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Richard Ogden, Chairman

Those of you who know me will be aware that I am one of those who believes there is a better than even chance that unless fundamental changes are implemented, the construction industry will continue to go through a number of distinct cycles of performance and behaviours. These cycles will not necessary track the wider economy, may not apply consistently across the UK and may be of shorter or longer duration. I am convinced that for the most part these cycles reflect the way in which large parts of the industry are structured and rewarded; its seeming inability to learn and retain lessons, and the obtuse decisions to stick with ways of working that have demonstrably failed to deliver positive outcomes on just about any level. In my view, I believe that with a few notable exceptions, the industry has made no progress on increasing productivity, on improving right first time quality, on increasing competitiveness, and on improving value for clients and paying customers.

The bottom line seems to be that if you stay in the industry long enough, you will eventually experience your own Groundhog Day moments.

That is precisely how I feel at the start of 2016. I believe that I have been here or hereabouts. In my case, just about a generation ago.

A few emerging performance indicators which we will all have spotted in the headlines seem very familiar. 2015 came to a close with the news that overall construction activity was marginally up, with a reasonable performance for new build, masked by a decline in spending on repair and maintenance. Against all the odds, we learned that there had been a reduction in spending on infrastructure. Wow – who saw that one coming? That wasn't supposed to happen. Not at all the news we want when spending on infrastructure is so vital to establish the UK as a dynamic expanding economy over the long term.

We have also heard about a decline in confidence in the commercial construction market, attributed by those who claim to know about these things over concerns on a possible BREXIT vote in the promised Referendum. Perhaps the same uncertainty also helps explain some of the wobbles that are currently impacting on the high end property market.

Like me, you will probably recall it was not so long ago that the media was full of predictions of 200 mega towers being constructed across London. Well perhaps – but it now looks as if the time horizon has inevitably become somewhat stretched. By the way, I see that not one of the truly mind-blowing mega towers planned for the next year or so will be constructed in London. We will have to look to China, The Gulf or to Russia to see the new icons of the age.

Into this mix, we also read that a number of highly regarded main-contractors are taking the difficult and financially painful decision to walk away from hard won substantial new projects, because they cannot agree final prices with the client. An outbreak of sanity in a market that has often shown a tendency to 'buy' work and then look for ways of carving out a profit. Clearly, the uncertainties over price escalations in materials and sub-contracting have finally got to the point when taking on new work for a client that has a determined or accurately calculated view on how much they are willing to pay, is simply no longer a gamble worth taking. The message I think I see here is that in some parts of the UK and for some investors, the cost of construction has simply become too great and market conditions too uncertain to justify the predicted returns. If this trend follows the track I predict it will, we are likely to see quite a number of clients taking the decision to delay investment decisions until market conditions are more benign. This is precisely the position McDonald's Restaurants was in when we decided we could no longer do business with the traditional construction industry. That decision marked the start of our offsite journey.

Another Groundhog Day moment has come with the news that the Labour Party has launched yet another review of the housing market. This Review is being led by Pete Redfern, the Chief Executive of Taylor Wimpey and will focus on the causes of the decline in home ownership. Just in case you had missed out on the point that Local Elections are on the horizon, John Healey, Labour's Shadow Housing Minister when announcing the review reaffirmed that increasing home ownership is a Labour Housing priority.

For those who may have lost count, this latest review will be the fourth politically inspired review since 2004. In chronological order, we had the Kate Barker review of March 2004. Kate had been tasked by the Labour Government to look at the lack of supply of new housing. Then in 2007 came the review also commissioned by the Labour Government and led by John Callcutt, formerly a chairman of what at the time was English Partnerships and also Chief Executive of Crest Nicholson. This review looked at how the supply of new homes was influenced by the nature and

structure of the housebuilding industry. Then in October 2014, we had a Review carried out by Sir Michael Lyons, an ex-Chairman of the BBC for the Labour party. This review concluded that the UK needed to build 243,000 homes a year – every year – just to keep up with demand. Needless to say that since then, demand driven by population increase has grown substantially – what has not grown is the number of new homes to anything like the numbers required to make a difference.

I have missed out a really important review – the 2013 Offsite Housing Review – jointly commissioned by the Department for Business, and the Department for Communities and Local Government, and completed in record time by Prof John Miles of Cambridge University and Prof Nick Whitehouse of Oxford Brookes University. Both are Members of the Buildoffsite Executive. This Report contained a superb analysis of the UK housing market and the conditions that needed to be put in place to enable a step-change in house-building. It is a great read and frankly it says most of what needs to be said in order to shape a plan for delivery – if only the political will could be harnessed. You can read the Review here: http://www.buildoffsite.com/content/uploads/2015/04/CIC-Offsite-Housing-Review.pdf.

I think that we can safely assume that even for a Groundhog Day aficionado, the housing market has now had more than enough analysis. What we are still lacking is decisive action to revolutionise the housebuilding industry, through new entrants and a step-change increase in the use of offsite solutions to create the capacity to deliver a doubling of output. There are a number of ground-breaking moves underway which I will comment on in due course. The great failure is that to date, there is absolutely no sign that Government has a sense that it also needs to show decisive leadership and actually play an active role to bring about the much needed changes.

Reviewing this piece leaves me in absolutely no doubt that notwithstanding economic impacts, the exploitation of offsite solutions, coupled with intelligent information modelling and a working method based on design for manufacturing and assembly is the only way in which certainty regarding cost, performance, productivity and value can be achieved within the construction industry. It is the only way in which the industry can move on with confidence to build an industry that for the first time can aim to be as effective as our world class aerospace and automotive sectors. There really is no choice – it is all about the pace of change and the amount of pain that the industry, its clients and those who rely on the ready supply of quality, high performing buildings and infrastructure are prepared to put up with. Building an industry that is truly fit for the 21st century is the only sure way for the industry to thrive, even when times are challenging.

Update on the Water Hub

The Water Hub is gaining momentum. The first event for Buildoffsite members has now been organised – a visit to Pulloxhill, Bedfordshire an Anglian Water construction site on 10 March. All Buildoffsite Members are welcome to attend.

Anglian Water's challenge is to reduce time on site by 50% and to reduce embedded carbon by 50%. The majority of the assets at Pulloxhill are being constructed offsite. The Buildoffsite event will explore the practicalities of how Anglian engaged with its supply chain to deliver offsite solutions. Further events are planned for 2016 including a visit to United Utilities site at

Davyhulme near Manchester. A date for this visit will be announced as soon as possible

At the request of the clients leading the Water Hub the Buildoffsite team has agreed a number of actions including the development of a maturity matrix (to allow individuals and companies to assess their progress towards implementation of offsite solutions) and also the development of a pilot document to showcase standard pumping station solutions.

The Water Hub is planning to showcase a number of offsite solutions for the water industry at the Off Site Construction Show at the ExCel on 12/13 October 2016.

Flaunting convention: An issue of leadership

What follows is a precis of an Opinion Piece from Graham Cleland of NG Bailey. The full text of Graham's piece is now available on the Buildoffsite website [goo.gl/qqsGZl.](goo.gl/qqsGZl)

Graham Cleland

So here's the rub: we have a growing economy and the prospect of a fairly healthy construction sector, but there is less skilled resource than 6-7 years ago.

The irony is that the offsite sector remains under-utilised. Despite an obvious willingness of many private investors across the offsite sector to make further investment to grow capability and capacity to help leverage the productivity of the construction industry, the simple fact is that trading conditions have actually become increasingly difficult. All of which begs the question: why?

Self Interest: The purpose of bidding for a project is for the parties to present compelling argument elaborating how they are best placed to deliver against the client requirements. This process is largely a matter of instilling confidence and demonstrating expertise and experience, whilst being able to evidence that commercial and programme risks can be minimised or eliminated. But consultants and main contractors are effectively service providers, and so in bidding for new work they are also trying to secure an income stream to sustain their ongoing overhead commitments.

Since the value-add that is effectively being sold is effectively the know-how of people, then the longer the project the better. Having been appointed to a project, it would be counter intuitive for consultants and main contractors to pro-actively seek out alternative build methodologies that might involve more offsite solutions (unless there is a specific end-client or project driver for pursuing such options). Furthermore, the form of design and build contracts helps perpetuate this mode of working because they do not typically reward an improved outcome (eg a better performing building for the same cost, or earlier completion to allow earlier

revenue realisation) rather they pay a set amount for delivery of the scope to particular deadlines.

Perceptions of Risk: The construction sector in the UK is capable of designing and producing some stunning, incredibly sophisticated buildings, but why is it that construction methods have remained substantially the same for decades. Albeit that many projects are delivered over budget, late to the agreed programme, or the performance of the final building is to be found wanting, consultants and main contractors tend to default to tried and tested methods because the perceived risks associated with the same are low.

The radical departure from tried and tested methods often proves too great a challenge for consultants and main contractors to contemplate. It constitutes hard work as it forces people to think, not just about the option itself but also because there is always a broader impact of adopting any particular solution on other packages of work. The Government has set some big challenges as part of its Construction 2025 industrial strategy yet the fact is that their cost, delivery, sustainability and export performance targets will not be met if the sector continues to exhibit such innovation averse behaviour.

Time: Timelines and deadlines are important themes in construction. Tried and tested methods commonly employed by consultants and main contractors can be considered to present obstacles to a much leaner model. While people feel compelled to stick with the extant rules of the game because these reflect decades of custom and practice, the inefficiency of the old working model is perpetuated. The intriguing counterpoint to this logic is that the offsite sector offers the opportunity to shake everything up and re-define the rules of the game.

Despite the advances in technology and data management, building information modelling is largely used for the purpose of defining what needs to be built and how this will be maintained. Building information modelling is rarely used to capture and define how something will be built, and also when the precise series of activities should take place. By definition the specialist contractor is best placed to generate modelling information for the purpose of manufacture of the offsite solution, so there would appear to be real benefit in appointing them early on to avoid the need to duplicate work and incur unnecessary costs with consultants.

Nowadays main contractors are not builders rather they are project integrators and so their long-standing resource planning heuristics relating to which roles need to be performed by which party and how much of this resource is really required should come under scrutiny. The appointment of a specialist contractor who will provide some form of offsite solution might require the main contractor to engage some additional design resource to co-ordinate packages of work, but equally it might logically imply a more substantial reduction in project and commercial management resources. By definition, the purpose of producing offsite solutions is to aggregate packages of work together that would otherwise be undertaken in-situ in a more traditional, piecemeal manner, so there is always a direct consequence on the number of personnel and material movements to/from a physical site.

Design and build using offsite solutions potentially has contractual implications too. In essence, when the majority of design and manufacturing activity is taking place away from site the potential for the late installation of product is greatly reduced. and testing of finished product, and agree a window as opposed to specific day for the installation of a

product so as to create small amounts of float in the overall construction programme.

Summary: I started out posing the question as to why the capability and capacity made available by offsite providers has been under-utilised by the construction sector. What if, for the sake of simplicity, the question was framed along the lines of what would the construction sector do if the private investors who sponsor and support offsite decided to invest their energy and money elsewhere, and the capability and capacity of the offsite sector was effectively zeroed? Such a shift would carry a cataclysmic impact that might force a different conversation regarding under-utilisation. Indeed, the non-availability of capability and capacity to help support the construction sector would likely become a true leadership issue and subject to strategic debate.

Of course, if the matter did become a leadership issue and a proper dialogue took place regarding the strategic importance of offsite in the construction sector, the medium-to-long term benefits of leveraging productivity and growing export potential could be pursued. Sadly, the hypothesis of the many private investors unilaterally withdrawing from their offsite interests is unlikely to become a reality because they have so much skin in the game. But in a sense this does not dilute the argument for leaders across the construction sector to rise to the challenge and seek ways in which their businesses can look to flaunt conventions to create a better, more holistic approach across the industry so it is better placed to serve end-clients and better able to generate healthier returns.

Legal & General Capital launches modular housing business

Legal & General Capital (LGC) has launched its modular housing business, Legal & General Homes, which will seek to modernise the home building industry by providing modern, precision engineered factory manufactured houses.

Legal & General Homes has signed a long-term lease with Logicor on a 550,000 sq ft warehouse in Sherburn-in-Elmet, 15 miles east of Leeds, representing the largest modular homes construction factory in the world. Initially employing 400-500 local people, it expects to deliver its first houses from the factory in June.

The factory will produce high quality homes customised to meet customers' designs and needs, ranging from 20-storey apartment blocks to rows of terraced, semi-detached and detached houses. The factory will apply leading edge manufacturing techniques, including automated CAD/CAM, standardisation of components and optimisation of common platforms to take out cost and improve productivity. The technology has been proven across Continental Europe where off-site manufacturing of housing is increasingly common place. Time spent building on site will be reduced by more than 70%, compared to traditional techniques, manufacturing sections in advance and delivering them fully fitted to the site to be installed.

Legal & General Homes will avoid the typical defects associated with house building by using cross laminated timber and automated technology to remove shrinkage, cracking, wet trades, plaster jointing and nailing – reducing repair costs as the

building settles. The homes will be precision engineered in order to make them energy efficient, great to live in and better for the environment than traditionally constructed homes.

Buildoffsite will be organising a visit to the factory as soon as possible.

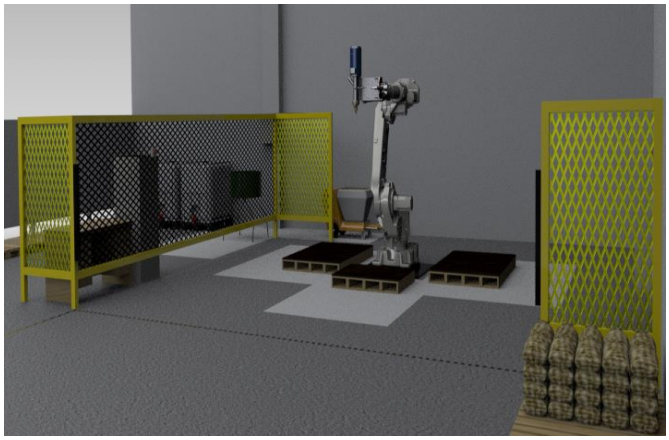
Update on the Skanska UK FRAMBE project

Sam Stacey, Head of Innovation at Skanska UK, reports on progress in the Flexible Robotic Assembly Modules for the Built Environment (FRAMBE) project.

Delivering differently: The UK construction industry has been set four key targets to achieve in the 2025 industrial strategy: to reduce costs by 33% and lower emissions, and to improve delivery times and exports – all by 50%.It's a big challenge. Our approach to innovation is aimed at delivering on the challenges the construction industry has been set. We believe that through thinking differently and finding new ways of working, we are going to be best placed to succeed.

Collaborative working: We were delighted to receive a funding award worth just over £700,000 to develop the use of robots for on-site and off-site construction in July 2015. The award came from the UK's innovation agency, Innovate UK, and the Engineering and Physical Sciences Research Council (EPSRC), as part of their collaborative R&D programme. The FRAMBE project got fully underway late last year, and is scoping out the opportunities for automation and developing robotic applications, building on a suite of Skanska initiatives that are transforming productivity in construction.

We are leading a research consortium to create robotic construction units that can be deployed on site, or in 'modern flying factories', to carry out cutting, drilling and fixing. 'Flying factories' is a term that we use to describe the process of near-site manufacture, which allows structures to be built in controlled conditions, removing the potential effects of bad weather and other on-site hazards – speeding up the assembly of the building on site.



Typical robot cell in a 'Flying Factory'

It is research that involves a number of key partners:

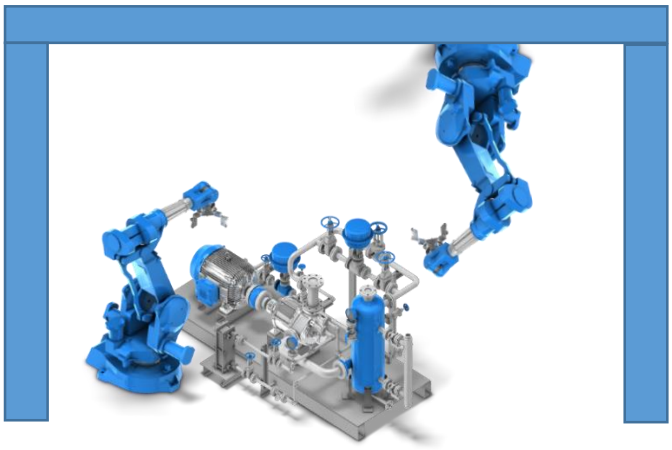
- ABB Robotics
- The Building Research Establishment
- Tekla UK (software)
- Lean consultants Exelin
- University of Reading

Exploring the opportunities: Robotics in construction is an unknown field and provides great opportunities. The technology has been used extensively in other industries, including automotive, with great success. There is a great deal that we learn and bring to our industry. The

advantage of robotics in construction is that it is safe, green, accurate and fast. Using a robot to drill and fix to the underside of slabs, for example, would eliminate a lot of work at height in dusty, noisy environments.

The project will run until April 2018, at which point we will report and share our findings.

FRAMBE is just one of the innovations we are currently engaged with. Alongside a number of expert partners, we are carrying out a research project into 3D concrete printing, digital tag and track technology, as well as the flying factories project. Early results are positive. We're confident that by thinking differently, finding new ways of working and collaborating as an industry, we have an excellent opportunity to meet the challenges we have been set and to change the face of construction.



Example of a Mechanical and Electrical assembly plant using robotics

For further information, please email Vaibhav Tyagi: vaighav.tyagi@skanska.co.uk.

C-Probe Systems recognised in Top 25 Newsmakers Award

In August 2015, Engineering News Record (ENR) – an online news magazine based in Los Angeles, CA – ran an article that highlighted the use of C-Probe Systems Limited newly developed alkali-activated (geopolymer) anode mortar, following the success of its project with Mott MacDonald and Structural Engineering Associates at The Commerce Bank in Kansas City, MO in the US. The material (+point anode) was used to provide corrosion control to the structural steel frame of the historic masonry clad building in the form of impressed current cathodic protection (ICCP) by replacing the bed joints between the stonework with the anode mortar, leaving a functional joint that is aesthetically installed and that will protect the asset from corrosion for the next 25+ years (see photo below).

This system is monitored and controlled remotely from the UK using C-Probe's network technology and online management server (AiMS) to provide a running record of performance to the owner.

In January 2016, ENR awarded C-Probe's Managing Director Graeme Jones with a special recognition award as one of their Top 25 Newsmakers of 2015 and followed the 2015 article up with a new article highlighting the prospects for the technology in the wider restoration market for repair, protection and strengthening of structures, as well as within the new build market as a wet-on-wet cast anode to conventional OPC concretes to provide controlled longevity to infrastructure in its WoWSmart® form.

C-Probe is looking forward to receiving its award in New York City on 7th April, at an event hosted by ENR at the Marriott Marquis Hotel and the company will continue its work to develop the market for its new technology.

Update on BOPAS

The Buildoffsite Property Assurance Scheme (BOPAS) has seen a step change in interest and take up with 5 offsite manufacturers having been accredited in the last 6 months, 6 currently going through the assessment process and a sales pipeline currently standing at 25 offsite providers.

Although the scheme was principally established to facilitate ease of lending to the offsite construction sector, business benefit from the scheme requirements is a value added key feature commonly recognised by Offsite providers progressing the BOPAS scheme as evidenced by the following testimonial:

SIG Building Systems said: *"BOPAS took us on a journey which made us analyse the business in a way we had never done before, it presented many questions, some of which we would have not thought to ask. BOPAS has created the fundamentals behind our business model, is now an integral part of our culture & defines the way we operate on a day to day basis."*

For more information: www.bopas.org.

Laing O'Rourke & ECITB back new training initiative at Stafford College

Stafford College has launched a construction and design centre of excellence (CADCOE), which will offer courses to train a generation of digital design and BIM technicians. The centre has been established via a collaboration between the college, Telford-based TDS Group – a specialist in architectural drawing and CAD and Sheffield-based Tier BIM Consult – a specialist BIM consultancy that acts for clients.

The new training centre will aim to offer day-release training to 120 apprentices by 2017, and has received funding from the Engineering and Construction Industry Training Board. Apprentices working for industry employers in the Midlands will attend classes in the college's purpose-built facilities for CADCOE students, including 30 computers with the latest AutoCAD, Tekla and Revit software. CADCOE will use the expertise of the industry to guarantee course content and that training standards are relevant to the current sector requirements.

Contractor Laing O'Rourke is already signed up as a supporter of CADCOE as part of a long-term strategic partnership, with a view to increase numbers of staff trained in digital design. Gary Foster, the principal for reinforcement engineering at Laing O'Rourke, spoke at the launch of CADCOE last week on how organisations can improve diversity and inclusion to support the sector's growth.

Gary Foster from Laing O'Rourke, Andy Adams from Tier BIM and Dan Leech from CADCOE look on as Tom Glover, an apprentice from TDS Midlands cuts the red ribbon officially opening CADCOE at Stafford College

In a press release, Ian Clinton, interim principal at Stafford College, said: *"It's exciting for us to be the only college in the country to have a partnership such as CADCOE. This is a fantastic example of education working directly with employers to support an industry and will benefit not just the region, but the entire UK."*

Daniel Leech, managing director at TDS Midlands, said: *"Thanks to our partnership with Stafford College and the Engineering Construction Industry Training Board (ECITB) we are able to provide Computer Aided Design and draughting apprenticeship training free for employers across the UK in a positive, vibrant, state-of-the-art facility, while guaranteeing the highest quality of delivery."*

For more information, please contact Genny Capper by email: genny@cadcoe.com, or call: 01952 605549.

Tekla transitions to Trimble brand

Trimble has announced that the Tekla Corporation transitioned to the Trimble brand on 1 January. Trimble acquired Tekla in 2011 and the rebranding reflects both the evolution of Trimble as well as its vision for the future. Since the acquisition, Trimble and Tekla have shared a common vision – to transform the building lifecycle through advanced, accessible and intuitive technologies, and to drive increased collaboration across the industry. Trimble combines strong domain knowledge with a broad portfolio of technology and capabilities to develop customer-centric solutions that are transforming the planning, design, construction, maintenance and operation of buildings and civil infrastructure. With an open approach to BIM, the name change reflects the combined companies' strong commitment to customers – providing the opportunity to tightly connect Tekla software to Trimble's broad portfolio of design-build-operate (DBO) solutions. With the transition, Trimble's Tekla software customers can expect the same continued innovation, and the 'best in class' support and service as they currently receive.

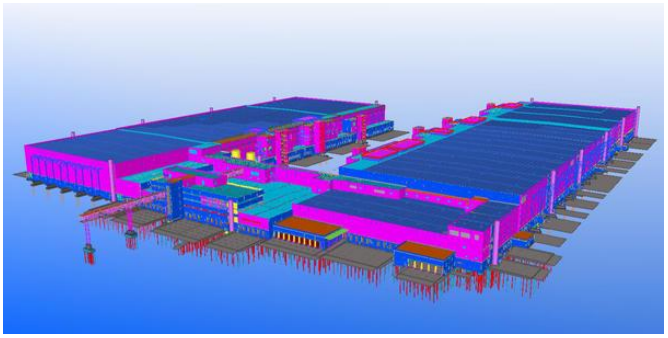
Risto Räty, General Manager for Trimble's Structures Division, said: *"Trimble's expertise, technologies and investment in research and development enables us to bring solutions to market that transform the construction workflow. The brand name is an important indicator of who we are and what we stand for. Together, we can serve the construction industry better as we tightly connect Tekla software to Trimble's broad portfolio of DBO solutions."*

The tighter integration of Tekla's BIM software solutions with Trimble's building construction estimating, project management and BIM-to-field solutions will enable a compelling set of productivity solutions for contractors around the world. Clients can benefit from dedicated workflows and productivity solutions that are unmatched in the construction industry.

The integration of Tekla and Trimble's construction software portfolio will enhance the ability to amalgamate data throughout a project's lifecycle, while eliminating costs through better accuracy and interoperability – providing customers with a broad and sophisticated BIM capability.

Tekla global BIM awards winners – the top of construction in 2015

The winners of the Tekla Global BIM Awards from three continents showcase not only extremely skilful modelling, but also great collaboration and innovative construction.



© 2015 Tekla Corporation

Among commercial projects, the winner is one of the winners of the local competitions – just like the other finalists. The 190,000m² PTDC Logistics Centre in Sipoo, Finland submitted by Freeway Consortium will service the grocery retail sector. The team detailed precast, steel and rebar for fabrication, and used the Tekla model to monitor and manage the precast unit supply chain. They combined MEP and structural models to ensure constructability, and used the models on site.

The jury selected the Abu Dhabi International Airport's Midfield Terminal Building by China State Construction Engineering Corporation as the winner of the public project category. The building has 18 unique steel arches that span up to 180 metres. BIM implementation reduced project length and increased productivity. 3D BIM files from various project parties were combined in Tekla for clash check, preventing problems on site.

The 85-metre tall Amager Bakke in Copenhagen, Denmark was considered the best industrial project. The modern waste-to-energy facility doubles as an 11-floor office and has a ski slope on the roof. MOE A/S used Tekla innovatively from the early concept creation to highly detailed design. The main contractor and subcontractors have used Tekla for detailing, fabrication and erection planning on site.

The best sports and recreational project was Daytona Rising in the USA, submitted by contractor Barton Malow, including the work of subcontractors Pinnacle, McGill Engineering Inc, GPLA, Compusteel Detailing and others, and they all used Tekla software to model. The racetrack stayed operational during the upgrade. In addition to extensive structural modelling, the team used Tekla and open BIM innovatively to plan and manage layout, project logistics and supply chain management.

The best infrastructural project, an architectural Isoisänsilta (Grandfather's bridge) was submitted by a project group carrying the same name. It spans 150 metres, and serves bicycles and pedestrian traffic. The team maximised the use of BIM data and minimised the printing of documents for

construction. Bidding requests were model-based and all quantities were extracted from the model.

Mutant Trees by Apex Structural Design was considered the best among small projects. The display of eight 15-metre steel trees with a surface comprised of 500 triangular plates and an internal skeleton of tubes is located in Vancouver, Canada. This project did not start from 2D drawings; a 3D model was supplied and the modelling team had to build the internal structure from the exterior surface. Without the model, the project would have been extremely difficult to fabricate.

The Porvoo Oil Refinery Isomerization Unit submitted by A-Insinöörit was given special recognition. By utilising building information models, the digital assets of the existing structure and process equipment, the team managed to design, plan and execute in a very tight schedule. This shows the value of BIM beyond the construction phase of a project.

The winner of the public vote is the beautiful Opera House at Downtown West Dubai, its design maximising daylight and the views. Eversendai Engineering LLC engineered, detailed, fabricated and installed the structural steel. The Tekla model provided information for the acoustic engineering company to advice on the maintenance structures.

In the student category, the winning team consisted of five students from TongMyong University in South Korea. Their constructible project model presents an extensive building with complex geometry and multiple materials. The integrated Tekla model replicated an open-BIM workflow typically used to maximise value-engineering potential.

The jury consisted of international BIM experts: Dr Arto Kiviniemi, Professor of Digital Architectural Design, University of Liverpool; Dr Anne Kemp, Director responsible for BIM Strategy & Development at Atkins UK; Richard Petrie, Chief Executive at BuildingSMART International UK; Dr Vladimir Talapov, Professor at Novosibirsk Academy of Architecture and Construction; and Dr Parvathy Subhadra, Publishing Manager at Roof & Façade magazine in Singapore. Tekla was represented by the Executive Vice President and General Manager of Trimble Buildings Structures Division, Risto Räty.

All 51 entries to the Tekla Global BIM Awards are the winners of regional Tekla BIM competitions organised during 2015. More information about the competition, winners and other entries is available on the Tekla Website: www.tekla.com/bim-awards.

The UK Tekla Awards 2016 is open for entries

Now into its 11th year, the UK Tekla Awards 2016 is open for entries and this year the categories have been revamped. The awards have been designed to recognise and celebrate the hard work and innovation that goes into creating 3D models for the construction industry. Focusing on projects of all shapes and sizes, the awards are for those that have used Trimble Tekla software as part of the process of designing and 3D modelling a structure, or where the use of Tekla software and BIM has aided collaboration in the digital construction process.

Andrew Bellerby, Managing Director at Trimble Tekla, explains: *"This year, we've changed the categories to encourage more entries and although there are fewer categories, it's easier to enter. The categories are now split into project type – meaning there should be at least one category that everyone can enter. What's more, we've even added a student category, as we feel it's important to celebrate the work of our future experts of the digital construction industry. Previously, entrants have found that the recognition that entering the awards brings has raised their business profile, as any business award win, short-listing or nomination can act as a third party endorsement for a business, helping to provide trust and confidence to potential new clients. As such, we're looking forward to receiving all of this year's entries!"*

The 2016 award categories are as follows:

Commercial projects: A building that is used for commercial use, eg office buildings, a residential complex, hotels, retail outlets and client utility buildings.

Public projects: Civic buildings that are used by the general public, eg healthcare or educational facilities, airports, government buildings and research centres.

Industrial projects: Buildings that are serving industry, eg factories, power plants, drilling rigs, warehouses and distribution centres.

Infrastructure projects: Non-occupied structures, eg bridges and tunnels.

Small projects: Structures not restricted by building type that are novel, quirky, innovative or complex.

Sports and recreation projects: The design and construction of buildings serving sport or are recreational, eg stadiums, sports track, sports centres or other sport-related projects.

Student category: Any student project work, not restricted by building type and created using Tekla Campus as part of any form of education. Open to apprentices, placement students and university students.

The deadline for entries is 31st March. Voting is open to the public throughout May. The judging panel will sit at the end of May and the winners will be announced in June. For full details, visit: http://www.tekla.com/uk/bim-awards/about.

Portakabin Group achieves UK construction industry first

The Portakabin Group has been awarded the £14 million design and build contract for the UK's first university technical college (UTC) to be built off-site. Opening in September 2016, the Global Academy will provide academic and vocational training for 14-19-year-olds who want to work in the broadcast and digital media industries. Designed by the Portakabin Group and architects Surface to Air, the building has a forward-thinking, innovative design to reflect the creative ethos of the new Global Academy. Advanced off-site technology using a Yorkon building solution from the Portakabin Group will seamlessly integrate both modular and site-based construction. A significant proportion of the work will be completed off-site at the Portakabin Group factory in York, in order to meet the challenging programme for completion in time for the start of the 2016-17 academic year.

The technically-complex building is also designed to deliver a demanding acoustic specification for the broadcast studios, with triple glazing and specially-engineered air conditioning. Commenting on the project, Simon Ambler, Director of the Portakabin Group said: *"We're delighted to have been awarded the contract for the UK's first UTC to be built off-site. This is part of a really exciting regeneration scheme, which will create a landmark education facility to give young people fantastic, practical training for the broadcast and digital media industries. This is a hugely significant project for the construction sector. It demonstrates the architectural flexibility of a highly engineered Yorkon off-site solution from the Portakabin Group and how an outstanding building design can successfully integrate different construction methods. It also illustrates really well how we can deliver an inspiring, animated and intelligent building in a very short timescale and on a highly complex site."*

The Global Academy will house a sports hall, theatres and a cinema, which will be linked to a 4-storey modular building by a dynamic, full-height central atrium space. There will be extensive facilities for TV and radio broadcasting, including radio studios, TV studios, flexible teaching spaces, informal learning zones to facilitate interaction, and a café and dining area.

The scheme is being constructed by the Portakabin Group on the heritage brownfield site of the Old Vinyl Factory in Hayes in the London Borough of Hillingdon. The site will also require the Portakabin Group to carry out complex groundworks, extensive excavations for district heating, and the construction of a new sub-station.

Portakabin preferred bidder for £28 million of school contracts

The Portakabin Group has been announced as preferred bidder for seven infant and primary school projects in Surrey and Kent. The contracts for the Department for Education will be worth in the region of £28 million. The projects will be completed by winter 2017 and constructed using a Yorkon off-site solution. The schemes have been identified by the Education Funding Agency (EFA) for delivery under the Priority School Building Programme (PSBP). The PSBP was established to address the needs of those schools in the worst condition across the country. A spokesperson from the EFA said: *"There was very strong competition in the off-site sector for this batch of projects and the modular market has clearly risen to the challenge with more advanced technical solutions. We looked*

closely at design, cost, experience and management."

Simon Ambler, Director of the Portakabin Group, said: *"This is another milestone for the Portakabin Group and the off-site sector. We're delighted to demonstrate our ability to deliver high quality, affordable school buildings on time, on budget and to faster programmes. The opportunity for off-site construction to help transform the learning environment for thousands of pupils and their teachers under the Priority School Building Programme is immense. Off-site construction gives schools the benefits of considerable savings on programme because the sub and super structures are delivered simultaneously; it is safer because work off-site is maximised and the approach reduces disruption – which are all clear advantages when redeveloping fully operational school sites."*

Three of the seven projects identified in the Surrey and Kent batch are now in the design stages.

The first to start on site will be Pyrford Church of England Primary School in Woking. A £5 million 2FE primary school with two 'bulge' classrooms will be constructed to accommodate 480 children from the start of the 2016/17 academic year. It will replace the existing single-storey school which will then be demolished. Pyrford is a complex site which will include the retention of an existing children's centre and nursery. The design of the new two-storey building will significantly increase the external space and access for outdoor play and learning, and high levels of natural light will provide a welcoming and bright internal environment for teaching.

For further information about Yorkon off-site building solutions, call: 0845 2000 123, email: info@yorkon.co.uk, or visit: www.yorkon.info.

CASE STUDIES

Premier Modular Ltd

Project: Goodwin Development Trust – Villa Place
Sector: Housing
Value: £390,000
Site Programme: 12 weeks

Premier Modular Ltd worked with The Goodwin Development Trust to design a housing block which would ensure a high quality of life for their residents. The drive from the Trust was to create the first Code-5 Social Housing in Hull.

The development consists of five terrace houses on the Thornton Estate located on the outskirts of Hull City Centre. The houses are 3 bed, 5 person units which incorporate innovative architectural design, energy saving materials and use renewable energy resources all designed to attain Level 5 in the Code for Sustainable Homes (CFSH).

Key design features include Photovoltaic panels, a communal rainwater harvesting tank, Greywater recycling, triple glazed windows & doors, restricted water usage per day, incorporating dual flush toilets and mixer taps/showers, low energy light fittings throughout and integral recycling bins within each kitchen.

To complement the sustainable design each property has a secure bicycle store and storage space for refuse, recycling and compost bins. The development was finished with a community planting area to promote growing food and biodiversity whilst encouraging social wellbeing.

Premier Modular Ltd

Project: Westminster City Council – Tresham Crescent Community Centre
Sector: Education
Value: £4 million

Premier Modular Limited was appointed to this challenging design and build project due to their project management experience and diverse product range. The 4-storey Children's Community Centre provides accommodation for up to 3 children's services providers, with modern play and learning facilities and additional children's and family support services for the local area.

Premier acted as Principal Contractors, demolishing the existing building over a London Underground Line in a high density residential area in the centre of the City of Westminster, before constructing the new Children's Community Centre within its footprint. Premier's Design and Project

Management teams worked together to ensure that a modular solution was viable in this Central London location. The flexible modular system allowed a variety of different sized modules, all within the 2.9m transport width restriction, all delivered to a tightly controlled programme to minimise disruption.

Key design features for the brick clad building were a 6m high 2-storey modular hall; external play areas on the 1st and 2nd floors, with green roof landscaping; and exterior staircases clad with bespoke laser cut panels featuring a latticework design. The building has been sustainably designed meeting BREEAM excellent standards.

Councillor Daniel Astaire, Westminster City Council Cabinet Member for Housing and Regeneration said: "We are delighted to have taken this step towards providing state-of-the-art new facilities which will make it easier for families in Church St to access the services they need."

For more information, call: 0800 3160 888, email: sales@waco.co.uk or visit: www.waco.co.uk.

NEW MEMBERS

Atlas Industries

Atlas Industries is one of the leading providers of BIM management and design documentation delivery services to some of the world's leading consultants and contractors in the AEC industry. Established in 1998, the Atlas operations centre is located in Saigon, Vietnam, with a team of over 270 British, Australian and Vietnamese architects and engineers engaged on major projects globally.

Our multi-disciplinary teams have provided joined up BIM solutions on projects that have included a 1.6km viaduct in Hong Kong harbour, residential and high rise hotel developments in Australia and the UK, rail infrastructure in Australia, and new airport terminal buildings in Singapore. Being agnostic in our service delivery approach and in the use of BIM tools, Atlas delivers using a variety of software tools that include Revit, AECOSIM, ArchiCAD, Tekla, Sefaira, Navisworks and Solibri. We help businesses of all sizes overcome resource constraints, meet tight deadlines, and successfully document and delivery profitable projects.

For more information, please contact Director Matt Parkes RIBA Tel: 020 7194 7606 Mobile: 07516 099043 or Email: matt.parkes@atlasindustries.com.

Or contact Business Development Manager Richard James RIBA on tel: 020 7194 7606, mobile: 07905 848614, or email: richard.james@atlasindustries.com.

Or visit the website: www.atlasindustries.com

Kier Group plc

Kier Group plc is a leading property, residential, construction and services group which invests in, builds, maintains and renews the places where we work, live and play.

Our Construction business provides a comprehensive building and civil engineering service, offering construction excellence to private and public sector clients across the UK and overseas. This is complemented by a range of specialist businesses offering engineering design, interiors and refurbishments, mining, mechanical and electrical design and installation, BIM and 3D modelling. At Kier, we are driven to succeed by living up to the following core values:

Collaborative – we work together; we consult to reach the right solution to achieve more

Forward Thinking – we look ahead; we positively challenge the way we do things to excel

Enthusiastic – we make things happen; we are skilled, resourceful problem solvers, we enjoy what we do

There is real synergy between our approach and the culture fostered by Buildoffsite and our fellow members. We are proud to be part of this organisation, collaborating to collectively develop and deliver significant improvements in quality, value and productivity across sectors of the UK's construction industry.

For more information, please contact Jamie Hillier, Pre Construction Director on: 07791 718377, email: Jamie.Hillier@Kier.co.uk or visit the website: www.kier.co.uk.

EVENTS

The OFFSITE Construction Show
12th & 13th October 2016
ExCel, London

In association with buildoffsite

Stand space at the Off Site Construction Show 2016 is nearly fully allocated. See the current floor plan: http://www.marwoodevents.com/OSCS2015.pdf. This Show was launched to bring the whole industry together – both buyers and suppliers alike – and it's great that so many like-minded companies have worked with Marwood Events to create an opportunity that will continue to grow

and prosper, and also reflect the dynamic nature of the industry it serves.

Many Buildoffsite members have booked their stands, including the Elliott Group, Portakabin Ltd, the McAvoy Group, Trimble, Premier Modular Ltd, Howick Ltd, geoLOGIC Foundations Ltd and Shay Murtagh Precast Ltd.

The feedback from the inaugural event in 2015 was incredibly positive, and listed below are some of the reasons the visitors and exhibitors considered it such a successful event:

- 30 seminars and workshops
- Highly targeted visitors – board members, heads of procurement, senior technical and commercial management all made up the show's audience.
- Conveniently located in a high quality London exhibition venue with excellent transportation links
- Interesting and relevant exhibitors, representing the full range of off-site products, services and technologies
- Superb networking opportunities, as the show allowed all involved to see the progress made by off-site construction

This event has been created by the industry, and is a partnership between Buildoffsite, the exhibition organisers, and all of the exhibitors and visitors who have enthusiastically supported it. Marwood Events would welcome any feedback to help improve and develop this year's exciting event. If you have any feedback or need further information, please contact Paul Shelley at Marwood Events on 020 3371 0813, or paul@marwoodevents.com.

HS2 Supply Chain Regional Roadshow 2016

hs2 engine for growth

HS2 has announced a programme of Regional Roadshows starting in May 2016. The Roadshow Programme provides opportunities for businesses across the UK to understand how they can be a part of the biggest and most ambitious infrastructure project in Europe.

Starting in May 2016, HS2 Ltd will host 11 roadshow events across the UK and are eager to meet companies that are interested in exploring the thousands of supply chain opportunities available. Through presentations, face-to-face time with HS2 experts and networking, participants will hear from – and meet with – the HS2 teams and industry partners responsible for the supply chain. The Roadshow will enable companies from many business sectors and sizes to discuss the work packages that will be available, to understand how to get involved, and how to get into the best position to win work. Dates and locations of the roadshows are as follows:

Tuesday 10 May: North West – Liverpool
Wednesday 11 May: East Midlands – Leicester
Thursday 12 May: South East – Milton Keynes
Wednesday 18 May: Yorkshire & Humber – Leeds
Thursday 19 May: North East – Gateshead
Tuesday 28 June: North Wales – Ewloe
Thursday 30 June: South West – Bristol
Tuesday 5 July: East of England – Cambridge
Wednesday 6 July: London
Thursday 7 July: West Midlands – Coventry
September: Scotland – Aberdeen

For full details, please visit the website: http://www.hs2roadshow2016.co.uk.