m. It has a vertical depth of 500m and runs for over 1km.

When CM interviewed Saint in May, the mine was due to complete its first shipment of concentrate, a product that looks like fine-grained sand and which then needs further processing with chemicals off site to extract the gold. The mine will also produce more concentrated product, nuggets containing around 40% gold, but that is only

"Here, you have to cover all the disciplines - legal, planning, environment, health and safety, civil structural, electrical, comms, IT, metallurgy, mining"

Jason Saint, Scotgold

possible when the gold is in high concentration.

"It is a very variable ore body," explains Saint. "It can be extremely high grade, up there with some of the best I have seen or worked with. But it's also about the quantity."

To the layperson, the quantities of gold involved seem incredibly small: Scotgold is talking about a production goal of just over 666kg a year. But that can equate to a handsome sum of money, depending on the price of gold. At the time of writing, it was high: £43.19 a gramme.

The civil and building works associated with the Cononish mine are modest, and on a smaller scale compared to other projects Saint has worked on. Not far from the mine entrance is the processing building, basically a shed, on a base cut into the mountainside. Often these plants are open to the elements, but here a building was required by the National Park.

The development of the mine access, widening the original hand-dug tunnel to accommodate modern equipment, was underway in parallel with the civil works, although this was overseen by the mine manager. Saint's remit also included delivery of enabling works including improvements to a road junction, a new car park and a replacement bridge over a small river where the existing wooden bridge had a 2-tonne limit, no good for heavy construction plant.





"It is small scale but highly sensitive," says Saint, who arrived in Tyndrum in April 2019. "It's a special area of conservation because of salmon breeding so we were held to account by SEPA (Scottish Environment Protection Agency) and the National Parks authority."

The bridge consists of concrete buttresses, a steel deck and timber runners, "in keeping with the look of the place", says Saint. The West Highland Way, a popular hiking trail runs right past it.

Due to the construction of the bridge and the size of the equipment, Scotgold also had to negotiate with Network Rail for construction plant to use an alternative route via a forestry road which is accessed from a level crossing. Saint expresses surprise over the difficulty of the negotiations and the fee charged to use the crossing.

The initial plan had been to start construction of the bridge in April or May and to begin earthworks for the processing plant platform at the mining site in August, completing by Christmas 2019. However, the bridge start was delayed by engineering and planning, with approval only granted at the end of August 2019.

Once earthworks did get underway, there was another setback: there was far more peat than the site investigation had indicated. Scotgold's permissions only allowed for the relocation of a certain amount of peat. Above: Location of the replacement bridge, built to provide access for heavy construction plant in 16 different section a piece of turf, it had a place. It could not be like a jigsaw puzzle."

Rain also stopped occasions, with the in unable to operate as bogged down in the inchanged tack, switch

Bottom: The

earthworks were

peat levels deeper

complicated by

than expected

"We have very strict controls on the peat and turf recovery," explains Saint. "You cannot just cut and fill and put the peat and turf to one side. Instead, we have to segment the earthworks. The slab is 80m by 30m and we had to do it in 16 different sections. When we lifted a piece of turf, it had to go in a certain place. It could not be stockpiled. It was like a jigsaw puzzle."

Rain also stopped play on multiple occasions, with the heavy machinery unable to operate as it became bogged down in the mud. Saint changed tack, switching to lighter plant and trucks, which the miners operated to reduce costs, since they had completed much of their access adit work and were waiting for the production plant.

With the weather clearing, coronavirus struck. The mine had to shut down, with a skeleton crew in place for maintenance and safety. "With a reduced workforce, the economics were better," says Saint, "and we were able to slowly continue with the works. But it stretched the business."

In July 2020, the concreting of the building base began, followed by the installation of the processing plant and the erection of the steel frame building around that. There was no thought of employing specialist mining contractors at Coronish, says Saint, due to the small scale of works, but that did mean the companies used had to learn to work differently.

"The civil contractor and building contractor are agricultural shed



builders by trade," says Saint. "They were not used to an Australian project manager who wants millimetre accuracy on a slab. But it has to accommodate very heavy, very expensive equipment."

The process plant building, which is clad in profiled sheet metal cladding is insulated to contain noise. It also houses a workshop, offices, storage and welfare facilities, with the internal rooms supplied as modular, pre-fitted units.

The works will also include a tailings management facility. Tailings are the waste product from mining, the rock that cannot be used, which is in slurry form, having been through a 'wet grinding' process. Often the resulting slurry is stored in lagoons contained by dams and left to dry out. At Cononish they will be dried using a filter press with the resulting material used to create mounds that mimic the landscape of the surroundings, with 10 stacks over the life of the mine, says Saint.

Scotgold reported its first gold pour on 30 November 2020, St Andrew's Day, 11 months later than was initially mooted. The production of this first tiny cone-shaped nugget was largely symbolic. Production proper was yet to be achieved and then ramped up in two phases to full capacity.

There have been teething problems getting the processing right, with production forecasts for 2021 downscaled and the company reporting delays to its production ramp-up. Recently, Scotgold has been raising money to accelerate the increase in the rate of production and some of the main shareholders have announced a short-term loan to provide working capital. In April this year, a new CEO, Phillip Day, took over from Richard Gray who retired, having founded the mine.

"They were not used to an Australian project manager who wants millimetre accuracy on a slab. But it has to accommodate very heavy, very expensive equipment"

Jason Saint, Scotgold

Facing a long future

For Saint, the ramp-up of production means a new phase for him too. He has taken on the role of group operations manager, a move that is partly due to family commitments. He has two daughters in London and, although the Cononish site might seem remote to many, for someone who is used to working in locations far from civilisation, it is quite the opposite. The midges are bad in summer, says Saint, but not as bad as being shot at.

There could be a long future for the miners and others at Cononish. Scotgold's geologists believe there are more deposits which has "excited" CEO Phillip Day.

Many of the skills Saint has gained over his construction and mining career will be applicable in his group operations role. But there are new ones too, among them HR, finance, process engineering, logistics – even dealing directly with jewellers who have agreements to buy Scotland's first ever gold.

Processing requires a different mindset to construction too, explains Saint. "You are dealing with people who are here for life. In construction, you want to get it done, get in and get out. The processing guys like to adjust and tweak and get things just right."

If this role doesn't suit Saint, perhaps he should consider a career in television. As the *Gold Town* series demonstrates, he is a natural in front of a camera.

Construction manager CV: Jason Saint MCIOB

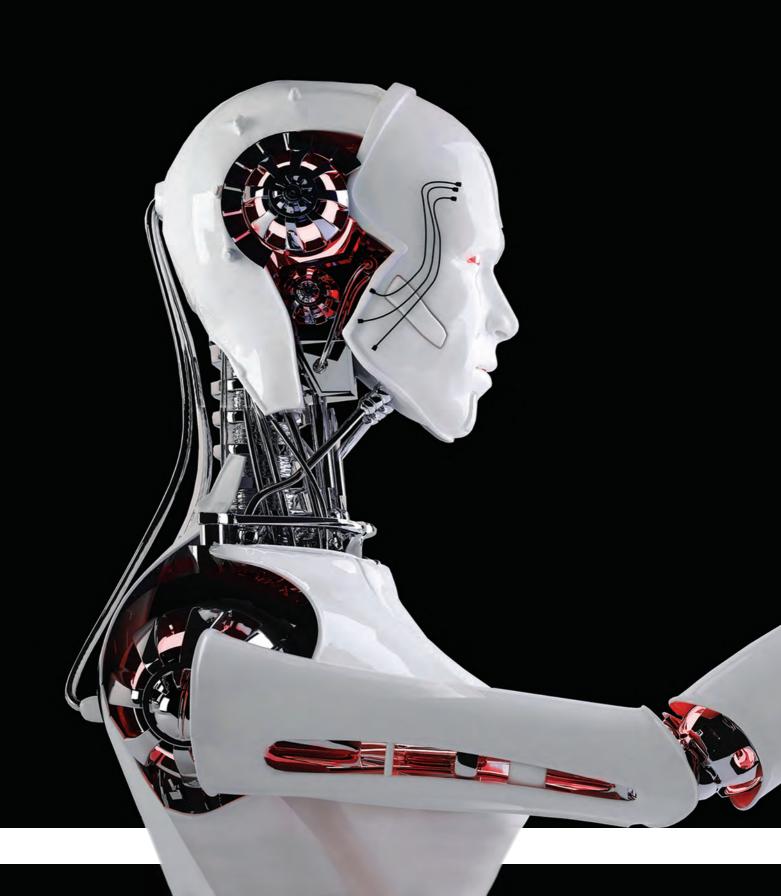
Having trained as a civil engineer in Australia, Jason Saint arrived in London in 2004, attracted by the possibility of combining experience on huge construction projects with travel in Europe. "There was a lot of work going on in London at that time: T5, preparatory works for Tideway, Canary Wharf. Australia had not reached a \$1bn project yet," he says.

Saint worked at Heathrow T5, King's Cross for Laing O'Rourke and Mogden Sewage Treatment Works for Birse Civils, before he was called to Romania by a friend who needed cover while he went on holiday. "I went for two weeks and stayed for four years," says Saint.

Since then, he's worked in a variety of international locations before arriving at the Cononish mine in April 2019 as construction manager. Two years later, his role changed to group operations manager, leading the mine team, the process team and the subsidiary team to meet production.

Saint is a member of the Institute of Engineers in Australia and joined the CIOB on the recommendation of one of his former colleagues from Heathrow. He has recently been invited to apply to be a fellow.







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Envelope



ROOFING SETS A NEW STANDARD FOR SPECIALIST COMPETENCE

THE ROOFING SECTOR BELIEVES ITS COMPETENCY CERTIFICATION SYSTEM FOR OPERATIVES COULD BE A MODEL FOR OTHER SPECIALISTS AROUND CONSTRUCTION. **WILL MANN** REPORTS

The NFRC has already put 800 installers through the RoofCERT scheme

"Roofing, like much of construction,

faces challenges around skills shortages, industry image, attracting new talent, training and work quality. Put it all together, along with a lowest price culture, and that can drive poor behaviour from installers, as we know from Grenfell."

James Talman, CEO of the National Federation of Roofing Contractors (NFRC), is not afraid to speak plainly.

But to his credit, the NFRC decided to do something about these concerns before the Grenfell tragedy. The federation had already begun working on an independently accredited verification scheme for roofer competence, and two years ago RoofCERT was launched in partnership with the CITB. Some 800 operatives have now been certified.

Talman believes the scheme could be a model for other specialists to follow.

"Dame Judith Hackitt urged construction to take action before the Building Safety Bill becomes law," he says. "And the NFRC has actually done something – not many other sectors in construction can say that."

Among the 11 working groups set up following the Hackitt review to identify and develop competency frameworks and accreditation pathways, the NFRC sits on working group 2 (installers). It is chaired by Build UK and Stanhope's project executive for offices, Nick Jarman, who praises the NFRC's contribution.

"The working group obviously welcomes a collaborative approach

in improving installer competence, which the NFRC is clearly focused on," Jarman says.

The NFRC's representative on working group 2 is head of qualifications Richard Miller.

"One Hackitt proposal was for third-party accreditation of competency – which is the principle of RoofCERT," says Miller.

"The model Hackitt would like to see is company accreditation, where accredited companies would be expected to make sure their staff are competent. That could mean they have been accredited through RoofCERT and the person signing off the work would be a competent, RoofCERT-accredited person.

"RoofCERT also aligns closely with the BSI Flex standard, announced earlier this year as an overarching framework of requirements for competence of individuals working in construction."

Roofing didn't have its own competencies defined until this year. The NFRC has been working with the MHCLG to define those competencies – a work still in process, that will finish later this year, Miller says.

The NFRC, like the rest of the industry, is now watching for the detail in the Building Safety Bill. However, the federation is not waiting for the bill to make accreditation mandatory. "We are currently in discussions with major housebuilders," reveals



"Hackitt urged construction to take action before the Building Safety Bill becomes law - and we have actually done something"

James Talman,

Certifying cladding installer competency

The NFRC has begun work on a certification scheme for rainscreen cladding installers

On the back of its RoofCERT rollout, the National Federation of Roofing Contractors (NFRC) has also started working on a CITB-funded project to define competency for rainscreen cladding installation.

"A lot of cladding remediation is going on currently, and we need to be sure the people who are doing that are competent to do so," says NFRC CEO James Talman. "So we're looking at applying the RoofCERT principles to rainscreen cladding work.

"That would initially involve assessment of operatives, whereby

they would come to a test centre and work on a rainscreen cladding section so we can see how competent they are."

A problem the NFRC has encountered in its research is establishing exactly how many installers of rainscreen cladding there are.

"One issue is that there are many different definitions of cladding," Talman says. "We had to use a data company to scrape the internet to find who these cladding installation companies are."



Right: Cladding remediation on Horatia House in Portsmouth

The RoofCERT model

There are three key steps to candidates achieving RoofCERT qualification

Knowledge

Candidates demonstrate their knowledge through a test (online since the pandemic started), which they can do anywhere in the country. It is strictly invigilated, even online. There is an 80% pass rate.

Competency

Candidates demonstrate this through an NVQ or through their experience

via a one-day assessment, where they demonstrate their skills on site at a test centre in front of an assessor. (CSCS approves this.)

Health and safety

Candidates must also take six mandatory health and safety courses: working at height; manual handling; abrasive wheels; asbestos awareness; fire safety; first aid. All the information from these three steps is reviewed by an independent auditor before verification. This gives the candidate RoofCERT accreditation for three years after which renewal is required. (Note this is different from NVQs, which have no CPD requirement and make no allowance about, for example, Building Regulations updating.)

Talman. "That is the fundamental focus for our sector: new homes. We are working with the Home Builders Federation's Home Building Skills Partnership, which has opened the door to major housebuilders, including Persimmon.

"Persimmon has introduced its own internal quality inspectors and they see us as strategic partners.

"We've also been endorsed by CSCS." Miller says there will likely be some extra training packages that will need adding to RoofCERT to meet the requirements of the bill.

"But one other advantage of RoofCERT is that we now have data from the 800 people who have taken the courses, so we can identify where the knowledge gaps are and adjust the training accordingly," he explains.

One issue to be addressed is funding. "The CITB cut our funds last year during the pandemic, so we self-funded RoofCERT for a while." says Talman. "The CITB has now started putting money in again, but it is substantially reduced.

"Currently roofer candidates pay nothing to take the accreditation. For training they get funding through the usual routes. The NFRC has funding for 2,000 places, but beyond that we need to get fees to make it sustainable.

"So we will introduce an accreditation fee. We've looked at other industries - oil and gas, electric - to see what their practice is and it has to be affordable for a one-manband roofer. We are targeting the longer tail of roofers with grandfather rights which run out in 2024. RoofCERT can be used to introduce professionalisation to these roofers."

Candidates do not have to be from NFRC member companies to take RoofCERT, he adds.

Talman is realistic about the challenges of introducing the scheme.

"Currently the industry is overworked, the market is overstimulated, there are not enough supplies, a lot of firms have liquidity issues - we have to be sympathetic about that when we're pushing RoofCERT," he observes.

"But delivering on quality and competence would be easier for our sector if it were not for retentions.

Housebuilding margins are fat but they still have retentions. There has been no commitment to abolish them. At least Build UK has said its ambition is zero retentions by 2025. Meanwhile, the industry has record levels of work.

"There is £300m of retentions owed to our members currently. That could pay for a lot of training."

Tesla and solar roofing: bright prospects?

With Tesla holding talks with the UK roofing sector, roofs could become significant energy sources

Could roofs power electric cars? It is one of the prospects that has been floated by the NFRC, which has been in talks with electric car giant Tesla and has also launched a research project on climate change and roofing technology.

"The study with the University of Southampton involves both resilience and using roofs as energy sources," explains NFRC CEO James Talman.

"We had a huge amount of rain in May. If that trend continues, do

we have roofs that are ready for that? And also, could they be used to harvest rainwater?"

Then there is the burgeoning solar market.

"With increased sunlight, how can we exploit solar energy more?" Talman says.

"Construction is poor at talking to the energy sector. The **Electrical Contractors Association** is more engaged with the energy industry and we've been having discussions with them.



roofs that power electric vehicles - through solar roofing that feeds directly into a Tesla power pack?"

Tesla visited the NFRC to discuss the feasibility of this idea, Talman reveals, and has launched a UK website for its Solar Roof product. This involves replacing an entire roof with a seamless covering of solar tiles that plug into Tesla's onsite battery storage Powerwall.

Meanwhile, in April roof tile manufacturer Marley acquired Viridian, which also delivers 'inline solar' (solar panels that look like slates). Talman believes it is "a big development" for solar roofing. He feels retrofitting solar panels on roofs often "looks awful".

Meanwhile, solar panel costs continue to get cheaper. "They are going to become commonplace on new build, as is the case in Scotland now," Talman continues. "However, there are issues around poor quality installation which need addressing.'

The NFRC plans to get tangible policy recommendations out of the University of Southampton research in late summer ahead of the COP conference, "Then we will apply for Innovate UK funding to support the technical development," Talman adds.







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BUILDING WITH HEMP BLOCKS: Q&A

WHAT SHOULD CONSTRUCTION MANAGERS KNOW ABOUT BUILDING WITH HEMP? CM ASKS WILLIAM STANWIX FROM THE HEMP BLOCK COMPANY

What's different with hemp compared to conventional building?

Hemp blocks are made from natural materials and the main difference is how they manage moisture.

Conventional housebuilding aims to eliminate moisture from the wall, using plastic vapour barriers internally and waterproof finishes externally. The danger with this is that if moisture does get into the wall, through poor detailing or construction, it gets trapped and can lead to mould and sick building syndrome.

Rather than eliminate moisture. natural materials manage moisture in a passive way. Natural materials are commonly described as breathable or, more accurately,



"Anyone who can lay conventional blocks can lay hemp blocks" William Stanwix. **Hemp Block**

Company

vapour or moisture permeable. This is similar to the difference between a rubber boot and a Gore-Tex boot. They both keep out external moisture but the Gore-Tex boot also allows the moisture from your sweaty feet to escape.

The consequence for your building (and this becomes more important as buildings become more airtight) is that a house built with natural hemp blocks relies far less on mechanical ventilation systems to manage internal moisture.

Because your wall is now vapour permeable your finishes also become vapour permeable to allow moisture out. Cement renders become lime renders, cement mortars become lime mortars and, as in conventional construction, timber or other cladding systems require a ventilated gap behind them.

What structure types are they typically used with?

Hemp blocks typically are paired with timber frame construction - stud frame or portal frame - but they can be used with a steel or concrete frame (although the steel would have to be painted to protect it from corrosion). With a stud frame, the blocks will make up part of or all of the wall build up.

With a portal frame - perhaps the simplest way of using them - you'd erect a portal feature oak or glulam frame. Then you'd wrap this with thick (300 or 400mm) hemp blocks.

In renovations, hempcrete blocks can replace wattle and daub panels, or you can put up a skin on the inside or outside of a solid walled property and use them as solid wall insulation.

What are the common pitfalls?

To make the most of hemp blocks, the designer needs to understand how they function.

Hemp blocks provide insulation, a backing for plasters and renders (no plasterboard required) and although they are not structurally load bearing, they do support their own self weight and that of the plaster or render. Despite this, it is not uncommon to see plasterboards specified with the blocks, or a vapour barrier on the internal side of the wall.

Because of the fundamental differences between hemp blocks and conventional construction, it is critical that they are considered and understood early on in a project. It is difficult to 'shoehorn' hemp blocks into an otherwise conventional build.

Is any specialist training required?

Anyone who can lay conventional blocks can lay hemp blocks. At most, they will need to be shown how to mix lime mortar.

Spec sheets are provided which detail types and numbers of wall ties as well as any other metal work that might be required. The main difference here being that all metalwork should be stainless steel or otherwise protected with paint as the lime can corrode other metals.

Brick or block laying best practice guidelines (such as BS 5628-3:2005) are applicable in terms of protecting mortar from frost damage and excess heat or rain when laying.

Top: A house extension using hemp blocks with a timber stud frame in Dartmoor, Devon Below: Natural fibres in the hemp block







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Speed and efficiency are key factors

that project managers must consider before proceeding with a chosen method for a project. Thanks to its straightforward process that requires little preparation, installing pipework using press connection technology can be up to 50% faster than a soldered connection.

Impressive time savings can also be seen when press connections are used in connecting thick-walled steel pipe, compared to welding. Independent laboratory testing with the Building Services Research and Information Association (BSRIA) compared the two methods, finding that where welding took 29 hours and 59 minutes to complete the assembly, Megapress press connections took just six hours



Above: Press connections create a uniform seal Top right: Viega's Pressgun 6 Plus Below: The Pressgun 6 Plus in use on site

and 38 minutes. This meant that the use of Viega's Megapress system resulted in time savings of 78%.

Crucially, the speed of the press connection process does not come at the expense of reliability. Each connection is made through a machine press process – meaning there is no variation in the quality of each connection as the press tool ensures a uniform seal every time.

The press connection process is also far safer than traditional methods. Hot works, such as soldering and welding, can present a health and safety hazard. Welding fumes have recently been reclassified as a human carcinogen by the Health and Safety Executive (HSE).

With no heat involved, press connections present none of these risks. Ultimately, a safer working environment is assured when using press connection technology.

Viega press tools make two pressings simultaneously per connection – one in front of the sealing element and one behind it – making a strong, durable and torsional resistant connection. Should a connection be missed during the installation process, Viega fittings are equipped with SC-Contur – a dedicated leak path designed to deliver a clearly visible forced leakage across the entire pressure testing range – so any inadvertently missed connections can be immediately identified.

Considering the benefits offered by press connection systems, it is important to use the correct tool for the job. Pressgun 6 Plus is Viega's



latest model, offering an improved ergonomic design and equipped with a 360° infinitely rotatable jaw.

The Pressgun 6 Plus also features a built-in status indicator that also communicates to the Viega Tool Services app. With this functionality, the user can check safe operation, enable anti-theft protection, monitor the number of pressings they have made and view battery levels.

"At Viega we believe that the industry should work smarter, not harder," says Scott James, managing director at Viega. "Huge advancements have been made to press connection technology in recent decades.

"In terms of efficiency, consistency and reliability, press connection far outperforms traditional techniques – not only massively reducing the installation time required but also offering certainty that each connection is totally uniform. Safer conditions on site are also assured, with no heat required during the process.

"Our ambition at Viega is to constantly bring products equipped with the latest innovative technology to market. The Pressgun 6 Plus is testament to that. This latest extension to our Pressgun range has been designed to deliver a higher level of performance than ever and, alongside the new digital connectivity, will provide unprecedented levels of user functionality."

For more information on Pressgun 6 Plus, please visit: www.viega.co.uk.















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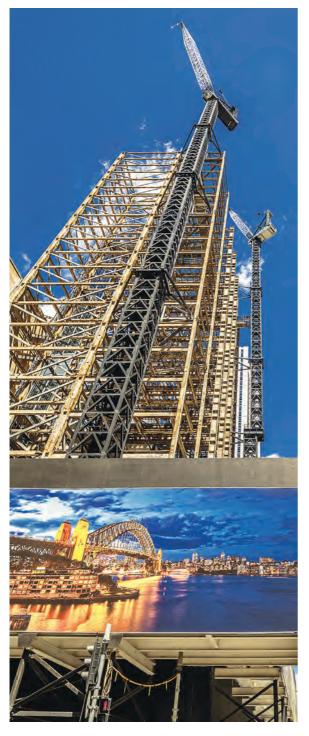
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Global



AUSTRALIAN CONSTRUCTION'S HOURS CULTURE: TIME FOR CHANGE

ROD SWEET MEETS THE MAVERICK BOSS PIONEERING A FIVE-DAY WEEK ON A SYDNEY HOSPITAL PROJECT

Like other countries, Australia has a

problem with its construction culture. The sector needs 114,000 new workers by 2024 to deliver the pipeline of government infrastructure projects already awarded, but the industry's harsh working environment - long hours, high pressure, adversarial behaviour - puts people off joining the industry, pushes people out of it early, especially women, and takes a heavy toll on those who stay.

The statistics are shocking. The suicide rate is more than double the national average; construction workers are six times more likely to die of suicide than workplace accidents. Women leave the industry six times faster than men. The human cost of industry dysfunctions is estimated to be some A\$6bn (£3.28bn) a year.

Prompted by this state of affairs, the state governments of New South Wales (NSW) and Victoria have teamed up with the Australian Constructors Association, the trade body representing tier 1 contractors, to convene the Construction Industry Culture Taskforce (CICT).

Its job is to come up with new industry standards protecting mental health and family wellbeing, the goal being that compliance with the standards becomes a condition for winning public sector work.

The CICT will pilot new ways of working that make the industry more humane for its people, accompanied by research quantifying the impact on wellbeing, project economics and productivity.

Its flagship pilot is the A\$34lm first stage of the Concord Hospital Redevelopment in Sydney, involving the design and construction of a 44,000 sq m clinical services building. Unheard of in Australian construction, where a six- or even seven-day week is the traditional norm, contractor Roberts Co is delivering the project with a strict five-day working week, giving workers what most of us take for granted: a weekend to rest, recover and spend time with the family.

The five-day pilot is the brainchild of Roberts Co chief executive Alison Mirams, who rose up through the ranks at Multiplex before taking the helm of Roberts Co in 2017 with a

114,000

Australian construction needs 114,000 new workers by 2024 to deliver the pipeline of government infrastructure projects

mandate to change the way it does business. She knows the sharp end of construction as well as anyone, having risen from contracts administrator to commercial manager to regional director at Multiplex.

"I was given a blank sheet of paper when I joined," Mirams says in an interview with *CM*. "And when you look at the industry in Australia – high suicide, high divorce rates, women leaving in droves – I just thought we've got to be a catalyst for change. If we didn't do something different when we had a blank sheet of paper, it would have been the most enormous waste."

She adds: "The struggle to change is really hard. The industry has a skills shortage because we're not attracting enough people into the industry. The industry is fixated on a six-day week because that's the way we've always done it. It's so stupid, it hurts."

In 2019, she tendered for the Concord job with an explicit challenge to the client, NSW Health Infrastructure.

"We said: you of all people can't allow someone to die by suicide caused by workplace stress when we're building a hospital to make people better," she says. "It's not right. We said: here's a five-day programme and here's a six-day programme, but understand that under the six-day programme, there might be a suicide from stress. And to their credit, they said: 'Okay, what's the cost?'"

The time implication was 10 extra weeks, which carried an estimated cost of A\$2.5m, about 1.2% of the contract sum, which NSW Health Infrastructure agreed to absorb.

When CICT convened, it adopted the Concord project as a pilot and CICT and Roberts Co engaged a researcher from the University of New South Wales to study the impact of a five-day week on the wellbeing of workers and families. A report is due in the fourth



"You can't allow someone to die by suicide caused by workplace stress when we're building a hospital" Alison Mirams, Roberts Co

Left: Steel superstructure takes shape, Sydney, Australia Below: The Concord hospital redevelopment is being delivered with a strict five-day week quarter of this year, but Mirams says interim findings are encouraging.

"The feedback from the workers is: I'm happier, I'm less stressed and depressed, I'm excited to go to work on a Monday, I'm taking my kids to Saturday sport," she says. "Foremen say it's the most productive, efficient, safest site they have. As we expected, the next-of-kin said: my husband is happier, healthier and has a better relationship with me and my kids."

Humane and productive

Mirams believes that retooling the construction business model to make it more humane can also make it more productive. She says they wouldn't be using the whole 10 weeks and that if it wasn't for covid they might not have used any of it.

She credits Roberts Co's focus on design management, which she believes is neglected in the industry now, as a key driver of productivity. She makes sure that senior, talented people are in that role.

"My theory," she says, "is that if you don't get the design right when it's needed, and decisions get pushed back, that's what causes trouble later. The root cause is you haven't done design properly at the front end, and if you don't complete design, you can't procure, and if you can't procure you can't build, so we waste time at the front and get slammed at the back."

The business benefits of the pilot are already manifesting. As news of it has spread, job applications from women have flooded in. Other clients are catching on: the company starts a hotel project in September that will run on a five-day week and recently tendered for another contract on the same basis.

The pilot is generating fierce debate, but Mirams believes she's on the right side of history. "The resistance comes from the top of companies," she says. "It's not the people on the ground. The people on the ground are saying, I don't want to work Saturdays. I don't care if you worked 80 hours a week when you were a kid, I want my life.

"And so the industry will change when Gen Zs are running it. But why wait 10 or 15 years for that? Why not do it now so we can enjoy it? That's my theory. It's so basic. We're operating in the dark ages."







Theresa Mohammed

Prater v Sisk: Late challenges of adjudication

In a recent NEC3 dispute over an airport hangar contract, a novel challenge to enforcement of an adjudicator's award failed. Theresa Mohammed explains why



The dispute centred on a hangar at Gatwick

The recent ruling in the Prater v Sisk case, where several issues were in dispute, highlighted the steps a party must follow if it is unhappy with an adjudicator's decision - and the consequences if it fails to do so.

Sisk engaged Prater for installation of cladding and roofing to a Gatwick Airport aircraft hangar for Boeing under an NEC3 Engineering and Construction Subcontract where Option W2 applied. Several disputes arose, which were referred to adjudication. In the fourth adjudication, Prater was awarded £1.76m (plus VAT).

The decision focused on enforcement proceedings, initiated by Prater after the fourth adjudication. Here, Sisk argued that the adjudicator lacked jurisdiction as he relied on the second adjudication award. According to Sisk, the adjudicator in the second award had also lacked jurisdiction as the referral dealt with several disputes.

Veronique Buehrlen QC said Sisk's point was "a novel argument" but that the contractor could not challenge the second adjudication decision - which was "binding and enforceable against Sisk" - in the context of the fourth one. The contractor should also have issued a notice of dissatisfaction and referred its challenge to tribunal or court, but it failed to do so.

The Technology and Construction Court (TCC) said it is a well-established principle that an earlier adjudication cannot be reopened in a subsequent adjudication, enforcing the fourth adjudication decision.

As for Sisk's arguments, the TCC noted that the various issues forming the adjudication related to one single dispute: the sum due from Sisk to Prater. The other three issues

"While the parties can agree, as a matter of principle, to refer multiple disputes to adjudication, this was not what the parties agreed in this case"

- the correct subcontract completion date, the status of certain provisional sums and Sisk's claim to be entitled to deduct certain indirect losses - were held to be part of the one overarching dispute.

It is not unusual for contractors and subcontractors to cherry-pick parts of a larger claim and refer them to several adjudications. It can be a way of pushing the other side into a settlement for the entire dispute.

The question is: whether section 108(1) of the Construction Act 1996 - which prevents more than one dispute from being referred to an adjudication - is an issue here. While the parties can agree, as a matter of principle, to refer multiple disputes to adjudication, this was not what the parties agreed in this case. The contract clause W2.1(1) was noted to reflect section 108(1) of the Construction Act 1996.

To be clear, an adjudication decision is binding, although not final if appealed and subsequently revised by the tribunal (or court). Multiple adjudications are not uncommon. While they mean that a party cherry-picks elements of a dispute that are likely to obtain a favourable adjudication decision, the other party can do the same in return. The TCC is not opposed to this strategy.

In the context of NEC3 Engineering and Construction Contracts, where a party is unhappy with the adjudicator's decision, it not only has to serve a notice of dissatisfaction but also challenge the decision before the tribunal. If, like Sisk, a party fails to take both of these steps, in adjudications that will follow, subsequent adjudicators will be bound by the earlier adjudication decision.

Theresa Mohammed is a partner at Trowers & Hamlins.



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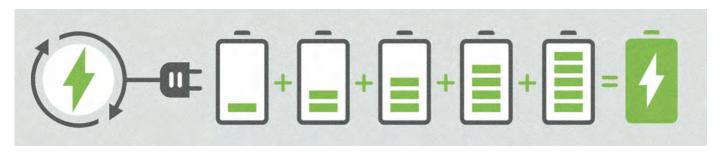
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ISG'S 'GIGAPLANT' AIMS TO RECHARGE NORTH EAST'S SKILLS

AS ISG GEARS UP TO START CONSTRUCTION OF ONE OF EUROPE'S LARGEST BUILDINGS. BRITISHVOLT'S LITHIUM-ION BATTERY FACTORY IN BLYTH, IT HAS SET ITS SIGHTS ON CREATING A LASTING LEGACY FOR SKILLS IN THE NORTH EAST. NEIL GERRARD REPORTS



If you were to speed past the

enormous lithium-ion battery 'gigaplant' factory that contractor ISG is building for Britishvolt in an electric car at 60mph, it would take a full 12 seconds.

The £2.6bn facility in Blyth, which will produce 300,000 lithium-ion batteries for vehicles a year by 2027, is said to be the largest industrial investment in the area since Nissan's Sunderland plant in the 1980s. The building, which occupies a 95ha site, will become Europe's fourth largest when it is complete.

Its construction is expected to take just 24 months, with the plant scheduled to become operational in 2024. It will require 31,000 tonnes of steel and will contain around 26,000 sq m of rooms that need to be cleaner than an operating theatre and drier than the desert to meet the environmental requirements for the manufacture of batteries for electric vehicles.

"The biggest challenge we have got is that we have got to build a factory that can house whatever the battery technology needs to be for a customer who is responding to a rapidly



Peter Millett, ISG

ISG's gigaplant for Britishvolt will cover a 95ha site and require 31,000 tonnes of steel

evolving market," says Peter Millett, managing director engineering services - technology at ISG.

ISG is enthused rather than daunted by the project, however, and none more so than Sinéad Moloney, who lives in Northumberland and has recently joined ISG as social value manager. The business is also encouraging the construction workers it needs to build the plant to come to the area - not just for the duration of the project but also to stay and help build the local skills pool and the economy.

Moloney says: "I moved to Northumberland 30 years ago because I loved the people and the environment. For the past 12 years I've worked in social value roles for local authorities and wasn't looking for a change. However, when I saw the ambition of Britishvolt and ISG, I simply couldn't bear the thought of anyone else doing such a pivotal role in my local community."

She adds: "With the demise of the UK coal-mining industry, Northumberland and Tyneside have been through some really tough times. But what we are seeing now is a rebirth. Britishvolt's project is going to supply 2,500 high-quality jobs to the local economy."

Working in partnership with Britishvolt, which is placing a significant emphasis on its ESG (environmental, social and governance) agenda, ISG is working



£2.6bn

By 2027 the £2.6bn facility in Blyth will produce 300,000 lithium-ion



to develop a specific plan of action when it comes to engaging the local community in respect of training and employment opportunities.

Moloney, in her role as a locally based social value manager, is working with Millett to develop ISG's own ESG plan as part of the preconstruction process. In addition to ensuring a high proportion of local employment on the project, ISG aims create 50 apprenticeships, with 25 on existing schemes and 25 new apprenticeships across the three phases of the project up until 2027. It will also offer 100 work experience placements per year supported by ISG and its supply chain.

It isn't just those people from a traditional construction background that ISG will need for its work on the gigaplant. Its size and complexity means that the business also requires the expertise from people outside the sector, as Millett explains: "Beyond the traditional construction skills we have focused on having a team that has knowledge of the manufacturing process. We have employed people from the automotive and semiconductor industries."



"With the demise of the UK coalmining industry, Northumberland and Tyneside have been through some really tough times. But what we are seeing now is a rebirth" Sinéad Moloney,

Pop-up rail terminal

Beyond fostering a nurturing environment for local skills. ISG is also conscious of its environmental commitments on the gigaplant project.

In addition to exploring schemes such as the non-use of single-use plastics on site, ISG plans to take advantage of the rail infrastructure already in place from the area's coal-mining days.

Millett explains: "There is a freight line to the port terminal that we intend to modify with a pop-up terminal. We are looking at bringing in the piling mat, the aggregates for the concrete, and sand by train. We may need as many as three full trainload deliveries a day to meet our demands at peak, which is a massive number of lorries off the road."

Studies by ISG suggest that train deliveries will account for about 30% of the carbon footprint of the equivalent road delivery. Such initiatives will hopefully fire the imagination of the local community, says Moloney: "My non-construction friends are all asking me about Britishvolt; it is such a step change for the area."

Integrated project delivery

ISG's construction of Britishvolt's gigaplant will see the contractor adopting the 'integrated project delivery' model that it has used successfully on its data centre projects in Europe. The model sees ISG collaborating with its client on an equal footing in a bid to make efficiency savings in the design and delivery.

Millett explains: "Our pitch to Britishvolt was to be a construction partner that can sit within the client team and develop an integrated approach. It allows the client to shortcut the initial stages of the design process by getting us and our supply chain involved more quickly.'

ISG will keep in mind that the main objective of the project is manufacturing batteries. Millett says: "Manufacturing folk don't recognise how construction is delivered when it comes to the contracting arrangements. A nonadversarial approach is key. We need to work to a building contract but we don't need to ram it in somebody's face every day of the week when the pressure is on to create batteries."



What's it like working at... **Turner & Townsend**

Listening skills

Turning empathy into action and encouraging leaders to show vulnerability are just some of the ways people are listened to at Turner & Townsend. UK HR director Joanna Hindle explains it to CM

Joanna Hindle: "We offer unique career pathways"

What is your USP as an employer?

It is our independence; it means that we can reinvest our profits back in the business and our people. We can offer an enriched employee experience, through unique career pathways, or foster commercial innovations such as our new cost management digital tools.

Our global reach also provides endless opportunities, and we have a diverse range of clients across the UK divisions of infrastructure. real estate and natural resources.

Our corporate responsibility agenda is also key. We ensure social value is front and centre of what we do. Our #TT5000futures campaign started in 2018 - a global commitment to improving social mobility by removing barriers to education and opening up opportunities for 5,000 children and young people from diverse backgrounds to thrive. We have smashed that target and reached 15,000 last year.

How do you develop staff?

We are passionate about human connection; our development programmes are centred on that connection. It's how to learn from one another, network and bring people together.

We have a buddy system that starts before your first day - someone to go to outside of line management. And we run a successful graduate programme - many of our board and senior leaders started there, including the COO and CEO.

Our standout development programme is our technical training academy. This is a framework to develop the technical skills we need and ensure we play our part in closing the skills gap. For instance, this year we will take on data scientists, because we need to grow that capability.

How important are professional qualifications such as CIOB membership to your staff?

Partnership with professional bodies is part of our development. We run and host CPD events so people can get their CPD points, and provide the opportunity for our employees' development pathway to lead to a professional qualification with the appropriate body.

How are you trying to boost diversity?

Our diversity and inclusion (D&I) roadmap was set out in 2018 and we will soon be rolling out our diversity base-lining initiative so we can truly understand the make-up of our employees. Our employee

"We introduced reverse mentoring. Representatives from the employee network groups speak to the board about their issues. It has opened the eyes of senior management"

Joanna Hindle, Turner & Townsend

network groups, across areas of diversity from race to LGBTQ+, were key to developing this and will help us evolve it as we move forward. They've challenged us as a company.

Our 'Let's Talk' round tables have enabled us to understand what are the barriers to inclusivity at Turner & Townsend. One of the most powerful statements to come out of one round table was: "You need to turn empathy into action." From this we introduced reverse mentoring. Representatives from the network groups speak to the board about their issues. It has opened the eyes of senior management.

Our anonymous quarterly employee engagement survey has a high participation rate of 81%. It covers 12 drivers of engagement - one of which is D&I - and we have had great feedback on how people are feeling. It gives staff a voice, and when they see action they feel they are being listened to.

How do you take care of staff wellbeing?

It's always been important, but in the last 16 months it has challenged employers. We encouraged everyone to have open and honest conversations with our 'Are you OK?' campaign.

And we encourage senior leaders to show some vulnerability when interacting with staff. Regardless of what level you are at you will have struggled at some point during the pandemic. So by showing that vulnerability you show you're human and in my experience people will open up about how they are feeling.



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Job spotlight Lisa Leather Building safety manager, Trafford Housing Trust



Public service

LISA LEATHER HAS JUST BEEN APPOINTED TO THE VITAL NEW ROLE OF BUILDING SAFETY MANAGER AT TRAFFORD HOUSING TRUST

Tell us about a typical day in your job?

One of the reasons why I love this job is that every day is different and brings with it new challenges. One day I could be on site carrying out fire safety checks, the next I might be at a high-rise living panel meeting or working on a resident engagement strategy with other Trafford Housing Trust key stakeholders.

I also do a lot of management work, whether that is managing the delivery of fire safety training, managing performance and compliance against the BS 9997 standard, or upskilling other building safety managers (BSMs) to improve team competency.

Building safety in public housing is an ever-changing area. How do you keep your knowledge up to date? I am currently undertaking the new

CIOB Level 6 Diploma in Building Safety Management and I also participate in the building safety managers' forum set up by Trafford Housing Trust. I have a National Examination Board in Occupational Safety and Health (NEBOSH) general certificate and will shortly be starting the NEBOSH fire certificate. As more guidance on competency within the BSM role is published, this will identify other courses and areas for CPD.

Continuing to learn and develop is important to me personally, and also means that I am up to date on new developments in building and fire safety in what is a constantly evolving role.

What positive changes have you seen?

I was previously building safety contracts coordinator at the trust and have over 12 years' experience working in housing and project management, including supporting and working closely with customers on building and fire safety. This helps me to prioritise and always put the customer first.

I am also really pleased to see the housing association sector pull together to share forums and best practice: I have never seen HAs come together in such a collaborative and supportive way before, and it feels like part of a real sea-change and progression.

The safety of our customers is our number one priority, and I am confident that by building on the trust's sectorleading approach to fire risk management we can continue to put them at the heart of our building and fire safety programmes, developing new measures and methods to keep improving.



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Production values

Alex Kaitsis says motivation is the solution to construction's productivity problem



Construction struggles to retain high rates of productivity. The complex nature of the industry leads to difficulties in defining the problem and in providing

solutions. Variables include fragmentation, low profit margins, the supply of skilled labour and environmental issues.

Economists argue that a productivity rise could come from better workforce motivation. Here are four areas that could be addressed.

- Wages. There is a strong connection between productivity and salary, but it is not enough just to increase salaries as this would have a negative impact in the economy. Sustainable improvement in productivity comes when it generates noninflationary increases in wages, which means that the money added to the economy must be the result of production.
- Training. There is a link between performance and training. A well-educated workforce improves performance within a construction project in various ways.

If organisational performance is improved by arranging responsibilities to skilled people, the added value will be recognised, and the company will pay more. This will have a positive effect in the productivity cycle.

Also, if training is responsible for raising skill levels, then those receiving it should be valued more. To achieve the highest possible results, companies should not only invest in the education of their labour department, but also in the improvement of managerial staff.

- Talent management. The UK sector has a shortage of skilled workers. The industry should take steps in developing existing professionals as well as attracting new ones. Meanwhile, the age profile is rising. This will contribute to even bigger shortages. Construction should invest heavily in attracting new entrants by creating more apprenticeships and graduate jobs.
- Job satisfaction. Job satisfaction and high motivation are associated with performance at work. Studies have argued that the use of flexible working hours is significantly linked with employee productivity. Also, autonomy led to more productive periods.

Finally, the creation of a safe environment and a culture for avoiding accidents, not only contributes to job satisfaction and motivation, but also eliminates the loss of skilled labour.

By giving greater attention to the variable of people, it would be possible for firms, and by extension economies, to create an environment where increased construction productivity could happen in a sustainable way. Alex Kaitsis is a senior project manager at

Faithful+Gould.

GCR

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CIOB Community



Global Student Challenge

Future leaders face off

The final stage of the 2021 challenge is now underway

The hotly anticipated final stage of the CIOB's annual Global Student Challenge is underway as the final six teams competing for the prestigious title have been announced.

In the seventh year of the competition, in which teams act as a board of directors running their own construction company, the CIOB has

announced a truly global line-up of finalists, representing six institutes, five countries and three continents.

The top six - and the only teams now remaining of the 35 who entered - are:

- Harsa Bayanaka Universitas Indonesia, Indonesia;
- CQUNB Chongging University, China;

"The CIOB has announced a truly global line-up of finalists, representing six institutes. five countries and three

continents"

- Wonders Massey University, New Zealand:
- Eco Advance Taylor's University, Malaysia;
- Welly Construction -Wellington Institute of Technology, New Zealand; and
- Greenwich Construction University of Greenwich, UK.

Running since 2014, the challenge is a test of construction industry knowhow, taking place in stages over a number of months.

The competition challenges built environment students to run their own virtual construction company. Teams are made up of full-time students studying for a degree in the built environment.

The 'Foundation Years' stage, which kicked off in January, is where teams learn how to play the game, running a virtual construction company in a simulated environment using the MERIT software, testing out strategies and refining tactics for the competitive game.

The 'Early Years' stage began a few weeks later, with teams playing competitively with other teams around the world, making decisions that influenced the success of their companies.

You can track the success of the teams throughout the final stages of the competition by following the CIOB's Twitter feed for updates: @theCIOB.

Nottingham Hub

CPD event will shed light on **Building Safety Bill**

Hub puts changes in context

The Nottingham Hub will host an online CPD event on 5 July, where two experts will discuss the implications of the forthcoming Building Safety Bill.

Richard Glazzard and Simon Meddings from Faithful+Gould will unpick and explain the changes.

Passing through parliament now, the bill is expected to bring in massive changes, especially in the high-rise residential sector.

These will include:

- The introduction of the Building Safety Regulator - which will be responsible for implementing and enforcing a more stringent regime for higher-risk buildings and will oversee the safety and performance of all buildings;
- The introduction of a gateway process to ensure compliance;
- Greater competence requirements for all those working on higher risk buildings; and
- The requirement for a 'golden thread' of information.

This contextual overview will take place at 12 noon on 5 July. See: events.ciob.org/ehome/200224841.



NI event encourages young women to consider construction

CIOB and CITB join forces to host careers event for Women in Construction Network



As part of Northern Ireland

Apprenticeship Week in spring, the CIOB joined forces with CITB NI to host a Women in Construction Network event encouraging young women to consider a career in construction.

Talks from six successful women working in the industry covered occupations such as architecture, procurement and supply chain management, construction law, health and safety, design management and commercial management.

Opportunities to travel and progress were highlighted, as well as the fact that the industry is open to career-changers as well as those who enter from school. Pupils asked "Opportunities to travel and progress were highlighted, as well as the fact that the industry is open to careerchangers as well as those who enter from school"

questions in an interactive session and were sent follow-up information.

Twenty schools benefited from the event, either attending on the day or accessing the recording.

The CITB NI's Women in Construction Network is open to anyone working in the industry. Email karen.hunter@ citbni.org.uk for details.

Clockwise from top left: Karen Hunter (CITB); Jenna Bell (CIOB); Wendy Beatty (William & Henry Alexander); Aine McNicholl (Combined Facilities Management): Geraldine Conway (Mascott Construction); Claire McCarry (Quigg Golden); Áine Glackin (White Ink Architects): Danielle Gillespie

(Gilbert-Ash)

The CIOB **Benevolent Fund**

Notice of meeting

Notice is hereby given that the 29th Annual General Meeting of the Chartered Institute of Building Benevolent Fund will be convened via Microsoft Teams on Tuesday 29 June 2021 at 10.30am for the purposes set out below. By order of the CIOB Benevolent Fund Board, Emma McKay, Benevolent Fund manager, May 2021. Note: Under the articles of association, any corporate, non-corporate or qualifying member who has made a 'suggested contribution' to the funds of the association in the current financial year is a member of the association and is entitled to attend and vote at the meeting. Other CIOB members, who have not contributed as outlined above, may attend at the discretion of members of the association but may not vote (see note 2, below).

Agenda

- 1. Notice convening the meeting.
- 2. Apologies for absence.
- 3. To confirm the minutes of the previous AGM held on 30 June 2020 (see note 1, below).
- 4. To consider the report of the Directors and Trustees for the year ended 31 December 2020.
- 5. Any other business.
- 6. Date of the next Annual General Meeting - Tuesday 28 June 2022.

Note 1: Copies of the minutes of the previous AGM are available with the 2020 report of the Directors and Trustees, at www.ciobbenevolentfund. org.uk in advance of the AGM. Note 2: Any member wishing to attend the Benevolent Fund manager, Emma

via Microsoft Teams is asked to contact McKay (emckay@ciob.org.uk) at least 24 hours prior to the AGM, and provide an email address for joining instructions.

Glasgow

Stirling work on training for Scottish firm

Fit-out specialist **Hugh Stirling** partners with CIOB Scottish fit-out and FM specialist Hugh Stirling has become a CIOB Training Partner.

"We are delighted to be partnering with the CIOB to create a training platform for all our employees, from apprentices to directors," said managing director Chris Nugent.

"The overarching goal at Hugh Stirling is to create a learning

culture that will allow us as a company to move to the next level within our chosen markets."

The firm's 170 employees will be able to benefit from all levels of training, ranging from one-day courses to master's degree equivalents.

"Staff will be encouraged to create their own personal development plans (PDP) to ensure their learning and development needs are noted, understood and followed through," said Nugent.

"Working closely with the CIOB, we will then select the most suitable courses for the individual and this will form part of their PDP."

Nugent said the next step for the business will be to introduce aspects of coaching and mentoring for management functions.



Restoration

CBC appointed to restore former workhouse in Enniskillen

QMAC Construction will create flexible workspace and heritage centre in 19th century listed building

A long-established CIOB Chartered

Building Company (CBC) has been appointed to carry out a £2m+ project to restore the Category B2 listed Enniskillen Workhouse building in County Fermanagh, Northern Ireland. Funding is being provided from the National Lottery Heritage Fund.

OMAC Construction will create a "flexible and dynamic" workspace to support emerging businesses and entrepreneurs within the 465 sq m building, which is currently 'at risk' and in need of urgent repair.

A heritage centre will be created to tell the story of the former workhouse, which once housed up to 1,000 people.

The existing building contains accommodation over two storeys with ancillary areas located within the constraints of a rear yard.

The work will include the removal of unsympathetic additions and previous alterations as well as the construction of a new glazed lobby, a two-storey lift and a stair block within the rear yard. The internal space will be reconfigured and refurbished to provide accommodation for an enterprise hub in partnership with South West College.

New facilities will comprise a reception, an enterprise hub with multiple workstations, heritage gathering spaces, heritage interpretative areas, breakout spaces, meeting spaces, circulation areas, external courtyards, toilet



Above: Rhona Quinn, managing director of QMAC

Above right: New facilities will be integrated into the rear courtyard

"We view this project as particularly important as it involves the transformation of a building which is recognised as a central part of the history of Enniskillen" **Rhona Quinn FCIOB**



and kitchenette areas, plant space and ancillary accommodation. On completion the internal floor area will be approximately 500 sq m.

During the construction phase, South West College will deliver a heritage education and skills programme to train construction workers in heritage skills. Apprentices will also complete an NVQ Level 3 qualification in Heritage Skills.

Rhona Quinn FCIOB, managing director, said QMAC Construction is pleased to be working on the "exciting" project. "We view this project as particularly important as it involves the transformation of a building which is recognised as a central part of the history of Enniskillen," she said.

Yorkshire

Winning students presented with trophy

Leeds college takes award for Student Challenge

Following the Yorkshire Student Challenge in November 2020, the winning team from Leeds College of Building received their trophy in a small outdoor presentation. The team submitted a thoughtful and insightful solution to the challenge set, presented in a professional format.

Leeds College of Building's winning team receive their trophy



Training

Local businesses join forces to inspire apprenticeships

Apprentice open day at Knowsley's INS-pire Academy attracts interest



Fire restoration specialist The

Forshaw Group (TFG) was one of several businesses supporting an apprentice open day at the INS-pire Academy in Knowsley, Merseyside, in the spring.

This was TFG's second such event but its first to be held in person since the start of the pandemic.

The open day at Knowsley's INS-pire Academy A number of local employers met up with 22 youngsters from All Saints Catholic High School who have expressed an interest in pursuing apprenticeships in the construction sector, to explain opportunities, demonstrate skills and and set expectations for future roles.

TFG's Mike Dryhurst, the first apprentice to join the national INS-pire Academy in 2014, shared his story and training achievements.

All Saints headmaster Tony McGuinness highlighted the importance of businesses working with each other and local schools to secure employment opportunities for the skills required for the future.

TFG managing director Liam Hanlon MCIOB said 'We are proud to support the brilliant work being done by all involved towards the values and virtues that we believe in for the future of our businesses, industry and wider community. The INS-pire open day showed a lot of interest, energy and emotion with what we are achieving."

Career

Fellow's passion for training drives new CIOB partnership

lan Rodgers of MTX wants others to share what he has learned



MTX Contracts, a specialist healthcare building firm in Manchester, has become a CIOB Training Partner, driven by one of its directors, lan Rodgers, and his own journey to fellowship.

Rodgers (pictured) left school with no qualifications but worked his way to FCIOB status, which he secured in 2019.

"I always think that if someone like me who left school with no qualifications and is dyslexic and was always called thick at school by the teachers can achieve a good career and gain professional qualifications then anyone can. Construction and the CIOB can give you this if you work hard," he said.

After leaving school he became an apprentice joiner then studied for his ONC in construction – when his dyslexia was identified. Rodgers moved into site management and enrolled on an evening course to gain his certificate for construction management. He gained ICIOB accreditation before moving to a larger firm and MCIOB status.

"I tried to champion this within the business and got them to sign up with the CIOB as a training partner. This also allowed me to try and develop some of the younger members of the team to get to MCIOB while allowing me to gain my FCIOB.

"To see younger people gain further education and to see them get professional qualifications was better than changing the skyline."

He is now using that passion for staff development at MTX, which is trialling routes for staff to gain MCIOB accreditation.

One to watch

James Robinson SMCIOB

Graduate civil/structural engineer, Invvu



Why have you chosen construction as a career? When I was 15 years old I did work experience in a design consultancy. I

loved this experience, and it cemented my desire to become a civil engineer and work in construction. From there I aimed for studying a master's in civil engineering at university, and never really looked back. I'm now in my fourth year studying towards an MEng in Civil Engineering (with a placement year) at the University of Bath and thoroughly enjoying it.

You have worked while studying for your degree. How have you found that? Challenging at times, but generally manageable and rewarding. I did my full-time paid placement year at Invvu and, off the back of this, I now work remotely part-time for them. I cannot express enough how grateful I am to Invvu for the opportunity to do so; it's fantastic to continue earning some money to supplement my student life in a way that is also relevant to my chosen career path.

You are active with the CIOB, including the recent student festival. Why?

I became properly aware of the CIOB's involvement in the industry during my placement year. I attended lots of Maidstone CPD events – I was living quite far from home so it was nice to get out, network with new people and enjoy an interesting talk. I was subsequently invited to become a committee member on the Maidstone Hub Novus committee. It's nice to play an active role in supporting fellow students.

What role would you like?

I'd like to start out as a civil/structural engineer for a design consultancy and then work towards securing chartership status with the ICE and the CIOB. I can see myself taking up a management role at some stage.

How do you spend your spare time? I'm a huge football fan. I currently play in a local six-a-side league and for the university's Architecture & Civil Engineering department. I've always loved cycling as well, and I used to cycle competitively too.





Education

Learning at work

Chartered Building Company Pexhurst considers employee training and education as vital to its growth. Four team members share their learning and development experiences

From left: Dan Beadle, Ashley Williams, Charlie Hazeltine, Nick Tagliarini









"Being able to be on the job and learn at the same time has developed me to understand the concepts I have studied and see them applied in real-life scenarios"

Charlie Hazeltine, Pexhurst

Nick Tagliarini, director at Pexhurst worked full time while he studied for his master's in strategic marketing - a feat that was challenging but rewarding, he says.

"It was challenging, especially due to a lot of the programme being delivered over weekends, so balancing home life with work and study took careful planning. But it was one of the most rewarding experiences in my education journey," he says. "I had the opportunity to meet people from all different backgrounds, experiences, and working together to achieve the qualification was really enjoyable."

Charlie Hazeltine, assistant site manager, is working towards his Level 4 HNC in Construction and the Built Environment. He says learning at work is key to developing his career.

"Learning at work has helped to develop my skills at a faster pace than the academic route. Being able to be on the job and learn at the same time has developed my skills and taught me how to overcome real-life problems. These are the lessons I take from job to job.

Another assistant site manager, Dan Beadle, is working towards a Bsc (Hons) in Construction Management and says learning at work has enable him to "develop a growth mindset".

"The combination of learning in my degree and real-life experiences in the workplace has not only developed my theoretical knowledge but planning and communication skills.

Learning while working has enabled me to understand the concepts I have studied and see them applied in real-life scenarios," he says.

Ashley Williams, also an assistant site manager, is working towards his NVQ Level 4 in Construction Site Supervision. He says that employer support is key.

"Working for an employer that supports and guides you in the right direction regarding learning and education is vital, not only to help build competence and knowledge but also to help improve on a day-to-day basis. And having a colleague you can turn and talk to whenever needed is crucial. This plays a massive part in confidence-building."

FELLOWSHIP FIRST FOR BARRATT MANAGER



Danielle Dasgupta. senior site manager with Barratt, has achieved Fellowship with the CIOB, the first employee in the firm to do so.

Posting on LinkedIn, she said: "I may not have a fancy job title nor have built the next skyscraper in London but working hard to help the next generation of managers, influencing diversity and inclusion and driving better quality are all areas I'm passionate about and am working hard in to make a difference.

"I'm honest and transparent with my mentees as I want the best for them, I want them to be resilient and I hope they don't have to experience the doubts and setbacks I had through my 20s.

"Key drivers for me start with caring about your job, trying to add value to your company and bringing out the best in people. I'm just grateful that I work for a company that trusts me, provides me with a variety of challenges and responsibilities and, most importantly, respects me."

Competition

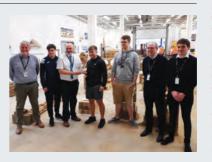
North-east students vie for top spot in challenge

Hartlepool scoops Winning Team in Newcastle Student Challenge

Six teams from three colleges in the north east were given a brief to be consultants for Home Group as part of the CIOB Newcastle Hub Student Challenge.

The students were tasked to build a town centre head office around the Metro line and The Strawberry pub. Each team then gave a 15-minute presentation via Teams.

Hartlepool's Team 4 (pictured) took the Winning Team prize, with Lee Newbould from New College Durham Best Leader. Gateshead College scooped Best Innovative Idea.





Campaign

Member flies the flag for neurodiversity

Dyslexia brings a different way of thinking that benefits site teams

Dorking Committee member Luke

Birkett has brought together the British Dyslexia Association (BDA) and the CIOB with a view to running a campaign to create awareness of dyslexia in construction.

Birkett, who is dyslexic, aims to create a cross-industry 'Dyslexia In Construction' platform, with industry bodies supporting and promoting all people affected by dyslexia in a positive way.

"I am trying to bring awareness to the construction industry about dyslexia, as it has not really been touched on and has a lot of potential for positive promotion," he says.

"There will be a lot of people in construction who will be able to relate to my story; I think construction is a "Because my dyslexic brain is wired up differently, my way of thinking can be very different to the rest of the team"

Luke Birkett, Dorking Hub

very common industry for people with different forms of dyslexia or similar disabilities to go into, as it can be a very practical-based industry."

Birkett believes a neurodiverse workforce has enormous benefits. "Because my dyslexic brain is wired up differently to those who don't have dyslexia, my way of thinking can be very different to the rest of the team so my thoughts and ideas are considered great contributions to different scenarios because of my thinking out of the box," he says.

Having struggled at school because his dyslexia wasn't recognised, Birkett began his career as an apprentice bricklayer and now runs his own business, Future Homes. He is by his own admission "addicted to training".

Currently studying for a doctorate in Business Administration, he has spent his career building his qualifications.

"While working my way up the construction management career ladder, I had realised that the graduate managers were stronger on paper than me from my practical background, which drove me to want to acquire as many qualifications as I could," he says.

"Even though I did not enjoy academic study, I put myself through all of the training and courses I have completed to date so I could be the best I could be at what I do." He achieved his MCIOB status four years ago. ■ Look out for announcements about the CIOB/BDA collaboration later in the year.

Appointment

New fellow heads up Malta authority

Karl Azzopardi faces sustainability challenge in new board role

The Maltese government's aim to reform and modernise the construction industry on the island took a step forward in spring with the creation of the Building and Construction Authority board and the appointment of Karl Azzopardi, who recently achieved his CIOB fellowship, as its CEO.

Azzopardi began his career in construction during gap year before he was due to go to university to study pharmacy. Working at the Central Bank of Malta while an annexe was being built, he got involved with the project's management and was hooked. Since then he has managed large-scale projects in public sector, hospitality, industrial and residential.

Speaking to CM about the industry in Malta, he said: "Change is in its infancy but good groundwork has been done. The creation of the new Building and Construction Authority by the government as a regulator to spearhead change is a sign of goodwill towards the upscaling of the sector, with the focus on climate change facets issues as well as the importance of education and addressing skills gaps specifically within developers, contractors and professionals."

What changes does he hope to see in the industry? "First and foremost, more synergy between the stakeholders. The sector is fragmented and priorities and interests are not always aligned. Secondly, the need to make a huge leap within the type of buildings we develop, i.e. we need to look at sustainable buildings, buildings that are near to zero energy performance (aligning with environmental targets), quality of life/comfort.



"Thirdly, education and continuous development within the sectors of contractors as well as professionals. The need to move on from traditional contracting regimes to one that looks at performance specifications and letting the market provide the solution... the need to embrace new technologies and shift from traditional in-situ construction to modularity, productions off site and agility in buildability... take time to design but no time to construct!

Azzopardi says the pandemic highlighted opportunities for the industry. The island was not heavily impacted by covid-19 but with an increased amount of working from home resulting in reduced traffic and increased efficiencies, this contributes to its carbon zero target aims. "However, this means that office design may potentially change as well leading to new design criteria," adds Azzopardi.

When not tackling his "big challenge ahead", Azzopardi enjoys his role as a family man.

"Together with my wife we happened to be blessed with a young girl, Valentina, who we adopted and who changed our life completely. She is going to be four in summer and spending time with her gives me a total different dimension to life."

Below: The nine-storev double-decker hotel complex



Me and my project

Double whammy

Steven Vaux, CMYA nominee and project manager at Morgan Sindall, on his latest project - the UK's first double-decker Marriott hotel

This project – building a major mixed use development including two new hotels in the centre of Slough, has meant navigating logistical hurdles, ranging from socially distanced working and availability of materials, through to managing the final fit out and ordering bed linen for all 244 rooms to ensure the hotel could open on time.

The development was delivered through Slough Urban Renewal (SUR), a joint venture between Slough Borough Council and Muse Developments. The council is the two new hotels' long-term investor, with Cycas as their operator and franchises with Marriott International for the Moxy and Residence Inn brands.

The new site forms part of a £48m regeneration of the town centre,



CV: Steven Vaux Steven Vaux has been a senior project manager for Morgan **Sindall Construction** since 2018.

He graduated from the University of Plymouth in 2004 with an HND in civil engineering and has 16 years of construction management experience and a strong portfolio of involvement in over 15 projects across a range of sectors.

The Slough Moxy hotel development has also seen his first nomination

transforming the iconic former library site into a mixed-use community hub. Featuring an ambitious double-decker design by Franklin Ellis Architects. the nine-storey complex sits alongside shopping and restaurant space to give a view of Windsor Castle and the London skyline.

Morgan Sindall Construction took on the unusual task of overseeing the entire fit out of the hotel accommodation. I found myself buving everything from coffee mugs to bed linen to ensure the customers could meet their opening dates.

Being careful to adhere to Marriott International's strict interior design branding standards, the project team also built two model rooms to showcase the new fit out. We had concrete still being poured on the eighth and ninth floors, while on the first floor making the beds!

There were three big inspection dates planned throughout the build programme; we switched one of those to completely virtual checks so we were speaking to the end user in Italy and using laptops and iPads to show them the rooms. This was the first Marriott hotel to be signed off virtually.

As the build progressed, the team identified opportunities for more sustainable design features. Photovoltaic solar panels were installed to the roof of the building, and the building's air circulation is improved by combining a mix of mechanical air-handling units (AHUs) and mechanical ventilation with heating recycling units (MVHRs) to minimise energy use where possible.

The project was originally designed to receive a BREEAM rating of Good but thanks to these strategies the building exceeded expectations to achieve Very Good.

Offsite construction methods were also used to help us overcome

"I found myself buying everything from coffee mugs to bed linen to ensure the customers could meet their opening dates"

Steven Vaux, Morgan Sindall

challenges with the room layouts. Given their double-decker placement, a careful design blueprint had to be followed to facilitate the size difference between the two brands, with the Residence Inn's longer-stay rooms 150% larger than the Moxy units. This was complicated by the installation of a large riser in the middle of the building - a crucial component in the electrical and wiring system.

We used prefabricated bathroom pods, which gave us factory-accurate measuring and reduced waste. Each pod has a full three-function en-suite so they took up a minimal amount of space and could be retrofitted into some tricky alcoves to keep the Residence Inn and Moxy rooms aligned atop one another.

Their use also gave us a faster fitting time and lower carbon emissions as fewer team members had to travel to site to carry out installation tasks like tiling; it was just an endless list of added benefits and something we'd look at again for multi-room projects.

The hotels were handed over on budget and two months ahead of schedule in March 2021.





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🛗 Diary dates

Highlights of the CIOB Calendar for the coming month. All events are online webinars unless otherwise stated

Sustainable Logistics for the Construction Industry

6 July, 4-5.30pm

In this CPD event we will look at cargo bikes and how they can be used successfully within the construction industry.

Michael Barratt, development impact assessment manager with Transport for London (TfL), and Ryan Healey, senior project manager at Structure Tone, will talk about the collaboration involving TfL, Southwark Council, Mace and Sir Robert McAlpine to set up strategies to raise construction standards at the Bankside development cluster area in London.

One initiative investigated alternative deliveries. A two-week trial took place where all three constructors shared a loaned cargo bike for a variety of activities, such as collections from Dulux.

There will also be a Q&A session. Contact: Estreames@ciob.org.uk

Demolition and Asbestos within the Construction Industry

14 July, 4-5.30pm

The Exeter Hub's CPD on the demolition sector will deliver an in-depth look into the sector as well as the part it plays within the construction industry. It will also look at asbestos within the sector and how it is managed and the risks involved.

This will include identifying and locating asbestos, the different types, what to do if you find asbestos and the legal requirements around it. Contact: Estreames@ciob.org.uk

Mental Health & Wellbeing -Mindfulness CPD

20 July, 6-7pm, London

Stress and being unfocused during working hours can affect all areas

Our guest speakers will discuss the benefits of mindfulness, its origins from the East through religious and spiritual institutions. They will also provide observations on identifying micro aggression and bullying in the workplace, as well as tips to reduce stress on our bodies and minds. Contact: ABernal@ciob.org.uk

Lean Construction - Benefits and Challenges of Lean in Design

21 July, 3-4pm

Lean Construction is a team-led effort that, when successfully

implemented and sustained, provides the means for workers to become more efficient and improve the quality of their work.

Because a lean programme requires continuous problemsolving and improvement, it can't be instigated by an outside party and then thrust upon an unknowing group of people.

Peter Lonergan, technical manager at Ardmac, will present the benefits and challenges of implementing a lean in design approach.

In his presentation he will look at ways in which Ardmac has created added value for customers. He will also discuss how to avoid some of the potential challenges by using the Early Contractor Involvement model.

South Region: Maximising your CIOB **Chartered Membership**

21 July, 12-1pm

As a Chartered Member of the CIOB please join us to explore:

- the benefits of joining and opportunities; and
- the further tools and resources available to you.

Julie Putman, CIOB regional manager - south, will be joined by committee members of the CIOB south hubs to answer any questions. You may also wish to join our LinkedIn group.

Contact: Estreames@ciob.org.uk

Belfast Annual Dinner

3 September, 7-11.30pm

CIOB Belfast is delighted to invite you to attend its 2021 Annual Dinner on Friday 3 September 2021 at new venue Crowne Plaza Hotel, Shaw's Bridge, Belfast.

We are also delighted to welcome back popular UTV Live sports editor and presenter, Adrian Logan (Logie), who will act as compere for the evening and provide some lively entertainment.

This will include a live interview with our after-dinner speakers Wilma Erskine, former secretary manager of Royal Portrush and driving force behind the Irish Open, and Chris Henry, the former Irish rugby union player.

Annual Dinner - Newcastle

24 September, 6.45pm-1am Join industry colleagues and fellow professionals for a night of fine dining, entertainment and networking in the heart of Newcastle.

This year we are pleased to announce John Barnes as our guest speaker. A table of 10 costs £700 + VAT and individual seats are £75 + VAT. Sponsorship packages are available.

Contact: dmoore@ciob.org.uk

For a full list of events and to register visit events.ciob.org.

CIOB atom



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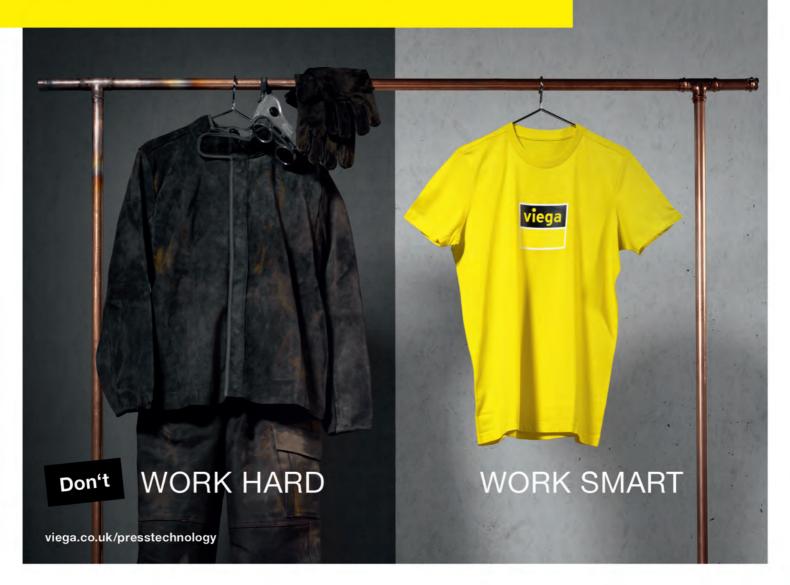
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