

ISSUE 11 | 2023

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SUMMER CONFERENCE 2023



By popular demand, we've collated some of our favourite photos from our annual Summer Conference at the Science & Industry Museum.

Our much anticipated Summer Conference took place at the Science & Industry Museum in Manchester this July, and boy do we wish we could do it all over again!

We've collated some of our favourite photos from the event to share in our Summer Conference 2023 'Highlights Gallery'.

The event began with a warm (and magical) welcome from our guest compère, Ben Hanlin. Best known for his ITV2 Show Tricked, appearance on The Tonight Show with Jimmy Fallon and he's even been a semi-finalist on ITV's Dancing on Ice.

Ben certainly gave the problem solvers in the room something to think about with his tricks and kept the room energised throughout the jam-packed Conference.

We were then fortunate to hear from colleagues joining us from across the business to share a vast range of company and team updates, including highlights for programmes such as Hinkley Point C, Sellafield, West Midlands Interchange and Leonardo Helicopters.

The presenters covered four key themes for the day – our people; tools and environment; projects; and reputation.

We also celebrated the achievements of our Emmy Awards winners, and Early Careers Development Programme graduates.

After a quick refresh, the team re-assembled back at the Science & Industry Museum for an evening of fun and entertainment...

The brief: 'Reception drinks for a room full of engineers'. The result: With video games from the past five decades and over a hundred different consoles for the team to choose from, the museum's 'POWER UP' exhibition didn't disappoint!

Like what you see and want to find out more about how to join our growing business?

We're currently recruiting for a wide range of technical, engineering and support roles across the UK, from Dounreay to Manchester, Peterborough to Yeovil, and everywhere in between.

Send your CV and covering letter to our Senior HR Advisor, Becky Hicks, to find out more about our live roles: becky.hicks@morson-projects.co.uk.







"Morson Projects are delighted that we can continue to work with Leonardo's industry leading products and be at the forefront of capability enhancement."

LEONARDO & MORSON PROJECTS PARTNERSHIP SECURES ENGINEERING SKILLS IN THE NORTH OF ENGLAND & NORTHERN IRELAND

Leonardo and Morson Projects have been working together for more than 20 years, with this contract securing the partnership into its third decade.

Morson Projects have signed a long-term Strategic Partnering Agreement (SPA) with Leonardo, which will enable the UK's only onshore helicopter manufacturer to offload engineering work to augment the company's existing highly skilled engineering capacity.

Further to the contract signing on 3rd March, Morson Projects will be managing engineering work at Leonardo's UK helicopter facility through sub-contractors and the management of fixed-price packages across our UK design offices in Northern Ireland and the North of England, covering Belfast, Manchester, and Hull. This is in addition to on-going operations from our existing local South West presence in Yeovil and Bristol.

Adam Clarke, Managing Director of Leonardo Helicopters UK, commented: "This Strategic Partnering Agreement enables Leonardo and Morson Projects to not only strengthen relations between the two companies, but it also secures engineering work and supply chain resilience across the UK. Furthermore, if we are successful on large contracts like the UK MOD New Medium Helicopter programme, we will have a number of skills available to us to support UK prosperity and our engineering ecosystem."

Becky Veal, Associate Director at Morson Projects, shares: "Over the years we have established a long-term

relationship with Leonardo, which we are now looking forward to taking to the next phase of becoming a long-standing sustainable partner.

"As industry experts we pride ourselves on our collaborative approach and reactive working, which has enabled us to be in a unique position to support Leonardo Helicopters, delivering a wide range of solutions from resourcing to engineering offload."

Matt Thompson, Head of Engineering Delivery for Leonardo Programme at Morson Projects, added: "The Prime Supplier Status award is the culmination of many successful years of Leonardo and Morson Projects working collaboratively and is testament to the hard work, passion, and commitment of everyone involved."

"Morson Projects are delighted that we can continue to work with Leonardo's industry leading products and be at the forefront of capability enhancement."

Best known for its onshore production of UK military helicopters and cutting-edge electronics on-board Royal Air Force aircraft, Leonardo is one of the biggest suppliers to the UK Ministry of Defence. Leonardo already employs over 8,000 people in the UK and recently opened a new site in Newcastle.

This SPA will enable Leonardo to support engineering projects, as required, across the UK beyond its existing company sites.

PURPOSE-BUILT RESEARCH, DESIGN & INNOVATION FACILITY, iAERO, CELEBRATES 'ONE YEAR ON'

Our Aerospace & Defence team joined colleagues and partners from across the South West at iAero's 'One Year On' celebration in Yeovil.

The iAero Centre welcomed occupants including Morson Projects, Leonardo Helicopters, and many more local businesses, to celebrate the one year anniversary of their opening.

The event showcased and celebrated the best of innovation and growth across the Aerospace sector, having opened back in 2022 as a purpose-built research, design and innovation facility.

Our iAero journey...

With existing offices in Bristol and Yeovil, the team fell in love with the iAero building back in 2022 and knew straight away that it would help them to service their Leonardo commitments.

Before taking a tenancy, the team utilised the Centre to deliver intensive upskilling and Leonardo familiarisation training course to a cohort of eight ex-forces personnel. The training course sought to re-train former helicopter engineers as Technical Authors, a role required by Morson Projects to write Technical Support Documents for their Leonardo contract. A further two cohorts are planned to be delivered at the Centre.

Becky Veal, Associate Director shared: "Having been working closely with the iAero Centre since it's opening, the Centre has been providing an excellent environment to deliver our training courses, as well as providing trainees with the exposure to the Leonardo site and a better understanding of the product".

Since taking up the tenancy in May 2023, the team has also experienced an increase in collaborative activity with both Leonardo and other businesses.

"Morson Projects have been working with one of our key clients, Leonardo for over 30 years and have more than 160 people deployed in support of the partnership. In March 2023 we signed a long-term Strategic Partnering Agreement (SPA) with Leonardo which will enable the UK's only onshore helicopter manufacturer to offload engineering work to augment the company's highly skilled engineering team.

"Since moving into an office at iAero in May 2023, we now have the collaborative workspace that we did not have before. We can host meetings here and have informal conversations with members of the Leonardo team as they come in and out of the building. The office also provides a touch down point for colleagues from other offices to work from when visiting Leonardo."

The Centre's events and networking opportunities also enhanced our capability to host clients and collaborate with other local businesses: "It is encouraging to meet new businesses with new ideas that they want to bring into the industry. It is exciting to think about how we can integrate these innovations into our programmes of work."

The iAero also offers benefits of being able to access the collaborative technology available at the Centre (including 3D printing) as well as providing an opportunity to disseminate new ideas and technologies from the rest of the UK throughout the South West which is of huge benefit to the Aerospace & Defence sector.

Furthermore, with a nationally recognised STEM Ambassadors programme, Morson Projects has ambitious plans to work collaboratively with local schools and colleges to support the delivery of the STEM education in the area and support the growth of the young talent required by the industry in the future.



LIFT OFF FOR VERTICAL AEROSPACE VX4 EVTOL AIRCRAFT

As part of on-going testing ahead of certification, this summer Vertical Aerospace successfully flew their full-scale electric aircraft, the VX4, at Cotswold Airport, reaching their target speed of 40kts through a series of rigorous, remotely-piloted 'thrustborne' test flights.



The only full-scale eVTOL aircraft in the UK, the VX4 lifted, hovered, flew and landed, powered solely by the cutting-edge battery-powered propulsion system.

Vertical Aerospace shared on their social media platforms: "This is a very proud moment and a huge milestone for Vertical and our team, whose enormous dedication and hard work has made this possible. We'd also like to thank Civil Aviation Authority for their support over the flight test campaign, and our industrial partners for their shared belief and vision in the future of electric aviation."

Vertical are planning further flight tests over the coming months, whilst also developing their second prototype aircraft which will feature even more advanced technology.

It is hoped the VX4 will be certified by the middle of the decade, at which time the aircraft is expected to open up advanced air mobility to a whole new range of passengers and transform how we travel.

The aircraft is projected to be capable of transporting a pilot and up to four passengers, traveling distances of up to 100 miles, and achieving top speeds of 200 miles per hour, while producing minimal noise and zero operating emissions.

Morson Projects' Jig & Tool team have been working with Vertical Aerospace to deliver the design and supply of assembly tooling, delivering over 30 items of equipment that have been used to assemble the revolutionary new aircraft.



"We are proud to have been supporting Vertical Aerospace on their journey so far and look forward to following the VX4's route to certification as it continues to progress successfully through an intensive test flight programme."



James Tetley Associate Director

Email: james.tetley@morson-projects.co.uk

We caught up with Morson Projects' Associate Director, James Tetley, who is responsible for the Jig & Tooling Department:

"We knew during our first meeting with the Vertical Aerospace team that this was a company and project we wanted to be involved with, what they have achieved is fantastic and demonstrates the strength of their expertise and the UK aerospace design and manufacturing sector.

"Our team have been working closely with the engineers from Vertical Aerospace to design and manufacture a suite of tools to facilitate the assembly of the aircraft to drawing.

Locating and installing major components is always challenging but the experience our aircraft tooling team has combined with the product knowledge of the Vertical engineers has allowed us to deliver high quality and high function tooling on budget and on time.

"We are proud to have been supporting Vertical Aerospace on their journey so far and look forward to following the VX4's route to certification as it continues to progress successfully through an intensive test flight programme."

Paul Mackie, Senior Programme Manager and Technical Lead for the Assemblies and Business Operations Project, Vertical Aerospace, added: "The support and expertise the Morson Projects team has brought to the creation of tooling, assembly and transportation equipment has been invaluable to the rapid development of the VX4 aircraft and the Vertical Aerospace

mission as a whole." It is imperative that the aircraft is developed quickly but also with precision and safely during its build assembly and initial flight test campaign. The equipment developed in collaboration with the Morson Projects team will enable the aircraft to be accurately manufactured, assembled, disassembled, transported and reassembled during this crucial phase.

"The rapid growth of the eVTOL market means that Vertical Aerospace needed support from a specialist provider for the design, development and manufacture of the equipment necessary to assemble and transport our VX4 aircraft. The engagement with Morson Projects was quick and efficient and continued through to successful delivery of the equipment pieces to meet our demanding programme schedule timeline.

"Collaborative working with Morson Projects was a professionally enriching experience for both parties. A close working, trust-based relationship was formed and it quickly became apparent that development of the assembly and tooling equipment required is a specialist activity which the team was well equipped to provide.

"This has been a successful working partnership between Morson Projects and Vertical Aerospace and has made a significant contribution to the rapid development and production of the VX4 aircraft."



CASE STUDY:

DESIGNING THE NEXT GENERATION OF SUPERIOR COMBAT AIRCRAFT STRUCTURES

The team at Morson Projects have been collaborating with the National Composites Centre and the Defence Science Technology Laboratory (Dstl) on the latest technologies for the next generation of lightweight, strong and resilient combat aircraft composite structures.

A case study has now been released on the Advanced Design of Composites Structures for future Combat Aircraft (ADCoSCA) programme, which is outlined in detail below:

Background

The UK defence sector is a driving force in research and development. Through technology innovation, it supports the armed forces to meet the changing demands of modern-day combat, so they are best able to defend our national security interests, protect citizens, and safeguard our prosperity.

The sector is investing in advanced research across a range of potential combat aircraft concepts spanning next-generation crewed combat aircraft, uncrewed vehicles, and the associated range of product development and certification approaches.

Composites have a critical role to play here, as they do across modern society, to make objects lighter and stronger, with increased damage tolerance – and which also reduce their carbon footprint. For example, high performance vehicles, such as modern fighter jets and Formula 1 cars are made from 80% composite materials (by volume), but this equates to 40% of the total weight for a jet and just 25% of the total weight for a Formula 1 car. Whilst huge advances have been made in the application of composites, the technology still has more to offer.

Challenge

Developing the next generation of combat aircraft requires improved manufacturing efficiency to reduce life-cycle costs, whilst producing strong, durable, lightweight and safe aircraft that use less fuel, thereby reducing their CO2 emissions.

Composites can help unlock these capabilities. In 2020, the NCC and Dstl launched a two-year £1.4 million

Advanced Design of Composites Structures for future Combat Aircraft (ADCoSCA) programme to develop novel and transformational ideas for airframe design concepts.

The programme involved developing design concepts through space trade studies (e.g. structural performance vs. complexity vs. mass), alongside work to identify and provide mitigation against specific features that constrain mechanical performance and have a high associated cost.

The programme

Led by a joint NCC and Dstl steering group working with BAE Systems and QinetiQ, the first year of the ADCoSCA programme included a forensic State of the Art review to identify the key characteristics that drive overarching aircraft structures, the potential technologies that may be of interest, and the organisations with an interest and capabilities in these technologies. BAE Systems and QinetiQ also delivered comprehensive knowledge studies to support the programme's understanding.

During ADCoSCA's second year, the NCC, QinetiQ and Morson Projects developed the design trade studies and produced initial airframe design concepts. The NCC undertook the following studies:

- **Unitised Structures**

Generating a list of concepts for novel design and manufacturing solutions that would facilitate integration and unitisation of generic air frame sub-structures and skins for use in crewed and uncrewed air vehicles.

- **Thermoplastics**

Investigating thermoplastic manufacturing to increase toughness, damage-resistance and damage-tolerance, offering major advantages in performance.

- **Fairings**

Investigating the concepts for novel design solutions for structural, semi-structural and non-structural aero panels used in crewed and uncrewed air vehicles.

Results

With the support of the ADCoSCA community, the NCC and Morson Projects developed a 'Tree of Options', which collated and graphically presented the design trades applicable to a concept airframe. Technical information that will help inform the Ministry of Defence of suitable directions for future research into an airframe design.

The NCC also developed a roadmap for future ADCoSCA work programmes, which sets out a clear direction for the continuation of the work across a broad range of subjects.

Impact and next steps

Through work on materials technologies, structural concepts and manufacturing concepts, this initial phase has provided a foundation, and a vision for further work.

Dstl's aspiration is to take a number of promising initial design options into a follow-on programme; subject to contract. This could include a wider range of aircraft concepts, further optimisation and down-selection of technologies and the provision of high-fidelity worked examples of world-class integrated airframe-designs.

The research findings and the range of design options developed have scope to influence current and future programmes, such as GCAP (Global Combat Air Programme) and FCAS (Future Combat Air System).



SERVICE SPOTLIGHT:

CONTROL SYSTEM MODERNISATION

There are many control systems out there on outdated PCs, PLC's and HMI's which have exceeded their envisaged lifespan. Continuing to ignore the necessity to upgrade these systems can become a risky strategy for your company. If the control system was to fail tomorrow, what would the cost be to your company?

Following our recent Alliance Certification with Schneider Electric for PLC Modernisation, we caught up with Andrés Mederos from Ematics (our Specialist Control Systems Integrator division) to find out more about Control System Modernisation.

Why upgrade your Control System?

Initially, the mean time to repair the systems can be significant, especially if the system has no natural migration path. The equipment manufacturer may no longer exist, increasing the risk of a quick turnaround replacement system. However, this should not deter you from making the switch. The environment these

systems encounter is far from ideal, particularly if standard non-industrialised IT equipment was used. Therefore, protecting your machinery and manufacturing capability is only common sense, and these control systems are a weak link in the chain.

Obsolescence of these systems also means that spare parts are not available from the manufacturers or supply chain. This can mean that a simple part failure could lead to considerable down time to your equipment, which could have significant effects on your business.

Old control systems often lack the cyber security options and patching available on newer control systems.

Ransomware and crippling of control systems is becoming more common place, and the cost of hacking has gone down considerably, as well as the hacking tools becoming easier to use, and widely available. Further enforcing the need to modernise.

What options are available?**Option 1: SCADA/ HMI**

Conventional SCADA upgrades can be very costly, when no migration path is available where the software could be readily ported to a newer system.

SCADA software and licencing costs can be high, however the greatest cost is the reengineering work required to rewrite the SCADA software. Another solution to reduce cost could be to downgrade to a HMI solution, removing the cost of SCADA licencing and software costs, but this also has a large amount of re-engineering work required.

The simplest and cheapest option available is to port your existing SCADA system to a virtualised SCADA solution. This involves taking an image of the existing SCADA system and loading it onto a fan-less industrial PC which is far more robust than standard IT equipment.

This also removes the older hard disk drive technology and replaces it with solid state drive memory further increasing the robustness of the system. Also, the greatest advantage of a virtualised SCADA upgrade is the lack of retraining required as the software remains the same apart from the start-up procedure.

Let us help you decide the most cost effective strategy to meet your requirements.

Option 2: PLC/RTU/PAC/DCS

Programmable Logic Controllers (PLC), Remote Terminal Units (RTU) Process Automation Controllers (PAC) or Distributed Control Systems (DCS) are the 'brains' of the control system. Whilst they

are Commercial Off the Shelf (COTS) solutions they can still be quite niche and require special consideration when considering upgrade solutions.

Platform changes, or systems with no natural migration path can involve costly software re-writes, and extensive re-wiring exercises. This method can be fraught with risk and involve considerable down time. This risk can be reduced with offsite replication, virtualisation, simulation and testing of the system prior to deployment.

Natural migration paths with quick wiring harnesses, adapters and software migration tools reduce the risk as well as time/ costs of hardware modernisation.

How can Morson Projects and Ematics help?

Morson Projects and Ematics have over 40 years of experience as an engineering solutions provider, as well as a highly respected systems integrator.

Over the years we have developed sets of well established strategies to ensure smooth transition on control system upgrades. Our collaborative approach in working with manufacturers, supply chain and clients has been commended on several occasions, as well as our continued successful delivery of control systems on time and on budget.

Morson Projects and Ematics also invest in training our team, so they are aware of the current migration and modernisation tools available. As well as being a Schneider Alliance Certified Partner for Control System Solutions, we have also invested in training our team on Control System Modernisation.

To find out more about how we can help you with Control System Modernisation, please email the team at: sales@ematics.co.uk





MORSON PROJECTS 'SELLAFIELD OPERATIONS' TEAM RECEIVES ROSPA PRESIDENT'S AWARD

Morson Projects Sellafield Operations team, based at the Westlakes Science Park, Moor Row, are celebrating after landing an internationally-recognised award for demonstrating high health and safety standards.

The team have received the prestigious RoSPA President's (11 consecutive Golds) Health & Safety Award for working hard to ensure their personnel (staff and contractors) get home safely to their families at the end of every working day.

Organisations receiving a RoSPA Award are recognised as being world-leaders in health and safety practice. The RoSPA Health and Safety Awards is the largest occupational health and safety awards programme in the UK.

Now into its 67th year, the Awards have almost 2,000 entries every year, covering nearly 50 countries and a reach of over seven million employees. The programme recognises organisations' commitment to continuous improvement in the prevention of accidents and ill health at work, looking at entrants' overarching health and safety management systems, including practices such as leadership and workforce involvement.

Ian Woodburn (Project Manager for Morson Projects' Sellafield Operations) said: "This award and recognition is for each and every one working on Sellafield Limited projects.

"We all understand and appreciate how important safety is in all aspects of the work we do, but the main driver is our very real desire to never see any of our colleagues and friends get hurt while doing their jobs, be it physical injury or mental health issues. Morson Projects really try to ensure all our personnel feel part of the Morson family."

Julia Small, RoSPA's Achievements Director, said: "Accidents at work and work-related ill health don't just have huge financial implications or cause major disruption – they significantly impact an individual's quality of life. That's why good safety performance deserves to be recognised and rewarded.

"We are thrilled that Morson Projects have won a RoSPA Award and would like to congratulate them on showing an unwavering commitment to keeping their employees, clients and customers safe from accidental harm and injury."

Sponsored by Croner-i, the RoSPA Awards scheme is the longest-running of its kind in the UK, and receives entries from organisations across the globe, making it one of the most sought-after achievement awards for the health and safety industry.

"We all understand and appreciate how important safety is in all aspects of the work we do, but the main driver is our very real desire to never see any of our colleagues and friends get hurt while doing their jobs, be it physical injury or mental health issues."



Design Services Alliance
Celebrating over 10 years' collaboration with Sellafield Ltd

2012

Over the past 10 years, AXIG integrated teams, as the Design Services Alliance, have implemented across the site the third tranche of the DSA, that has made an outstanding contribution to the Design Services Alliance strategic objective.

TRANCHE 1

Tranche 1 of the DSA set the scene for successful project delivery, with supply chain engagement and SME support being at the forefront from day 1. The numerous project successes for this tranche include:

- » Pile 1 Diffuser Demolition Project
- » Pile Fuel Cladding Silo: Deflector Plate Removal

1500 people work as part of the DSA team (2020 SL 900 Focused plus other suppliers including SMEs)

2020

for

TRANCHE 3

The DSA will optimisation our outcome-orientable, Through partnership the SL values will chain delivery of Strategy.

- » HAWTT
- » RROBO
- » SH&EP
- » Supporting MSSS to retrievals
- » SMPRO
- » Categorised Projects
- » PZPSP

£230.6M FINANCIAL BENEFITS delivered throughout the Framework

2026

to form a collaborative with the Sellafield Ltd projects, delivering supply chain.

TRANCHE 3

Key projects for this tranche include:

- » HAWTT
- » RROBO
- » SH&EP
- » Supporting MSSS to retrievals
- » SMPRO
- » Categorised Projects
- » PZPSP

£230.6M FINANCIAL BENEFITS delivered throughout the Framework

2027



MORSON PROJECTS:

SUPPORTING STEM LEARNING UK'S MISSION

Our STEM Ambassadors are committed to improving young people's lives through the power of STEM in order help the UK's next generation build knowledge and skills that are vital for the future workplace.

Following the successful on-boarding and training of 60+ STEM Ambassadors through our in-house workshops, multi-disciplinary engineering consultancy, Morson Projects are currently working to become STEM Learning UK's next Strategic Partners.

Why STEM?

Did you know that between the ages of 10 and 12 almost all children have already decided what they do and don't want to be when they grow up?

In today's fast-paced and technology-driven world, STEM education has become increasingly important. STEM stands for Science, Technology, Engineering, and Mathematics, and these fields are crucial to our modern way of life.

As technology continues to advance at a rapid pace, it is crucial that students are equipped with the skills and knowledge they need to succeed in the future.

Morson Projects' STEM Ambassadors will be making significant contributions over the coming months to communities across the UK, by supporting school curriculums with STEM workshops and other learning activities.

Morson Projects' STEM Ambassador Lead, Jon Callahan, shared: "Getting children involved in STEM subjects from an early age is crucial in supporting the growth of the young talent required in the future – the next generation of doctors, engineers, teachers and scientists are being nurtured as we speak.

"Following the successful training of 60+ colleagues across the business, I am extremely excited for what's next as we begin supporting schools across the country with a range of STEM engagement, which we hope will support schools in enhancing the delivery of their curriculum.

"Problem solving, trial and error along with critical thinking skills do not have to be dull – young children can get excited about learning and enjoy it even more if it is disguised within a fun and engaging activity, which is what we hope to be able to bring to the classroom alongside an insight into the real-world, hands-on application of STEM subjects!"

Participating in STEM activities at a young age is a fantastic way to engage children in critical thinking, to boost curiosity and introduces them to a world of opportunities; specifically nurturing the skills needed to succeed in the future.

There are numerous benefits to learning about STEM in schools, including:

1. Job Opportunities

One of the most significant benefits of learning about STEM is the vast range of job opportunities it can open up for students. The STEM fields are in high demand, and there is a growing need for professionals who are skilled in science, technology, engineering, and mathematics. By learning about STEM in school, students can fully understand the opportunities available to them across a variety of careers, from computer programming to aerospace engineering.

2. Problem-Solving Skills

STEM education is all about problem-solving. It encourages students to think critically, analyse data, and develop solutions to complex problems. These skills are not only valuable in STEM fields but also in many other areas of life, from business to politics. By learning how to approach problems logically and systematically, students can develop the skills they need to succeed in any field.

3. Innovation

STEM education encourages innovation and creativity. Students are encouraged to think outside the box and come up with new and innovative solutions to problems. This mindset is not only useful in STEM fields but in all areas of life. By learning to be creative and innovative, students can develop new ideas and approaches that can help them achieve their goals.

4. Understanding the World Around Us

Finally, STEM education is crucial for understanding the world around us. Science, technology, engineering, and mathematics are fundamental to our understanding of the natural world and the universe. By learning about STEM in school, students can gain a better understanding of how things work and how we can use this knowledge to improve our lives.

Learning about STEM in schools is crucial for the future success of students and the world as a whole. By investing in STEM education, as a business Morson Projects hope to help students un-lock their potential to ensure a bright future for children across the UK and the world they will inherit.

"I am extremely excited for what's next as we begin supporting schools across the country with a range of STEM engagement, which we hope will support schools in enhancing the delivery of their curriculum."

Morson Project's STEM Ambassadors have been registered through STEM Learning UK, carrying out their induction and checks in addition to our own in-house training. For more information about how you or your business can get involved in STEM, please follow the link: www.stem.org.uk





MORSON PROJECTS SUPPORT SALFORD RACING TRACK-SIDE AT SILVERSTONE

The University of Salford's 'Formula Student' team recently competed in the annual IMechE Formula Student competition at the UK's home of motorsport, Silverstone.

The event, which took place on 21st – 23rd July at Silverstone, is Europe's most established educational engineering competition, which sees university teams from all over the world produce a prototype for a single-seat race car.

The cars are put through their paces on the Silverstone Circuit and this year more than 130 teams registered for the competition, which celebrated its 25th year.

Driving success in our Year of STEM

Morson Group are proud to support the Salford Racing team, which includes students from a variety of disciplines, who all worked together to plan, design, and build the car, using the facilities at the University of Salford's Maker Space; a state-of-the-art facility funded by the Morson Group.

Morson Group has also invested £10K to sponsor the car and our Morson Projects engineers have been providing additional workshops and training, supporting the talent and ambition of these young people as they explore opportunities in STEM and collaborate to develop their team-working and knowledge sharing skills.

Chris Summers, one of the Morson Projects engineers who has been supporting the team this year, shared: "What an absolute privilege it was to be at Silverstone at the weekend with Salford Racing as they once again pushed the boundaries of their IMechE Formula Student entry.

"The day was an absolute rollercoaster and it's impossible not to get drawn in by the raw passion and enthusiasm of the team.

"To complete an entire engine rebuild in the back of a van and fall short of the scrutineering deadline by seconds was heart-breaking. But, this was another step on the Salford Racing journey and with the continued support from Morson Group and Morson Projects and I am absolutely confident they will be back stronger next year."

Jon Callahan, who has also been supporting Salford Racing on behalf of Morson Projects, added: "Echoing Chris' words, what a fantastic performance the team put in! It was a pleasure to see the drive and the passion first hand at Silverstone this weekend. The team put in an incredible result after a last minute fuel leak during the tilt test and even under immense time pressure managed to pass scrutineering for tilt, chassis, safety and tech.

"Unfortunately both time and a flat battery prevented the sound and brake tests but I cannot wait to see their car back out in action and I'm already looking forward to next year's event!

Congratulations to the whole team who did amazing – in our #yearofstem they are an inspiration to others to work collaboratively and aim high, leveraging their skills and ambition to drive forward their career goals.

Found out more about Salford Racing at: www.salfordracing.com



MEET THE BELFAST EARLY CAREERS ENGINEERS: **LARA & JASON**

As the industry continues to seek out the very best of the next generation of engineers, this 'National Careers Week' we caught up with two of our Early Careers Engineers based in Belfast, to find out more about how they've kick-started their careers in engineering at Morson Projects and how our Early Careers Development Programme will guide their career journeys over the coming months.

Our Early Careers Development Programme has been designed to attract and retain the best future talent in engineering to allow Morson Projects to continue to be a market leader in engineering design consultancy.

We do this by empowering the graduates to take ownership of their own aspirations and continual professional development with a structured career path framework and a mentor scheme.

We caught up with Graduate Stress Engineer Jason O'Hagan who graduated from Queen's University Belfast with a degree in Aerospace Engineering in Summer 2022 and Trainee NC Programmer

Lara Gamble, who had previously studied a Foundation Degree in Mechatronic Engineering, Mechatronics, Robotics, and Automation Engineering at South Eastern Regional College. Both joined the business in 2022.

Hi Lara and Jason! What inspired you both to pursue a career in engineering?

LARA: Growing up I was always fascinated by building, drawing, making and fixing objects. When looking at GCSE options I noticed engineering, it was a relatively new GCSE subject to study after researching it more I decided to pick it.

I really enjoyed the 2 years of Level 1/2 engineering and progressed onto Level 3 Engineering at A-Level.

Unfortunately, I was not accepted into the university I applied for, so I decided to attend SERC Lisburn. I originally applied for an apprenticeship however the lecturers pushed me forward to complete a Foundation Degree. I completed work placement in an engineering workshop for one of my modules and thoroughly

Continued >

enjoyed it. On completion of the foundation degree, I decided against applying for university as I didn't feel it was the right time for me, I wanted to gain real engineering experience. I applied for jobs however I was up against experienced engineers and felt I was failing however I kept applying and worked other jobs in the mean time, whilst I searched for the right opportunity for me. I was then offered the opportunity for an interview at Morson Projects and was delighted to accept a role in late 2022.

JASON: I've always had a keen interest in engineering, both through my studies and also outside of education. From an early age I've been interested in F1 and motorsports in general, taking an interested view into how things within this sport work and what makes teams successful in terms of engineering capability.

Throughout my school years my subjects of choice have tended to be STEM subjects which lend themselves well to a career in engineering. This was coupled with my practical interest and ability through designing and manufacturing my own bespoke gym equipment. University was a huge learning curve for me, as it allowed me to delve into the technical aspects of engineering, using design and analysis software, showing me the advantages this will have in the field of engineering today. This is something I hope I can build on for the future.

What does your day-to-day role currently entail?

LARA: My initial learning and development when I joined Morson Projects consisted of a range of courses covering different areas of CAD/CAM. Most of the courses I have completed so far were virtual, however 3 were based in England. I travelled to Birmingham

to complete them and in doing so I gained 10 certificates which enabled me to start working on a selection of projects and applying my knowledge to these.

JASON: My role at Morson Projects as a Graduate Stress Engineer involves a range of diverse tasks and scenarios day-to-day.

I am currently involved on a high-profile Aerospace project, using stress analysis software, as well as design software, in order to size specific parts and analyse the effects on these parts due to the conditions in which they are involved in.

Not every day is the same at Morson Projects, my role also gives me the opportunity to learn different methods of analysis, produce detailed reports on how the job is going to be laid out, as well as, presenting work to

managers and colleagues which I find is a huge boost of confidence and valuable experience. I am part of the Early Careers Development Programme (ECDP) which I couldn't speak highly enough of. Coming out of university I knew that a structured path was what young engineers needed, enabling me to work alongside experienced engineers, learning their methods and ways of thinking, but also having a clear view of where I intended to go in my career.

This is exactly what Morson Projects have provided as well as the option to explore other routes within the company, with no 'stress' involved.

What has been your favourite part about the job so far job?

LARA: My favourite part so far has been the vast amount of knowledge I have gained.



I have recently found out that I will be changing roles from NC programming to design engineering, this has been exciting news and I'm looking forward to my new role.

JASON: My favourite part of my role to date is being able to work alongside both customers and experienced senior engineers within the company. My role is very much a technical role and with the help of senior colleagues I am learning every day. The ECDP is also one of my favourite aspects of working at Morson Projects, as it provides an excellent platform for learning and networking in a relaxed environment.

How have you found being part of our Early Careers Development Programme so far?

LARA: I have found that being a part of the ECDP has been beneficial because I've been assigned a mentor which has helped the transition into the engineering world. My mentor has shown me the options and routes available for me within the

company and with creating CPD logs it has allowed me to see what I've achieved in the 4 months so far.

Travelling to Manchester for the ECDP workshop day and networking with peers were both new experiences for me. I felt slightly anxious as this was my first-time networking but meeting everyone, I felt more comfortable and relaxed.

JASON: I have found being part of the ECDP extremely helpful at this early stage in my career. University lays out very useful groundwork to become an engineer, but this programme has shown me that there is more to engineering than what you are designated to do day-to-day. It has outlined a clear target for the company itself, as well as a structured path to where you can take your career and in what direction, be it technical, managerial or both. It also provides valuable networking and relaxed meetings with other graduates who are in the same boat as myself. I've thoroughly enjoyed it so far and hopefully there are more ECDP workshop days to come.

Where do you see yourself heading over the next five years?

LARA: In the next 5 years I'm hoping to apply to university to gain a Level 6 degree to allow me to one day complete my chartered engineering.

JASON: My goal for the next five years is to raise my competency level in my technical abilities as a stress engineer through my experienced mentor and from my tasks day-to-day.

I have the target to become professionally registered (chartered level) by the end of my 5th year at Morson Projects. As well as this, I want to keep expanding my network within and outside the company, as well as improving my interpersonal skills such as communication and working as part of a team.

Find out more about careers at Morson Projects: www.morson-projects.co.uk/early-careers

PATH FINDERS SERIES

Morson Group's 'Pathfinders' is an original series uncovering squiggly career journeys, unexpected opportunities, professional pivots, work/life challenges and successes, to showcase that there is no such thing as a 'typical career path'.

The series interviews colleagues from across the Morson Group businesses, as well as other industry experts and even some national legends.
View the full series: morson-group.com/pathfinders-series

INSPIRING STORIES



Joe Wicks
Fitness Coach & Influencer

**BURPEE'S,
BABIES & P.E.
WITH JOE**



James Baillie
CAD Technician

**FOOTBALL
PRO TO CAD
TECHNICIAN**



Martin Goodwin
Project Manager

**RAF FIGHTER
JETS TO
PROJECT
PLANNING**



Dr Penny Trayner
Neuropsychologist

**NEURO
PSYCHOLOGIST,
TECHPRENEUR
& DJ**



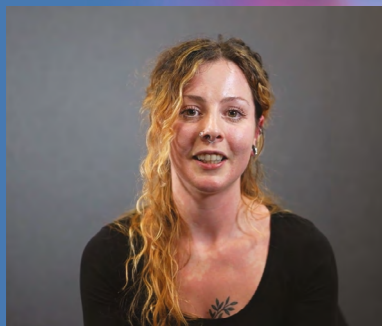
Chloe Hughes
Stress Engineer

**ROBOTICS
& AI TO
AEROSPACE
ENGINEERING**



Freyja Ingham
Asset Care Team Manager

**FROM CAFÉ
WORKER TO
NUCLEAR
ASSET CARE**



PATHFINDERS SERIES:

CHLOE HUGHES' JOURNEY FROM ELECTRICAL ENGINEERING TO STRESS ENGINEERING VIA ROBOTICS & AI

We recently caught up with Stress Engineer, Chloe Hughes as part of Morson Group's Pathfinders interview series.

Having a long-standing enthusiasm for aviation nurtured by a love of sci-fi, Chloe has trodden an unconventional path to lead her to a career in aerospace. For Morson Group's Pathfinders series, we spoke to her about her journey and the lessons she's learned along the way.

When I was at school, I didn't really know what I wanted to do. I wasn't really interested in many things. I knew I liked maths, and I loved problem-solving, so that was something that I really wanted to get into. I was lucky enough to come from a family of engineers, so I knew what an engineer was. However, I didn't get much influence from women in engineering, so I didn't really feel that it was something that I wanted to do at the time.

I left school at 16 and went to college. I decided to do a BTEC in

electronic engineering and I loved that. I didn't get into university at that point, so I worked in a bank for six months, hated it, and went back to college, to do a HNC in electronic engineering.

I'm from the Isle of Man, so there's not much going on in terms of engineering and design and things like that. I knew that I had to try and get off the island to try and broaden my career choices. I went to university in London and did electronic engineering again, it was just kind of a continuation.

Even though I was very interested in aerospace, I just kind of had to keep going with what I already had. Well, that's what I thought, because I didn't really have anyone to tell me what I could do and what I couldn't do. I finished my degree. I couldn't really find a job in London. There wasn't much going on engineering-wise there, so I decided to study a masters in Sweden in robotics.

That was an amazing thing to do. If there's an opportunity for you to go abroad and study, definitely do it because it just opens your mind. It's amazing. I met so many amazing people. I really enjoyed robotics. I think it was really fun. It's the future. There's just so many different things, like with AI and the hardware, software like everything.

One of the modules I took in Sweden was A.I. Just seeing and understanding that A.I. is just maths, it's weird. You can really boil down decision-making to just probability, and it's just amazing that you can just take that little bit of maths and then put that into an algorithm, into a software program, write a script about it and you have something intelligent, basically, and making decisions.

Then, I did an Erasmus to Lisbon, Portugal, to do my master's thesis there in human-robot interaction, which was very interesting. After that came back to London, I was there still wasn't as many jobs as I wanted there. I did struggle and then the pandemic hit. I was still in hospitality at the time, so I was put on furlough at that point.

I took it to myself to be like, "what do I actually want to do?" And that was aerospace engineering. I always wanted to do that, and I didn't realise that I could. So that's when I decided, let's go back to university and do my master's in aerospace.

I've always been into sci fi. It's one of my favourite things. Watching different things when I was younger, like Red Dwarf, being on a ship. It's just always been really cool to me! Things that can fly, like, how can things fly? It seems so abstract, but it's real. Even if you get something up in the air, how is it going to stay there?

I met Maria Williamson. She was my mentor at the University of Salford on the Go Beyond scheme. She helped me with my interview skills as I'm rubbish at them and I think she saw some passion in

me and thought it would be great to get me on the team at Morson Projects. So that's how I got into submarines and then getting into aerospace was more about the networking at Morson Projects.

I'm currently a stress engineer and I do a lot of analysis on different structures to be able to see if the forces and pressures that are exerted on an airplane, they'll be able to withstand that, so it won't fail in any way. I just it's amazing like to see how much work goes into it, putting my name on that as well, it's amazing.

Morson Projects has recently embarked on a STEM Ambassador scheme, where engineers across the organisation are trained how to engage young people in local schools in STEM activities.

Chloe is one such ambassador: I've chosen to be a STEM Ambassador because I feel that I didn't really have anyone there outside of my family to actually tell me the different things that engineers can do. I didn't really like school that much and I was much shyer when I was younger. Having someone take notice of me and say like, you know what? You can do something like this, I think would really like it would that would have been amazing to see a bit more of that I would love to be able to just inspire someone outside of like their family or the norms that they see every day. And especially young girls or people that don't know what they want to do in their lives, because it is such a fun thing and there's so many different things you can do.

It's not just aerospace or power or submarines. You could do product design. Everything is engineered. It's amazing for people with all different backgrounds, different diversities and different ideas of how things can be made... it's just the best thing in engineering!



PATHFINDERS SERIES:

FREYJA INGHAM'S JOURNEY FROM CAFE WORKER TO ASSET CARE TEAM MANAGER

"I was bullied for being smart when I was a kid and people took the mickey and I hid it. And I tried not to come across as clever. And if I had anything to tell 14-year-old me, I wish I could slap her in the face honestly, and go, stop it! Stop being shy. Don't be ashamed of being smart because it's your greatest asset."

Freyja Ingham is an Asset Care Team Manager at Morson Projects. Without much encouragement from her teachers to consider pursuing a career in STEM, Freyja spent much of her early teenage life working in a local café, unsure of what to do.

We caught up with Freyja to hear more about her unique journey that has led her into a successful career in engineering with Morson Projects:

Some of Freyja's interview answers are summarised below.

Hi Freyja! Tell us a little more about your early life and career...

I started work when I was 13 in a local café, and I sort of stayed put there while I was doing my GCSE's and my A-levels. I was working part time and at the time I didn't really know what to do with my life.

I was waiting on tables, pot washing and then I moved up to working in the ice cream parlour. I got my own till and I got to 'till-up'

at the end of the day, I loved tilling up because I liked to know that my till was right! And then I did front of house, and I really loved talking to people.

I liked to be able to have a good chat with customers, and then I went on to wait-on in the actual restaurant side and I worked behind the bar there as well.

When did you consider the possibility of a career in STEM?

I did STEM at GCSE kind of age and you know we went to the Big Bang Fair in Manchester and it was it was really good fun. But, I guess I never kind of considered it as a career path because my teachers never really pushed that and they were like, "oh go to uni".

I've always enjoyed maths and physics and similar subjects. I like the challenge of it. I like the fact there's a right and wrong answer as well. The teachers pushed university and not so much vocational subjects. I love that vocational side more personally,

you're doing your job, learning on the job type of thing...

So I was carrying on waitressing and then I had spinal surgery and I spent a year recovering from that. And it was while I was off kind of deciding what do I do with my life that I thought I should probably consider, maybe engineering because there was a lot of it locally on my doorstep. I live right between BAE Systems and Sellafield. So it is kind of is there in your face!

Tell us a bit more about your early steps in engineering...

I applied for a few positions, and I was really lucky to get offered a job with Morson Projects to complete a traineeship. I had no background experience and they said that they'd train me up in the roles and take me around all the departments and see where I fit best and what I enjoyed the most!

I shadowed all the engineers I was working with. I went round and I learned all about topics such as computerised maintenance

systems... reliability-centred maintenance... and spares and obsolescence.

I also went through technical documentation and then I came to the asset care department and I never left and I love it!

Do you have a career hero?

I wouldn't say I have one particular. I think it's a lot of the people that I've met along the way and they've all supported me in different kind of aspects. A lot of what I know is what people have shown me and taught me along the way. Whether that's like just being how to be perceived in the office and the way that you speak to people and handle relations and then the pure engineering knowledge that some people have shared with me.

But I think honestly, I genuinely would say that it's the people that I've been able to work with along the way that are like my 'heroes', my inspiration, because I just want to be as good as they are to me.



and I'd like to say I enjoy seeing the actual value of my work and seeing things be implemented.

I work on the Sellafield site and being part of the story of that being decommissioned and making a difference to that, given the fact it's on my doorstep as well, it's really it's really nice to see that.

I'd like to make a difference to that whole story. However small. It's a difference. And I'd also really like to give back the same level of care that people showed to me when I was new and I was training, and be that person for them because it was a massive thing to me when they did that for me... to be that person.

What would you tell your 14-year-old self, if you could?

If I had anything to tell, like a 14-year-old me it would be, I wish I could slap in the face honestly and go, stop it, stop being bloody shy!

I was bullied for being smart when I was a kid and people took the mickey and I hid it and I tried not to come across as clever. Don't be ashamed of being smart because it's your greatest asset. Why are you ashamed of it? Because I'm not anymore.

Enjoyed this story?

To see more of the unique and inspirational stories as part of the Morson Group Pathfinders series, please visit: www.morson-group.com/pathfinders-series/

How do you find working with Morson Projects?

For probably about seven out of the eight and a half years I've worked for Morson Projects I've been in the Asset Care team now and I absolutely love it. I've just become Asset Care Team Manager.

I love the work I like the variation of being able to spend some of your week in the office and others is on site, on plant and it's really gratifying when you go out and you see something that you looked at three years ago, you actually see that they've done something based on your recommendations and your findings and know it is valued input and that you do find things that they missed.

How would you like to change the industry for the better?

I'm excited to fly the flag more for women, which is always really cliché, but there's not that many. I think there's three of us in our office, four, small numbers. So, I'd like to fly the flag for women

MORSON PROJECTS TEAM RAISE OVER £12,000 FOR BRITISH HEART FOUNDATION & BRAIN TUMOUR RESEARCH AT GREAT MANCHESTER RUN

Amidst a vibrant atmosphere, thousands of runners took to the streets of Manchester this summer to tackle the heat for the Great Manchester Run, promoting health, well-being, and charitable giving.

Among them were a selection of runners from Morson Projects, running to fundraise for the Morson Group's two chosen charities for 2023.

So far, the team have raised almost £10,000 for Brain Tumour Research and over £3,000 for the British Heart Foundation.

The British Heart Foundation, known for its tireless work in preventing and treating heart diseases, and the Brain Tumour Research charity, committed to finding a cure for this devastating condition, will receive the proceeds from the team's fundraising.

The generous donations collected will aid in supporting research, raising awareness, and providing assistance to those needing support.

Andy Hassall, Business Development Director, who co-ordinated the 10k version of the run for the British Heart Foundation, fundraising with some of his colleagues shared: "Running for our chosen charities at the Great Manchester Run is more than just a physical accomplishment. It's a chance to make a difference in the lives of those who need it most. Together, we ran with purpose, with heart, and with the belief that every step we take can help our chosen charities for the better."

"The Morson Projects team were out in force with myself, Simon Plimbley, Lucy Cliff, Paul Dowling, Jon Callahan, Jake Pike, James Chew and Chris Summers running for the British Heart Foundation on the day.

"The group have raised over £1,400 individually from family and friends and a fantastic £1,822 from colleges so far, smashing our original target."

Rory Gorton, Senior Design Engineer, who co-ordinated the Half Marathon version of the run for Brain Tumour, fundraising with

some of his friends shared: "I have been fundraising for Brain Tumour Research in memory of my Dad (and former Morson Group MD) Kevin Gorton who we lost in June 2022 to a horrific brain tumour.

"He bravely fought this disease for 5 years. In and out of multiple hospitals, homes and never giving in to this awful disease, he was 58 when he sadly passed leaving a huge hole in our family which will never be filled.

"We both ran the Manchester 10k together before his illness and he would have told me to go for it and never give in. I'm hoping to raise as much money and possible for Brain Tumour Research as I know first-hand that it's such an under-funded killer and I would like to do my best to help change this.

"I am absolutely delighted that we have managed to raise £9,437 so far, and hope with a last few minute donations we can reach our £10,000 target, which is an incredible amount of money for a fantastic charity – we are so proud. We also managed to complete the half marathon in 2 hours 5 mins which we were happy with in the heat!"



British Heart Foundation

LYNSEY HUNT ABSEILS DOWN TRAFFORD CENTRE TOWER TO FUNDRAISE FOR THE BRITISH HEART FOUNDATION

Lynsey joined 20 colleagues from across the Morson Group for a day filled with adrenaline, courage, and determination as they all abseiled down the Trafford Centre Tower in Manchester.

The group are fundraising for one of our 2023 chosen charities, the British Heart Foundation (BHF).

The BHF has helped halve the number of people dying from heart and circulatory disease in the UK, but sadly, hundreds of people still lose their lives every day.

By taking part in this challenge, the group hope to be able to make a small impact, bringing hope and positive change where it's needed the most.





THUMBS UP FOR CHARLIE: RACE TO WHITBY 2023

Lead Design Engineer, John Robinson, and his wife, Nici, have this week embarked on another incredible fundraising journey in memory of their son, Charlie, in their Coast-to-Coast Challenge: Race to Whitby.



Nici Robinson, Charlie's Mummy has begun the journey by foot, and will be walking the coast-to-coast route, which starts today (23rd May) and will continue over the next four days.

Meanwhile, John, Charlie's Daddy and 42 other riders will be taking on the coast-to-coast route by bicycle on the final day, catching up with the walkers as they cover 148 miles and climb 13,000 feet, all in Charlie's memory.

The two journeys will culminate in a race to the finish line in Whitby.

The race has officially begun and the question on everyone's mind is... "Will the hikers or the bikers reach the finish line first?"

The funds raised from this challenge will go to the Thumbs Up for Charlie Foundation, which was set up by John and Nici in loving memory of their son Charlie.

The charity offers respite breaks for families whose child has been diagnosed with a brain tumour or who have lost a child due to a childhood brain tumour. The charity has already sent 24 families on respite breaks, providing them with an opportunity to create precious memories and remember their loved ones.

Brain tumours are one of the most common forms of childhood cancer, and they have a devastating impact on both the child and their family.

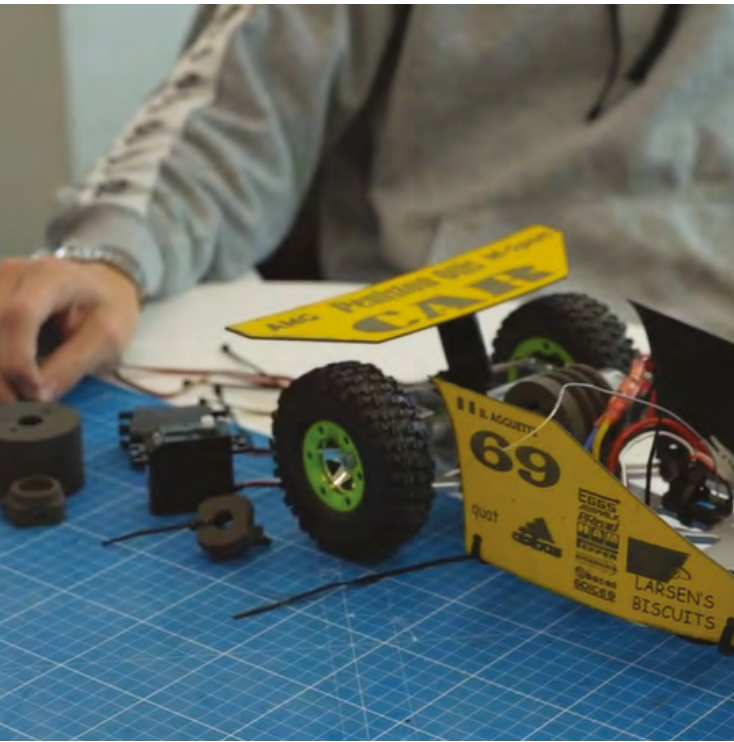
In partnership with Alderhey Children's Hospital, the money will also contribute towards future research into paediatric ependymoma brain tumours.

The Coast-to-Coast walk is one of the most iconic long-distance walks in the UK, spanning 148 miles from St. Bees in Cumbria to Robin Hood's Bay in North Yorkshire. The route will take the group across the rugged terrain of the Lake District, through the rolling hills of the Yorkshire Dales, and over the North York Moors.

It's a challenge that attracts people from all over the world, but this Coast-to-Coast has an added twist: a race to the finish line in Whitby.

The Coast to Coast is a gruelling test of endurance, but the added element of the race to Whitby has brought a new level of excitement to this year's fundraising event. More importantly, the challenge is raising awareness and funds for an important cause. Whether it's the hikers or the bikers who cross the finish line first, everyone involved in the challenge is a winner in the fight against childhood brain tumours.

Morson Group and Morson Projects are proud once again to be supporting Nici and John on this year's challenge, having sponsored Nici's kit.



MORSON PROJECTS WERE WELCOMED BACK TO IGNITION SUMMER SCHOOL

This Summer, Morson Projects were invited to work with a new cohort of Year 12 students as part of IGNITION, the University of Salford's STEM Summer School – proudly supported by our parent company, Morson Group.

IGNITION, which is part of the Morson Group STEM Foundation, allows secondary school students to enhance their STEM learning beyond the classroom and get hands-on experience with cutting-edge technology, such as 3D printers and laser cutters.

Through team-based activities the students' gain an understanding of the possibilities that STEM careers can offer.

Dr Maria Stukoff, Director of the Maker Space said: "It's amazing to have such inspiring skill events happening in our own university Maker Space. Thanks to the Morson Group's STEM Foundation, year on year we can provide industry experience to students who are thinking of going into engineering at university and beyond. IGNITION is a testament to our efforts to how we enable students to launch into STEM careers."

The latest cohort of Y12 students became a race team, working together with Salford Racing in the Morson Maker Space to design, construct, and race their own remote-controlled cars.

They were also given the opportunity to hear from industry experts from Morson Projects, Chris Summers and Jon Callahan.

Head of Engineering Delivery and Morson Projects STEM Ambassador, Chris Summers shared: "The IGNITION Summer School is a fantastic way of getting young people involved in engineering. 72% of parents and 42% of teachers not able to communicate to children what engineering careers are, so often as a profession we face an uphill battle to communicate what we do and generate enthusiasm around engineering careers. "Motorsport however, is a very high profile profession

where engineering is front and centre. Using the excitement of the sport to develop a connection with maths and physics is a great way to foster interest in engineering. As Motorsport fans, Jon and I understand that excitement, and have been able to use this as a platform to discuss routes into engineering careers for the students, whilst exploring the crossovers with our careers in aerospace."

Head of Engineering Delivery and Morson Projects STEM Lead, Jon Callahan added: "It was fantastic to be welcomed back to the IGNITION Summer School following their nomination at the Engineering Talent Awards 2023!

"IGNITION brings together such a diverse young group of students and really gave them an insight into the world of engineering and university life. Following the Morson Projects Inspirational Talk it was a pleasure to engage with so many students and discuss the many routes into an exciting career in engineering."

In previous years, students have been inspired by IGNITION to continue their educational journey and further develop their STEM skills. We hope this year's programme has been just as influential. IGNITION is just one of the ways our business encourages local young talent to join the STEM revolution.

The school ran for 3 days in July and received overwhelmingly positive feedback from all students who attended.



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SUMMER GARDEN PARTY HIGHLIGHTS

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NETWORK RAIL PROJECT HIGHLY COMMENDED BY THE ICE



60—61

WHAT IS A BIM STRATEGY AND WHY DO YOU NEED ONE?



WALDECK HOST LINCOLNSHIRE CHAMBER'S SUMMER GARDEN PARTY

Two weeks ago, the picturesque gardens of our Wellingore Hall Head Office were transformed into a hub of professional networking and camaraderie at the Lincolnshire Chamber of Commerce's highly anticipated Summer Garden Party, hosted this year by Waldeck.

With almost 200 people in attendance, the event which was also supported by Nicholson's Chartered Accountants and University of Lincoln, proved to be a resounding success, bringing together a diverse array of businesses from across Lincolnshire for an afternoon of meaningful interactions and fun in the sun!

We've collated some of our favourite photos from the event to share in our Summer Garden Party 'Highlights Gallery' below...

Tim Leach, Waldeck's Civil & Structural Engineering Director shared the history of Waldeck and Wellingore Hall with delegates, followed by speeches from the other event sponsors.

Guests tested their skills and unleashed their competitive spirit with traditional garden games, including croquet, high striker and 'welly wanging' with trophies awarded for the 1st, 2nd, and 3rd longest 'welly wang'. Wood fired pizza and summer drinks were served by local village pub restaurant, The Red Lion, whilst

guests enjoyed the sounds of local saxophonist, Ben Jackson.

Charlotte Watson, Deputy Chief Executive at Lincolnshire Chamber of Commerce, said: "We are thrilled with the overwhelming positive response to the Summer Garden Party. Our aim was to create a relaxed and enjoyable environment where people can truly unwind and be themselves.

"It was extremely encouraging to witness business people from different backgrounds and industries come together, share their stories, and plant the seeds for potential collaborations that can drive innovation and progress and working closely with our members, Waldeck to deliver the event is testament to the power and value of partnership working."

More pictures from the event can be seen at:
www.facebook.com/LincsChamber





WALDECK'S NETWORK RAIL PROJECT RECOGNISED AS 'HIGHLY COMMENDED' AT ICE EAST MIDLANDS MERIT AWARDS

Waldeck were delighted to be recognised as 'Highly Commended' in the 'Design, Studies & Research' category at ICE East Midlands Merit Awards for our Panoptic Bridge Management project with Network Rail and Nottingham Trent University.

The team were shortlisted in this category following their on-going collaboration with Network Rail's R&D team, Routes and University Partners – Nottingham Trent and Birmingham City. The team have been supporting Network Rail's aspirations to digitalise their approach to Masonry Bridge condition monitoring.

Thus far, a solution has been developed to leverage digital data to provide informed decision making for asset care over the entirety of its lifecycle, as well as supporting Network Rail's ambition to create a Digital Railway.

Waldeck colleagues were joined on the evening by peers from Network Rail and Nottingham Trent University as they celebrated the best of civil engineering from across the region.

The event, which brought together professionals from across the industry to celebrate the achievements of various projects, individuals, and organisations committed to shaping the future of engineering, as well as inspiring talks from two key note speakers.

ICE President Keith Howells, shared an insightful vision on the future of the engineering sector. His emphasis on the cumulative impact of citizens and engineering professionals in steering the industry towards a sustainable future resonated deeply with the evening's guests. Howells' words underscored the collaborative effort required to ensure a harmonious coexistence between technological advancement and environmental stewardship.

Professor Danielle George, shared an insightful project showcase serving as a testament to her unwavering passion for Science, Technology, Engineering, and Mathematics (STEM), leaving a lasting impression on the room, further fuelling the enthusiasm for the transformative potential of STEM education.

Well done to all this year's winners and thank you to the rousing speakers. The awards highlighted the power of collaborative efforts in pushing the boundaries of engineering knowledge and practice both now, and into the future.



WORK PLACEMENT SUCCESS AS SOPHIE JOINS ARCHITECTURE TEAM FULL-TIME



After joining the team at the beginning of 2023 to do a work placement during her final year of studying Interior Architecture & Design at the University of Lincoln, we are delighted to share that Sophie Vanstone has now completed her studies with a First Class Honours degree and chosen to join Waldeck full-time as a Junior Architectural Technician.

Sophie will graduate from her Interior Architecture & Design degree at Lincoln Cathedral in September 2023, having submitted her dissertation in April and her final projects in June.

Sophie shared: "So far I've been really enjoying the collaborative working environment that the Architecture & Digital Capture teams at Waldeck have, so I look forward to continuing to work in that environment and further progressing within my role as a full-time member of the team!"

Director of Architecture, Stuart Denniss, shared: "We are delighted to welcome Sophie to the team following a successful work placement. Sophie joins us during a period of continued growth and I have no doubt the skills and fresh ideas she brings with her from University will feed into our current experienced team and support the production of practical, buildable and cost-effective solutions for our clients."

"Recruiting and investing in local people to develop the next generation of construction industry talent is high on Waldeck's agenda. We are committed to continuing our engagement with our local community, and partners such as the University of Lincoln to support young people in the next chapter of their careers, and Sophie's story so far is testament to this."

Sophie recently presented her final year university project 'Restoration' at the Universities showcase event, and shares more about her project below:

'Restoration' is a proposal for a residential rehabilitation facility for young offenders, serving a sentence in YO1 and HMP Lincoln.

Young offenders involved within the prison system are often

discarded by their community, increasing the likelihood that these offenders will commit further crimes. Environmental factors play a huge part in crime rates, especially when an offender has an unstable background. Young offenders often lack accessible rehabilitation facilities prior to rejoining society and are therefore unable to rebuild or improve their lifestyle. The rising violent crime within the East Midlands suggests that the current prison system does not successfully rehabilitate or support these young people in rejoining the community.

The rehabilitation facility is centred around the re-integration of offenders back into society, through multi-sensory strategies. With a specific focus on biophilic design and sensory psychology, the overall project aim was to be able to reduce the number of re-offenders entering the prison system. Rehabilitation that is focused on sensory psychology allows for the gradual transition of offenders learning how to reintegrate successfully after prison.

Further research into wellbeing design shows the positive improvement that it has on the offender's overall mental, physical and spiritual health. By having a connection to the surrounding nature within the site, offenders are able to feel comfort within the interior spaces. The incorporation of inclusive and nurturing zones within social spaces also help to encourage social interaction and relaxation, therefore promote a better mindset to aid the transition back into society.

www.waldeckconsulting.com/services/architecture/

"I am beyond happy to announce that I have received a Distinction in my MSc Building Services Engineering degree."

CONGRATULATIONS TO GEORGE NAYLOR ON HIS MASTERS GRADUATION



We would like to wish a huge congratulations to Senior Engineer, George Naylor who has recently graduated from Leeds Beckett University achieving a Distinction in his degree in MSc Building Services Engineering.

George joined Waldeck in 2018, where at the age of 20 we welcomed him as an Assistant Electrical Engineer.

George then enrolled onto our degree apprenticeship scheme in 2019, studying BSc Building Services Engineering at Leeds Beckett University, which he completed in 2021 with a First Class Honours degree before enrolling onto his MSc Building Services Engineering course, which he has now also completed!

Adam Machan, Director of Waldeck's Mechanical & Electrical Building Services team shared: "As highlighted above, George joined Waldeck in 2018 when he was part way through an existing HNC course. We sponsored him through the rest of his course and then onto his additional training to date, accompanied by on-the-job learning under his mentor Steve Rowe. I'm sure everyone will join me in congratulating George on his achievements, but also I would like to thank and congratulate Steve for all the work he has done to help George on his career journey so far!

"George's ability and ambition has driven his desire to become a Chartered Engineer and he realised that to do this he needed to have a level 7 Masters qualification under his belt. We are all delighted for George that he is now one step closer to becoming Chartered.

"Not only academically gifted, George has achieved the position of Senior Engineer on his merits, proving that seniority often has little to do with age and everything to do with ability."

George shared: "I am beyond happy to announce that I have received a Distinction in my MSc Building Services Engineering degree.

"I would like to extend a special thanks to Michael White for the support over the years as well as Waldeck and the Morson Group for the training and support since joining the business five years ago.

"My graduation concludes nine years of part time learning and looking back to 2014, when I started an Electrical Installation Apprenticeship and I was crawling around lofts and under floors, it's certainly been a journey. Keep learning and you never know where it can take you!"



Looking to take that next step in your career journey?
www.waldeckconsulting.com/opportunities



WALDECK RAISE OVER £2,000 FOR ST BARNABAS HOSPICE IN LINCOLN 10K CHARITY RUN

On April 16th, some of the Waldeck team laced up their running shoes and hit the streets for the City of Lincoln 10k, raising just over double their original £1,000 target for St Barnabas Hospice as a result.

The Lincoln 10k is a renowned annual event that attracts thousands of runners from all over the country. This year, Waldeck joined the ranks of participants, not only for the physical challenge but also to support a worthy cause – reaching a final donation total of an impressive £2,030.

After the race: (Left to right) Hannah Cook, David Foster, Will Green, Jerome Brook, Stuart Denniss
St Barnabas Hospice, a local charity based in Lincolnshire, provides compassionate care and support to individuals and families facing life-limiting illnesses. The funds raised will go towards providing vital care and support to patients and families in need, including specialist palliative care, emotional support, and practical assistance.

Head of Marketing, Hannah Cook, who took part in the race for the first time, shared: “We are thrilled to have participated in the Lincoln 10k and to have raised such a significant amount for St Barnabas Hospice, who have provided amazing care for some of our loved ones both past and present.

“To say I could only run about 10 metres back in January wouldn’t be an understatement, so getting to race-day has definitely been a journey. I’m so grateful to the team for getting me through, and to everyone who has supported us and donated along the way!”

Stuart Denniss, Director at Waldeck commented “2023 marks the 12th year anniversary since my father passed away, I will never forget the great palliative care and support from the wonderful team at St Barnabas. As such, this year was my 12th time doing the Lincoln 10k to fundraise for the organisation, and it was great to be joined by some of my colleagues from across our Lincoln Head Office too. “To echo Hannah’s words, I’m delighted that we have raised such a fantastic amount of money,

with thanks to everyone who has shown their support. Also, with special thanks to Waldeck who matched our fundraising total of £1,015, meaning we exceeded the £2,000 mark!”

Chris Dunkley, Fundraising Officer at St Barnabas Hospice added: “We are incredibly thankful to Waldeck for their fundraising efforts. Their generosity will make a meaningful impact on the lives of patients and families facing serious illness. It is heart-warming to see local businesses like Waldeck come together to support our cause.”

“The success of Waldeck’s fundraising efforts demonstrates their commitment to corporate social responsibility and their dedication to making a positive impact in their local community. The company’s participation in the Lincoln 10k and their generous donation to St Barnabas Hospice serves as an inspiration to other businesses and individuals to get involved in charitable initiatives and give back to those in need.”

More about St Barnabas Hospice

St Barnabas Hospice is a local charity based in Lincolnshire, that provides compassionate care and support to individuals and families facing life-limiting or terminal illnesses. The organisation offers a range of services, including specialist palliative care, emotional support, practical assistance, and bereavement support. St Barnabas Hospice relies on the generosity of donations and fundraising efforts to continue providing their vital services to those in need.



WALDECK RE-SIGN AS PETERBOROUGH PHANTOMS PREMIER SPONSOR FOR THE 23/24 SEASON

Waldeck are delighted to announce that we will be returning for a second season as Peterborough Phantoms Ice Hockey Club's Premier Sponsor for the 2023-24 season.

Waldeck became Phantoms' Premier Sponsor in 2022 ahead of the 2022/23 season and the relationship has gone from strength to strength since.

Emily Woods, Head of Marketing at Phantoms, said: "We are delighted to have Waldeck back on board for another season with the Phantoms! We have built a great relationship with Waldeck so far and can't wait to continue it for another season on and off the ice."

Hannah Cook, Head of Marketing at Waldeck, commented on the news: "The Waldeck team have thoroughly enjoyed sponsoring the Peterborough Phantoms and attending the games, events and networking that came part-and-parcel with being their Premier Sponsor for the 2022/23 season, we look forward to doing it all again for 2023/24!"

"It is clear to see that the Phantoms have an incredible 'phan' base and following in the local community, but in addition to that, supporting a team whose values align to ours through support for important causes such as Pride, and local charities such as Sue Ryder, has made the relationship all the more rewarding."

Speaking of the partnership with the Phantoms, Ged Mason, CEO of Waldeck's parent Company, the Morson Group added: "Morson Group has a proud history of sponsoring high-profile sporting talent, from entry level to the very top, across a diverse range of sports. We're delighted to be sponsoring Peterborough Phantoms, our first-ever partnership with an ice hockey team, for a second season whilst nurturing the next generation of hockey stars through our grassroots partnership with Junior Phantoms."

"We wish them all the best for the upcoming Cup Final this weekend!" We can't wait to see the Waldeck logo on the front of the new 2023/24 season jerseys!



DESIGNING NET ZERO & LOW CARBON BUILDING SERVICES FOR OPTIMAL OCCUPANT WELLBEING: A FUTURE-FOCUSED APPROACH

In an era marked by sustainability concerns and a growing emphasis on occupant wellbeing, our team continues to be at the forefront of innovative engineering solutions.

With a rich history of leveraging cutting-edge technologies, such as EDLS Tas, for dynamic thermal simulation, Waldeck are a trusted partner in designing net zero and low carbon building services.

We caught up with Luke Mitchell, Associate Director from our Mechanical & Electrical Building Services Design team, as he shares the top four ways in which Waldeck are committed to delivering successful designs that prioritise occupant comfort, environmental responsibility, and energy efficiency throughout all stages of the design process.

1. Designing for Net Zero and Low Carbon Building Services:

Waldeck recognises the critical role played by building services in achieving net zero and low carbon objectives while ensuring optimal occupant wellbeing. By combining our expertise in mechanical, electrical and public health engineering, we can develop integrated and sustainable solutions that minimise energy consumption and carbon emissions, without compromising on user comfort.

2. Utilising Innovative Technologies:

One of the key differentiators which sets Waldeck apart from

"Through our expertise, utilisation of advanced technologies like EDLS Tas, and unwavering focus on occupant wellbeing, we empower clients to create environmentally responsible and future-proof spaces."



our competitors is our utilisation of state-of-the-art technologies, such as EDLS Tas, for dynamic thermal simulation. This advanced tool enables us to accurately model and analyse the building's thermal performance, optimising energy usage and ensuring the highest levels of occupant comfort. By simulating various design scenarios, we can fine-tune the building services to achieve optimal energy efficiency while maintaining an ideal indoor environment.

When it comes to net zero and low carbon building services design, the seamless integration of MagiCAD and Revit is crucial for optimising energy efficiency and occupant comfort. By utilising these tools, our engineers can design and simulate various scenarios to identify the most energy-efficient solutions. This integrated approach allows us to assess the impact of different MEP (Mechanical, Electrical & Plumbing) strategies on overall building performance, including thermal comfort, ventilation efficiency, lighting optimisation, and renewable energy integration.

Through the combined power of software tools such as MagiCAD and Revit, our team are able to create comprehensive MEP designs that align with

sustainability goals, enhance occupant wellbeing, and minimise energy consumption. Our team's expertise in utilising these software solutions ensures a seamless transition from concept to construction, resulting in net zero and low carbon buildings that exceed client expectations.

3. Occupant Wellbeing at the Core:

Occupant wellbeing lies at the heart of our design philosophy. We recognise that a healthy and comfortable environment directly impacts productivity, occupant satisfaction, and overall quality of life.

Through thoughtful design and selection of building systems, we prioritise factors such as indoor air quality, natural lighting, acoustics, and thermal comfort. By integrating these elements seamlessly into our building services design, we create spaces that promote occupant wellbeing, thereby enhancing their overall experience of a particular space or building.

4. Meeting Design Stages of RIBA:

Our team understand the importance of delivering comprehensive services that align with the requirements of the Royal

Institute of British Architects (RIBA). With our experienced multi-disciplinary team of engineers and consultants, we are well-equipped to provide support throughout all RIBA design stages, from 1 to 7. Our multi-disciplinary approach ensures seamless coordination, efficient project management, and successful implementation of sustainable building services designs, culminating in the delivery of net zero and low carbon buildings that exceed client expectations.

Luke concludes:

"As the demand for sustainable and energy-efficient buildings continues to rise, Waldeck remains committed to pushing the boundaries of innovation in net zero and low carbon building services design.

"Through our expertise, utilisation of advanced technologies like EDLS Tas, and unwavering focus on occupant wellbeing, we empower clients to create environmentally responsible and future-proof spaces. Clients can confidently trust our teams to deliver successful designs that achieve net zero objectives, prioritise occupant comfort, and adhere to the highest industry standards across all RIBA design stages."

DCW2023: EXPLORING THE FUTURE

We were back at Excel London for another insightful Digital Construction Week! This year's theme was around 'Exploring the Future'.

This year Associate Director, Veronica Ruby-Lewis, attended Digital Construction Week (DCW) 2023 on behalf of Waldeck; a conference committed to driving architecture and design, construction, engineering, and operation forward by focussing on new technology that can improve project delivery and team collaboration.

Following the event, we caught up with Veronica to hear more about her top industry insights to take away.

Veronica shares: "This year's programme had a lot on offer, it was great to attend some very insightful presentations across the various stages.

"Seminars of particular interest for me were in relation to the Building Safety Act, including 'Building Safety Act 2022 – How Digital Solutions can help Industry Unleash the Potential of the Golden Thread' and 'The Golden Thread to ESG: The Built Environment's Opportunity & Calling'."

In summary, her top 3 insights from the event covered the 'Golden Thread', Technologies and a Digitalised Construction Industry:

1. The 'Golden Thread'

As the UK construction industry prepares for the Building Safety Act to arrive later this year, a key topic at DCW was the 'Golden Thread', a term which emerged following Dame Judith Hackitt's independent review of the Building Regulations and Fire Safety in response to the Grenfell devastation.

Hackitt's recommendation for the government to mandate a digital (by default) standard of record-keeping raised some questions about how the industry goes about delivering it.

It has been made quite clear, that whilst the government has detailed what information shall be made accessible within this Golden Thread, it is important for the industry to not wait around in the hope that the government will mandate how we deliver it, as this isn't going to happen.

The Golden Thread isn't an 'off-the-shelf software solution', the standards have been set by government and are what we must adhere to, but it is up to us, being the duty holders to determine what tools are used to deliver against those standards, hence why the industry has such a wide range of tools available.

2. Technologies

Amongst the array of talks across the various stages, the new asset management stage had an inspiring session on the restoration and renewal of the Palace of Westminster, thought to be the biggest restoration challenge the UK industry has seen!

The presentation showcased the power of available technology today, and how it can be leveraged for one of the UK's most complex historic building renovations, demonstrated through:

- **Retrospectively creating a fully operational physical asset; recreating a detailed Revit model from 10,000+ scans, with integration, and analysis of data from sensors or other sources to monitor and optimise the performance of an asset.**
- **Optimising geometry for real-time interrogation; Revit models comprising only of data rich components to aid decision making, whilst utilising the point cloud data as the backdrop to aid locating and navigation. Enhancing internal spaces; utilisation of machine learning to turn 2D images into 3D models.**
- **Engaging stakeholders; creating interactive digital environments to improve understanding of a building, aid decision making, and rehearse construction scenarios.**

3. Digitalised Construction Industry

It is extremely clear that 'Building Safety' is a driver for a digitalised construction industry, with standardised product information being key to minimise risk, but how do we move to this?

A panel discussion, chaired by Dame Judith Hackitt, with representatives from across the construction process highlighted the mammoth task of sifting through existing product data so that only useful data is shared with the supply chain.

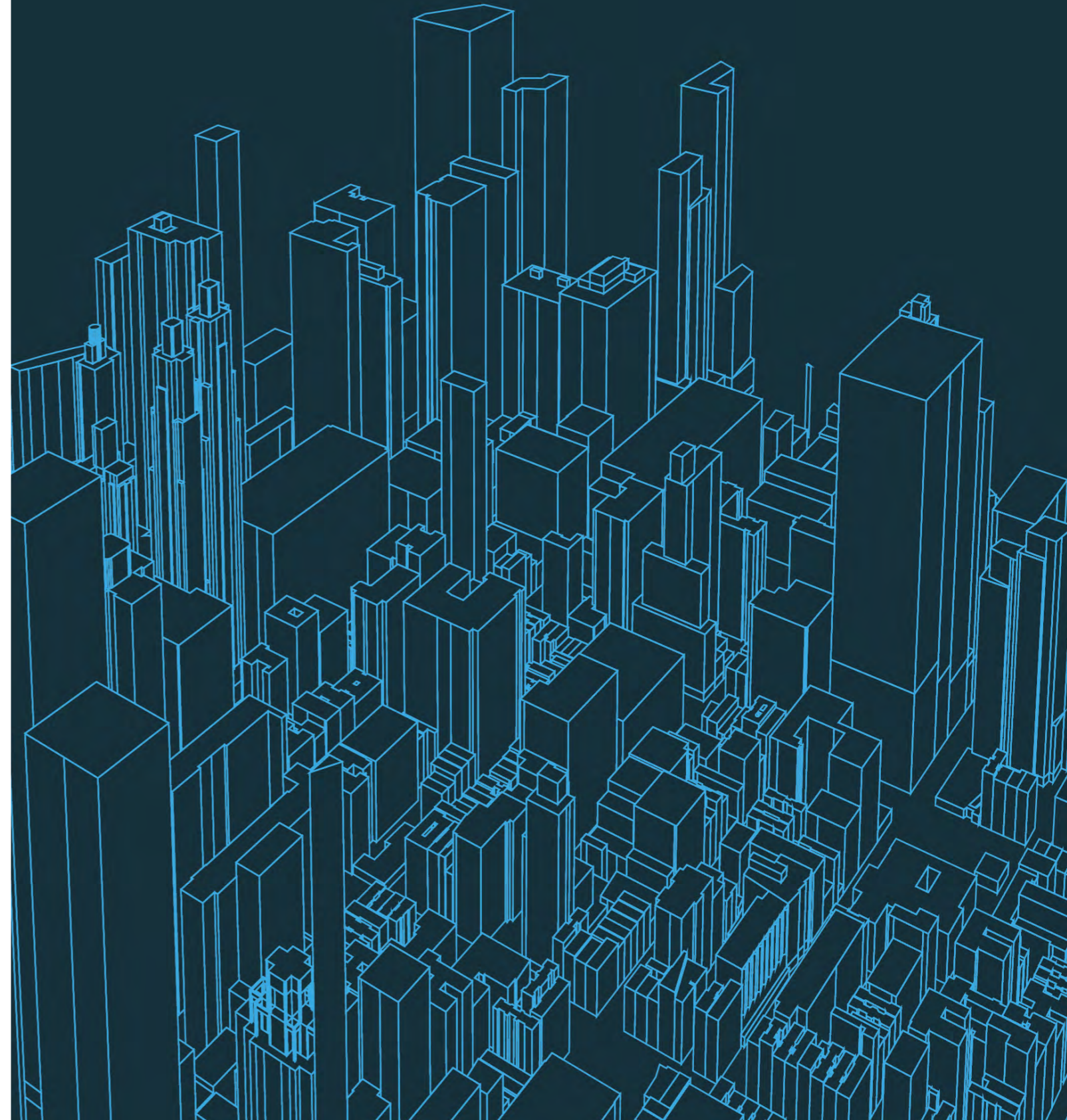
As a result, with the designers having all the data available to them about a product from the manufacturer, they would be able to make the decision and select the right product, meaning the industry could see what is being designed as actually what is being built.

Final Thoughts

Veronica concluded: "One of my key takeaways from the day, is that the industry plays a pivotal role in the safety of occupants, and the Building Safety Act 2022 ensures tragedies, such as Grenfell, do not happen again.

"In addition to this, what we at Waldeck, other consultants across the industry and our clients must now do is take this opportunity to look at environmental and social considerations in design that impact occupants directly or indirectly, such as energy efficiency, adoption of renewable energy sources and public spaces to name a few, going some way to meet the UK's sustainability targets."

"One of my key takeaways from the day, is that the industry plays a pivotal role in the safety of occupants, and the Building Safety Act 2022 ensures tragedies, such as Grenfell, do not happen again."



WHAT IS A BIM STRATEGY AND WHY DO YOU NEED ONE?

Establishing a BIM Strategy can provide organisations with a plan of action for the implementation of new processes and technology, ensuring they have the necessary resources to achieve truly efficient and collaborative projects.



We hear from Associate Director, Veronica Ruby-Lewis as we take a deep dive into what a BIM Strategy is, and why they are important.

A strategy can be defined as 'a plan of action designed to achieve a long-term or overall aim', and a BIM (Building Information Modelling) Strategy should be no different.

In business, there are three essential types of strategies that are required for the success of an organisation, these are business, operational and transformational strategies. All of which are underpinned by a common consideration, the organisation's people, process, and technology.

A BIM Strategy shall take consideration of these and expand upon in relation to the level to which BIM will be implemented and the associated transition process for the implementation of BIM into organisational business practices.

Prior to an organisation embarking on the creation of a BIM Strategy, and to avoid any failings later down the line, a series of questions should be considered similar to those below:

- **What is our current level of BIM implementation, none, partial?**
- **What do we want to achieve from BIM implementation, and how does it link to our wider business strategies?**
- **What is our internal and external use of technologies and processes?**
- **How are we going to integrate BIM into the business, and by when?**

Establishing a BIM Strategy will provide an organisation with a plan of action for the implementation of new processes and technology, ensure they have the necessary resources to achieve the desired long-term aims and integration through collaborative projects.

Do you need a BIM Strategy on a project?

At project level, a BIM Strategy, is really driven by having an educated client. One that understands that BIM starts and ends with them, and compliance to the UK BIM Framework on their project and the Information Management process, detailed within BS EN ISO 19650-2:2018 being applied throughout the delivery phase of the assets being key to reap the benefits that BIM brings.

Having an educated client means that they understand what information they need to be able to operate and maintain their asset upon handover and can clearly communicate their specific requirements with the necessary documentation that ISO 19650-2:2018 calls for, such as project information requirements, Exchange Information Requirements (EIR) etc.

BIM Design

Why is a BIM Strategy important?

For public-funded projects, conformance to the UK BIM Framework is required on projects by the Information Management Mandate detailed within the Transforming Infrastructure Performance (TIP): Roadmap to 2030 document and by the Government's expectations within the Construction Playbook, regardless of type (roads, rails, or buildings etc.) and size with societal impacts being at the centre of every decision.

Therefore, invitation to tenders on such government backed projects will require some level of BIM adoption and adherence to industry requirements, and those tendering will need to understand their obligations.

Outside of public-funded projects, large scale projects often have many complex parts and a vast number of suppliers involved



that need to be coordinated which can be very challenging and requires efficient collaboration to keep abreast of overall time and cost.

The implementation of BIM can relieve some of these challenges; the simple introduction of standards and processes for suppliers to align to, together with 3D coordination and data exchange mechanism (the Common Data Environment) provides a level of assurance to the client in the information being delivered during each phase of the project; design, construction and through to operation.

What should organisations be considering when planning a BIM Strategy for a large infrastructure project?

Start with the end in mind! As with any construction project embarked upon during recent times, it's important for consideration to be given to what data the Facilities Management team require in order to operate and maintain the asset over the course of its lifecycle but also the plethora of benefits it can pose to the project and its various stakeholders.

Changes are inevitable both in design and even in requirements, however, and with a strong BIM strategy in place which conforms to the UK BIM Framework, there

is a better chance of getting agreement and adherence from all parties earlier on. Following the information management process and associated sequenced activities detailed in industry standard BS EN ISO 19650 facilitates the seamless transfer of relevant information from design to construction and through to operation.

With all the above in mind, Waldeck can help with your BIM Strategy, through three main services:

1. Organisational BIM Strategy

Waldeck's approach aligns digital transformation with organisational purpose, which is embraced throughout our clients' organisation, and deeply integrated into the daily activities of their employees.

Our BIM Consultants recognise that no two BIM Strategies are the same. They greatly differ between business to business depending on several parameters, such as client base (existing and new), size of organisation, discipline, specialities etc.

We undertake an assessment of our clients' organisation, working with them every step of the way to understand their needs and current level of digital transformation. With a holistic mind-set towards our clients' requirements, we



"We undertake an assessment of our clients' organisation, working with them every step of the way to understand their needs and current level of digital transformation."

provide recommendations that strategically align this with their digital and organisational goals and gain them significant competitive advantage and/or increased operational efficiency.

2. Tendering Services

Waldeck have been utilising software supporting good information management for 10+ years and have been delivering BIM compliant schemes since the Government mandate in April 2016, gaining BRE BIM Level 2 Business Systems Certification in 2017 and more recently awarded with BRE ISO 19650-2:2018 Certification Scheme for Businesses in 2021, now being one of the first UKAS accredited schemes.

Our BIM Consultants can assist with prospective appointed party tender responses, pointing out obligations from the information supplied, where clarifications on the information provided needs to be sought, what information the prospective appointed party is to compile as part of the delivery team's tender response, and establishing or contributing to the documents within the tender response.

3. Project BIM Strategy

Our BIM expert domain and solution knowledge sees us shaping clients' visions into reality,

helping their organisations and projects with strategic information management to improve performance, develop robust processes and workflows to BS EN ISO 19650 industry standards, whilst harnessing the power of technology to optimise project inception, delivery and operation.

Our BIM Consultants work with our clients to understand their particular organisational and project information requirements supporting information management activities detailed in BS EN ISO 19650-2.

How can you find out more about how to implement a BIM Strategy?

Waldeck have a wealth of knowledge applying BIM across a broad spectrum of infrastructure projects. We can help educate clients on how through the appropriate level of BIM implementation and appropriate alignment to BS EN ISO 19650 standards they can reap tangible benefits to the lifecycle of their assets.

For more information please call 08450 990285 or email veronica.ruby-lewis@waldeckconsulting.com



BUILDING SAFETY ACT: HOW CAN SCAN TO BIM SUPPORT THE ALL-IMPORTANT 'GOLDEN THREAD'?

Following recent updates to the Building Safety Act, we explore how technology, such as Scan to BIM can support the construction industry with the all-important 'Golden Thread'.

What is the Building Safety Act?

Following the devastation of the Grenfell Tower fire on 14 June 2017, an independent review of Building Regulations and Fire Safety was undertaken, led by Dame Judith Hackitt, recommendations were made to ensure a sufficiently robust regulatory system for the future is in place to prevent such tragedies happening again.

Recommendations from Hackitt's report were taken forward within the Building Safety Bill 2019-2020, announced by our late Queen in December 2019. Its purpose was to establish new and enhanced regulations for the design, construction, and maintenance of higher risk buildings, those at least 18m tall or comprising seven storeys or more and which contain at least two residential units, improving overall building safety, and provide residents with a stronger voice.

A draft Building Safety Bill was published July 2020, and a final version published in July 2021, together with a Building Safety Bill and transition: timeline.

In April 2022, the Bill was subject to some government amendments before becoming law as the Building Safety Act 2022 after receiving Royal Assent on 28 April 2022.



The Act introduces the following measures:

- A more effective regulatory and responsibility framework for the construction industry supported by clearer standards and guidance.
- Clear accountability and responsibilities for all involved with the lifecycle of a building, including those who commission building work, those who participate in the design and construction process, and owners who manage and maintain.
- Three new bodies to oversee the new regime: the Building Safety Regulator, the National Regulator of Construction Products, and the New Homes Ombudsman.
- A digital 'Golden Thread' of information providing greater accessibility for those who maintain building safety and ease of updating throughout the building's lifecycle.

Who does the Act affect?

The Act provides residents of higher risk buildings and homeowners with a stronger voice. The Building Owner, known as the Accountable Person, has a duty to listen to their concerns on safety concerns, and an avenue to turn to, the Building Safety Regulator, should they feel their concerns are being ignored.

For Building Owners, changes within the Act requires them to manage their buildings better; identifying them as the 'Accountable Person' they are held responsible for the management of building safety risks in the higher risk buildings they maintain.

The Act provides the Built Environment industry with the clear framework it needs to deliver better high-quality buildings, holding 'Duty holders' responsible for the management of building safety risks during the design, construction and completion of all buildings.

What actually is the Golden Thread?

Early government guidance introduced a requirement as part of the regulatory regime to create and maintain a digital 'golden thread' of information, which they define as the golden thread being both:

- The information about a building that allows someone to understand a building and keep it safe, and
- The information management to ensure the information is accurate, easily understandable, can be accessed by those who need it and is up to date."

On new buildings, the golden thread begins prior to any building work commencing, and updated throughout the design and construction phases by duty holders, prior to being handed over to the Principle Accountable Person, an individual/organisation responsible for the building to manage and maintain this golden thread of information throughout the building's lifecycle.

For existing buildings, the Principle Accountable Person is responsible for creating, coordinating, and maintaining this golden thread of information.

What challenges does the need for a digital Golden Thread pose?

For new buildings, Building Information Modelling (BIM) will play a pivotal role in creating a golden thread of information. The integration of multi-disciplinary data creates a detailed digital representation of a building, managed within a common data environment provides accurate and up to date information that is easily accessible by all, giving greater visibility for better decision making and sustainable optioneering.

For existing buildings, owners of higher risk buildings may find themselves with nothing but reams of paper, not knowing where to begin when it comes to creating

and coordinating a digital golden thread of information. However, it is possible to retrospectively create a BIM model of their buildings via Scan to BIM and create the same level of digital Golden Thread of information as a new build would have, satisfying the requirements of the Building Safety Act 2022 whilst leveraging the many benefits it would bring.

How can Waldeck help these challenges be overcome?

Waldeck's Scan to BIM digital capture service offering comprises a team of digital surveyors that utilise the latest technology to undertake Scan to BIM projects for our client's, providing them with accurate, retrospective intelligent Building Information Modelling models of their assets created from 3D laser scan data by capturing large sites and buildings in high levels of detail.

Our Scan to BIM process is enhanced by the utilisation of advanced toolsets for both capture and process activities, giving a level of automation from site through to model production processes.

The Scan to BIM process is a quickly deployable method of capturing an environment or a physical asset, including all visible critical equipment, efficiently producing high detail outputs which can be swiftly utilised by asset owners to improve the decision-making process and reduce errors which commonly occur when working on assumptions based on 2D 'As-Built' legacy information.

Using 3D authoring software, we can accurately re-create an as-built model of an existing building and its accompanying site from the point cloud data. The creation of a 3D geometric model, which accurately reflects the physical asset, allows new information to be attributed creating intelligence which can be harnessed to better understand how to manage and maintain the asset.

When created, the intelligent 3D model facilitates the manipulation, change, analysis, and adaptation of all aspects of the as-built model to suit any planned future refurbishment activities.

"The creation of a 3D geometric model, which accurately reflects the physical asset, allows new information to be attributed creating intelligence which can be harnessed to better understand how to manage and maintain the asset."

Additional datasets that can be captured as part of the Scan to BIM process include geolocated 360-degree images, which when linked together creates an immersive and visually rich navigable environment.

Having such an environment enables Client's to quickly understand the complexities of their asset and surrounding environment, facilitating engagement with contractors for accurate scoping of refurbishment and maintenance activities.

Why use Scan to BIM?

- It provides a detailed accurate digital representation of an as built asset and surrounding site.
- It provides the basis of a golden thread of information.
- It facilitates informed asset management and maintenance.
- It facilitates scenario analysis informing adaptation of the asset.

Waldeck's Digital Capture team have a wealth of knowledge in working with clients to understand their specific requirements, enabling them to derive full benefit of the data, supporting intelligent decision making for owners over the building's lifecycle.

For Building Owners wanting to know more about Scan to BIM, and how it can support a digital Golden Thread of information; then please feel free to contact us to speak with one of our specialists.



Veronica Ruby-Lewis
Associate Director

Telephone: 08450 990285

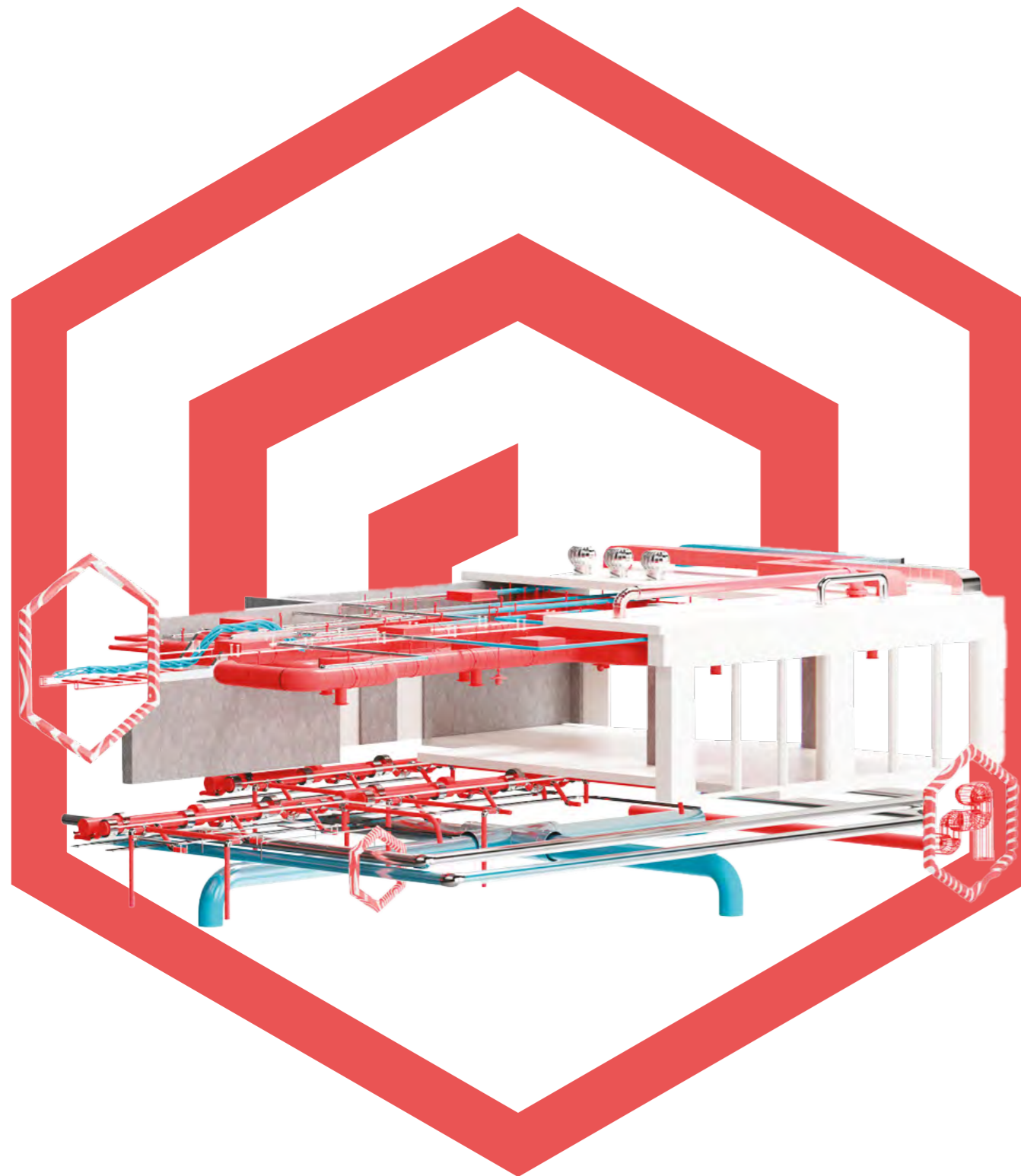
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WALDECK PROVIDE EXPERT TESTING FOR MAGICAD ON THEIR ROAD TO BECOME CIBSE VERIFIED

Associate Director from our Mechanical & Electrical team, Luke Mitchell CEng, was recently approached by CIBSE as a trusted neutral third-party to test MagiCAD's software, in order for it to be verified through CIBSE's new Software Verification Assessment (SVA).

Following the previously successful testing of ductwork and pipework calculations, Waldeck's Luke Mitchell was invited back by MagiCAD to provide expert testing on their road to become CIBSE verified for heating and cooling water systems calculations.

CIBSE's Software Verification Assessment service provides independent testing of software systems used for specific design functions.

Working on areas where CIBSE calculation methods are the accepted industry standard – such as pipework sizing – this new service runs a series of comparative checks to make sure software systems produce the results expected of the standard calculation methods.

Any software that has passed one of the CIBSE tests can then display the SVA logo, demonstrating that it has been rigorously tested and provides answers that can be trusted.

Luke, who is a Chartered Mechanical Engineer, was approached by CIBSE due to our team's in-house expertise in using the MagiCAD software and reputation for the high standard of work the team produce.

Luke shared: Luke Mitchell - Mechanical Building Services Engineer "I was thrilled to be trusted by CIBSE as a neutral party to get involved in the verification process for MagiCAD. The prestige of being invited to be part of the testing process is a testament to the great work our team produce.

"Myself and the team have a good relationship with MagiCAD and are known to them as competent users who optimise our application of the software. This meant that both MagiCAD and CIBSE could trust that I

would know how to use the software correctly in order to provide an accurate report for their consideration when awarding verified status.

"The Software Verification Service doesn't provide testing for a whole software platform. It sets out a series of tests on specific calculation sets, such as heating and cooling pipework calculations."

Carl Collins, Head of Digital Engineering at CIBSE added: "Our SVA programme has been very well received by software users as well as software vendors.

"Our chartered engineers, such as Luke, verifying calculations adds another level of confidence in the calculations being performed by those software titles."

The objective of CIBSE's new scheme is to remove the time-wasting practice of multiple users doing their own testing individually. CIBSE, as an independent Professional Engineering Institution (PEI), has both the expertise and the authority for the conclusions of its testing process to be accepted across the sector.

To find out more about CIBSE's Software Verification Assessments, follow the link below:

<https://cibse.org/Society-of-Digital-Engineering-SDE/CIBSE-Software-Verification-Assessment#Certificates>

Or if you would like to know more about MagiCAD, a Revit plug-in that provides a range of BIM modelling and coordination tools, please follow the link below:

www.magicad.com/uk

SERVICE SPOTLIGHT: INTERIM MANAGEMENT

Our qualified in-house experts are able to provide comprehensive Interim Management support for clients across a range of services.

Working closely with clients, our Commercial & Risk Management team are trusted to provide flexible, short-term resource to support their on-going project delivery and cover any unforeseen resource-gaps to ensure business can continue without disruption.

Our experienced Interim Management team are able to provide a range of hybrid services on an interim basis, offering temporary solutions to...

New Business Generation including:

- Pre- Contract Duties
- Post- Contract Duties
- Project Management & Programming Duties
- Homes England IMS Programming Duties
- Homes England Audit Support
- Project Delivery services including:
 - Contract Management
 - Defect Management
 - Health & Safety Advisory Services
 - In-house Project Management
 - Programme Management
 - Site Inspections & Clerk of Works
 - Site Supervision
 - Training & Support

Graham Wright, Commercial & Risk Management Director, shares: Commercial and Risk Management Director of Waldeck Consulting "As our business continues to grow, we are delighted to further expand our service offering to clients. A proactive, flexible approach to resource is often required by our clients across the residential, care and extra care sectors and Waldeck are the perfect partner to support them in covering any short-term gaps when required.

"We are currently working with a variety of clients providing Interim Management solutions ranging from 3, to 6 to 12 month solutions across contractual, technical, commercial and management services."

Find out more about our Commercial and Risk Management services: www.waldeckconsulting.com/services/commercial-risk-management-services



