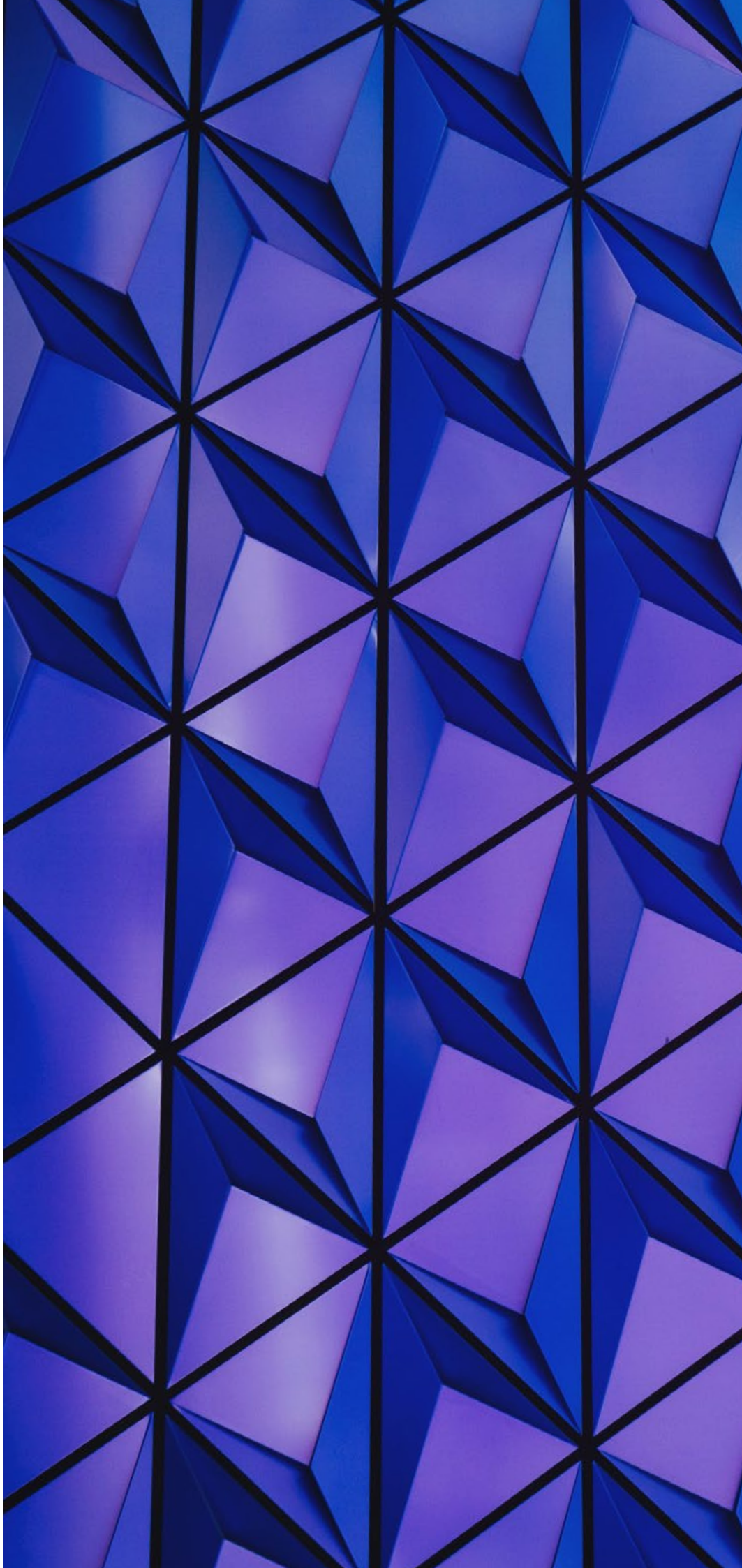
Architectural Technology Journal



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Editor
Adam Endacott
editor@ciat.global
Advertising
atpromotions@ciat.global
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CIAT, 397 City Road,
London, EC1V 1NH UK
architecturaltechnology.com

Online
/Chartered Institute of Architectural Technologists
@CIATechnologist
/CIATechnologist
/CIATechnologist
/CIATechnologist

President
Eddie Weir PCIAT
president@ciat.global

Chief Executive
Tara Page
t.page@ciat.global

Practice & Technical Director
Diane Dale
d.dale@ciat.global

Education Director
Dr Noora Kokkarinen
n.kokkarinen@ciat.global

Membership Director
James Banks
j.banks@ciat.global

Design
Darkhorse Design
ciat@darkhorsedesign.co.uk
+44(0)20 7323 1931

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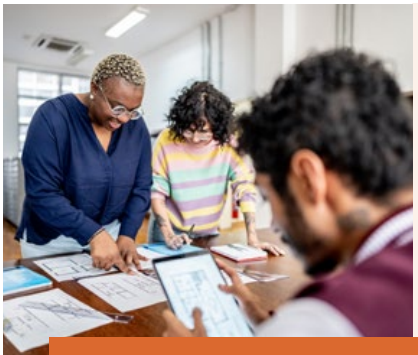


CIAT

Editor's welcome

Spring 2024 – the first few months of the new year have been and gone already and here is the first issue before we hit edition number 150 in summer!

Last week we hosted an engaging and informative panel discussion at Futurebuild entitled *Unravelling the Golden Thread* on 5 March. Chaired by Dan Rossiter FCIAT, Vice-President Technical, the Panel unravelled the golden thread to identify some of the key principles as well as what design practices should be doing to ready themselves to meet these principles. With thanks to Chartered Members Spacy Bondarenko MCIAT and Gareth Sewell FCIAT who made up the remainder of the Panel.

Following a visit to The National Self Build & Renovation Centre in Swindon by the Communications Department, along with Wessex Regional Chair, Usman Yaqub FCIAT, the Institute will now be included in the 'Professional Services' hub along with its own stand from March 2024. Alongside this comes additional promotion of exposure in the 'Ask the expert' days and other features. We hope this will add to increasing exposure and promotion of the profession and discipline.

Where It's AT: The Podcast! The first podcast recorded for this series was released as a pilot to the membership to receive feedback and test the format with its target audience in December 2023. The two-part podcast, *Will buying a drone or laser scanner make you a better designer?*, features Dan Rossiter FCIAT talking to Dr Andrew Evans, Senior Product Manager, Topcon Positioning Systems, on the pros and pitfalls of data driven design. Feedback was positive with some useful responses on its format utilising AI as the host. We will be proceeding with the podcast series with modifications to make it accessible and useful to stakeholders. Watch out for this exciting series!

The AT Awards are open for 2024 and another chance for your opportunity of recognition. Have a look at page 16 and see what category you could enter or submit a nomination for.

It is great to see so many putting themselves forward as candidates for the Honorary Officer elections and for the role of President Elect. You can find all the manifestos starting on page 40. Please do take part in the Hustings and make a note of these dates for your diary. 24 June will be in person at 397 City Road and there will be one online on 11 July. These are great opportunities for you to listen to, and question, all the candidates standing.

I end with an apology – on page 33 of the winter issue – the Christmas gremlins crept in and the first paragraph was from a previous article and should not have appeared. This was unfortunate but we were able to correct the online version. Apologies to Joan Ferrer, Commercial Director UK & I RE at Ravago Building Solutions whose article it was.

Until the next issue, bye just now.

Adam Endacott
Editor

Dan's top three for 2024

Words by Dan Rossiter FCIAT, Sector Lead, BSI and Vice-President Technical

As the UK's national standards body, BSI publishes a plethora of standards to support those who operate within the built environment. Here, I highlight three in particular.

This year, the standards I have chosen are reflective of what appear to be the key themes which currently permeate the built environment: digital transformation, safety, sustainability and innovation.

BS EN ISO 19650-6 (Health and safety information management)

Those of you who either 'follow' the ISO 19650 series on our Standards Develop Portal (or follow me on social media) will be aware that a draft of BS EN ISO 19650-6 was made available for comment over Christmas and the New Year. The publication of BS EN ISO 19650-6 later this year will not only complete the transition of the PAS 1192 series to international standards, but also introduce much needed guidance relating to the information management of health and safety information. Broadly, the standard will cover three areas:

1. What is health and safety information, and how to structure this information;
2. How to incorporate requirements relating to health and safety information into tender documentation like the exchange information requirements (EIR); and
3. How BS EN ISO 19650-6 augments the existing process within BS EN ISO 19650-2 and BS EN ISO 19650-3.

Given all the work that is happening in the UK in relation to the Building Safety Act, and the requirements to store fire and structural safety information digitally as part of The Golden Thread, I have no doubt that BS EN ISO 19650-6 will be a key standard for 2024.

PAS 8700 (Modern Methods of Construction)

As we have observed the news over 2023, Modern Methods of Construction (MMC) have not fared too well. With several MMC organisations filing for administration as well as issues with RAAC, confidence in the technology appears to be at a low.

To inspire confidence as well as increase the quality of homes constructed using MMC, the Department for Levelling Up Housing and Communities (DLUHC) have sponsored the production of PAS 8700. Focused on MMC-related process and performance, PAS 8700 specifies requirements, relating to key parts of the asset life cycle, for the use of MMC. In doing so it considers key concepts such as Design for Manufacturing and Assembly (DfMA) and is aligned to the Government's MMC Definition Framework.

My hope is that the publication of PAS 8700 will provide the direction and confidence needed to catalyse MMC. Could 2024 be the year of MMC?

Flex 350 (Lower Carbon Concrete)

Those of us who attended trade shows last year will have no doubt seen the ever-strengthening presence of low carbon technologies and initiatives. A highlight for me was Zero and the publication of their *Zero Carbon Top Trumps*.

BSI continues to recognise the importance of supporting our endeavours to meet our climate targets. A flagship publication last year was PAS 2080, which was revised to consider both building and infrastructure carbon management. This year, I am pleased to highlight another standard which has been sponsored by the Institute of Civil Engineers (IEC), Flex 350.

Flex 350 provides recommendations for the assessment and use of alternative binder systems (ABS). In doing so, it provides the good practice needed to utilise systems such as geopolymers or alkali-activated concrete.

Given the speed of development around lower carbon concrete, the use of a Flex standard will allow for rapid iterations to keep the standard in-line with nascent thinking, as well as initiatives such as the ICE low Carbon Concrete Routemap. Having only published last October, work is already underway to deliver another iteration in 2024.

Bonus: BS 8670-1 (Building Safety Competence Framework)

Finally, it would be remiss of me to not mention the work currently underway to formalise Flex 8670 into a British Standard. Having undergone several iterations whilst the Building Safety Act and its associated instruments and amendments were published, Flex 8670 is now being formalised. Through formalisation, the good practice within will now be maintained by a BSI committee, CPB/1.

Like many of our innovative standards (e.g. PAS 55 [asset management] and PAS 1192 [building information modelling]), Flex 8670's good practice will be subsumed into our national portfolio. Hopefully this transition will mirror the acceptance of the building safety competencies into business as usual.

...and there we have it. To note, these are just some of the standards that BSI are publishing this year to support the built environment sector, and the wider UK economy. To discover what other standards relating to the built environment are being published this year, keep an eye on our web page, our social media channels, and events such as our monthly built environment webinars.

The digital revolution: Enhancing construction site reporting efficiency

Words by Rob Norton, UK Director, PlanRadar

In today's fast-paced construction landscape, the need for efficient, accurate and streamlined reporting has never been more crucial. As construction site supervisors juggle multifaceted projects, timelines and stakeholder expectations, traditional methods of reporting are riddled with inefficiencies. Handwritten notes, manual data collection and decentralised record management are time-consuming and prone to errors. The rigidity of conventional reporting templates further compounds these challenges. For construction site supervisors, these outdated methods translate to delays in decision-making, communication breakdowns and, ultimately, costly project delays.

Digital platforms are emerging as game-changers for project reporting, promising to revolutionise how supervisors handle site information. Yet, many construction firms remain tethered to traditional reporting methods. A 2020 study by the Royal Institution of Chartered Surveyors[1] found that while over 70% of construction firms recognise the importance of digital transformation, a third allocate less than 3% of their total turnover to digital technologies. This reluctance to invest in digital solutions means many companies are missing out on the myriad of benefits digitalisation offers, such as streamlined workflows and cost savings, which this article will explore.

The promise of digital platforms

One of the most significant advantages of digital platforms in construction is the unparalleled efficiency they introduce. By eliminating the traditional burdens of manual

1 https://www.rics.org/news-insights/wbef/connected-construction-industry-digitalisation-in-numbers#:~:text=Only%203%25%20of%20firms%20use,no%20digital%20solutions%20at%20all.

data entry, these platforms drastically reduce the risk of clerical errors. This streamlined approach to reporting, combined with the capability for real-time data capture, empowers supervisors to instantly address discrepancies, thereby averting potential project delays.

Another standout feature of digital tools today is their centralised data processing. Digital platforms democratise information, ensuring all stakeholders have immediate access to the latest information. This transparency fosters trust, facilitates collaboration and ensures all project stakeholders are on the same page. Decision-making is more collaborative and informed, which will limit any errors that may lead to unnecessary rework.

With the advent of cloud-based solutions, data can also be backed up in real-time, ensuring that crucial project information is never lost and can be accessed any time, any place. This eliminates the tedious task of combing through multiple documents and the confusion that arises from conflicting data points. Embedded features that address data security can also ensure sensitive project information remains protected from prying eyes.

Recognising the unique nature of each construction project, the most effective platforms offer customisable reporting templates and integrate with other software solutions. This adaptability ensures that supervisors can rapidly produce reports and effortlessly tailor them to meet the specific needs of each client, expediting a laborious task for significant time savings.

More than efficiency

Technology is not the only thing evolving in UK construction. In light of expanding building safety legislation and sustainability reporting in the UK, accurate and timely record management is no longer simply a question of efficiency. Burgeoning requirements, such as the Building Safety Act and recent changes to Part L building standards underscore the importance of robust construction site reporting. Site supervisors must have their house in order to pass rigid safety assessments. Case in point, the recent introduction of Gateways 2 and 3 of the Building Safety Act emphasises the need for rigorous checks and documentation at various stages of the construction process for high-risk residential properties. This scrutiny could soon shift to the wider industry.

By leveraging these platforms, construction site supervisors can ensure they are not only meeting the legislative requirements but are also equipped to provide evidence of compliance to provide a comprehensive digital Golden Thread throughout projects. With a heightened focus on safety and accountability, the ability of digital tools to provide real-time, traceable and centralised documentation has become non-negotiable to safeguard projects from potential legal and operational challenges.

Importantly, evidencing compliance with sustainability and safety often solicits photographic evidence. The sophisticated photo management capabilities of digital platforms stand out here by eliminating the disarray commonly associated with traditional photo management. Where images and videos might have been scattered and hard to locate in the past, digital platforms allow them to be geo-tagged and pinned on digital construction plans using a mobile device and shared in real time throughout the compliance assessment process. These photos can also be systematically organised by project and seamlessly integrated into professional reports.

The way forward

The construction industry is at a crossroads. On one hand, the benefits of digital platforms are undeniable. On the other, there is a palpable hesitation among many firms to fully embrace these digital solutions. However, as the industry continues to evolve, the shift towards digitalisation is not just inevitable – it is imperative.

For construction site supervisors, the message is clear: digital platforms offer a way to streamline operations, improve communication and enhance overall project efficiency. By leveraging these platforms, supervisors can simplify their reporting duties, making it easier to handle multiple projects at once and speed up all documentation processes. Ultimately, going digital empowers construction teams to set the gold standard for excellence in reporting and address the challenges posed by traditional methods head-on, ensuring projects are delivered on time, within budget, and to the highest quality standards. ■

The role of plumbing and heating in successful retrofit and renovation

Words by Richard Bateman, Product Marketing Manager for Plumbing and Heating, RWC

As the UK progresses on the road to net-zero, this article explores the importance of retrofit and renovation – and why heating and plumbing installers have a leading role to play.

There are more than 30 million homes in the UK and, together, they are responsible for around a fifth of all the country's emissions, with the majority – around three quarters –generated by home heating. This makes the decarbonisation of homes key to overarching ambitions of achieving net-zero by 2050.

In practice, this places installers at the heart of activity to curb emissions and improve the efficiency of homes – both through the adoption of low-carbon systems and innovative plumbing and heating technologies.

Here, we will consider the scale of the challenge that lies ahead and the role of plumbing and heating professionals in moving the UK towards a greener future.

Why the answers lie in retrofitting and renovation

With an average of 170,000 new homes being built each year in the UK, the reality is that the majority of the homes people will live in by 2050 are already built. With millions of these properties already falling behind in terms of energy efficiency, the focus must be on retrofit and renovation to bring them up to standard.

Millions of British homes currently do not meet the requirements for Energy Performance Certification 'C'. The impact of this rating is two-fold. Firstly, occupants

of under-performing buildings may face higher energy bills alongside reduced levels of comfort. Secondly, to compensate for a property's heat loss, heating systems will likely be working harder and having a greater negative impact on the environment.

In practice, ensuring existing homes meet EPC 'C' standards is essential for the UK to achieve its net

zero ambitions. To achieve this, the renovation of these properties and the retrofitting of effective plumbing and heating systems – from underfloor heating through to heat pumps – to improve efficiency and reduce heat loss, will put the UK on a more sustainable footing.

The role of installers and the solutions facilitating retrofits

To make the vision of a more sustainable future a reality, installers will play a critical role. Working directly with property owners, plumbing and heating engineers are the experts on the ground, assessing properties to identify the most suitable solutions, and installing them correctly to deliver the greatest impact.

With millions of homes across the country in need of energy efficiency upgrades, tried, tested and trusted solutions will be used heavily to unlock the best results. This approach allows homes to benefit from proven systems, minimising the disruption of adoption while delivering long-term results.

Underfloor heating (UFH) is one solution that can be installed to improve efficiency and comfort within a property. Compatible with new and old heat sources, UFH operates effectively at much lower temperatures than traditional radiator systems to reduce energy demands while sufficiently heating a home. Its positioning beneath floors also creates a much larger surface area, enabling UFH to heat spaces quickly and more effectively, improving comfort and efficiency.

For renovation projects, low-profile UFH systems – such as JG LowFit – are a proven solution, enabling installation over existing subfloor structures. For screeded floor applications, castellated panels support easy installation, whereas for timber floors, foil and mesh panels can be used to run pipes efficiently. These options equip installers with the systems and versatility to upgrade home heating systems and unlock greater levels of efficiency.

Aside from retrofitting sustainable heating systems, installers can also use pipes and fittings that contribute to greater levels of system efficiency. Plastic solutions, such as those within the JG Speedfit range, can strengthen plumbing and heating systems to unlock greater performance, while fewer connections reduce the potential for problems such as leaks – which can compromise overall efficiency. Featuring innovations such as push-fit technology, these solutions can also reduce the complexity of upgrading systems, simplifying jobs for installers.

The future of home heating

While installing more sustainable technologies will move homes towards a greener future, it is important to keep in mind what the future of home heating could look like. Here, installers can depend on manufacturers to lead the way through product innovation, ensuring systems and solutions comply with changes to the country's infrastructure.

Today, more than 80% of homes are connected to the gas network. To achieve net-zero by 2050, a shift away from gas to more sustainable energy sources will have the greatest impact overall – and the transition is already underway.

Thousands of homes have already adopted heat pumps, equipping them with a more sustainable heat source and cutting emissions at the point of use. Alongside the uptake in heat pumps, hydrogen looks set to replace natural gas in the coming years, with trials taking place in various locations across the UK. In the short-term, a natural gas-hydrogen blend is anticipated to cut emissions by reducing gas consumption by around 20%.

While these broader changes will have a direct impact on homes in the decades to come, they are just one part of the solution to a greener future. The changes being made by installers today – from installing UFH through to maximising system efficiency – are delivering tangible benefits for homeowners, including greater levels of comfort and cost efficiency. ■

To discover the plumbing and heating systems that are underpinning home efficiency for the future or discover how RWC are supporting installers through its family of brands including JG Speedfit, JG Underfloor and Reliance Valves, visit rwc.com/uk

All about The Spine

Words by Liam Briggs MCIAT, Chartered Architectural Technologist, AHR

Issue 148 described the widely successful North West Regional Conference held last October, where members and affiliates heard from the Institute's President, Eddie Weir PCIAT, former President, Kevin Crawford PPCIAT MCIAT, and a fantastic array of professionals and members across the North West Region. This is the story behind the award-winning building that provided the backdrop. An in depth look at The Spine. Located in Liverpool's ever expanding Knowledge Quarter, and the northern home for the Royal College of Physicians (RCP).

Founded by a Royal Charter from Henry VIII in 1518, the Royal College of Physicians of London is the oldest medical college in England, prior to its foundation, medical practice in England was poorly regulated and lacked formal training and knowledge. The college was set up to provide a pivotal role in raising standards and shaping public health. For the first time in their history, The Spine will provide RCP with a significant presence outside of London.

RCP said "Our presence in Liverpool helps RCP to become more involved in the health of the local community, supporting one of our major policy initiatives to reduce health inequality. It provides an opportunity to become involved in regional public health research that could contribute to healthier lives, reduce multiple morbidities and health inequality, working closely with existing organisations such as the Northern Health Science Alliance, local health commissioners and providers." (RCPLondon)

The client's brief, 'people will feel healthier when they walk out of the building than when they walk in' formed the philosophy behind AHR's design approach to The Spine, which is one of the few certified WELL Platinum buildings in the UK.

The WELL Building Standard is a performance-based system for certifying and monitoring the built

environment, its connection to user health and wellbeing. When compiling the WELL Building Standard, creator, Delos Living LLP referred to much of the RCP's research. The standards consist of seven concepts – air, water, nourishment, light, fitness, comfort and mind. These concepts incorporate a total of 102 features of a building that can be designed to optimise the health of the occupants of the building and create an environment to promote a healthy and happy workforce.

Design

On the walk up from Liverpool Lime Street Station, along Brownlow Hill, penetrating through the thickness of late October fog, my first glance of The Spine was its illuminating patterned façade, which draws from the Voronoi diagram, also known as Voronoi tessellations. Influenced by the human skin, across the façade there are 23 million individual polygons, each articulated through digital modelling, which subsequently provides internal shadows reminiscent of a forest canopy.

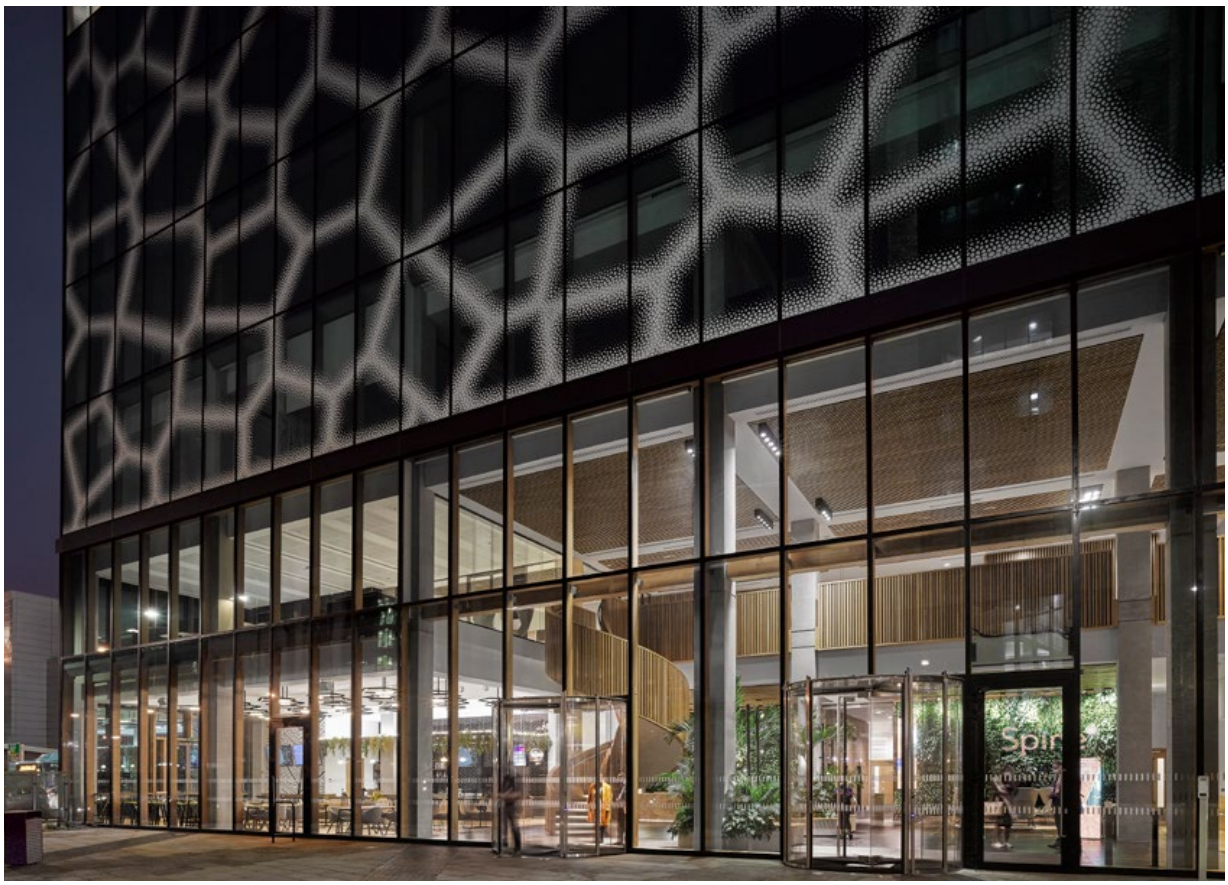
Our presence in Liverpool helps RCP to become more involved in the health of the local community, supporting one of our major policy initiatives to reduce health inequality.

Following the Japanese practise of Shinrin Yoku, or forest bathing, the shadows created by the facade move across the space throughout the day, creating a dynamic, changing environment. From the exposure to natural light, and the shifting seasons, people have an increased awareness of natural processes, helping them to synchronise with their circadian rhythms and remain connected to their natural sleep patterns.

Internally, as you walk through the building, it is easy to miss the subtle nods to biophilic design, purposely and carefully curated to enhance the user experience. Biophilic design in the context of the building industry is the concept increasing occupant connectivity to the natural environment using direct nature, indirect nature and space and place conditions.

An abstract representation of the human lungs, The Spine's collection of double height sky gardens acts as vertical village connected between floors with timber clad helical staircases. Each sky garden contains a mix of plants and trees. The flora has been selected not only to enhance the visual environment, but specifically on their air-purifying properties promoting increased oxygen levels to locations where staff members will congregate, work and circulate. Regular air quality monitoring has shown people's health and cognitive performance has improved by 10-20%, as a result of salutogenic planting and the highly specified air supply and filtration system.

Terrapin Bright Green's excellent report describing the *14 Patterns of Biophilic Design* can be contextualised in much of the finishes, the eighth pattern 'Biomorphic Forms and Patterns' describes symbolic references to contoured, patterned or numerical arrangements that persist in nature (TBG, 2014) can be found in elements



such as the curtain wall façade system – the Voronoi pattern, but also internal timber cladding along mullions and transoms, to continue visible connectivity to nature. Other references are exposed concrete columns which are moulded to reflect the trabecular system within human bones, which is the strongest part of a bone for reflecting mechanical stress.

Space planning workstations to ensure optimal levels of natural light led to the limitation of each station to 7.5m from a window. To promote connectivity with the building's principles, each workstation has access to a dashboard, allowing control of lighting and temperature in their immediate vicinity.

Questions

As part of my writing of this article, I had the pleasure of speaking with Rob Hopkins, Director at AHR, Lead architect and designer on The Spine, and oracle of knowledge on biophilia and sustainable design.

What was the design process for creating the façade in within a digital context?

Once we had developed an initial idea around developing the design of the façade of the building to represent the human integumentary system, the development of this solution was going to be a challenge. Working closely with the supply chain of the façade sub-contractor, we developed a solution which could be delivered using their standard process adopted for applying frit patterns to glass. Whilst frit patterns may previously have relied on the use of screen prints to apply the liquid ceramic before fusing this into the glass, this has more recently evolved to a printed process which reduces the need to replicate the same pattern on every piece of glass being treated.

We developed the pattern using the Grasshopper plug-in for Rhino, describing the mathematical formula for a voronoi and then making this specific to the orientation of each elevation to apply an amount of coverage to reflect the level of solar protection required. Once the pattern had been developed and the constraints of construction applied, this was then broken down into each individual pane of glass.

How important is technology in operating and maintaining a building which achieves a WELL Platinum standard?
Whilst the WELL standard focusses on human behaviours and the health outcomes of creating high quality environments, there is a significant amount of technology utilised within the background to support this.

Environmental sensors are placed around the building to measure humidity, CO2, air quality and temperature. These can feed back into the BMS system and alerts are also sent to the building manager to alert them if the parameters of the WELL standard are not being met. In reality, where WELL requires a maximum CO2 level of 900 PPM, this has rarely been seen to go over 600PPM. Equally, the requirement for 10PPM for PM2.5 particles has never been measured above 4PPM.

Sensors are also located around the planted areas which control a biophilic lighting system and ensure that sufficient light is being delivered to each plant. These lighting systems ensure that plants are supplied with sufficient light without them being over stimulated with too much light.

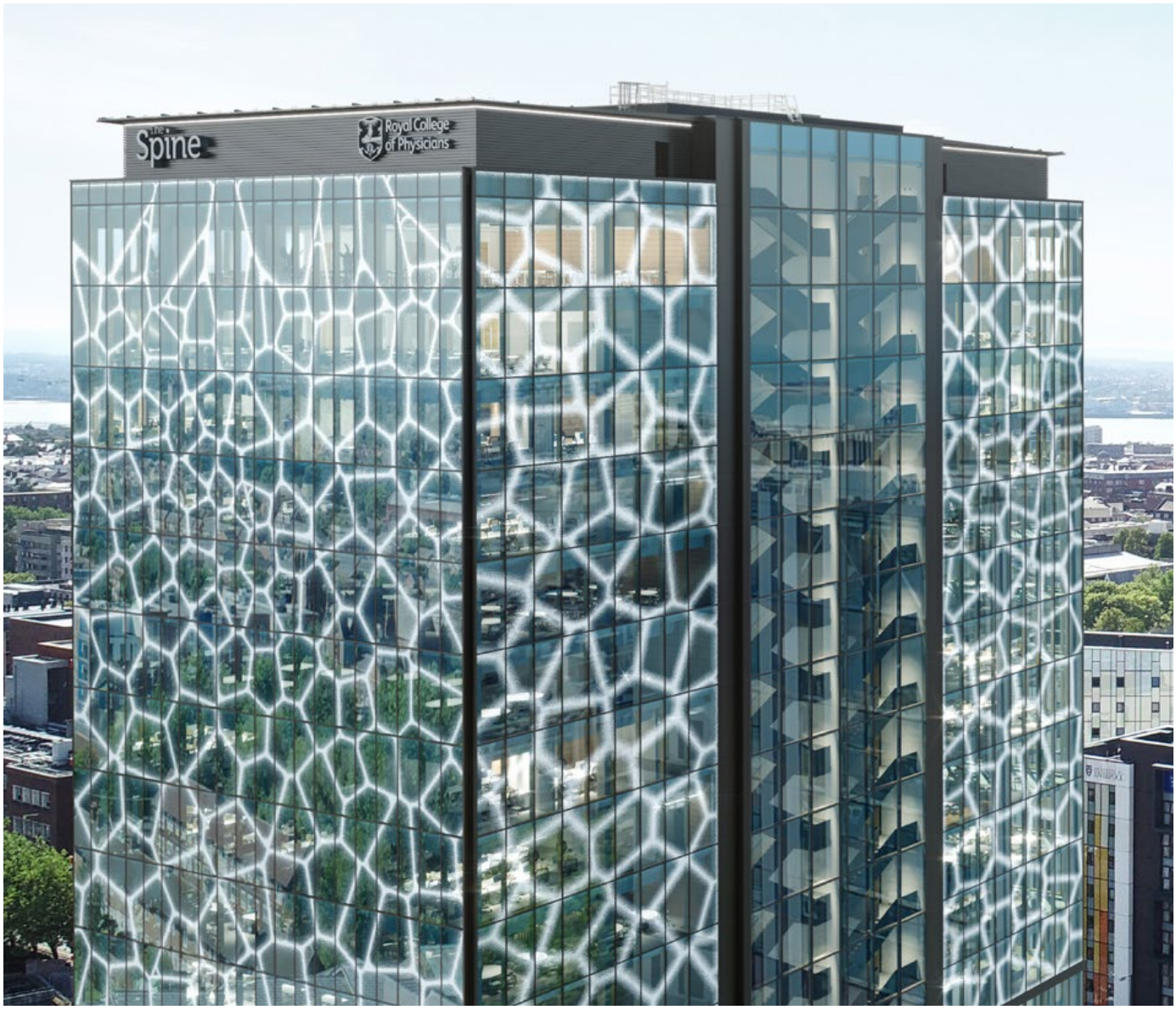
Building occupants are given access to a desktop interface on their computers to give live updates on temperatures, CO2 and air quality. Again, this helps give people re-assurance that the correct levels are being maintained.

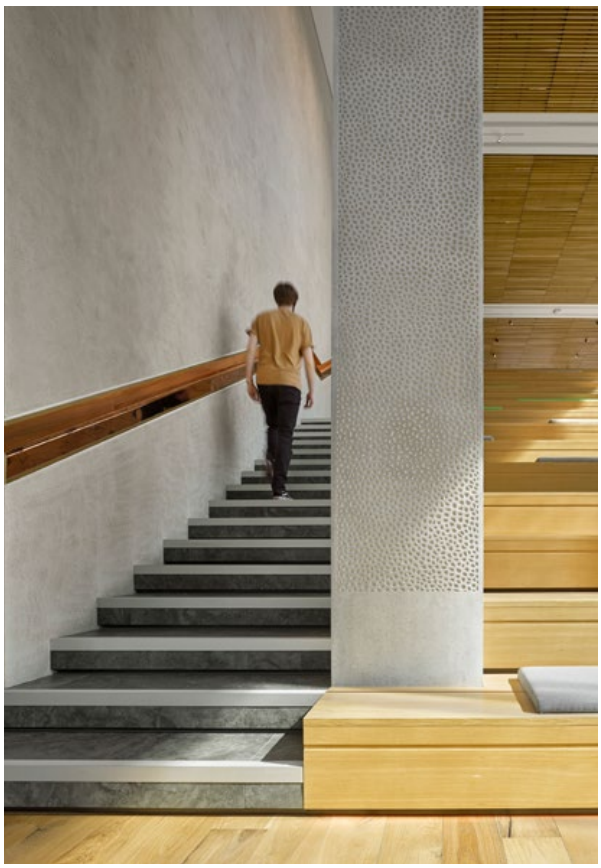
The building technology also reaches to the menus in the ground floor café. As the chefs on the top floor develop the menu for the day, both the options and their nutritional information is uploaded onto the system to ensure it complies with the WELL requirement to share this information at the point of sale.

Finally, digital displays have been located within the central core area. These are updated regularly to share health facts around both the building and the way that occupants can improve their own health.

Did you face any construction challenges when creating the trabecular pattern on the internal façades, how was this done?
The bespoke trabecular columns developed in the ground floor area were designed as an abstract representation of the human skeleton. The trabecular system is the honeycomb structure inside human bones. AHR worked with Reckli who are suppliers of bespoke concrete shuttering systems to develop a pattern for the building.

An initial concept was developed using Grasshopper and shared with the Reckli. 3D prints were initially output





at 1:1 scale to understand what the pattern would look like and Reckli then gave input into the depth and shape of the holes which would be suitable for striking the shuttering from the concrete. Once the Grasshopper model had been updated to reflect this, 3D models were supplied to Reckli who produced the shutter liners to create a full scale mock up column.

From the mock up, we were able to finalise the mix of concrete to be used which gave us both the colour we were seeking and the ability to achieve the height of columns we wanted to achieve at over 9m in a single pour of concrete.

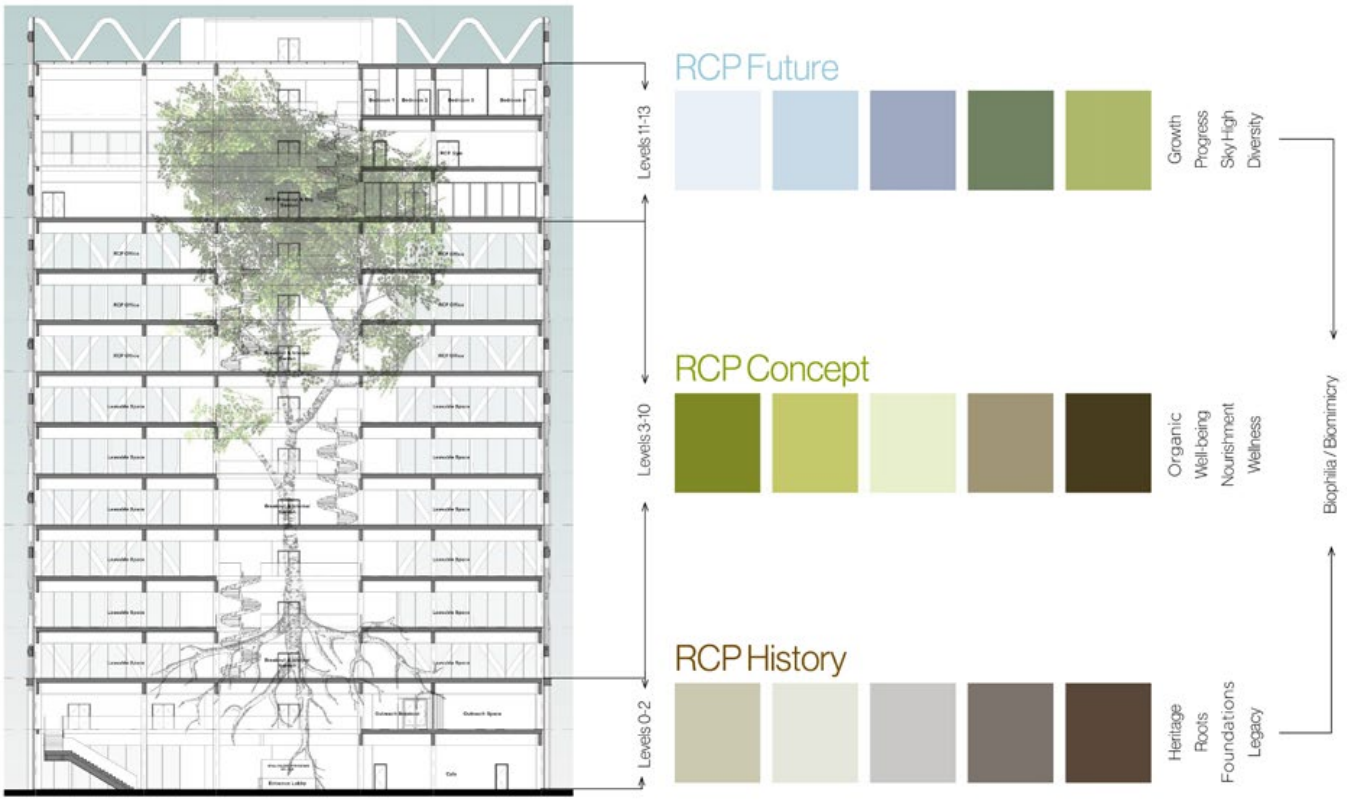
Following the success of The Spine, how important are, and how do designers implement, biophilic principles in future schemes, where it is not a primary focus?

The consideration of biophilic design is now integrated into our design process. The positive impact that this has on people's health and health outcome is something we want to promote on all of our buildings, regardless of whether we are seeking any formal accreditations.

Conclusion

The development has enabled the Knowledge Quarter in Liverpool to attract further leaders in science, health, technology, culture and education. This has already manifested in the recent opening of a Pandemic Institute in The Spine and over the next decade it will continue to establish Liverpool as one of the world's leading healthcare innovation districts. The panoramic views sweeping across the River Mersey to the Pennines may have hidden themselves behind a curtain of autumnal grey, but a leading exemplar of biophilic design provided the ideal setting for the North West Conference, as we look to 2024 and beyond with sustainability and healthy building design as leading questions within the field of Architectural Technology. ■

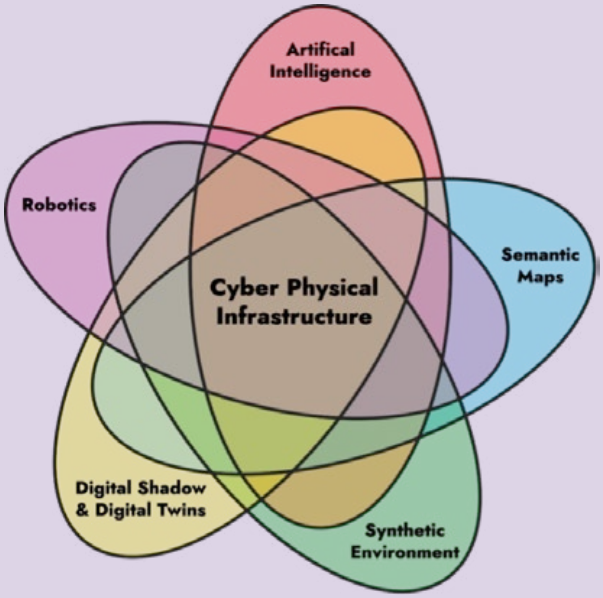
The Institute's AGM will be held at The Spine on 16 November 2024



Let's get (cyber) physical

Words by Dan Rossiter FCIAT, Vice-President Technical

What has been going on?
Back in 2022, the Department for Science, Innovation, and Technology (DSIT) alongside the Department for Business and Trade (DBT) published a consultation on the Government's vision for enabling cyber-physical infrastructure. A new term for many, cyber-physical infrastructure encapsulates concepts which connect the physical and digital domain; such as digital twins, internet of things, artificial intelligence and robotics. See cool diagram below:



Following a wealth of input, a consultation response document was published outlining several key enablers to realise a society empowered by cyber physical infrastructure, these being:

- **Security and resilience:** in particular how to overcome risk aversion and enable trust as part of data-driven decision making;
- **Interoperability:** in the wider sense, including interoperability of expectations and ethics;
- **Recognised value proposition:** considering that a significant proportion of potential value lies in interconnection between datasets;
- **Frameworks, guidance and standardisation:** fundamental enablers and catalysts for adoption; and
- **Skills:** ensuring society has the capability to establish, maintain and utilize such infrastructure.

The report also helpfully includes case studies which cut across key sectors such as energy, transport and the built environment. Among these case studies is work undertaken by the various catapults, this work is also helpfully summarised by Simon Hart on the UKRI website.

In further support of realising cyber-physical infrastructure, Innovate UK also commissioned *Responsive Infrastructure* (The Fenby-Taylor Review). Henry, the author, has written about this report in more detail elsewhere. However, I thought it was worth highlight several of its recommendations below, including:

- Increasing the visibility and viability of innovators;
- addressing the skills gap;
- more tailored access to relevant research; and
- creating the opportunity to develop and test ideas within safe environments.

Finally, the several catapults have joined forces to explore how to best establish a cyber-physical system innovation ecosystem.

How can I engage?
Clearly there are a plethora of activities underway. So, what are some of the best ways to engage with this work?

National cyber-physical infrastructure – if you are interested in the work being undertaken by the catapults to realise an innovation ecosystem, it is probably best to read Responsive Infrastructure (The Fenby-Taylor Review) and join the Digital Twin Hub. Several updates relating to NCPI have already appeared on the Hub.

Digital Twins – again, an ideal place to engage would be the Digital Twin Hub. If you are interested in the National Digital Twin programme specifically, they have recently created their own NDTp gov.uk site, which is currently populated with case studies. Alternatively, if you are of a more disruptive mindset, you may enjoy engaging with the Digital Twin Fan Club and their podcast series. Finally, keep an eye out on the BSI website for the upcoming publication of **BS ISO 30172** (digital twin use case) and **BS ISO 30173** (digital twin concepts and terminology).

Information Management and BIM – a foundational concept, information management and BIM continues to gain momentum both nationally and globally. One of the best ways to engage with the topic is through Nima as well as the UK BIM Framework website.

Artificial Intelligence – if you are interested in standards (who is not?), then Alan Turing's AI Standards Hub, is an ideal forum for you to engage with as well as our national standards committee for artificial intelligence ART/1. Alternatively, if you are an innovator, in particular a small business, you may be interested in the Innovate UK BridgeAI programme which offers funding and support to help innovators assess and implement AI.

Whilst digital has been gaining momentum since the advent of computers, it had been doing so in a disjointed manner. The introduction of cyber-physical infrastructure has, helpfully, begun to bring these concepts under a single holistic framework. I am hopeful that this will not only catalyse our journey to a more digital built environment, but also reduce frictions as we explore innovations beyond BIM. ■

AT Awards 2024 now open for entries!

Celebrating Architectural Technology at its best, the AT Awards are the premier accolades, nationally and internationally, that demonstrate outstanding achievement in the discipline.

AT Awards | Excellence in Architectural Technology

Recognising excellence in Architectural Technology globally, the AT Awards | Excellence in Architectural Technology are open to all professionals, whether based nationally or internationally. The Award for Excellence in Architectural Technology comprises of four categories:

- micro to small size projects, up to the value of £250,000
- small to medium size projects, +£250,000 up to the value of £2 million
- medium to large size projects, +£2 million up to the value of £10 million
- large to mega size projects, +£10 million

PLUS new for 2024

Project of the Year Award - this Award will be presented to a project selected at the discretion of the Judging Panel which is an outstanding example of Architectural Technology regardless of financial value from across the four categories.

AT Awards | Students

Designed to recognise excellence in Architectural Technology globally, the AT Awards | Students are open to students, whether they are based nationally or internationally. They comprise of two categories:

Student Award | Project

Submissions must be based upon all, or part, of a project-based design assignment and relevant to Architectural Technology.

Student Award | Report

Submissions must be a report or academic paper based upon all, or part, of an assignment or dissertation and relevant to Architectural Technology, demonstrating research proficiency. The report may include illustrations and images to support its content.

AT Awards | Chartered Architectural Technologist of the Year

The AT Awards | Chartered Architectural Technologist of the Year is an annual Award for excellence in the technology of architecture as a Chartered Architectural Technologist.

The coveted title 'Chartered Architectural Technologist of the Year' is for a Chartered Architectural Technologist's experience and outstanding contribution in achieving excellence in Architectural Technology. This should be evidenced within the submission and how their contribution has inspired, influenced, or positively impacted the discipline, profession or Institute or others within the built environment is essential.

AT Awards | The aspirATion Award for Emerging Talent in AT

The AT Awards | The aspirATion Award for Emerging Talent in AT is an annual Award for excellence in the technology of architecture by those in the early stages of their career.

The coveted title as 'Emerging Talent in AT for 2024' is for an exceptional individual who is a student or Associate member, an affiliate or a Chartered Member (qualified within the last five years) and has demonstrated commitment and aspiration to Architectural Technology as an emerging talent in their professional development and career within the last five years (i.e. 2019 onwards). All entrants must be a current student member, Associate member, ACIAT, affiliate or Chartered Member, MCIAT.

AT Awards | Gold

The AT Awards | Gold recognises and celebrates the dedication and commitment of Chartered Architectural Technologists who have demonstrated a significant contribution or outstanding service to the Institute.

Full details about each Award and how to enter or submit a nomination can be found at https://architecturaltechnology.com/atawards.html

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A balancing act: designing sustainability and performance into our buildings

Words by Justin Peckham, Regional Head of Sales (UK and Nordics), Accoya

This article discusses the variation in performance and sustainability credentials of different wood types.

Timber has been a critical building component for thousands of years and it continues to be one of the most widely used materials in construction.

However, timber is a natural product sourced from a huge variety of different species grown in different conditions, resulting in a myriad of different performance and sustainability attributes. This means that, when it comes to specifying timber for a project, it can be a challenge to ensure the optimum combination of performance, sustainability and cost effectiveness for the job in hand.

On top of this, with the sector under increasing pressure to ensure building safety, it is critical that designers also consider how the timber will interact with other building materials specified within a project to ensure the optimal outcome.

A clever selection

Specifying the right type of timber for a project involves an assessment of a multitude of factors. These include; the intended use of the building, relevant standards and codes, service life expectations, sustainability, aesthetics, capital costs and maintenance costs. In short - there are many different elements that must be considered.

When it comes to choosing between timbers; performance disparities arise from their inherent characteristics. The different characteristics mean that some timbers perform better than others for certain applications. In outdoor environments, for example, its vital to choose a timber species that is highly durable, i.e. resistant to rot and decay. These could be very different characteristics to what you would need for an indoor flooring or a structural beam.

It may also be important to consider how easy the

timber is to source, to work with and its density. The more durable hardwoods for example can be difficult to work with and very heavy, making them unsuitable for certain applications, such as bulky façades. In some cases, material health can also be an issue, with unsafe wood dust to manage.

Thankfully, innovative processes and ways of modifying timber can enhance its performance. For example, at Accsys, we have developed a pioneering modification process to turn fast-growing softwood into a material with class 1 durability according to EN standard 350-1. This innovative modification process boosts the already naturally occurring acetyl content of wood. The resulting product, Accoya, interacts differently with water, leading to improved dimensional stability and resistance against decay. This also means that the wood does not need to be treated with toxic chemicals.

The sustainability question

In addition to innovative modification processes that avoid the need for toxic chemicals, wood – at its source – has the inherent potential to be a sustainable material. This is due to its renewable nature. Trees can be replanted and harvested, allowing for a continuous cycle of growth and use.

However, not all wood has the same social and environmental credentials.

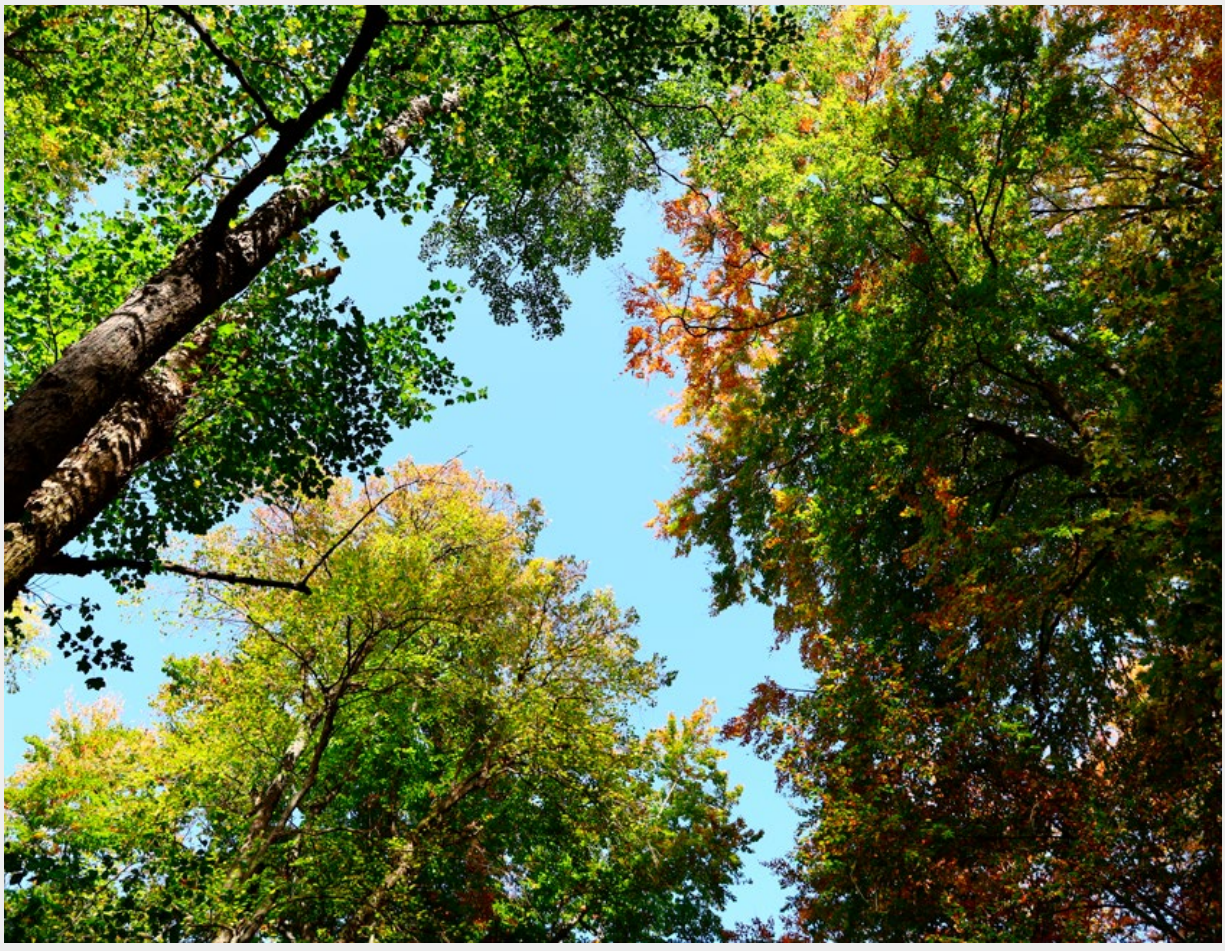
When wood is sourced from well-managed forests that are renewable, adhere to legal regulations, and implement practices like selective harvesting and reforestation, it can be considered truly sustainable. However, with about one-fifth of EU timber imports coming from illegal sources, according to the European Commission, it is essential to consider how and where the wood is sourced from.

Certifications from organisations such as the Forest Stewardship Council (FSC®) provide assurance that wood products meet specific environmental and social standards. Trees in FSC® certified forests are grown and harvested according to a strict set of guidelines that benefit the environment. Looking out for this certification gives designers, specifiers and consumers the confidence that the timber has been verified through a Chain of Custody system. This means that checks have taken place at every stage of process to ensure that the wood is sourced from well-managed forests that protect the environment – both at a local level, and on a global stage. This is something that can be guaranteed with a modified wood product, such as Accoya, where there are rigorous processes in place to ensure the sustainable sourcing of FSC® certified wood.

Building resilience

While sustainability must increasingly be front and centre, it should not mean that performance is compromised. With extreme weather becoming more frequent, it is critical to consider the location and climate of a build when specifying for a project. For example, in coastal areas, buildings can be exposed to saltwater, harsh weather conditions, high humidity and the risk of erosion and flooding. Therefore, it is absolutely essential that the materials specified are sufficiently resilient.

For this reason, in the past, some may have steered clear of using timber on coastal buildings due to the possibility that it could rot or swell and quickly require replacement, affecting performance. However, innovations in the timber industry – such as the modification process



used to make Accoya - mean that timber is now a long-lasting option.

An illustrative example of this was the recent conservation project at Caernarfon Castle. The castle, which is located on the North West coast of Wales, is a World Heritage Site that required conservation works. The designers wanted to select materials that would complement the castle's existing structure whilst also providing world class performance that could withstand the erosion that can occur when building on the coast.

Accoya was selected because of its durability credentials, as well as its low maintenance qualities and the look and feel after it has been weathered. The durability of the wood works perfectly at a busy heritage site such as this one, as not only does it perform well in harsh conditions, this also minimises the amount of restoration later down the line.

For designers, where to specify timber and which timber to specify goes back to the careful consideration of performance qualities. It is critical to look out for the provision of warranties and product performance data that prove the timber will remain weather resistant and stand the test of time. The acetylation process, as an example, strengthens Accoya wood to such an extent that it is the only wood in the world to offer a 50-year warranty.

Thinking ahead

Choosing materials that last is an innately sustainable choice. When products are designed to be durable, they inherently contribute to decreasing impact on the environment. Extending the lifespan of a product, and reducing the need for replacements simultaneously decreases the need for constant production and resource extraction, curbing energy consumption and greenhouse gas emissions.

While investing in materials that are functional, durable and sustainable may have higher initial costs, it ensures longevity and resistance to wear and tear. This means that, in addition to supporting sustainability efforts, the need for frequent repairs and replacements is reduced which cuts long-term costs, ensures the safety of the end user and helps to avoid the risk of liability issues later down the line.

Timber has always been a popular building material. However, with increasing pressure on the industry to prioritise performance, safety and the environment, clever product selection is key. ■

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How external wall insulation improves energy efficiency and wellbeing

Words by Matthew Woodhams, Technical Specification Manager, Baumit

When it comes to solid wall constructed buildings, choosing the right insulation system is crucial. With greater awareness of the need for energy efficiency and more understanding of a materials breathability, increasingly property owners and building engineers are turning to external wall insulation (EWI).

This article looks at why breathable EWI offers a number of important benefits.

Understanding breathability in external wall insulation

When we talk about the breathability of building materials, we are referring to the ability of moisture to pass through the walls without becoming trapped. When this moisture is trapped inside a building it can lead to condensation and mould growth and with it poor indoor air quality.

This moisture inside the home is generated by everyday activities, such as cooking and bathing as well as people breathing, amongst others. It has long been understood that breathable materials allow for the free movement of this moisture to the outside, reducing issues, such as condensation and dampness.

Breathable external wall insulation systems are designed to promote the interaction of moisture with the building fabric and ensure it can travel through the structure. This relationship between moisture and insulation, particularly with solid walls, is essential for the

structural health and performance of the building.

One of the primary concerns when it comes to solid wall insulation – both in new build and refurbishment projects – is the risk of interstitial condensation. Condensation occurs when warm air comes into contact with a surface that is cooler, causing the moisture in the air to condense into water. Interstitial condensation, on the other hand, happens when water vapour reaches a point that is 2-3 degrees cooler and condenses within the structure of the building.

If insulation materials slow down the escape of moisture or are non-breathable, they can inhibit the ability of moisture to escape from the building fabric. This can lead to serious issues with interstitial condensation, dampness, mould, rot and structural damage. The challenge with interstitial condensation is that it often occurs inside the walls, making it difficult to detect and control.

The Importance of breathable wall insulation

Thermal performance is a critical consideration when selecting an external wall insulation system. The goal is to ensure that the temperature across the entirety of the insulation system remains higher than the dew point temperature of the water vapour. This means keeping the walls warm enough to prevent condensation.

To achieve this, vapour control layers can be installed on the warm side of the insulation to slow the rate of vapour entering the wall. However, it is crucial to eliminate thermal bridging to avoid cold spots in the walls where condensation can gather. Additionally, a well-planned ventilation strategy and regular heating during colder weather are essential for maintaining warmer walls and preventing condensation.

One of the primary advantages of using natural, breathable external wall insulation is its ability to significantly improve the energy efficiency of a building, whilst avoiding the problems with trapped moisture internally. By also reducing heat loss through the walls, these breathable insulation systems create a more comfortable living environment.

A major benefit of external wall insulation when renovating existing buildings with solid walls is that it allows the walls to contribute to the thermal mass of the building, storing and releasing heat. By also using insulation materials with high thermal mass properties, such as wood fibre, the insulation system can absorb and release heat, creating a 'thermal store' effect that helps to even out temperature fluctuations. That means houses with good external insulation using components with a high mass are better at storing energy and optimally balancing temperature fluctuations.

In addition to enhancing energy efficiency, breathable external wall insulation systems act as a protective barrier against the elements, preventing moisture ingress and providing additional sound insulation. This can be particularly beneficial for properties located in busy urban environments or areas with harsh weather conditions.

Unlike internal wall insulation, which requires space within the property, external wall insulation does not reduce internal floor area. This preservation of internal space is particularly beneficial for properties with limited square footage, allowing your clients to maximise living areas without compromising on energy efficiency.

It is worth bearing in mind that adding a layer of insulation to the external walls, the overall lifespan of

the wall can be extended. The insulation system helps to protect the underlying structure from the effects of weathering and temperature fluctuations, reducing the risk of damage and deterioration. This can result in cost savings over time by minimising the need for repairs and maintenance for your client.

Choosing the right breathable external wall insulation system

When selecting a breathable external wall insulation system, several factors should be considered. These include the insulation material, compatibility with the existing wall structure, the aesthetic finish, plus long term performance.

Natural, breathable insulation materials, such as wood fibre, are excellent choices for achieving breathability and thermal performance in external wall insulation systems. Wood fibre insulation can hold a significant amount of water vapour without compromising its thermal capabilities or structural integrity. It gradually releases any stored moisture as the external temperatures improve, creating a dry and healthy internal environment.

We have also developed EPS external wall insulation boards featuring our OpenAir technology. This ensures high vapour permeability, enabling it to be released externally. This provides a unique, highly breathable insulation system with all the installation advantages of standard EPS boards.

For architectural technology professionals, it is essential to ensure that the chosen external wall insulation system is compatible with the existing wall structure. Different systems may have specific requirements in terms of fixing methods, surface preparation, and compatibility with other building components. Consulting with our technical team can help determine the most suitable system for each project.

The aesthetic finish of the external wall insulation system is another important consideration. Choice of render or cladding can significantly impact the visual appeal of the property. Lime-based renders are often recommended for their natural, eco-friendly and breathable properties.

The way forward

Natural, breathable external wall insulation systems can provide long-term cost savings through reduced energy costs and maintenance. By allowing moisture to escape from the building fabric, these insulation systems prevent the build-up of moisture and condensation, creating a healthier indoor environment and reducing the risk of mould growth.

We can therefore see that breathable external wall insulation systems offer numerous advantages for properties with solid walls. From improved energy efficiency and comfort to enhanced weatherproofing and sound resistance, these systems provide effective solutions to the challenges of insulating solid walls.

By choosing insulation materials such as wood fibre and EPS, property owners and building engineers can create a breathable and sustainable environment while preserving the integrity of the building fabric.

With the right EWI insulation system in place, buildings with solid walls can act like a battery, absorbing, storing and releasing energy. It creates spaces with a high thermal storage mass, meaning overheating in summer is much slower to occur, and heat is retained internally during the colder months.

We are passionate about raising awareness of the benefits of EWI and have developed a CPD titled: How external wall insulation improves energy efficiency and wellbeing – the proof. To book a place, visit: https://baumit.co.uk/cpd ■

For more information on Baumit EWI, visit: https://baumit.co.uk/products/external-wall-insulation

Digital Construction Week returns for 2024

Digital Construction Week, the UK's leading event for innovation and technology in the built environment, has opened visitor registration for 2024.

Taking place on 5-6 June 2024 at ExCeL London, Digital Construction Week (DCW) features two days packed full of inspiring content. Including 300+ speakers across ten stages, 120 hours of CPD, 150+ exhibitors, live demos, workshops, networking drinks and much more.

Attendees will get the chance to network with other industry innovators, explore the future of the built environment and get inspired at this free to attend expo.

Event Director and Co-Founder of DCW, Ollie Hughes, says "We're excited to be planning a stand-out event for 2024, that offers even more opportunities for the industry to connect, collaborate and innovate. DCW is THE place to learn about the transformative technologies driving change and improving outcomes across the built environment."

Discover the innovations transforming the built environment

The latest solutions from 150+ leading built environment brands will be showcased at the event. DCW acts as a one-stop shop for visitors to learn how to use new technology to improve projects, assets, teams and business directly from the companies driving AECO forward.

The disruptive technologies and solutions set to be on display include digital twins, augmented reality, information management, automation and AI, drones, robotics and much more.

Visitors will discover how these solutions can help them be more efficient, collaborative, connected, sustainable and profitable. An array of inspiring brands have been confirmed to exhibit at the ninth edition of DCW.

Learn and get inspired in the education programme

It is not just in the central exhibition where the latest industry innovation will be in the spotlight. The event also boasts ten theatres of free-to-attend talks, informative panels discussion, interactive workshops and more.

Hear from 300+ industry experts and get up to speed on the latest ideas shaping architecture and design, construction, engineering and operation.

The theatres are focused on some of the key areas shaping the built environment. These include information management, geospatial, digital transformation, people and change, asset management, net zero and more.

New for 2024 is the Table Talks Theatre, which will facilitate round table style sessions and debates on a variety of topics, encouraging interactive learning and networking. Attendees will be able to book their seats in advance, which is encouraged as turning up on the day may not guarantee a space. Further information on this will be shared soon.

Visitors can expect to be inspired and informed by high profile presenters and curated panel discussions covering the industry's most pressing issues, exploring new ideas and actionable insights. The full programme will be announced in the spring.

"The most dynamic event in the construction calendar"

The 2023 instalment of DCW saw a 10% increase in attendee numbers compared to the previous year. The packed-out event provided a platform for exchanging knowledge, fostering valuable connections, and delving into the latest emerging trends.

Gary Cowan, Head of Digital Construction at Kane Group comments on his visit to last year's show: "Digital Construction Week brings all the major movers and makers of the worldwide construction industry together under one roof, for knowledge sharing, networking, and an opportunity for everyone to grow off each other professionally. An essential event that should not be missed."

Richard Saxon, Director of Services at Deploi echoed this, saying: "This is the most dynamic event in the construction calendar: packed and impressive."

Maciej Tomaszunas, Head of Business Development CEE at Semrén & Månsson International, and Alexandr Nikitin, CEO of TEBIN, "came back with a wealth of practical ideas, tips, and insights. They explored industry challenges and uncovered innovative solutions at this ground-breaking event." ■

Register now for DCW 2024

Digital Construction Week takes place at ExCeL London from 5-6 June 2024. To register for a free trade ticket, please visit: digitalconstructionweek.com/

To keep in the loop with show updates, please visit digitalconstructionweek.com/ or follow the event on social media:
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Architecture in the air: strategic ventilation in modern building design

Words by Barry Hobday, Managing Director of MAPUK

This article explores how and why ventilation has become an art form in itself, and offers advice for Architectural Technology professionals on how innovations in decentralised ventilation systems are working to improve the use of space in building design.

Ventilation has always been a vital component in the design and functionality of buildings. But today, as Architectural Technology professionals strive to create structures that are not only aesthetically pleasing but also achieve ambitious sustainability credentials, the integration of efficient HVAC systems is no longer just a matter of comfort.

The purpose of various airflow systems has expanded to play a pivotal role in creating energy-efficient buildings that also work to deliver a healthy environment for occupants. Yet, those systems also need to fit seamlessly into a building's aesthetics, so that they become a seamless part of its bespoke design.

Smart ventilation strategies can reduce energy consumption, lower costs, and contribute to a building's overall environmental footprint, offering significant competitive advantages. But the question remains, can ventilation be both functional and visually appealing? And, how can Architectural Technology professionals ensure this is the case?

Strategic ventilation in modern building design

Traditional ventilation systems often face criticism for their visual impact on architectural spaces. Characterised by their bulky, mechanical and often intrusive appearance that detracts from the carefully crafted beauty of a building's design, traditional HVAC systems have historically fallen short by disrupting the harmony and elegance often envisioned by designers.

However, this is no longer the case, with innovative ventilation strategies presenting a wealth of compelling solutions to blend into the architectural fabric of a space,

maintaining integrity and aesthetic appeal.

Not only do innovative solutions serve the essential function of air circulation, but they can also contribute to the overall beauty of the building without compromising its functionality. Such solutions, especially those that are environmentally sustainable and energy-efficient, are increasingly seen as a marker of high-quality and forward-thinking design. Buildings that showcase cutting-edge, visually appealing ventilation technology can stand out in an increasingly crowded architectural landscape.

Modern architecture has seen the rise of natural ventilation, working to implement climate-mediating strategies that strip back the use of mechanical ventilation. Such strategies first consider architectural design, building materials, regional climates and occupant use to effectively channel and distribute outdoor air within.

Features such as strategically placed vents, windows, green walls, and natural airflow pathways not only serve functional purposes but also add unique design elements. These features can be used to create stunning visual effects, such as highlighting certain architectural aspects or blending a building more seamlessly with its natural surroundings.

However, natural ventilation often poses significant challenges. The importance of good quality indoor air, heightened by the COVID-19 pandemic, is a crucial requirement in modern building design. Here, the impact of outdoor air quality, dependent on a building's location and the environmental health of its surroundings, must be considered. On top of this, an increased focus on ventilation regulations in commercial and residential spaces, as well as the design challenges posed by retrofits, can significantly impact a designer's ability to create good quality, effective airflow throughout a space using only natural ventilation techniques.

Decentralised ventilation systems in architecture

Enter innovations in decentralised ventilation. Rather than relying on the effective control and distribution of outdoor airflow for consistent and high-quality ventilation, decentralised ventilation systems can be easily controlled to target specific areas, ensuring good air quality when and where it is needed most within a space.

Working to channel airflow that is only needed at specific times for varying occupant uses, decentralised ventilation systems allow designers to implement high-quality ventilation strategies that save on energy costs and improve sustainable practices in building design. Innovative systems such as the LTG FVPpulse actually mimic the natural movement of air. This enables a building to 'breathe' effortlessly, whilst also offering unique opportunities to increase energy efficiency through highly efficient heat recovery and demand-oriented control concepts.

Decentralised ventilation systems are particularly advantageous in retrofitting older buildings, where space and structural limitations can make both natural and traditional mechanical ventilation strategies challenging. These systems can be installed with minimal disruption to the existing structure, creating additional usable space and flexibility in design.

There is also a solid business case for investing in decentralised ventilation. It reduces the need for extensive ductwork, freeing up valuable floor space that would otherwise be occupied by bulky equipment. This in turn enables designers to optimise floor layouts and maximise square footage available, or to accommodate other functional needs within a commercial building.

The absence of centralised systems offers designers an unprecedented opportunity to gain greater creative control over a building's design. This freedom enables them to craft innovative partitions, layouts, and configurations within the structure, allowing for increased ceiling height. And, in the context of new constructions, it even paves the way for creating additional floors by freeing up substantial space.

As the landscape of architecture evolves, the fusion of functionality and aesthetics becomes ever more crucial. Ventilation – once a technical necessity – has evolved, shaping the very essence of building design. For Architectural Technology professionals seeking to push the boundaries of innovation, embracing progressive systems like decentralised ventilation need to be discussed and considered. These systems not only optimise space but also herald a new era where buildings stand as beacons of sustainability and energy efficiency. Architectural Technology professionals at the forefront of this revolution will not only craft visually striking structures but will also pioneer a new standard of environmental conscientiousness, setting them apart in a competitive market. ■

NBS Digital Construction Report 2023

Words by David Bain, Research Manager, NBS

The latest NBS digital construction report, in association with our sister company Glenigan, highlights the methods and technologies that are being used by the profession to tackle industry challenges, such as climate change and building more safely. As well as revealing recent adoption trends, it provides insights into likely future use.

We ran the survey between July and September 2023. It was distributed using various channels and supported by a range of industry bodies, including CIAT. We are very grateful for this support, which helps us to represent professionals from across the industry. In total, 723 people completed the survey. The majority (72%) are based in the UK, although 28% are based elsewhere, with 60 countries represented across six continents.

Survey respondents represent the main project roles of client, constructor, supplier and consultant. Comprising two-thirds of the sample, consultants are the largest group. In terms of discipline, the respondents include architects (23% of the sample), engineers, other designers, project managers, main contractors and product specialists – as well as a wide range of other roles. Two of the largest groups are architectural technologists (ATs) (6% or 42 people) and BIM specialists (17% or 125 people). The majority of ATs work in private practice, mainly architectural. Some work in local authorities. BIM specialists are spread across a wider range of organisations – architectural, engineering, and multidisciplinary practices, but also main contractors. ATs are spread across organisations of different sizes, while over three-quarters of the BIM specialists who responded

are in organisations with over 50 staff. Almost nine out of ten ATs are in the UK or Ireland; for BIM specialists, this figure is seven out of ten.

BIM

Among all respondents, a solid majority (70%) say that they have adopted BIM. It has been at this level since 2018. Each year, many of those yet to adopt BIM (almost one-fifth in 2023) say they plan to do so. The fact that the proportion adopting it has not increased suggests that barriers remain. Furthermore, 12% of respondents to this latest survey have no plans to use BIM. Adoption among AT respondents is a little lower at 66%, while 16% have no plans to adopt BIM. For BIM specialists, the figure is, unsurprisingly, over 90%. BIM adoption does remain lower among smaller organisations, currently at 56% for those with 15 staff or less. Of these organisations, 23% have no plans to adopt BIM, with some saying it is not relevant for their projects.

> **BIM is one step. There [need] to be better links between various stages in a complete project cycle from design to code review to construction to maintenance to operations to retrofit to demolition. Many of these are in separate silos that don't share the same real-world data. There need to be open standards that make this easier and seamless.**

There remain differences in the way that people view BIM. For some, it is simply working with 3D parametric models (26%). For others, it is following a process, such as that outlined in the international suite of standards – BS EN ISO 19650 (27%). BIM specialists are particularly likely to see it this way (55%). Some, although the number is falling, still identify with the older BS/ PAS 1192 standards, synonymous with 'Level 2 BIM' (22%). ATs are more likely to see BIM in this way (38%), although one-third of ATs view BIM in terms of ISO 19650. Perhaps in recognition of the technical language that has developed around BIM, there has been a move to think of BIM as simply 'better information management'. This is the most common way that our survey respondents describe BIM (31%), although only 23% of ATs do so. Some (29%) see BIM as the foundation of digital transformation. ATs are less likely to agree, while 41% of BIM specialists see it this way.

In terms of 'BIM tasks,' such as sharing information in common data environments (CDEs), a majority of those who have adopted BIM tend to be involved with these, although there has been little change since 2021. However, in terms of information sharing, there appears to be an increase on all counts. Over three-quarters (77%) now say that their organisation follows a naming convention for all information that is shared. More than half (56%) exchange information in IFC[1] format, and 36% in COBie[2] format.

We have seen a gradual increase in the use of Uniclass, cited as the recommended classification in the ISO 19650 series. This trend has continued in 2023, with 46% of survey respondents now saying it is the most used classification on their projects, compared to 33% citing the Common Arrangement of Work Sections (CAWS). The results are a bit different among ATs: 32% for Uniclass and 51% for CAWS. Use of Uniclass by BIM specialists is much higher, at 79%.

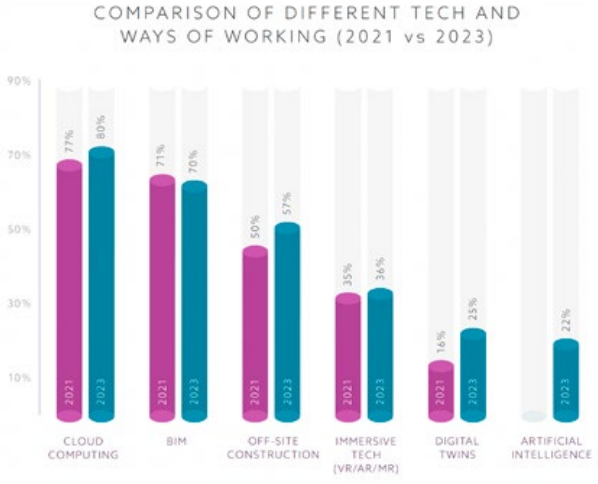
Cloud computing

The survey results indicate that cloud computing is now used by eight out of ten professionals. Its use has grown steadily over several years. It was a little lower for ATs (70%), although most plan to use it. Slightly more respondents say they use cloud computing than BIM, the next most adopted digital way of working. People are using cloud computing solutions for storage, to share information with clients and to collaborate with other team members.

While cloud computing and BIM are used by a majority, their rates of adoption are slowing. In contrast, there is stronger growth in the proportion of professionals involved with off-site construction, digital twins and AI.

Off-site construction

In 2021, half of respondents were involved with off-site construction projects, whereas in 2023 this had increased to 57% (51% among ATs). The most common types of off-site construction are sub-assemblies and accessories, which could include a wide range of elements from door furniture to roof trusses. However, significant numbers are involved with panelised and modular construction. Data from a range of other sources, including Glenigan, also shows a growing trend in off-site construction. For instance, 7% of new-build projects started in the first nine months of 2023 included an element of off-site construction or manufacture. By value, the proportion is higher (11%). Off-site has made the greatest inroads into the industrial, education, and hotel and leisure sectors. During the first nine months of 2023, 22% of new-build education projects included an off-site element. While some modular housebuilding factories and companies have closed in the last year or so, we do anticipate continued growth in off-site construction in the long term.



Digital twins

Like BIM, 'digital twins' can mean different things to different people. In our survey, we provided the definition: *'A realistic digital representation of something physical. What distinguishes a digital twin from any other digital model is its connection to the physical twin.'*[3] One-quarter of survey respondents said they had been involved in

1 Industry Foundation Classes
2 Construction Operations Building information exchange
3 https://www.designingbuildings.co.uk/wiki/Digital_twin

a project that used a digital twin, up from 16% in 2021. Use was lower (13%) for ATs and higher (38%) among BIM specialists. Most commonly, digital twins are used to mirror the construction and to create an as-built model, or to inform design, including for clash detection. They are also used to create a twin of an existing building for improvements and retrofit.

Artificial intelligence (AI)

In previous surveys, the proportion of people using AI was low, usually in single figures. That changed in this survey, with 22% using AI. While this is not a sudden mass adoption, there are signs that it will gain ground in the industry. One-fifth plan to use AI within a year, and some respondents commented that they see great potential with the technology, as well as some risk. Indications are that ATs are a bit more circumspect, with just 7% using AI now, and 66% with no plans to do so.

Immersive tech

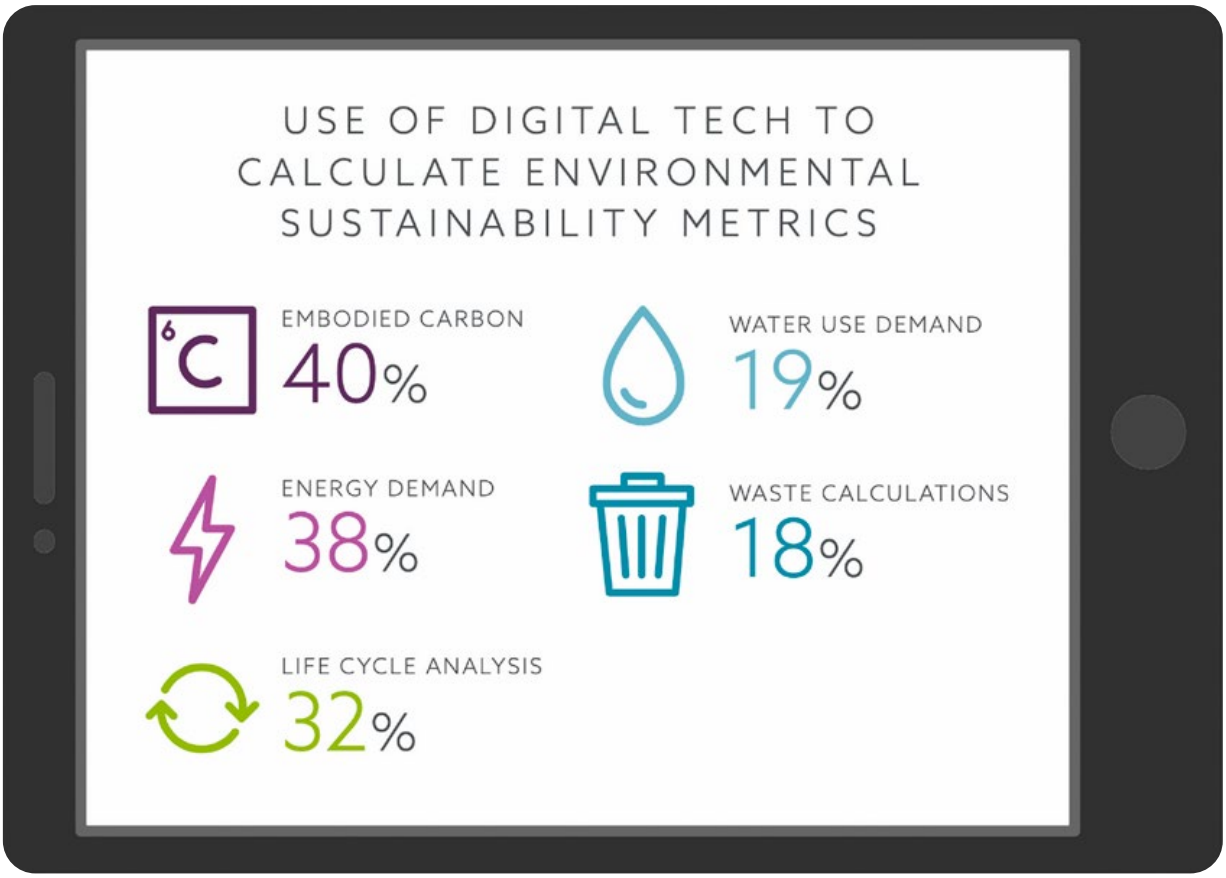
Finally, immersive tech. Over the years, we have seen a consistent, strong minority of about one-third of respondents using virtual, augmented or mixed reality. In 2023, the figure was 36%. However, this has not really increased, despite people saying they intend to use it: 27% in 2023. Use is higher among ATs (40%) and BIM specialists (43%). This tech is most used for stakeholder engagement, such as client walkthroughs.

Supporting sustainable construction

Most survey respondents believe that the adoption of digital ways of working is helping to create better places (79%), to create a safer built environment (73%) and is having a positive environmental impact (72%). For ATs, the numbers are a little lower at 74%, 67% and 64%, respectively. For BIM specialists, they increase to 89%, 84% and 77%. In terms of sustainability, we find that two-thirds of respondents are using digital tech to calculate metrics, such as embodied carbon (40%) and energy demand (38%). Some of these are higher among BIM specialists; for instance, 50% use digital technology to calculate embodied carbon.

The survey results show that built environment professionals are using new technologies and ways of working to address industry challenges. Their use to calculate environmental metrics is a practical example of this. Looking ahead, BIM continues to be seen as a key enabler of other innovations. Cloud computing and off-site construction are also expected to play an important role, with some also anticipating that AI will do so. In some areas, ATs appear to be cautious about adopting certain technologies, while in other areas they are leading the way. Certainly, there are challenges, particularly in ensuring that the benefits of new technologies can be applied appropriately to benefit all parts of the industry. ■

You can read the full report here: https://www.thenbs.com/digital-construction-report-2023/.



Collaboration is key this June at InstallerSHOW

InstallerSHOW 2024 is the UK's must attend event for those specifying in heat, water, air and energy technology, and will this year partner with CIAT as it continues to grow in relevance to members and affiliates.

The InstallerSHOW has over 600 exhibitors, and takes place between 25-27 June at the NEC Birmingham, making it the ultimate showcase in products and innovation required to create net zero buildings. It is also the best opportunity to connect with the key people in the supply chain, putting the Architectural Technologist at the heart of this industry and a chance to connect with the all-important installer.

This year's event comes at a critical time for our industry, with the latest changes in building regulations as a result of the Building Safety Act, as well as net zero legislation around phasing out fossil fuel heating in our new homes and buildings. These shifting regulations have changed the way we work and created an even greater need for clarity and collaboration between professions.

We have always known how important the role of a Chartered Architectural Technologist is to the whole building process, so it is vital to have their voice on the InstallerSHOW programme to foster greater collaboration.

As the InstallerSHOW has grown over recent years, it now offers Architectural Technologists an opportunity to learn what the issues are for installers on the ground, and how members and affiliates can play a pivotal role as the sector comes together.

The InstallerSHOW is jammed packed with insightful content for members and affiliates, and this year will carry over seven streams of content over three days. Topics covered include the Future Homes Standard, the Clean Heat Mechanism, The Building Safety Act, and the Golden Thread.

Highlights from this content programme include stage hosts Samira Ahmed, BBC presenter, and Environmentalist, Philippa Forrester. They will be hosting debates and keynotes from speakers including:

- Greg Jackson, founder of Octopus Energy
- Ed Houghton, Head of Research at DG Cities, author of the report "Defining and identifying complex-to-decarbonise homes" with Department of Energy Security and Net Zero
- Rachael Owens and Sara Edmonds, Regional Directors of the National Retrofit Hub
- Rt Hon Lord Andrew Stunell OBE, President of the National Home Improvement Council
- Colum Lowe, Director, Design Age Institute
- Dr Bola Abisogun OBE, Founder of the Digital Twin Skills Academy

New for InstallerSHOW 2024 is the introduction of Installer Kitchens & Bathrooms, which will showcase the role technology and innovation play in shaping the kitchens and bathrooms of the future, to an audience

of 20,000 installers, specifiers, designers, developers, manufacturers and retailers.

Organisers of the InstallerSHOW are excited to welcome CIAT as a contributing partner to this year's programme. Nathan Garnett, Business Development Director said "We have always known how important the role of a Chartered Architectural Technologist is to the whole building process, so it is vital to have their voice on the InstallerSHOW programme to foster greater collaboration. This can only help us improved on sustainability, safety and productivity as we see technology changing the industry before our eyes."

Adam Endacott, Creative & Communications Director at CIAT commented: "We are pleased to be working with InstallerSHOW to bring high quality content and resources to our members and affiliates. This will not only assist with their core CPD but enable them to explore and discover new products and technologies as key specifiers in the sector."

InstallerSHOW is brimming with inspiration and innovation to help installers and specifiers create sustainable, safe buildings. As part of this new partnership, 2024 also sees CIAT leadership contributing to these topics via the Housing Hub and Elemental Programmes.

A visit to the show will allow you to explore over 600 exhibitors, with leading brands including Baxi, Worcester Bosch, Roca, Hansgrohe, VitrA, Vaillant, Schneider Electric, Aico, Rehau & Grohe.

Content and Knowledge partners include Chartered Institute of Architectural Technologists, Chartered Institute of Building, National Home Improvement Council, The Federation of Master Builders, the Code for Construction Product Information and many more. ■

Register now to be kept up to speed as these sessions and speakers are announced.

installer SHOW 24
NEC Birmingham 25-27 June 2024
Working together to deliver sustainability and net zero

Ground floors and ground floor insulation – what are the fire performance requirements?

Words by Rob Firman, Technical and Specification Manager, PolyFoam XPS

Ground floors or basement floors – 'the lowest floor of the building', to use the terminology of Building Regulations – are not subject to the same fire safety requirements as external walls and roofs. However, uncertainty and risk aversion in design and specification can lead people to question whether certain build-ups or product choices are appropriate.

Buildings – particularly large buildings, non-domestic buildings, and buildings split into multiple uses and occupancies – can be incredibly complex. The more complex the building, the more specific the requirements in terms of fire safety and performance.

This article is designed to address questions that designers, specifiers, installers and/or building owners and occupants might have about ground floor constructions, thermal insulation for ground and basement floors and their behaviour in a fire. Fire safety requirements as they relate to intermediate/separating floors are not in the scope of this article.

None of the following advice is a substitute for following the guidance in regulations, or seeking advice from a fire engineer or other specialist. Some projects require consultation directly with the local fire service.

Which parts of national Building Regulations cover fire safety?

Building Regulations in the UK are primarily concerned with protecting the health and safety of people in and around buildings. They do not prioritise the protection of property, which is why insurer requirements can seem to go above and beyond what is required by the Regulations.

Technical guidance on fire safety can be found in the following documents, supporting the requirements of national Building Regulations in the different parts of the UK:

- England: Approved Document B, volumes 1 and 2.
- Wales: Approved Document B, volumes 1 and 2.
- Scotland: Section 2 of the technical handbooks.
- Northern Ireland: Technical Booklet E.

The aim of the Regulations in each country is broadly the same but the specifics of how those aims are achieved can vary.

Essentially, Regulations deal with external and internal fire spread. They also cover access for fire and rescue services, means of escape and the fire performance of internal linings – although these latter three areas are not relevant to this article.

Compliant fire safety design depends on building type, use, occupancy, layout, height and construction, as well as the distance from surrounding buildings.

How is the behaviour of individual products and element build-ups defined?

Assessing the fire performance of building elements generally means distinguishing between how individual components (such as an insulation board) behave, and how a construction element combining multiple components (such as a roof) behaves.

For example, it is possible for a component with a poor individual test result to be safely used in a tested element build-up.

When it comes to individual construction products, we are interested in the reaction to fire performance. For an element build-up or system, we are more interested in the fire resistance.

Are ground floors considered to be an 'element of structure'?

A building's structural elements are required to maintain stability in a fire, and resist fire spread from one part of a building to another.

The way in which fires start and develop is largely independent of how a floor is constructed or specified. As a result, the lowest floor of a building is not considered to be an 'element of structure' as defined in Regulations, and therefore is not subject to those requirements.

Do floors contribute to internal fire spread?

The performance of floor surface finishes and linings, and their ability to resist internal fire spread, are not included in regulations because they make little contribution to the early development of a fire.

I would still like to understand the fire performance of products in my ground floor build-up

No problem. The European classification system is the standard method of declaring performance.

Products are classified according to EN 13501-1, which measures how a product behaves when exposed to a fire, and how it contributes to the fire as it decomposes due to that exposure.

From best to worst performing, the Euroclass system is: A1, A2, B, C, D, E and F.

For classifications from A2 to E, a designation for the production of smoke (s1, s2 or s3) and/or flaming droplets/particles (d0, d1 or d2) is added.

How is the fire resistance of an element measured?

The fire resistance of building elements has three aspects, all measured by the number of minutes that elapse during standard tests for each.

- Resistance to collapse (R), which applies to loadbearing elements only.
- Resistance to fire penetration (E), which is also referred to as integrity.
- Resistance to the transfer of excessive heat (I), otherwise known as insulation.

A construction element may need to meet all three aspects, in which case the performance would be written REI 30 (or 60, 90 or 120, depending on the period of resistance achieved/required). EI relates to an element that is not loadbearing, and sometimes E alone is required – again, both followed by the number of minutes.

Classifications are determined from test data, in accordance with EN 13501-2 (construction products and building elements *excluding* ventilation services).

Is there a fire test for ground and basement floors?

As far as we are aware, there is no standardised fire test for the lowest floor of a building – not even an historical one. This is because of the lack of regulatory requirements concerning the fire performance of ground and basement floors.

There are only fire tests for separating floor constructions that contribute to a building's compartmentation.

Conclusion

Discussions around the combustibility of building materials focus on walls and roofs as the main 'elements of structure' to which fire performance regulations relate.

Ground and basement floor constructions have not become part of the debate, and there is no reason for them to do so.

Concrete slabs and screeds are, by their nature, non-combustible. For anybody concerned about the use of combustible materials in a building, an insulation layer covered by concrete poses no risk. Even where a combustible insulation material is installed above a concrete slab, it will not make the performance of the ground or basement floor any worse in terms of fire. ■

Growing community of women in Architectural Technology in Scotland

Words by Magdalena Blazusiak MCIAT, Knowledge Exchange Coordinator, Scotland East Region

Considering the great work of numerous organisations such as Women in Property, Women in Construction, Equate Scotland and many more, it somehow comes as a surprise to learn that women account for less than 7%* of Chartered Members in Scotland. Let's not forget that current data shows that over 32%* of student members are women.

Where is the industry failing us then? Can we identify the causes and offer tangible solutions to our members and affiliates who are women? Listening to the responses of the recent survey, Scotland East Region arranged their first *Women in Architectural Technology* event, in collaboration with Equate Scotland, Edinburgh Napier University and Robert Gordon University. It was aimed at celebrating diversity, versatility and resilience of women in Architectural Technology.

The event proved one thing, that there already is a community of women Architectural Technologists in Scotland. What we need now, is a supportive, inclusive network, that will allow all our members and affiliates who are women to thrive, providing opportunities locally, whatever our professional aspirations may be. The network can bridge the gap between personal and professional lives of our members and affiliates – instead of discussing work-life balance, acknowledging that our personal and professional lives are inherently intertwined.

We have learnt that it is not necessarily about seeing role models, but about finding a relatable story. The recent event provided just that, and perhaps more. With speakers discussing uneven and unruly career paths, one message was clear – it is not easy, but do not give up. Support can come from women and men, but we need to learn how to communicate our career goals and individual circumstances to our employers, peers and collaborators.

The speakers representing wider industry

*member numbers as of January 2024

demonstrated opportunities for interdisciplinary, innovative approaches to collective action and success, stepping outside defined roles and responsibilities and valuing skills and experience we possess.

With the help of our supporters, Scotland East Region will continue our mission assisting Women in Architectural Technology in Scotland to feel empowered, included, respected and equipped with resources to cope with professional challenges. We can learn from each other, grow and speak up together, recognising the value of our work and our personal presence, gaining perspective and celebrating small victories – the all-important stepping stones of success.

Reflection by Jennifer Gordon, Junior Architectural Technologist at Harry Taylor and Co., recent graduate and a recipient of the Scotland East aspirATion Award for the Best Stage 4 Project at Robert Gordon University

I view the Women in Architectural Technology event as an opportunity for the varied experiences of Architectural Technologists who are women to be presented. I believe that each person has their own journey into Architectural Technology – there is no right or wrong way to end up in this career. The event itself offered a unique lens to this. Women shared their journeys in AT with the opportunity to network and gain connections. It was a welcoming environment and created a feeling of community.

It felt uplifting to have a space to speak to my peers in the industry. My hope for the future is that there may be more in person events like this, to allow members and affiliates to meet and form a support network. Only then can we better understand how to support each other through activities of the networks geared towards meeting our individual needs.

We would like to extend our thanks to all our contributors, individuals and organisations including: AECB, Atelier 10, Edinburgh Napier University Equate Scotland, Glasgow City College, HLM Architects, Loco Home Retrofit, McWilliam Lippe Architects, Mass Timber Academy, New College Lanarkshire, Robert Gordon University, Smith Scott Mullan Architects, University of Edinburgh and Women in Property. ■

CPD... and how you can do it!

Continuing Professional Development (CPD) conjures up images of having to attend a paid for course or seminar and being talked at. Not only is this a drain on time and resources, but how sustainable is it to find the right events, book your space and re-arrange your schedule accordingly several times throughout the year to meet the Institute's annual requirement[1] of a minimum of 35 hours?

This out-dated assumption of what CPD is makes you an unenthusiastic actor in your own professional development. Would you be as reluctant to act if the possibility of a promotion was there? The answer to that is probably no.

CPD is not intended to be an add-on to an already busy workload; it is meant to develop your skills and help you perform better in your current role or enable you get to the next level of your career. In effect, if you learn something new, it is developing you professionally.

Paid for courses/seminars are just a few of the ways in which you can develop yourself professionally, and in most cases you can direct your own learning and development to suit your ambitions. Best of all, the majority of these activities do not require much, if any, financial investment on your part.

Activities that can count towards your annual CPD requirements include:

Research

If you are having to look into specific materials or techniques for project(s) that you or your practice is working on, this counts as CPD.

The key is to keep track and log the time you spent researching. This can be done on your own CPD record that can be accessed within the 'My CIAT' member login area of the website.

Reading up on existing and upcoming regulations also counts as CPD, as this will help you and your colleagues ensure any projects are compliant with the latest requirements, rather than having to make revisions at a later stage.

1 All members (excluding student members) and affiliates are required to undertake a minimum of 35 hours CPD every year as stated in the Code of Conduct:

"Clause A7: Continuing Professional Development: The members (excluding student members) shall:
A7a) keep themselves informed of current practices and developments appropriate to the type and level of their responsibilities; and
A7b) be able to provide evidence that they have complied with the requirements for continuing Professional development (CPD) as published by the Institute from time to time."
"Clause B7: Continuing Professional Development: Affiliates shall:
B7a) keep themselves informed of current practices and developments appropriate to the type and level of their responsibilities; and
B7b) be able to provide evidence that they have complied with the requirements for continuing professional development (CPD) as published by the Institute from time to time."

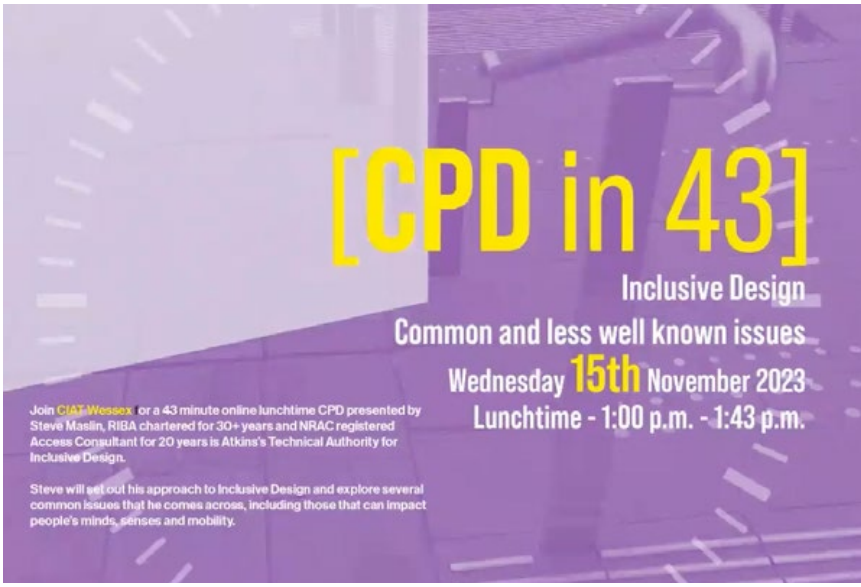
Online resources

All members and affiliates have access to CIAT's Technology Network, which is a directory of members and affiliates willing to give guidance to other members and affiliates. Its main aim is to put members and affiliates, with experience in different areas, in touch with each other for guidance and support. Some members or affiliates who work in isolation benefit from contact with others in their field, as do newly qualified members experiencing teething problems. If you are not the one seeking advice, why not register the areas/topics that you would be willing to advise others on instead? Mentoring is also a form of CPD.

The Building Safety Act 2022 is at the forefront for those that work on projects in England and Wales, and therefore you may find the information listed on the Building Safety Hub relevant on our website.

CIAT's *AT Weekly* enewsletter is another online resource that can keep you up-to-date with relevant information relating to the built environment, as well as the Institute's activity nationally and internationally.

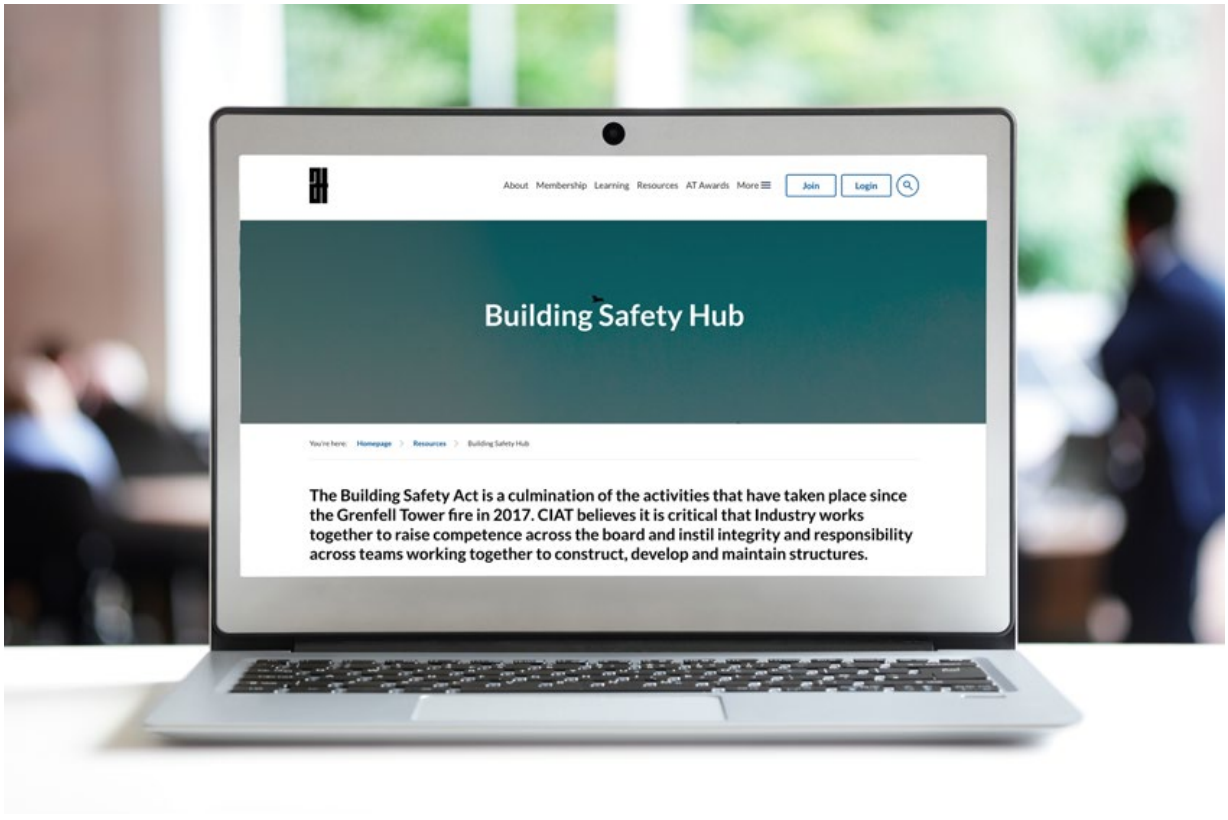
The AT CPD Register lists a range of learning opportunities that have been assessed by CIAT and deemed professionally beneficial to Architectural Technology professionals. Similarly, our CPD Catalogue can also help you, whether this is watching the Wessex Region's CPD in 43 or looking up relevant information when researching products or methods for your projects. Though please note that this content has not been assessed by the Institute.



Professional qualifications

There are several benefits to progressing your membership; Chartered status in particular, is a mark of an individual's commitment to upholding professional standards. Some professional qualifications can also denote a specialism within a particular area.

Chartered Architectural Technologist, MCIAT [2]
Becoming a Chartered Architectural Technologist does not happen overnight, but you can build steps into your professional development plan to help you obtain this status.



2 For more information on how to become a Chartered Architectural Technologist, contact membership@ciat.global

If you do not have much practical experience, you could refer to CIAT's *Professional Standards Framework* and speak to your employer about gaining experience in the areas in which you need to develop, mapped to our standards. Keep a record of this experience as this will save you a lot of time when you are in a position to complete the application process to become a Chartered Member.

For those of you that are closer to submitting, do not forget that attending the Membership Progression sessions or the MCIAT Short Course offered by the Membership Department also count as CPD, as you will be given advice as to how best structure your application form and portfolio. If necessary, you can use the Mentor Match Me service to be mentored by a Chartered Architectural Technologist prior to submitting your application form, or before sitting your interview.

Fellow Membership

Chartered Architectural Technologists are eligible to apply for Fellow Membership FCIAT.

Fellow Membership complements the 'Chartered Architectural Technologist' professional qualification and is an acknowledgement of significant contribution to and/or excellence in Architectural Technology.

A selection of FCIAT FAQs can be found at: https://architecturaltechnology.com/joining/fellow-membership-fciat/fellow-membership-faqs.html and/or watch a video recorded workshop at: youtube.com/ciatechnologist

Chartered Environmentalist

Chartered Architectural Technologists who have specialised in environmental issues may choose to 'badge' their competence by becoming a Chartered Environmentalist (CEnv). This qualification demonstrates your commitment to environmental best practice and a high degree of expertise within the sector.

Reflecting on your experience to date and deciding how you want to continue evolving your skills within this area, count towards your CPD hours as does undergoing the application process to become recognised.

Being registered as a Chartered Environmentalist sets you apart from others working in this field. It establishes

proven knowledge, experience and commitment to professional standards, and enhances employability.

The application process consists of submitting a written application which requires you to address the competency statements by demonstrating how you have developed the breadth of knowledge through your work and engaged in sustainable management of the environment jointly with a portfolio of supporting evidence. This is then followed by a professional interview carried out by Chartered Environmentalists.

Conservation

The Institute runs a register for Conservation professionals which is available for Chartered Architectural Technologists wishing to demonstrate that they are competent in the conservation of historical buildings and their surroundings. You have a choice being assessed as either a CIAT-Accredited Conservationist or a CIAT-Recognised Conservationist.

CIAT-Accredited Conservationists are practitioners that take the lead in managing renovations, restorations and play an important part in preserving and conserving the heritage of buildings for future generations. They are recognised by grant/fund aided bodies such as Historic England, Historic Scotland, Northern Ireland Environment Agency, Cadw (Welsh Government historic environment service) and the Heritage Lottery fund. CIAT Accredited Conservationists are also eligible to undertake work as a Quinquennial Inspector.

CIAT-Recognised Conservationists on the other hand are those that have the appropriate knowledge and skills but who do not practise in conservation and instead have demonstrated their competence through the use of case studies.

As part of the application process for either option, you will be assessed and accredited against a set of competences via a written submission and supporting portfolio demonstrating experience in conservation followed by a professional review interview by CIAT-Accredited Conservationists.

Researching, applying and/or sharing these techniques on projects or with colleagues counts as CPD, as does the process of being recognised for your knowledge and expertise in this area.

Principal Designer Register

Expected to launch in Spring 2024, the Institute and its Principal Designer Competency Steering Group has been developing a Principal Designer Register. This will be open to all Chartered Architectural Technologists working in industry and running projects from inception to completion.

Although being on the Register is not mandatory, it is advisable as it will allow clients, dutyholders and other stakeholders to check through a publicly available Register as to whether the professional/s working on a particular building have been deemed competent.

Understanding what is required to Register as a PD counts towards your 35 hours of CPD. For those that are successful in getting onto the Register, they will be required to fulfil CPD requirements specifically relating to the Building Safety Act. Details will be provided to the relevant members.

Engaging with the Institute

The Institute would not be in the strong position that it is in without the continued support of its valued members and affiliates. Therefore, any time that you dedicate towards CIAT activity counts towards your CPD hours.

This involvement includes, but is not limited to:

- Being a part of the local Regional/Centre Committee or aspirATion;
- Sitting on any Group, Committee, Taskforce, Board or Panel;
- Providing views on a consultation;
- Submitting articles to *AT Journal, aspirATion* magazine and/or;
- Representing the Institute at meetings or events.

As you can see, there are plenty of opportunities to learn and achieve the minimum 35 hours of CPD, and please remember, the 35 hours are across a twelve-month period. Sometimes discussions with a colleague or mentor can inform or inspire you on how to progress with current and future projects and can be far more productive and beneficial to your career than an impersonal course or seminar.

Members and affiliates are also encouraged to send information about any upcoming CPD events to the Communications and Education Departments so that these can be promoted as appropriate. ■

For further information as to what constitutes as CPD, please contact the Education Department on education@ciat.global

Honorary Officer elections 2024 nominees standing for election

Following the call for nominations in the last issue of *AT Journal*, each candidate now takes the opportunity to present their manifesto.

Honorary Treasurer

Nominated candidate: Stacey Taylor MCIAT

Sitting down to write this manifesto I have considered the journey that CIAT and I have taken in the time that I have been a member. For me, I have seen career progression, a cross-country home move, getting married and becoming a mother. For CIAT, there has been a professional qualification review, the reinvention of the AT Awards, the completion of the long-awaited office refurbishment, the introduction of the Fellow membership grade and of course our new CEO to name some highlights.

I feel privileged to have been nominated for the position of Honorary Treasurer; I am deeply passionate about the Institute and eager to bring my skills and dedication to this position.

I became a Chartered Member in 2013 and distinctly remember James Banks, Membership Director, suggesting I get in touch with my Regional Committee. I was warmly welcomed into the Committee where I initially held the role of CPD Officer before being nominated as Councillor in 2016. Shortly after this I was encouraged to volunteer for, and was successful in obtaining, a position on the Finance Committee. I relocated in 2019 and was able to take on the position of Councillor for the Wessex Region which enabled me to continue in my finance role.

I feel my journey with CIAT has given me a valuable insight into how we operate on a Regional, national, international and central level, and how as Honorary Treasurer I would be able to support all of the initiatives implemented across our Institute. I believe in ensuring members and affiliates can be part of their Regional Committees; the chance to become the Honorary Treasurer of our Institute would mean I maintain involvement in the Institute I am so proud to be a part of, and would afford another member or affiliate the chance to become involved in the Wessex Regional Committee - I implore all members and affiliates considering joining their Regional/Centre Committee to do so, it has been an incredibly rewarding position and one I have benefited from in a multitude of ways.

I feel privileged to have been nominated for the position of Honorary Treasurer, I am deeply passionate about the Institute and eager to bring my skills and dedication to this position.

The primary function of the Honorary Treasurer is, as Chair of the Finance Committee, working with the Chief Executive and the Finance Department to ensure the Institute remains effective and viable. The Institute is here for its members and affiliates and exists because of its members and affiliates. We face continual challenges in our micro and macroeconomic climates but I will endeavour to ensure CIAT prospers and remains dedicated to its members and affiliates.

Not overlooking the excellent work Doug Fewkes MCIAT has overseen in the role of Honorary Treasurer, we must maintain and continue to develop sound

financial strategies that align with the Institute's goals and objectives. This includes creating realistic budgets, identifying and diversifying revenue streams, and managing resources efficiently to support the growth and sustainability of our organisation.

Open and constructive communication is vital for the success of any organisation. I will enhance our already collaborative environment, working closely with other executive members, Committees and general members. Regular updates and forums will facilitate discussions on financial matters and gather valuable input from the membership. We must continue to ensure that all financial transactions are conducted with integrity, and I will provide regular, clear and detailed financial reports. By fostering a culture of openness, members and affiliates will have a comprehensive understanding of our financial health.

The Regional/Centre Committees are a key interface between the Institute and the members and affiliates and it is vital they are supported. Through budgeting and planning, the Institute must ensure that we continue to support Regions and Centres in their push to maintain and recruit members and affiliates, focus must remain on CPD and networking events to enhance the standing of our Institute, balanced finely with supporting the Central Office in its vital work to ensure it remains agile and proactive within our ever changing industry.

It is our collective responsibility to ensure that our Institute and profession continues to thrive, our ambition is to be at the forefront of recognition within our industry and it takes every member to achieve this. I do not underestimate the responsibility placed on the role of Honorary Treasurer and the role that an effective financial strategy has on our success. I will act with integrity and passion to ensure all decisions made are for the benefit of our Institute and members and affiliates.

Vice-President Technical

Nominated candidate: Dan Rossiter FCIAT

About me
After completing an Accredited programme in Architectural Design Technology at Coventry University, I spent several years in practice at Cardiff City Council; designing new schools as well as the extension and refurbishment of leisure centres and listed libraries. During my time in practice, I developed an interest in technical standards, digitalisation and optimisation. This led me to the Building Research Establishment (BRE) where I developed training, spoke at events and worked with businesses across the globe to develop their approach to Building Information Modelling (BIM), as well as represented BRE on standards committees as their subject matter expert. For my efforts, I was nominated and awarded the inaugural Chartered Architectural Technologist of the Year Award.

In my current role as a Sector Lead at the British Standards Institution (BSI), I provide strategic insights relating to the built environment through my understanding of design, procurement and construction in the form of thought leadership, public speaking and outreach. In addition, I contribute to the development of national, European, and international standards through technical input as well as the convenorship of several international working groups.

Current/previous involvement
Since joining CIAT in 2006, I have actively tried to support the Institute and the discipline, at all levels. Locally, this has included reviving the Welsh Region, Chairing both aspirATion Wales and the Welsh Region, as well as being Councillor. Centrally, this has included contributing to several taskforces, as well as my current role as Vie-President Technical.

In addition, I have contributed to specific questions, consultations and queries relating to technical documentation, information management and BIM, as well as having presented on these topics on behalf of CIAT at external events and as part of the CPD in 43 series.

What can I bring to the Institute?
I bring an externally-facing perspective to the Institute. As part of my role within BSI, I often engage with professionals across the many built environment institutes and associations. In doing so, I have learnt about how they and their bodies operate, allowing me to see opportunities to work together or to borrow from their successes.

One example of this is my current work to establish 'societies' within CIAT. An idea inspired by CIBSE, these societies would provide a focal point for members and affiliates to discuss key topic areas. Whilst we are trialling the 'digital society' first, my hope is we can establish other societies to foster more inter-CIAT discussions, as well as engage with like-minded groups within other institutes. Another example being my ability to leverage my relationships with high-profile professionals, such as when I collaborated with the then President of the Chartered Institution of Civil Engineering Surveyors on CIAT's pilot podcast series.

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Goals as aligned to the Strategic and Corporate Plan
This remains a tricky topic as we have yet to refresh our existing plan. However, I believe our next plan should have a closer relationship to government strategy documents and policies such as the Construction Playbook and Transforming Infrastructure Performance Roadmap to

2030. With a key aim of our existing 2018-23 plan being to enhance the profile of the discipline, I believe an effective way of doing so is through alignment with these strategy documents as they identify the vision for a future built environment. I hope to ensure that Architectural Technology is a firm part of this future.

Why vote for me?
As I stated within my original manifesto, my main goal as Vice-President Technical is to improve how members and affiliates gain access to information relating to good practice such as standards, insights and case studies. Two years in, I believe I have made good progress by establishing the groundwork to create 'societies' which will control their own portfolio of resources, including information sheets. I hope that each society will use its ownership of these resources to tackle misinformation as well as cultivate member-appropriate good practice information about their respective domains.

Time commitment to the role
Simply put, I have met all of my commitments as Vice-President Technical for the past two years without issue. I expect this to continue as BSI remains supportive of my desire to perform this role.

I look forward to a spirited campaign and hearing your views on how I, as Vice-President Technical, can continue to support you, your Region/Centre, and the Institute as a whole. Please feel free to get in touch!

Get to know me!
DRossiter87
DRossiter87

President Elect

Nominated candidate: Dr Gihan Badi FCIAT

It is with great honour that I accept the nomination as President Elect of the Chartered Institute of Architectural Technologists.

Journey and commitment
My journey, shaped by the challenges faced by women in the Middle East, has influenced my commitment to both the architecture and Architectural Technology professions. From navigating obstacles in a male-dominated construction industry to becoming a successful CIAT Chartered Practice owner, I have embraced challenges. My Doctoral degree in disaster risk management, coupled with years of teaching and research, fuels my dedication to positive change.

As a Chartered Architectural Technologist and Fellow Member, I aim to set a positive example for professionals in our field, aspiring to inspire the next generation, break barriers and address gender imbalances. Specifically, I am committed to fostering greater representation for all members and affiliates within CIAT.

With over two decades of experience in the construction industry, my expertise extends beyond traditional architectural roles.

My seven years as CPD Officer and Chair for the Yorkshire Regional Committee, along with roles such as a Professional Assessor and AT Awards Judge, reflect my active participation in CIAT's growth. I have tirelessly promoted the Institute at Regional and national levels, embodying my commitment to its success.

Expertise and vision
With over two decades of experience in the construction industry, my expertise extends beyond traditional architectural roles. I have transitioned from an architect to Chartered Architectural Technologist and a resilient built environment researcher. My comprehensive skill set positions me to navigate complexities and ensure successful project delivery.

Primary goals
Aligned with the Strategic and Corporate Plan, my primary goals are to:

1. Enhance professional development, ensuring equal opportunities for all members and affiliates in all Regions and Centres.
2. Work with the educational team to enhance and improve the educational programmes and training, emphasising core knowledge, skills and experiences.
3. Advocate for sustainable practices and ethical standards.
4. Foster member and affiliate engagement and networking across Regions and Centres.
5. Ensure transparent communication and financial stability.

Envisioning the future
I see a future where Architectural Technologists play a vital role in addressing climate challenges, leading the improvement of energy efficiency in designs, and enforcing safety standards in construction practices to create safer working environments.

My initiatives include:
1. Elevating our role through the integration of sustainable practices into education and professional development.
2. Encouraging research and innovation that contributes to climate resilience.

Enhancing member and affiliate engagement
My vision encompasses initiatives aimed at elevating member engagement, fostering a sense of belonging, and encouraging networking opportunities between members and affiliates across the Regions and Centres. Transparent communication serves as the cornerstone for building trust and fostering collaboration.

Vote for change
Vote for me, as my candidacy is fuelled by a passion for positive change, enhancement and empowering the future of our Institute. I am deeply honoured to be nominated and ready to serve as a President Elect who advocates for the interests of all members and affiliates, guiding the Chartered Institute of Architectural Technologists towards a future marked by diversity, innovation and resilience.

Commitment to time
As the owner of a thriving CIAT Chartered Practice, I understand the importance of time commitment. If elected as President Elect, I commit to making this position part of my daily duties, ensuring effective performance of associated responsibilities.

Nominated candidate: Dan Clements MCIAT

It is a privilege to accept a nomination for President Elect and to be given the opportunity to campaign in what is likely to be one of the most contested presidential elections for many years. It is heartening that there are five candidates standing this year and I wish them all the very best for this process.

I am currently in my second term as Vice-President Practice, a rewarding role which assists in driving some of the most important work in the Institute and certainly areas that greatly affect the membership as a whole. Some of the work I am doing now, will still be high on the agenda for the next Institute's President, such as the ongoing consideration of the Building Safety Act and how best to assist and advantage our members and affiliates. This legislation will perhaps have the biggest influence on how we will practice over the coming years. It is also an opportunity to further position and grow the Institute and its membership.

The inevitable changes that will occur over the next few years will require good leadership and an informed and dedicated Institute figurehead and I believe I am that person. But I also understand the role of President is one of stewardship rather than having the ability to affect wholesale change or move away from our Strategic Plan. The President can influence and suggest, but also needs to ensure that they do not unwillingly undermine the good work of their fellow elected Honorary Officers, our many contributing members and affiliates and the hardworking staff at Central Office. It is by nature a role that has attracted some big personalities over the years, but for me the most successful Presidents are the ones that have listened and firmly put the Institute over their own personal ambitions and goals.

I am grateful that having stood for elections on two previous occasions, many of my peers know a little of who I am and the work that I have undertaken in the Institute. For those who are not familiar with my resume, I run my own practice just north of Carlisle, having worked in the industry for well over two decades now. I practice across a variety of sectors and have a particular interest in natural building materials and highly sustainable solutions as well as a drive to improve process and safety in our industry. I also work on an on-call basis for Cumbria Fire and Rescue Service as a Watch Manager running the station in my home town, a massively rewarding role, that whilst difficult at times also affords me the great privilege of helping my community at some of their darkest moments. I am occasionally involved in fire investigation works, which helps feedback into my role as a Chartered Architectural Technologist and have a fascination at how our buildings are affected by things like fire and flooding. I am in my third year as Vice-President Practice, having previously been the Councillor and Chair of the Northern Region and a Professional Interview Assessor for well over a decade now. It is through the later role that I have had the amazing opportunity to meet so many of my colleagues as they took their final steps to becoming Chartered. Every time I have undertaken interviews for the Institute I am utterly amazed at the scope and breadth of knowledge and expertise that exists in our profession and this demonstrates why we should remain at the forefront of the construction industry.

Given there is limited opportunity within a two-year term to influence policy, there are some key areas I would like to focus on. Firstly, I would like to ensure that the Honorary Officer roles are given the importance which I feel they hold in the day to day running of the Institute. I would like their voices to be elevated with a greater say on areas that affect their portfolios and the membership as theirs is a vital role within the Institute. In addition to this, I feel we may need to review the remits of the Honorary Officers and perhaps look at creating an additional Vice-President position, separate from education that is focused on supporting our Membership Department. The Institute is its members and affiliates, and the trend has been towards reduced or static numbers for a number of years and I feel that we need additional support to drive forward a policy of growth and identify the positive areas where we can expand our membership and our talent base. With the changes that will inevitably come with the Building Safety Act, we have an opportunity to expand our membership by demonstrating the undoubted advantages of being in an

I am grateful that having stood for elections on two previous occasions, many of my peers know a little of who I am and the work that I have undertaken in the Institute.

organisation like CIAT, one I feel is inclusive and forward thinking and able to adapt to the changing nature of our industry.

I also feel strongly that we should overhaul our electoral system and look for a solution that engages our membership fully and encourages the talent that is in our Institute to be involved at all levels in our growth and influence. Many years ago, I was heavily involved in an electoral review process which undoubtedly improved the process that we had at the time and led to positive changes like the electoral Hustings and presentations. At the time we perhaps pushed wholesale change too soon, but I feel that we are once again at a time in our history where we can positively improve how we elect our officials and bring through the undoubted talent we have within our membership. The ultimate goal is to engage all our members and affiliates and make them feel that they have a genuine stake in the shaping of their Institute going forward and encourage and enable them to take an active role in Institute business. I would like to facilitate others to work on our fantastic taskforces, to be involved as elected officials and sit on the Executive Board, roles I have found truly rewarding. This needs to be within reach of all those who are undoubtedly talented enough to contribute but have for whatever reason found the system difficult to navigate or closed.

I also feel strongly that we should overhaul our electoral system and look for a solution that engages our membership fully and encourages the talent that is in our Institute to be involved at all levels in our growth and influence.

Each new President is a continuation of those who came before and I would aim to take the very best of the work commenced by previous incumbents and ensure that it is developed and continued. Positive work has been done in relation to Institute visibility and communications and it is important that this is maintained and where possible further improved. We are an international Institute and our members and affiliates represent us across a wide area of industry. We need to ensure that we continue to educate the general public, policy makers and the wider industry on our broad knowledge base and extensive talent. We are held in high esteem by our industry peers and we should continue to maintain a position as positive influencers for change and contribute from the front.

I am driven by the opportunities that the Institute has afforded myself and others and will continue to provide to those who join us over the coming years. I thought long and hard before agreeing to stand for President Elect, both in terms of what it would require of me and what I can do for the Institute. I would like to see us to continue to modernise and I am keen that we continue to cast aside any remaining perceptions of an 'Old Boys Club' and facilitate a new generation of Chartered Architectural Technologists. As part of that I will respect the history of the Institute but likewise would seek to discard outmoded ways of working that feel unapproachable to the whole, in what is and needs to be a modern Institute and industry. I think it is important that our figureheads embrace positive change and represent the Institute in a modern and inclusive manner and I intend to be part of that progression. We are an Institute for all Chartered ATs and those seeking to progress to Chartered status and I believe that Architectural Technology should be a profession for everyone with ability and passion for the role regardless of individual circumstance.

As always, I would endeavour to represent CIAT and our members and affiliates to the very best of my abilities and it would be a true honour to do this as your Institute's President. As such, I hope that you can extend me your support during the campaign and up to the elections in September of this year. Members are welcome to contact me directly with any questions they may have in regard to my manifesto.

Nominated candidate: Tom Gray MCIAT

It is my complete honour to be standing as a candidate for President Elect of our unique and forward-thinking Institute and discipline. As the curator of this post, I want to build on the outstanding work of our previous Presidents and continue to push the boundaries to expand our professional, personal and social outreach.

Building on our heritage, as the youngest-ever candidate for President Elect, I hope to bring fresh ideas, innovations and opportunities to the post.

Keeping our organisation at the forefront of Architectural Technology remains key, but also to be ready to weather any future storms. I believe we must maintain our relevance and support our staff and members to excel. I feel I have the skills and determination to deliver this.

From an early age, I knew a career in design, technology and construction awaited me. It went beyond the Lego obsession. My professional career journey started some years later with an HNC apprenticeship, progressing to university, where I joined CIAT as an Associate member and then as a Chartered Member upon graduating.

A personal career highlight for me was receiving the Chartered Architectural Technologist of the Year Award from CIAT in 2021. It is this championing and recognition of emerging talent that makes CIAT of such international importance.

As President Elect, to serve you best, I feel listening is key. Only through consultation and close collaboration with our staff, delegates, representatives, members and affiliates and our wider community can we understand and learn which course of action will deliver the best onward results.

Leading through careful planning with measurable outcomes is my plan. Attracting new members and

affiliates also remains critical. Giving the CIAT brand maximum visibility and exposure is essential through our Accredited and affiliated international programmes – students who should become the next generation of industry professionals and future custodians of our Institute.

My agenda will pivot around four major areas, which are as follows:

1. Education
2. Promoting our profession
3. Serving our community of practice
4. Protecting our planet

To achieve these four goals, communication is vital. I will ensure our members and affiliates keep abreast of the latest developments within our profession, by expanding on our established modes of interaction and embracing new technology, innovation and creativity.

Education is at the core of my agenda, which I believe needs some evolutionary (if not revolutionary) transformation. By approaching and recruiting future generations at much younger ages, we enable better opportunities to educate, inspire and attract them to our profession.

Alongside this, we have a responsibility to improve equity, diversity and inclusivity. I propose more outreach programmes for schools in deprived and underprivileged communities.

Promoting our profession involves synergy and collaboration. I believe working alongside other professionals in the AEC industry will empower us. With boundaries and definitions in place, we can collectively move forward stronger – I will always ensure the sovereignty and protected Charter of our profession are safeguarded and promoted.

With proactive leadership, I believe we can collaborate with other initiatives and disciplines across the wider architectural, built environment, civil and structural engineering and construction professional communities to create new opportunities.

I will commission a working group to collaborate with existing taskforces to carry out practical, applied research with direct, measurable and beneficial outcomes for the Institute and all its members and affiliates. These research streams will lead from some ideas that I have already developed with the help and support of my team. Moving forward, any new themes and topics will be debated and voted on in AGMs.

Serving our community is paramount for me, as our staff and members and affiliates are our biggest asset. I will work with all members and affiliates, Regional and Centre Committees, Council, Vice-Presidents, our CEO and the headquarters – to ensure we enable our members and affiliates to deliver the best services in their areas of work.

Professional workshops, seminars and short training packages will help improve our personal and interpersonal skills. Alongside this, by providing the best practice examples, guidelines and support documents, we can enable those members and affiliates who wish to improve these skills. Plus, all these measures will demonstrate the ongoing value of their membership.

Importantly, I will also deliver on a new initiative, to highlight mental health awareness and the wellbeing of our members and affiliates and the wider construction industry. Having suffered with my own mental health illness in 2017, I am very aware of the isolating experience this creates. Whilst our industry is developing strategies, we need to bolster this further and promote better working lifestyles. I will continue to support the outstanding work of the Architects' Benevolent Society, and all they do to support design industry professionals, building on the successes and strides our current President is making with them.

Protecting our planet is inescapably important today. With over 40% of greenhouse gas emissions coming from the building and construction industry, it is one of the most significant contributors to climate change. More than any other profession, the influencers to make meaningful change must surely be the Architectural Technologists.

To keep the environment on the top of the agenda, I intend to utilise the environment as a cross-cutting theme throughout my tenure, from education outreach to professional development. Covering topics, from sustainability, environmental impacts, lifestyle assessments, biophilic design and social sustainability to circular economy.

I stand to professionally serve you, our membership, and our Institute towards a better, greener and more sustainable future on our one and only planet.

With proactive leadership, I believe we can collaborate with other initiatives and disciplines across the wider architectural, built environment, civil and structural engineering and construction professional communities to create new opportunities.

in /in/tomegray
www.tomegray.co.uk
tom@tomegray.co.uk

Nominated candidate: Paul Laycock MCIAT

Growing into the future

Introduction and acknowledgement

Growing up, I always knew my home would be in the built environment. Coming from a family of trades and construction managers almost all of my childhood memories involve the smell, taste and feel of construction.

But never did I think I would be standing for President Elect of an Institute that I regard as my home and extended family.

I am both proud, and humbled, to stand before you as nominee and promise above all else to do my absolute best in representing the interests of all members and affiliates if I am successful.

> I am both proud, and humbled, to stand before you as nominee and promise above all else to do my absolute best in representing the interests of all members and affiliates if I am successful.

This will be of no surprise to those of you that know me. I am passionate about our Institute, the profession and all that we stand for. I am proud to call myself a Chartered Architectural Technologist and be part of a profession at the forefront of our industry. A profession and Institute that I believe will continue to grow and strengthen through the collaboration and commitment of our talented members and affiliates.

It has been a long and varied journey to get here. After my initial Higher National studies, I entered the industry in the late 80's as a construction manager (becoming a Chartered Builder soon thereafter) and became a Chartered Architectural Technologist in 2004 while running my own development company alongside two partners and fellow directors in the organisation. I returned to education in 2005 where I currently lead the design and technology programmes at Birmingham City University.

My team are hugely supportive of me in this nomination, and this support means a lot to me. I am more than aware of the commitment this role requires and without their support I would not have the confidence to take on this demanding role and give it the time and commitment it deserves to make the best of every opportunity.

I have been involved with the Institute at both a Regional and national level since 2005. As one of the original moderators for membership assessment panels; interviewing candidates on interview panels; judging student awards; Chairing programme Accreditation panels; and as Vice-President Education. During this I have had the good fortune to work with our strong and dedicated team at Central Office and the equal fortune to meet and work with many of you in all our Regions and Centres.

The future of Architectural Technology, the Institute and the profession

Our Institute is a body for its members and affiliates, run by its members and affiliates. Our future is in our hands with that future never being stronger than it is today.

I believe in the talent and commitment of our members and affiliates, not only setting the trends, but leading and developing those trends into the future and setting an example to others.

My vision is to see the Institute continue to reinforce its position as a leading professional body.

Members to be seen as an indispensable element in every professional team, and the Institute to be seen as a destination of first choice, with Chartered Membership as a logical and necessary step in the career journey.

My promise – If I am successful, I promise to promote the strength of our membership at all levels and promote a strong sense of identity to all members and affiliates.

Professional identity

I believe we all need to have a common voice in stating our identity, and the skills and attributes of the professional Architectural Technologist that make up that identity.

My promise – If I am successful, I promise to campaign to clarify what it means to be a professional Architectural Technologist in its widest sense and campaign to see this recognised throughout all levels of our educational systems; our Regions and Centres; and the industry, employers, government departments and the broader society who engage our services.

Growing into the future

Growing our membership is imperative for our future and the sustainable future of the Institute.

Growing membership has been a priority for many Past Presidents. I share that vision. The promise I have made above will help considerably in promoting and growing our membership into the future.

Always in motion the future is, and I believe the future of our members and affiliates looks exciting. We are all familiar with the work done by organisations like the CITB in identifying the 'skills gap' in our industry. But perhaps less familiar with research that tells us that around 65% of the children entering primary school this year will end up in jobs that do not even exist yet. We hear about the emergence of 'big data', 'smart cities' and 'digital technology'. All of these are opportunities for short, medium and long-term growth.

But this growth must be a planned and managed growth.

My further promise – to support the Institute's growth into the future by seeking to identify the directions, needs and requirements of the future Architectural Technologist and the future of Architectural Technology.

What would I like to look back on?
If successful in this election I would like to end my term as President and look back on a stronger Institute; a stronger profession; and an Institute that has membership and members and affiliates as its first priority. I am the right candidate to make a real difference to our profession.

If you share my vision, then vote for me. I will not let you down.

Nominated candidate: Usman Yaqub FCIAT

Introduction
As we look back on the challenges faced by the architectural industry in recent years, including issues such as climate change, the fallout from the Grenfell tragedy, the tragic Awaab Ishak case, discovery of RAAC in schools, ongoing flood risk to councils, bio-diversity net gain requirements and 15-minute cities - the list goes on, which has resulted in changes to planning laws and building control, and how forthcoming applications are assessed. As a highly skilled Chartered Institute, we are well positioned to face these challenges, and lead on these subjects and take a leading role in shaping the future of our profession pre-emptively approaching concept, innovation and realisation and navigating an ever more complex environment of building physics, design and the integration of artificial intelligence.

My vision for the Presidency is to build on the achievements of our Institute and Region and Centres, expanding initiatives and developing ideas on a wider scale. I am committed to having a global impact and advancing our Institute's membership with valuable resources and increased engagement.

My active involvement within the Institute began in 2018 having previously completed my Chartership in 2014. Since then, I have volunteered for several roles in the Region, initially working with the aspirATion initiative, and more recently being nominated Chair and CPD Officer of the Wessex Region. We have invigorated activity within the Region, developing closer ties with universities, among students, recent graduates and Chartered professionals. This has been in the form of a structured calendar of events, including lectures, Coffee Clubs, and Meet the Technologist, in addition to developing relationships with other Chartered institutes.

Alongside my involvement in CIAT, I am Director of Studio Yaqub Architecture, an Architectural Consultancy based in Bristol. As a practice we work across a number of sectors with a specialty in challenging residential and commercial developments. Aside from this I am Associate Lecturer at the University of the West of England where I provide support to the array of architecture programmes including the CIAT Accredited Architectural Technology and Design programme.

In 2021, I was honoured to be a recipient of the prestigious Gold Award and was named 42 under 42 Insider Media South West 2022, acknowledging the work I do as part of the Institute. Within the same year, I obtained my Fellowship with the Chartered Institute of Architectural Technologists.

One area I aim to champion as President Elect is the continued professional development of our profession. In 2021, following the mass transition to online video calls, as a Region we set up the 'CPD in 43' series. Since its formation, we have organised over 50 CPD events which have been seen by over 10,000 professionals live, and even more on CIAT's YouTube channel. We continue to build on its success and have an exciting range of events planned for 2024.

These key learning experiences and exposure have provided me with a deep understanding of the profession and its needs. The following outlines the key areas I will focus on if I were to be voted President Elect.

Aims

Develop
There is a clear need for the Institute to provide a structured CPD framework for us to develop as professionals. The aim is to build upon the success of CPD in 43 and develop this model further to provide deeper dives into areas of further learning, Having championed this for several years, I am certain with its popularity and continued demand this is a space that can be focused on and developed further to provide a valuable resource that will be available to our membership and help promote the Institute within the industry. This would be implemented by creating a monthly CPD framework that amalgamates the popular CPD in 43 series, in addition to expanding on the range of events and development opportunities with the aim to add value to membership, share knowledge and enhance our capabilities within the built environment. All with the aid of Central Office and a suitably representative taskforce that can allow Regions and Centres to focus on deeper dives and dynamic in-person events.

My vision for the Presidency is to build on the achievements of our Institute and Region and Centres, expanding initiatives and developing ideas on a wider scale. I am committed to having a global impact and advancing our Institute's membership with valuable resources and increased engagement.

Retain
As an Institute, we are well respected within the industry, in the UK and internationally. However, we need to focus retaining student members and converting them to become Chartered. Every year there are hundreds of Architectural Technology students

graduating across the globe. Focusing on the journey from student to Chartered Architectural Technologist in greater detail with the aim of adding value, developing a community and ensuring people feel an affinity with the Institute is a key task. This will be done by working closely with membership, education and the aspirATion Group to really understand how this can be improved to give a clear legacy of growth and retention. I am also keen to champion the future leader's initiative that I believe should be implemented at the earliest opportunity. In addition to retaining student members and graduates, it is equally important to retain existing members and affiliates and those reaching or have recently stepped into retirement. Each year, Regional/Centre Committees are seeking opportunities to bring members and affiliates together, therefore it is important to focus its members and affiliates and facilitate these opportunities.

Value

As an Institute and as Chartered professionals, we are a key member of the construction industry with immeasurable amounts of knowledge and expertise. It is about time we get our elbows out and make ourselves heard. I believe in championing individuals who showcase the best of Architectural Technology and we should continue to build upon the Where it's AT campaign to highlight us as a profession and develop our identity as technical experts in our industry.

I am deeply honoured to be considered for this position and am committed to supporting existing initiatives while implementing new developments to enhance our membership's growth and value.

In addition to strengthening our identity as an Institute, and as a practice owner myself, I also believe that further support can be provided to individuals and CIAT Chartered Practices on the business of architecture. If voted President Elect, I would recommend a review of the support available with a representative committee being established. I staunchly believe that there is a gap of business and economics understanding that exists for many and whilst this is not an essential element to most Architectural Technology programmes, it is a key skill that we need to develop within practice, whether you are an employee, self-employed or a business owner, I want to see businesses thrive. Therefore, I would focus on what the institute could do to provide these resources to develop these keys skills.

We are an essential discipline that has immense value to inform and advise the construction industry and wider public and as such, it is key for us give the tools to our members and affiliates to allow them to showcase their abilities and talent.

Conclusion

Over the years I have met many members and affiliates, and count many as friends. Having spent time and learnt a lot from these individuals, I can see that the passion, enthusiasm and expertise members and affiliates give the Institute. If elected, I will do my utmost to not only support existing initiatives but also keen to implement Institute wide developments to:

- Develop: I will work to create a structured CPD framework to provide deeper learning opportunities for our members and affiliates. This will involve expanding on successful initiatives such as the CPD in 43 series and collaborating with Central Office and a representative taskforce to offer a range of events, including deeper dives and dynamic in-person events.
- Retain: I will prioritise retaining student members and converting them to become Chartered Architectural Technologists. By working closely with membership, education and the aspirATion Group, we will develop a community and ensure a clear path from student to Chartered professional.
- Value: I will champion the Where it's AT campaign to highlight the expertise of Architectural Technologists in the industry. Additionally, I will focus on providing support to individuals and practices on the business of architecture, aiming to develop key skills on business acumen and ensure the thriving of architectural businesses.

In conclusion, I am deeply honoured to be considered for this position and am committed to supporting existing initiatives while implementing new developments to enhance our membership's growth and value. With a dynamic and passionate membership, we are well-equipped to meet the challenges ahead and elevate the profession to new heights. I humbly ask for your support in this endeavour. Together, we can add value and seize the opportunities that lie before us.

What happens next?

Candidates gave presentations at the Council meeting held on 9 March and we encourage you to liaise with your local Region, Centre or aspirATion about these for feedback and discussion.

There will be two Hustings held during the election campaign with all candidates – one in person on 24 June and online on 11 July.

These manifestos for the nominated candidates were also issued to members and affiliates by email and can be found on our website. A campaign trail is now in progress with the election taking place at Council on 7 September 2024.

Key dates summary

Campaigning by candidates:
1 March – 13 September 2024 inclusive

Election ealerts and updates on the website:
1 March – 13 September 2024 inclusive

Election at Council:
14 September 2024

Candidates advised if not in attendance at Council

Ealert announcing the election results:
11 September 2024

Assumption of position:
16 November 2024 close of 2024 AGM ■

Coming 1 May 2024

2024/25 subscription renewal

Subscriptions are due for renewal on 1 May annually - look out for your renewal in the post and by email in May.

If you already pay by Direct Debit your membership will automatically renew

Spread the cost by setting up a Direct Debit for payment in ten equal monthly instalments, interest free, or one annual instalment.

You may qualify for a concessionary subscription fee if you are on a low income, unemployed or retired.

10 reasons to renew

Accountability
Demonstrate your commitment to the highest professional and ethical standards in Architectural Technology through CIAT's robust Code of Conduct and rigorous conduct processes.

Networking
Engage with your peers and professionals in industry. Make new contacts, exchange ideas and expand your professional and social networks.

Recognition
Showcase your knowledge, experience and professionalism as a Chartered Architectural Technologist; a UK-regulated qualification and protected title, which is becoming increasingly recognised globally.

Employability
Enhance your current and future career opportunities in the discipline.

Evolution
Drive the industry forward and continually improve and evolve practices in the discipline.

Specialist Registers
Take advantage of opportunities to enhance your career and diversify through our Specialist Registers.

Support
Benefit from dedicated support from a range of platforms, networks, information and resources.

Credibility
Demonstrate to your clients, colleagues and employers that they are in secure and safe hands because of your CIAT membership or affiliation.

Development
Attend CPD events in person and remotely through our Regions, Centres and aspirATion as well as our AT CPD Register and receive specialist support via our Mentor Match Me platform and Technology Network.

Influence
Have a voice to lobby to improve and change policy, legislation and regulation. Contribute to the operation of your institute for the betterment of society.

Membership news

Chartered Architectural Technologists

We would like to congratulate the following who successfully attended their Professional Interview and are now Chartered Architectural Technologists, MCIAT:

028645	Karam Al-Obaidi	Yorkshire, 02
023125	Samuel Frain	Yorkshire, 02
009955	Richard Grota	Yorkshire, 02
033132	Ryszard Rejniak	Yorkshire, 02
016588	Stuart Caldicott	West Midlands, 05
029390	April Rapley	South East, 10
035881	Niall Fifer	Western, 12
020391	Robin Patterson	Scotland West, 13
031816	Heather Green	Northern Ireland, 15

Welcome back

We would like to welcome back the following Chartered Architectural Technologist:

009137	Robert Henderson	Northern, 01
019656	James Lai	Greater London, 09
011741	Derek Wilson	Scotland East, 14
029047	Nicole McConville	Northern Ireland, 15
029247	Elton Evans	Australasia, C3
028288	Cian Gilligan	Middle East & Africa, C7

In memoriam

We regret to announce the death of the following members:

014867	Simon Morris	North West, 03
005183	Reginald Norkett	Central, 08
011616	Michael Protze	Scotland West, 13

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