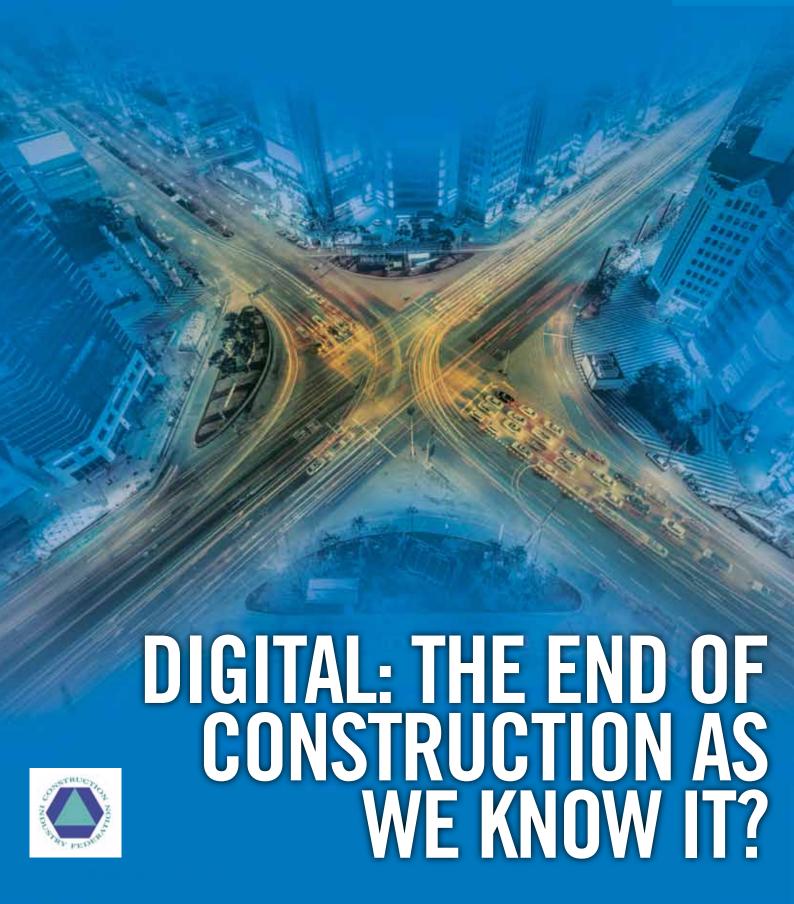
CONSTRUCTION

THE OFFICIAL MAGAZINE OF THE CONSTRUCTION INDUSTRY FEDERATION

APRIL/MAY 2019







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here have been a couple of recent events that may augur well for the short- and long-term future of the industry. Of immediate interest, the Government has eased restrictions on work permits in several crucial construction skills areas, which will enable many contractors to shore up their on-site teams. Looking to the future, in March over 15,000 young people attended the Ireland Skills Live event at the RDS, Dublin, and watched apprentices compete for Irish titles in what is the Young Scientists Exhibition of the construction industry, giving the industry an opportunity to showcase the exciting career

opportunities it has to offer.

In this issue of Construction, our Cover Story focuses on how collaboration is facilitating the sector's smooth transition to a new era of digital construction.

In Category Focus, we learn how Irish M&E contractors are staying at the forefront of innovation and efficient project delivery at home and abroad, and about their work with educational bodies to bring through the engineers of tomorrow.

Our Project Feature looks at MMD Construction's development of the

impressive Uillinn: West Cork Arts Centre. Member Focus features Cleary Doyle Construction, a brand synonymous with quality construction in the south-east.

In Industry Analysis, we report the findings of a CIF survey about productivity inconstruction, and learn from RSM's Terry McAdam why it is now essential that tenderawarding criteria must move beyond the 'lowest price wins' model. We also analyse the factors affecting construction activity in the southern and north-east regions.

Safety Focus looks at how Iarnród Éireann has been using random drug testing to make its sites safer and

what percentage of test failures can be attributed to over-the-counter and prescription medications.

In Events, we report from that hugely successful Ireland Skills Live event at the RDS, Dublin, as well as from the CIF Construction Management Summit and the GMIT International Construction Management Conference.

Elsewhere in this issue, we bring you all the latest CIF and Industry News. C

Kind regards Robbie Cousins Editor



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NDP PROJECTS ACROSS THE COUNTRY MUST BE ACCELERATED SO THEY ARE DELIVERED ON TIME

A message from CIF Director General, Tom Parlon

welcomed the recent opportunity, along with CIF President Pat Lucey, to meet the Taoiseach Leo Varadkar to discuss key obstacles facing the industry in delivering urgently-needed housing and critical infrastructural elements identified in the Government's Project Ireland 2040 plan.

We impressed upon the Taoiseach the need to invest immediately to accelerate National Development Plan projects across the country so that they are delivered on time. The CIF's concerns were well-received by the Taoiseach, and we look forward to working with Government through platforms such as the Construction Sector Group to address these and other issues relating to the reform of procurement policy for public works projects.

As discussed with the Taoiseach, the continuing disparity in regional development is very worrying. The CIF National Crane Count has highlighted the seriously low number of cranes located outside of the Dublin region, which is less than 10% of the 123 observed on the Dublin skyline in March. Urgent action is required to address the imbalance, particularly when it comes to the roll-out of projects under the National Development Plan and National Planning Framework.

I am delighted to see that the Department of Finance has developed the Major Capital Projects Tracker with real-time project information. CIF had called for the tracker to contain realtime data that it is easily accessible to everyone.

The resulting myProjectIreland* website has an interactive online map, that provides real-time details of the projects and programmes being delivered as part of Building Ireland 2040 in local areas across the country. I call on all members to use Major Capital Projects Tracker to monitor progress on projects planned in your area and help maintain momentum in terms of delivering regional projects.

Considerable progress has been made in the past couple of years in the implementation of the 'Roadmap to Digital Transition'. The recent launch of the BIM Starter Pack by the CIF Construction 4.0 Committee is another significant step in the sector's digital transition. The next important stage will be the establishment of the Centre of Excellence for Digital Construction, which we hope to see in the coming months.

Finally, I would like to take this opportunity to mark the sad passing of two people whose contribution to the Irish construction industry will have a lasting effect for many years. Senator Fergal Quinn introduced the Construction Contracts Bill 2013 to the Seanad as a private members' bill in 2010. He then championed the course of the Bill through to its implementation in 2016. Peter Cosgrave, of the family-run Cosgrave Property Group, was a ground-breaking housebuilder and stalwart of the Irish property business. His work and support of CIF initiatives over a 40-year career helped improve the quality of the country's



I CALL ON ALL **MEMBERS TO USE THE MAJOR CAPITAL PROJECTS** TRACKER TO MONITOR PROGRESS ON PROJECTS PLANNED IN YOUR AREA 🕖

housing stock and standards within the sector. Ar dheis Dé go raibh a n-anamacha.

Kind regards Tom

* The myProjectIreland website can be accessed at https://geohive. maps.arcgis.com/apps/MapSeries/index.html?appid=752cbec9c0f64 c6894fb63f7ebe7c4db



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CIF WELCOMES CHANGES IN IRISH WORK PERMITS CRITERIA FOR CONSTRUCTION SPECIALISTS

he CIF has welcomed changes announced by the Minister for Business, Enterprise and Innovation, Heather Humphreys, TD, to the criteria for work permit eligibility for construction specialists from outside the EU wishing to work in Ireland. This will see an increase in the number of skilled workers eligible for employment in Ireland's construction sector.

The new changes to the employment permit system include the removal of certain occupations from the Ineligible List of Occupations, including essential construction trades such as sheet metal workers and pipefitters, and the inclusion on the Critical Skills List of Occupations of civil engineers, quantity surveyors and construction project managers.

Tom Parlon, Director General, CIF, said the construction sector has been growing since 2013 at a rate of 1,000 people a month and has been experiencing skills shortages in particular areas that are essential to the delivery of housing and infrastructure.

"The CIF has engaged with SOLAS and Education Training Boards to upskill those on the Live Register and bring them back into the industry. We have also attempted to attract members of the diaspora back to work here, and finally, we are working with schools to encourage more young people into the industry in the medium term. The measures announced by Minister Humphreys will allow us to meet the pent-up demand for construction activity across Ireland in the short term."

NEAR FULL EMPLOYMENT

Tom Parlon continued, "We are approaching near full employment in Ireland and there is still a huge demand for labour to deliver the Government's 'Rebuilding Ireland' housing strategy and its National Development Plan. This will allow the entry of construction specialists from outside the EU and enable them to seek work in Ireland and to have access to a work permit. The Irish construction industry now offers excellent career prospects and a Sectoral Employment Order that means companies pay good wages and provide good conditions for every worker in Ireland. We welcome today's announcement of the changes to the criteria to work permit eligibility and believe that this will allow the Irish economy to grow and meet the NDP targets."

The Department of Business, Enterprise and Innovation, in announcing the changes, acknowledged it greatly needed to address labour shortages in construction and other sectors.

CRITICAL SKILLS LIST OF OCCUPATIONS

Following the first bi-annual review of the Critical Skills List of Occupations, Minister Humphreys announced the addition of civil engineers, quantity surveyors, construction project managers, and mechanical and electrical engineers with BIM capabilities to the Critical Skills List of Occupations, which means they will qualify for Critical Skills Employment Permits.

INELIGIBLE LIST OF OCCUPATIONS

Some occupations are being removed from the Ineligible List of Occupations, which means they will qualify for a General Employment Permit.

The occupations now eligible are:

- Sheet metal workers
- Welding trades
- Pipefitters



- Air-conditioning and refrigeration engineers
- Shuttering carpenters
- Window fabricators and fitters
- Scaffolders, stagers and riggers
- Crane drivers

OCCUPATIONS BY QUOTA

Additional occupations are being removed from the Ineligible List by quota, which means they will qualify for a General Employment Permit.

These include:

- Plasterers subject to a quota of 250
- Bricklayers subject to a quota of 250

AGILE PERMIT SYSTEM

Commenting on the changes, Minister Humphreys said: "Our economic migration policy accommodates the arrival of non-EEA nationals to fill capacity gaps in the domestic economy in the short to medium term, while still prioritising, wherever possible, Irish and EEA nationals in the awarding of contracts of employment. The changes I have announced demonstrate that the employment permit system is sufficiently agile and flexible to respond to the evolving needs of the labour market."

Turning to the changes she is introducing for the construction sector, the Minister continued, "Construction in Ireland is an important economic sector, which is broadly based across the country, supporting employment in all regions. I am aware that the sector is actively seeking to encourage many workers back to take up jobs in Ireland. But, despite those efforts, there is still a significant supply gap, and companies are experiencing real skills shortages. These changes, combined with the many training courses and apprenticeships available to train up workers in the domestic economy, will help to ease pressure on the sector."



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TAOISEACH MEETS WITH CIF

n Taoiseach, Leo Varadkar and members of his Department recently met with a delegation from CIF - led by Pat Lucey, President, CIF, and Tom Parlon, Director General, CIF - to discuss the challenges that lie ahead in delivering the National Development Plan and National Planning Framework.

The CIF delegation set out the key issues affecting the delivery of construction activity that need to be addressed.

On the housing side, they discussed the retention and extension of the Help to Buy (HTB) scheme, which has been a success story in terms of increasing housing supply over the last couple of years. The CIF made it clear it will continue to look for the retention of this scheme past 2019.

The National Development Plan was also high on the agenda, with the CIF pointing out the need to invest early, in the next few weeks, in fact, so that projects are accelerated and delivery is on time all around the country.

They also made the point that beginning the design phase earlier can expedite projects, and made a case that Early Contractor Involvement can help in the accurate design of large infrastructure projects and, ultimately, reduce delays and overruns, and lead to more efficient delivery overall.

CIF welcomed the Government's recent relaxation of permit eligibility criteria for overseas skilled workers, tradespeople and construction professionals.

Waste was also a key topic for discussion. Many in the construction industry found the movement of soil, stone and construction and demolition waste problematic in 2018, and this continued into the first quarter of 2019. It is hoped that some



advances will be made in the area through the second half of 2019. The CIF delegation welcomed recent steps by the Department of Public Expenditure and Reform (DPER) to reform public sector procurement. This has the potential to put the industry on a more sustainable footing.

The CIF President said that the talks presented an opportunity to brief the Taoiseach on the obstacles that can derail construction activity in the coming years.

"We outlined how we have been addressing challenges and stressed what the Government needs to do to ensure the successful delivery of much-needed housing, the National Development Plan and National Planning Framework." [C]

INTERNATIONAL WORKERS' MEMORIAL DAY MARKED BY EMPLOYER GROUPS AND UNIONS

he annual International Workers' Memorial Day (28th April) was marked with an event at Glasnevin Cemetery, which was attended by about 50 people including Pat Breen TD, Minister of State for Trade and Employment, Sharon McGuinness, Chief Executive Officer, Health and Safety Authority (HSA); Patricia King General Secretary, Congress; Pat Lucey, President CIF, Tom Parlon, Director General, CIF; and Dermot Carey, Director, Safety & Training, CIF.

During the event, a minute's silence was observed to remember the 37 people from all sectors who died as a result of incidents at work in 2018, and Louise Martin, Co-ordinator, Environmental Health and Safety, Walls Construction, gave a reflection about women's contribution to safety in the workplace.

"Being a woman brings some advantages," she said. "We are good communicators; we sometimes see the soft



side in things as well. We think holistically - not just about what's happening on-site but also what's going on in people's lives outside work.

"I think sometimes we bring a different energy, skillset and talent. I see more women coming into the industry in the last three years, and without a doubt their new ideas, energy, drive and initiatives are going to change the future and bring

meaningful improvements to my sector."

Minister Breen unveiled a Workers Memorial Day commemorative plaque at the event.

The 28th April is the date on which trade union and employer groups worldwide, as well as individual organisations, remember those who have been killed or injured in work-related accidents.



CIRI DEMONSTRATES HUGE ADVANCES IN CONSTRUCTION STANDARDS IN RECENT YEARS

idan O'Connor has been appointed as the new chairperson of the Construction Industry Register Ireland (CIRI) Admissions and Registration Board, the official online register of competent builders, contractors, specialist subcontractors and tradespersons who undertake to carry out construction works.

A registered architect and elected Fellow of the Royal Institute of the Architects of Ireland (RIAI), and former Principal Adviser in the Department of Housing, Planning and Local Government, Aidan O'Connor takes over as chairperson of the Admissions and Registration Board from former CIF president Hank Fogarty.

Hubert Fitzpatrick, Director, Housing, Planning & Development, CIF, welcomes Aidan O'Connor's appointment at a critical time for CIRI.

"Aidan is hugely experienced and has a vast knowledge of building standards. CIRI is on the verge of moving from being a voluntary register to being a statutory register, and Aidan will be central in facilitating this transition."

The new chairperson believes that CIRI is critical in demonstrating how construction standards have improved in the past few years, as well as showing young people that construction offers them a sustainable career with opportunities for advancement through ongoing learning and experience.

"I am delighted to take up this role and to get the opportunity to work with such a strong board and executive at this vital stage of the CIRI's development and adoption by industry members.

"CIRI has been a very positive initiative for the construction sector, and the Government, in recognising the role CIRI is playing in improving standards, has committed to supporting its wider adoption throughout the industry."

In excess of 850 competent builders are now on the voluntary register. The register supports 'competence' within the industry and also requires registered members to comply with the CIRI Code of Ethics and demonstrate full compliance with the regulatory environment.

'CIRI has also brought about the introduction of structured



learning under Continuing Professional Development (CPD). Registered companies can offer staff opportunities to learn on the job and develop their careers. This is not only raising standards within the industry but making it a more attractive and exciting proposition to young people looking for a sustainable career where they can develop new skills on an ongoing basis."

The CIRI Admissions and Registration Board 2019 comprises Aidan O'Connor (Chairman); Dr Ciara Ahern, Education and Skills Department, TU Dublin; Liam Egan, Registered Architect, OPW; Paul Forde, Chartered Engineer, DBFL Consulting Engineers; Michael McDonagh, HSA; Kevin Sheridan, Chartered Surveyor; Martin Vaughan, Assistant Principal Officer, Department of Housing, Planning, Community and Local Government; Nason Fallon, Department of Housing, Planning, Community and Local Government; Brendan Duffy, PJ Duffy & Sons Ltd; Brian McKeon, MKN Property Group; and John O'Shaughnessy, Clancy Construction. C

NATIONAL CRANE COUNT REVEALS REALITY OF REGIONAL IMBALANCE ACROSS IRELAND

he CIF National Crane Count has highlighted a worryingly low number of cranes located outside of the Dublin region. New figures show that regional crane counts are not even 10% of those in Dublin, demonstrating a lack of construction activity outside the capital.

The Irish Times reported that 123 cranes were visible in Dublin City in March, but when compared to crane counts from other cities in Ireland the difference is stark. According to AECOM Ireland's most recent crane count last week, there are two cranes in Galway City, two in Limerick City, and seven in Cork City.

CRANE COUNT FIGURES

Dublin City – 123
Cork City – 7
Galway City – 2
Limerick City – 2

CIF is deeply concerned about the disparity between the crane counts, as they show a distinct lack of construction activity and growth in regional parts of Ireland.

Conor O'Connell, Director, Southern Region, CIF, says the scale of the differential between Dublin and other cities in Ireland is greater than expected, even allowing for factors such as population growth and economic output.

"At this stage in our economic cycle, after several years of economic growth in most sectors of the economy in most regions, there should be far greater construction and development taking place outside Dublin," he continues. "We should ensure that our policy across all areas of the economy is 'stress-tested' for regional flexibility. For instance, how can we produce residential units at the current market prices in regional towns across Ireland?"

The regional crane counts were conducted by AECOM Ireland and show that while the over-all crane count is up, building activity is not dispersed evenly through the island of Ireland.

John O'Regan, Director, AECOM Ireland, says the disparity between construction activity in Dublin and the rest of the country is hugely apparent when you consider the crane counts. "According to The Irish Times latest crane count in March, there were 123 cranes in





Dublin City Centre; an increase of two from February's count, which sounds great for construction in Ireland," he notes. "However, when you look at AECOM's regional city centre crane count, it looks like a very different story. Last week, AECOM recorded two cranes in Galway City, two in Limerick City, and seven in Cork City.

"The Government's 'Project Ireland 2040 National Planning Framework' report states that the Government expects a population growth in Ireland of 1 million by 2040, with 75% of this growth to happen outside Dublin. AECOM's recent publication *Taking the Long View* makes the point that for this growth to occur

there is an urgent need for infrastructure investment."

Justin Molloy, Director, Western and Midlands Region, CIF, believes the crane count is indicative of what is happening in the Irish construction industry.

"It highlights the significant imbalance in the level of construction activity in the greater Dublin area compared to that of the rest of the country," he says. "Dublin's economy is growing too fast, which in turn is adding significantly to the city's cost of living. If this continues, Ireland's regions will stagnate or decline, while Dublin will grow at an unsustainable rate, making it less attractive for FDI.

"To help address this imbalance, we need to address Ireland's regional infrastructural deficits. We need to invest in our road and rail networks so that our cities and regional centres become more accessible and attractive for FDI. We need to address the deficits in our regional water and wastewater services, our broadband networks, our energy networks, our ports and airports, etc. To ensure this happens we have to plan for the delivery of our infrastructure. We have to realise that the timeframe from conception to delivery of large-scale infrastructural projects can take many years. We need to decide today what infrastructural projects we want in place in five to 10 years from now." C



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IDENTIFYING AND ADDRESSING **WORK-RELATED STRESS**

EUGENE O'REILLY, Psychotherapist, Remedy Clinic, outlines ways of managing work-related stress.

tress is defined as a state of mental, physical or emotional strain or tension resulting from actual or perceived adverse physical, environmental and emotional or mental threats. Stress ensures that people survive adversity, are alerted to danger and prepare the body for challenge.

Stress may affect each person differently, but certain common characteristics can be found. Severe stress within a workplace may result in negative emotions and feelings of anxiety, fear and agitation.

When an employee is suffering from work-related stress, they may develop a fight-or-flight response to a situation because they feel threatened and in danger. It is normal for employees to experience flight-or-fight reactions to varying degrees, provided it does not lead to stress or health issues. Healthy levels of stress can increase an employee's performance, wellbeing, learning, enthusiasm and motivation.

This fight-or-flight response can be both physical and psychological. Examples of psychological and physical symptoms include inability to concentrate, racing thoughts, shaking, sweating, rapid and shallow breathing, palpitations, and an increased heart rate.

The adverse effects of stress at work can changes such as drinking, impairment, insomnia, depression, digestive issues, and behavioural changes such as drinking, impairment, worry, anxiety, hasty decisions and burnout.

When the above symptoms persist over a prolonged period, then it is necessary to seek intervention from a professional to develop strategies to overcome and control this stress.

MANAGING STRESS

We are all human. We need quality sleep, proper nutrition, work-life balance, and healthy levels of stress. Employees need to eat a balanced diet of whole foods, fruit, vegetables, quality proteins, and healthy fats. A minimum of 30 minutes of exercise is required per day with at least six to eight hours of sleep per night, and employees need to ensure there is a boundary between accessibility to work and work overload. One of the main issues of today is employees' 24/7 accessibility to work via technology and mobile phones. To maintain a good balance, employees need to have a cut-off point when phones and technology are off limits at certain times of the day. This will help reduce and alleviate workrelated stress.

When a work-related stress situation arises, it can have a negative impact on the employee's physical and mental health. Therefore, it is vital that the employee implements coping methods to alleviate and control this stress.

Several coping methods may be employed. However, it is important to utilise a number of techniques as relying on one method can be harmful over time.



SOME WAYS OF COPING WITH STRESS

Determine the source of the stress and try to reduce/eliminate it. If it is a relationship with a manager or work colleague, set boundaries or become more assertive. If it is an issue with the volume of work, prioritise, delegate or cut back.

Physical exercise helps to use up the energy created by stress. Undertake a minimum of 30 minutes of exercise per day, such as brisk walking, running, swimming, or boxing.

Manage your time both inside and outside of work. Ensure you are not overburdened with work, and always allocate some free time in your day. Complete a time management course to develop time management techniques.

Be kind to yourself. If you are healthy in mind and body, you will be able to handle stress better.

Never procrastinate. Putting off dealing with issues increases stress, so why procrastinate?

The importance of a sufficient amount of sleep cannot be overemphasised. Lack of sleep over a short period can affect concentration, memory and mood.

Set aside time each day to pursue a hobby or interest. Play a sport, watch a movie or engage in a pastime you enjoy.

Sometimes relaxation techniques such as breathing, meditation or visualisation can help reduce stress.

The effectiveness of coping methods varies by employee. If an employee feels the above coping methods are not entirely relieving their stress, it is essential they seek the guidance of a professional who specialises in work-related stress. C

Eugene O'Reilly is a professionally qualified counsellor and psychotherapist and works as a senior case manager with Remedy Clinic.

Remedy Clinic offers CIF members Employee Assistance Programmes (EAPs). For more information, call 0818 919 220 or visit www.cif-eap.ie



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THE ROAD TO DIGITAL TRANSITION

Through sector-driven initiatives, such as the CIF BIM Starter Pack, many construction firms are making significant progress in adopting digital technologies into their operations. BARRY MCCALL discovers what now needs to be done to smooth the digital transition for the whole industry.

significant milestone in the journey towards Building Information Modelling (BIM) adoption in Ireland was reached in February with the launch of the CIF BIM Starter Pack by CIF's Construction 4.0 Committee. The pack offers a guide for contractors to enable them to meet a project's digital needs. It also provides guidance to organisations within the construction industry on basic BIM requirements, including strategy, project planning, contractual components, hardware, software, and training.

CIF BIM STARTER PACK

Speaking at the launch, Eoin Vaughan, CEO, Mercury Engineering and Chair of the Construction 4.0 Committee, said, "The BIM Starter Pack is the culmination of many months of work by the Construction 4.0 Committee. It would not have been possible without the open and altruistic inputs from the key organisations and people involved. It provides the platform for the Irish construction industry to start realising the benefits of digital transition within the industry and help businesses meet the demands of technological advancement."

Sean Downey, Director, Specialist Contracting, CIF, says the CIF BIM Starter Pack is a practical guide to adopting BIM and to developing strategies in relation to it. "The BIM Starter Pack includes advice on where firms can go for support. The development of the pack was led by member companies in a real sharing culture. The industry wants to see all boats rise, and it is recognised that widespread BIM adoption is needed for that."

BIM CAPABILITY

Many Irish firms are already well advanced when it comes to BIM adoption, however.

"The industry in Ireland has made great progress," Sean Downey adds. "The leadership and drive shown by Enterprise Ireland has been a catalyst for development in the area. CIF and other stakeholders have come together to drive phase two, which is the implementation of the 'Roadmap to Digital Transition'. This was launched by the National BIM Council in 2017. There is a lot of work going on in the background."

Enterprise Ireland is supporting that work.

"From an Enterprise Ireland perspective, we go back to 2012 or 2013 with our involvement in BIM and digital construction technologies," says Stephen Hughes, Head of Construction, Enterprise Ireland, "when it was announced that all public sector building contracts in the UK would utilise BIM from 2016. If clients wanted to be successful in the UK market, they had to be BIM compliant. Quite a strong cohort of firms have embraced it since then, not just for the UK market but for areas at home like pharma, data centres and so on."

"We have some really strong BIM capability, but not across the whole sector," Stephen Hughes adds. "The technology will have to



THE USE OF DIGITAL MODELS, SENSORS, AUGMENTED REALITY AND OFF-SITE CONSTRUCTION IS TRANSFORMING THE MODERN METHOD OF CONSTRUCTION.

JAIME MULCAIR, ROADBRIDGE.

be embraced across the board right down to SME level."

Relinda Dillon, Associate Director with BIM consulta

Belinda Dillon, Associate Director with BIM consultancy Digital Construction Technologies Group, says each sector across the construction industry is adopting BIM for its own requirements. "Previously it was predominantly architectural firms which were implementing BIM, for sections, renders, space coordination and presenting to clients," she says. "More recently, main contractors and subcontractors have been favouring BIM over traditional methods. Pre-construction coordination is of paramount importance for large-scale commercial, industrial and data centre projects. The National BIM Council Roadmap has set goals for SMEs who are now implementing BIM, and there are grants available through Enterprise Ireland, which enable companies to get through the initial investment and learning curve."

Stephen Hughes confirms that Enterprise Ireland offers two main supports – BIM Enable and BIM Implement. "The first is



consultancy and helps clients develop roadmaps to embrace BIM, and the other helps them to implement it."

Roadbridge BIM Manager Jaime Mulcair points out that the company has recently been certified to PAS 1192:2, which is the specification for information management for the capital and delivery phase of construction projects using BIM.

"This will enable us to deliver future projects that require BIM," he says. "Digital construction is the future of the industry, and Roadbridge is now also utilising common data environments, digital tools and Lean practices in our day to day operations on all sites."

THE CONSTRUCTION INFORMATION AGE

The company is not alone in this, he adds. "The construction industry has always been to the forefront of utilisation of new technologies and is in a constant state of transition. So, in effect, the industry is already facilitating and driving transition. From the adoption of GPS technology for surveying and setting out, to more energy efficient plant, including hybrid and electric machinery, the industry is always pushing the boundaries. The same applies to the selection and use of materials, such as the complete off-site manufacturing of bridges, structures and manholes through to more sustainable materials being used in pipes and fittings."

He explains the impact of the information age in construction where everything is connected. "The use of digital models, sensors, augmented reality and off-site construction is transforming the modern method of construction. This information age promotes the simplifying of decision-making and driving efficiency through the collaboration of information. The Irish construction industry is embracing this technological change. We see this as a great opportunity to enhance our offering to our clients, increase collaboration with our supply chain and ultimately drive down costs," adds Jaime Mulcair.

Adoption is still slow in some areas, however.

"The industry is beginning to embrace BIM," says Padraic King, BIM Manager, King & Moffatt. "A lot of companies like ourselves are working in the cloud and viewing project information,

COVER STORY



drawings and models digitally on tablets, which ensures everyone is accessing the same, live project information. Digital technology is really helping with that. We replaced most of our commonlyused forms with digital versions on SharePoint. Processes like snagging are now taking place digitally on tablets, but we still encounter situations on sites where everything must be done on paper. Some firms are very slow to embrace the change."

This is in spite of the clear benefits it offers to both contractors and clients.

'The client gets higher quality, and the job can be delivered a lot quicker," Padraic King continues. "There is less need for rework and much better coordination on site. There are no arguments about what will work and what won't work; that's a huge benefit for clients and everybody involved. There is nothing as disheartening as having done a hard day's work installing services, and then having to remove it and do it all over again because of an error in the plans. The move from 2D to 3D can eliminate a lot of that."

EMBRACING DIGITAL TECHNOLOGY

But progress is being made.

"Ireland is certainly starting to embrace BIM and other technologies," he continues. "It is very up and down in the UK, there is no real consistency. You can do one job which is fully BIM Level 2 compliant, and then go to another which is paper based with minimal coordination and communication between contractors. Some contractors simply just don't have the expertise, or the capability, and others are outsourcing elements of it, which means nobody is learning the process and it's just a 'tick the box' exercise."

Improved productivity for the industry is another benefit pointed to by Sean Downey and others.

"One thing the sector is always talking about is the productivity issue," says Stephen Hughes. "BIM is one way of addressing that. It has huge potential for productivity gains, not just during construction, but throughout the lifecycle of the building, and it will extend into areas like facilities management as well."



Jaime Mulcair agrees. "This is a game-changer in the lifecycle of any building or asset. Having all the information at your fingertips will transform the way facilities management is undertaken. This will allow proactive maintenance practices versus the traditional reactive maintenance common in the industry, thus allowing much greater utilisation of the building or asset."

And the savings can be significant.

"Research has shown that there is a potential saving of 19% in the operating cost of an asset," says Jaime Mulcair. "This saving cannot be ignored any longer by responsible clients in this current climate and needs to form the backbone of a sustainable future for any client managing an asset.

"With the creation of an Asset Information Model (AIM), the client will be able to effectively plan and implement digital plans of maintenance work, by utilising tablets with all the necessary models, specifications and documentation on hand to complete any maintenance task. This will be a huge step in the right direction for all owners. Ultimately, the adoption of BIM will lead to greater collaboration on projects between parties, and will avoid unforeseen issues or cost over-runs arising."

The possibilities are extensive, Belinda Dillon adds. "Clients are becoming increasingly aware of BIM across Ireland, in particular, the foreign direct investment companies, some of whom wouldn't travel to Ireland to see their investment until handover. They can now view the building and its surroundings in a VR headset or through free software on a laptop or tablet."

BIM BENEFITS

Marketing is another application.

"Other clients are using 3D content to market properties through simulation, and video simulation on websites," she notes. "Although the process can be lengthier during the design stage, the client will reap the benefits throughout construction and handover. My main recommendation to any client considering BIM on a project; start with the end in mind, what do you want to be maintained when it is built, what facility management system will be utilised for the operation of the building, and who is going



to update the model over the building's lifespan."

And the benefits don't stop there. "At DCT Group we are always asked how small a BIM project can be," Belinda Dillon continues. "There is no project too small, the fascination around projects being BIM Level 2 compliant is slightly blinding, because each project is individual and may require specific areas of what BIM offers. This doesn't make it any less of a BIM project.

"In my opinion, BIM can also help alleviate the housing crisis. Designing modular style houses is the key to the crisis. Production facilities across the country with skilled workers prefabricating buildings to the second fix and transporting them to the site will greatly reduce construction timelines. The services can be coordinated, quantities extracted, and development of buildings with no deviations will lead to less error and waste. The same rule of thumb can be applied to apartments, albeit on a larger scale."

CENTRE OF EXCELLENCE FOR DIGITAL CONSTRUCTION

The next step along the path to realising these benefits will be the much-anticipated establishment of the Centre of Excellence for Digital Construction.

"We would like to see the centre established by the end of the second quarter of 2019, with a secretariat provided by a parent Government Department," says Sean Downey. "We are nearly there. We have been engaged in intensive discussions over the past six months, and we are now at the final stage. We are hoping for an announcement shortly."

He sees the Centre of Excellence as the enabling body to facilitate the implementation of the Roadmap.

"Its primary role will be to bring industry to a point where it can sustainably transform by the end of 2022. We want to enable the transition and widespread adoption of digital technologies. There is no turning back, the industry is ready to fully engage."

Stephen Hughes sees the Centre as providing a single connecting point to assist all stakeholders in implementing the technology. "We need to have the buy and supply sides involved as well. Having a single entity could be enormously positive for



the sector, but it doesn't need to be an enormous structure. Great progress has been made since the publication of the Roadmap in 2017, and we are seeing real traction now. I am hopeful that it will come to fruition in the coming months. Everyone is starting to realise the benefits it can bring."

GOVERNMENT ROLE

Jaime Mulcair believes that Government can do more to facilitate the digital transition.

"The publication of the Roadmap was a big step. The implementation and follow through by Government, with effective funding and backing, will be the key enabler in facilitating the industry's digital transition. The Government must manage expectations in the delivery of proposed infrastructure. They need to mandate that designs are produced in accordance with BIM standards for each RIBA stage, thus ensuring knowledge transfer to the contractor on the award, and subsequent transfer on completion to the asset owner."

Skills will be a crucial factor, according to Belinda Dillon.

"The Government is currently requesting BIM as standard on various projects, various Departments are becoming educated in not only the software, but also BIM theory and processes. This client-driven approach is going to cause a domino effect through the industry," she says.

"However, there is a skills shortage, the educational institutes have alleviated the demand somewhat, but there are still thousands of skilled workers in the industry who are not utilising digital processes. People with site experience and practical knowledge generally learn from graduates and the 'techie' in the office or on site. A grant aimed towards people who are in the industry for several years and who want to reskill is required. The educational institutes are limited in capacity per year, but offering online training, or training through third parties, and engaging with skilled workers is how the gap can be filled. There is as much of a wealth of knowledge in a skilled worker as there is in a techsavvy person, it's time to merge both skills," concludes Belinda Dillon. \complement









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ARTS CENTRE REFLECTING WEST CORK'S RICH CREATIVE TRADITION

MMD Construction's development of Uillinn: West Cork Arts Centre in Skibbereen brought to life an ambitious design, which had been stuck in construction limbo for a number of years.

he €3.5m Uillinn: West Cork Arts Centre in Skibbereen,
Co Cork, built by MMD Construction, is a six-storey
building with double-height ground-floor gallery,
artists' studios and gallery. Its construction at the end of
challenging economic times for the whole country was
a testament to its stakeholders' perseverance, and it had
somewhat of a staggered start-stop history before MMD
Construction got to bring this unique arts centre to life. But that
process also came with a number of on-site challenges for the Corkbased contractor.

THE WORK

Uillinn comprises circa 1,480 sq m of total floor area, and it was constructed on a 440 sq m brownfield site.

The accommodation includes a shop/tea room, two galleries, a performance space, three artists' studios, a workspace, a dance studio, administration offices, and back of house facilities.

A courtyard, external hard landscaping and a bridge across the Caol Stream also formed part of the works.

"Owing to its town centre site location with adjacent properties, and the requirement to keep all footpaths and roadways adjacent to or near the site open and free from obstruction at all times, the works required careful sequencing and execution," explains Brendan O'Neill, Construction Manager, MMD Construction.

Project stakeholders held bi-weekly project meetings and weekly design meetings at which MMD reported on the monitoring of project variables (ie time, cost, and quality) against the project management plan and the project performance baseline.

The ambitious design for the arts centre called for it to be a living piece of art, as each time one visits, the appearance of the building changes, as it ages in subtle ways just like a person would. The building was also designed to relate to its physical and material context in Skibbereen.

ACCESS CHALLENGE

The first challenge to be addressed on site was access.

"As the site is bounded on two sides by neighbouring property owners, with a public laneway on the third side and the Caol Stream on the fourth, we used the stream as the access to the site and designed and installed a temporary bridge over the stream, which was capable of taking 40-tonne loads," explains Brendan O'Neill.

PILING

Due to the local soft silt ground conditions, the building was supported on 400mm diameter augured piles, a number of which were very close to an old stone wall on the stream.

Donal Twomey, Engineering Manager, MMD Construction,



explains, "We braced the wall to hold it in position while the works proceeded. As the building was cantilevered over the stream, half of these piles had to be designed to work in tension and the other half in compression. We also implemented a vibration monitoring regime with a limit of a peak particle velocity (PPV) of 5.0m//sec, to avoid destabilising the surrounding properties."

SUBSTRUCTURE/SUPERSTRUCTURE

For the substructure, the remains of an old bakery, which was on the site, were recast in new material rising from its footprint. The structure of the building used existing stone walls, which were strengthened and capped with cast in-situ concrete beams to take the loading of two floors above.

"The six-story building consisted of a central concrete core around a lift shaft, with concrete rising walls anchoring a steel superstructure, which extends as a trussed cantilever from the top floor," continues Donal Twomey. "This provided continuity of structure to the floors hanging out over the stream below.

"The concrete core had to be built first, and then the superstructure of the cantilevered steel frame construction was

PROJECT FEATURE — UILLINN: WEST CORK ARTS CENTRE





built from the top down. To install the precast floors, we had to start at the bottom and work back up. Once fully loaded, the steel superstructure was designed to deflect approximately 50mm from its unloaded position to a level surface."

AIRTIGHTNESS

Creating an airtight building with a build-up of insulation, plywood and breather membranes was not feasible, so the team redesigned

the external skin with a robust insulated Kingspan panel and sheathed it with a bespoke weathering steel called 'Corten', the surface of which oxidises to form a protective patina.

The plant room is on the roof of the building, and a number of the mechanical elements were redesigned, reduced in size and rebuilt to ensure that the skyline of the building was not

Due to the proximity of the adjacent buildings, it was not possible to access some of the external walls to plaster them and make them watertight.

"We overcame this by using a combination of Forticrete blocks to give an aesthetically pleasing finish and pumped the cavity using special foam insulation which not only gave us the required U Value but also sealed the wall from water ingress," notes Brendan O'Neill.

INNOVATIVE MATERIALS AND EQUIPMENT

The surface of the bespoke Corten weathering steel, which oxidises to form the protective patina, also creates rich and changing colour

The weathering steel has patinated through bright russets to deep boiler browns with iridescent flecks, while forming a protective oxidised layer over the external envelope," Cormac Smith, Director, MMD Construction, explains "This gives a clear and identifiable form for the arts centre sitting distinctively within the grain of the town, while holding the character of its site together, and re-establishing the historical relationship between street, porch, backlands and water.

"The rainscreen cladding also affords the opportunity to control and capitalise on solar gain. The heated air behind the sheeting is vented upwards and into the atmosphere and can be introduced into the building by stack effect as tempered ventilation."

FINISHES

The plaster on the building is a white lime render that is designed to stain over time as the patination of the Corten progresses. This will give the appearance of the building growing and ageing, as at no two stages will the building look the same.

A number of bird boxes were built into the façade to allow nature



PROJECT FEATURE — UILLINN: WEST CORK ARTS CENTRE





to interact with the building in a positive way.

COURTYARD

The courtyard wall to the Caol Stream is a freestone wall with vertical joints typical of those lining tidal rivers in West Cork, in which lichens and mosses may take hold in the shade and may be colonised with Montbretia flowers.

The ground beneath the building is paved in long cobbles of Valentia stone allowing drainage, and also gathering heat from the sun and radiating back into the space through the evening. The paving is set out with a grain parallel with the underlying strike of West Cork's geological strata of synclines and anticlines.

MMD CONSTRUCTION

Cormac Smith is proud of what the MMD Construction team achieved at Uillinn.

"This is one of a number of complex projects MMD is delighted to have taken on in recent years. The importance of Uillinn to the people of Skibbereen and its location in the town by the stream, as well as the architect's creative interpretation of the brief, made it all the more challenging and special for our team. Its completion brought a great sense of pride for everyone involved."

MMD Construction is currently overseeing a large portfolio of projects across all sectors including commercial, pharmaceutical, residential, civil, infrastructure and general construction.

"We have delivered a number of design/build projects," continues Cormac Smith. "We are proud of our capacity to apply optimum professionalism in the management of all projects. Our personalised and meticulous approach to the construction of buildings of intricate design is one of the distinguishing factors upon which our company's reputation for excellence in project delivery is based.

"Our culture is 'safety first and service excellence' at all levels in the organisation, so that our clients along with their design team will receive a helpful, friendly and professional approach from everyone in the company," Cormac Smith concludes.



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IRISH M&E CONTRACTORS LEADING THROUGH INNOVATION AND STAFF DEVELOPMENT

BARRY MCCALL on how Irish M&E contractors continue to punch above their weight internationally and how the sector is planning for the future.

s might be expected in a thriving economy, where commercial and industrial construction have been growing strongly, the M&E sector has also been performing well. But external factors could have a significant bearing on future trends.

"We've had a busy two years, but there have been

where had a busy two years, but there have been signs of a slowdown," says Joe Delaney, President, Mechanical Engineering & Building Services Contractors Association (MEBSCA), and Managing Director, Tritech.

"A number of projects which were expected to go on site before Christmas did not proceed. My own belief is that the banks are slow to firm up on lending as a result of the uncertainty created by Brexit. Certainly, on the SME side, firms are quieter than than they have been over the past two years."

SECTOR OUTLOOK

According to the MEBSCA President, the issues are deeper than simple uncertainty and are very much centred on the practical. Joe Delaney points to CE marking as a case in point. To be imported and sold in Ireland, products must carry a CE mark which indicates conformity with health, safety, and environmental protection

standards, and this allows products to be sold without restriction within the European Economic Area (EEA).

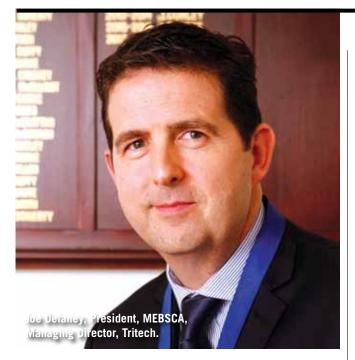
Many Irish construction products could lose their CE mark as a result of Brexit, while imports could also be disrupted as a result of products originating in the UK and other countries losing their marking. Many Irish manufacturers have their products certified by UK bodies under current arrangements, but this will no longer be possible after Brexit.

These "Notified Bodies" assess the conformity of products before they are placed on the market. Once approved by the Notified Body, the CE mark can be affixed to them. At present, there are 174 such bodies operating in the UK and just seven in Ireland. Those UK entities will automatically lose their designation as Notified Bodies once the UK leaves the EU. Irish firms relying on a UK Notified Body will have to find an alternative if they want to continue selling on EU markets.

Similarly, imported products carrying a CE Mark from a UK Notified Body will no longer be eligible for sale in this country.

And that's not the only issue. "If import tariffs are imposed and there are delays getting product in, that will add to costs," says Joe Delaney. "We are operating on a fixed-price basis, and the industry

CATEGORY FOCUS



will have to work together to get around that. We may have to look to alternative sources of supply elsewhere in Europe."

Sean Downey, Director, Specialist Contracting, CIF, is in broad agreement, but says the outlook is relatively stable for industrial and commercial projects for the next year or so.

'This could be impacted by external and macroeconomic factors," he says. "which could affect the commercial office market here."

He also notes the impact on the industrial market that any fall-off in exports to the UK could have.

OVERSEAS SUCCESS

On a more upbeat note, he points to the success of Irish M&E firms in overseas markets.

"Members have been planning for this and have continued to diversify into the wider European market by following existing clients there. They are building on the solid and close relationships they have developed with those clients here in Ireland."

David Doherty, Business Development Director, T Bourke, also takes an optimistic view, despite a couple of concerns.

"At present, the market is buoyant and the outlook positive," he says. "We are seeing the sector grow year on year. From a contracting point of view, pricing is still competitive, but with sometimes worryingly low tender bids being accepted. Materials and labour rates are increasing all the time, and there needs to be a market realignment to get budgets on par with where the market is."

He attributes the success of T Bourke to a blend of value and quality.

"We have always positioned ourselves as a high-quality, highvalue contractor," he says. "It is these qualities that have allowed us to survive the last 50 years, including three recessions. We have many repeat clients from the commercial and pharma sectors, who acknowledge the added value and quality of finish we bring to projects.

"Overall, we feel the market will continue to grow for the short to medium term," he adds. "The focus on construction within the bounds of the M50 requires a redistribution to other regional cities, including Cork, Limerick and Galway. We are now beginning to see signs of growth in Cork, with big plans around the city docks. Limerick and Galway are still lagging, but some movement is underway. In Dublin, the crane count is in excess of 123 cranes, while the regional cities may have 10% of that collectively."

Brexit is a factor of course.



"Ireland, and Dublin, in particular, has seen a focus on commercial offices for companies looking for a European base," David Doherty points out. "This focus has intensified with Brexit, and it remains to be seen what effects this will have on a hard or soft border for the country, and indeed the construction sector. Security of supply and delays in material and goods delivery will have a knock-on effect on market output. This, along with the shortage of skilled labour at all levels, is something of concern that has been highlighted by various industry bodies, including the CIF."

He notes that challenges with labour supply and Brexit, along with the backlog in residential housing, have all been identified as disrupters to continued market growth.

"Market outlook and growth should continue to rise at a steady pace, but needs to avoid the boom growth rates experienced before the last bust," he adds.

PRODUCTIVITY

Innovation remains a key success factor for the sector.

'The M&E sector continues to set the pace for productivity advances," says Sean Downey. "This is mainly due to innovation and investment in process improvement and people. The sector's biggest competitive advantage has always been the quality of the people it employs. They are the sector's greatest asset, and firms recognise that and continue investing in them."

Sean Downey also points to the changed physical environments in which M&E contractors operate as an example of innovation in action.

"They have invested in new offices with collaborative spaces to work in, and they engage with clients much better. This is not just a market-led strategy, the industry is driving it."

BUILDING INFORMATION MODELLING

The big issue for Joe Delaney is Building Information Modelling (BIM).

"BIM allows us to get maximum benefits from off-site fabrication and other innovations," he says. "We are using digital technology to improve our efficiency. I believe M&E is the area of the construction sector which can benefit most from the technology. For many years we have been trying to coordinate in a 2D world. But when you get to site, you inevitably get clashes. The move to 3D modelling removes all of that."

He points to the potential of new point cloud scanning

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SEAN DOWNEY, DIRECTOR, SPECIALIST CONTRACTING, CIF.

technology, which can be a game-changer for certain projects, such as refurbishments.

"You can scan the installation and overlay that on a digital model," explains Joe Delaney. "In the past, we had to rely on the accuracy of the as installed drawings, and the installation on site might have been very different from those. This is far more accurate and greatly reduces the potential for problems, while improving quality and efficiency."

LIFELONG LEARNING

But more needs to be done.

"In the 3D environment you need to reorganise project teams in terms of how they work together," he adds. "Site supervisors have to be involved at a far earlier stage. Little things like that have to change. But the M&E sector has always adopted the latest technologies and adapted to change as it has arisen. Our project managers and site engineers are very quick to embrace change. Continuing professional development (CPD) is critically important to us."

That's also the case at T Bourke.

"We encourage CPD across all levels within the organisation," says David Doherty. "We employ apprentices, both mechanical and electrical, directly and are committed to develop and upskill our site management with accredited project management and personal development courses."

"Lifelong learning has always been a critical need for M&E companies," adds Sean Downey. "The M&ECA has been working Cork Institute of Technology (CIT) on a new Level 7 Degree in Engineering Services Management. This will be delivered through the apprenticeship model from September."

EDUCATION & INNOVATION

Another education programme that is linking in with sector needs is the Building Engineering Degree at Technical University Dublin (TU Dublin).

"The mission of the Building Engineering programme in TU Dublin



is to educate practically and inspire engineers to create comfortable environments at the lowest energy cost for the betterment of society," explains Dr Ciara Ahern, Head of Building Engineering and Assistant Head of the School of Mechanical and Design Engineering, TU Dublin. "Our focus is to engender in the engineer an intuitive knowledge of the dynamic and deceptively complex nature of energy flows in buildings, and to produce graduates who are ready to contribute effectively and immediately to society and organisations. We do this through practice-led education that is grounded in research."

Innovation remains critical to the future success of the sector. "Innovation is the application of better solutions that meet new requirements and as yet unarticulated needs," Dr Ahern notes.

She cites the battle against climate change as an example of this. "Building engineers are at the vanguard of this, with innovation driven by policy to reduce energy use, lower greenhouse gas emissions, reduce dependence on imported fuels, reduce energy costs, and alleviate fuel poverty. The industry has also undergone a technical revolution through the introduction of disruptive digital technologies and modular construction methodologies. This is allowing the sector to work more ably in a global economy, thus annealing the sector from the boom-bust cycles in singular and local markets.

"However, in Ireland, there are currently 10 times as many jobs as there are graduates," says Dr Ahern. "A lack of supply into the talent pipelines means that building engineers are the highest paid engineers in the construction sector and the third highest paid engineers overall," she continues. "Employees are reported to account for 89% of a company's overheads, so this shortage is affecting competitiveness and the ability to tender for more work.

"We are grateful for the recent support we have received from the sector, which has resulted in a partnership to launch a marketing campaign to make the discipline more attractive to students considering engineering as an option. This campaign has proved very successful, but we have a long way to go before we are supplying graduates to the industry in sufficient numbers to sustain competitiveness, growth and innovation," Dr Ahern concludes.

While there may be some turbulence ahead, the M&E sector looks set to remain at the forefront of the industry when it comes to the adoption of new technologies and securing efficiency gains, thanks to its strong links to education, commitment to innovation, and ability to expand into new markets.



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MEMBER FOCUS: CLEARY DOYLE CONSTRUCTION



LEINSTER CONTRACTOR CONFIDENT ABOUT GROWING MARKET PROSPECTS

ROBBIE COUSINS speaks to joint managing directors of Cleary Doyle Construction Ltd, John P Doyle and Brian Byrne, about the challenge of establishing a foothold in a re-emerging market.

leary Doyle Construction Ltd was established in 2010 by former directors and employees of the Cleary Doyle Group. The company is headed up by joint managing directors Brian Byrne and John P Doyle. Brian Byrne is a former CIF South East Branch

Recognised and respected in the industry, the Cleary Doyle name has been involved in the delivery of high profile construction projects, particularly in the east and southeast of the country, over the past 50 years.

More recently, the company has adopted modern construction techniques, such as Lean and BIM, into its operations, and espouses its client-centred core values focussed on delivering quality cost-effective projects through effective teamwork.

John P Doyle says that the company operates primarily throughout Leinster.

"At the moment, we have projects on site in Dublin, Kildare, Meath, Wicklow and Kilkenny. Our mix of work includes residential, commercial, fit-out and conservation projects.

Speaking about current market

conditions, he says, "We have noticed a considerable pick-up in activity in Leinster in the past 12 months, particularly in the residential sector. This has to be welcomed. However, it would be good to see this spread more beyond the counties surrounding the capital."

Recently completed Cleary Doyle Construction projects include Castleknock Cross. This residential scheme in Castleknock, Dublin, involved the construction of 33 high-specification houses including fit-out and site works with a contract value of €12m.

Work on the EF Language School at 72-76 Morehampton Road, Dublin, involved the conversion of three period terraced houses - all protected structures - into an international language school, with a contract value of €3m.

The company has also recently completed construction of a new €3m head office and service centre with hydrotherapy pool for Enable Ireland on Church Road, Bray.

In The Curragh, Co Kildare, it has also built the new state-of-the-art €4.5m St Brigid's Hospice Centre.

Over the past nine years, Cleary Doyle



Construction has experienced steady, planned growth to the point where the company has established a firm foothold in the Leinster marketplace, and its management team is confident that it will continue to grow by meeting and exceeding client and design team needs.

Brian Byrne says the company has built a strong team to manage its operations.

"In growing the company, we have been building a dynamic results-driven team. From the start, we analysed key areas of the company that needed extra leadership and have brought together a team with a mix of relevant experience and expertise."

This team has also been developing the company's systems.

MEMBER FOCUS: CLEARY DOYLE CONSTRUCTION







Brian Byrne continues: "In 2016, we introduced a new Safety Management System, which is Safe T Cert accredited and in 2018 our Quality Management System achieved the ISO 9001:2015 standard."

Talking about challenges the company is currently facing, he says that there are a number of recurring issues with utility companies.

"The main utility companies are proving to be a recurring issue in terms of the coordination and planning of the installation of key utilities for all of our projects, as is

the case for many other contractors. Power, water, gas and communications companies need to review their operations as a matter of urgency to better streamline the construction process."

John P Doyle says the company is at a pivotal point in its development and that staff training and the further adoption of new technology will play a crucial part of the next phase of the company's success.

"We currently employ 30 direct staff between our head office and on various sites. We are strong believers in providing staff with the opportunity to continue further education through regular learning and upskilling. Lean Construction Methods and BIM form an integral part of this learning, and it is essential that we take every opportunity to make these an integral part of our company culture."

While the company is growing, recruitment remains a big issue.

Brian Byrne explains, "Recruitment remains a major obstacle for the industry. Skilled trades are tough to source, and as a result, rates are increasing. The challenge is for all of us in the industry to address this together. Recent changes to the permit system will help in some way, but we also need to continue working with primary-, second- and third-level institutions to make construction a more attractive career option for young people."

Ultimately, John P Doyle, Brian Byrne and the Cleary Doyle Construction team plan to continue producing quality buildings that the teams involved in their construction and their end users can be proud of.

"There are exciting times ahead, with many challenges for all of us. But, having come through hard times, we are confident that whatever challenges lie ahead, they can be overcome by the strong team that we have," concludes Brian Byrne. [C]

To learn more about Cleary Doyle Construction, visit www.cdcl.ie

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HAVING A PENSION MAKES SIMPLE ECONOMIC SENSE

SUSAN O'MARA addresses some misconceptions about pensions and retirement planning.

thought I would break with the normal format of this piece to dispel some of the misunderstandings I hear when talking to people about pensions.

Sometimes I hear people say "Pensions are not the best way to save for retirement."

While this statement might be true in some very specific cases, for the vast majority, it is simply not true. It does come up though in various ways.

Most recently, it was put to me that "it is better to save your own money and retain control over your investments rather than be invested in some paternalistic pension scheme."

TAX RELIEF

You can indeed make the decision to save your money in your own way. However, if it is not in a pension, it is your after-tax income you are saving. The main benefit of contributions to a pension scheme is that the contributions receive tax relief. For example, if you are paying tax at 40%; your relief is at this rate also. This means that if you save €500 per month in a pension scheme, with 40% tax relief, you are only reducing your spending money by €300. If you save it from your after-tax money, that is the full €500 you have to set aside.

TAX ON INVESTMENTS

Another point relating to tax. This time it is in the form of tax on investment gains. If you are saving over the long term, it is important that you invest in an asset class that can provide growth to keep up with inflation over the long term, and ideally provide you with investment gains that grow your investment in a meaningful way.

What you are investing your savings in ultimately determines the tax on your gains. For example, a cash deposit is taxed. This tax is called deposit interest retention tax, or DIRT. The current DIRT rate for 2019 is 35% of your total interest.

If you invest directly in stocks and shares, you will be subject to capital gains tax; this comes in at 33%, while rental income is taxed as income, so up to 40% tax could apply.

A pension scheme's growth is exempt from tax. The full value of any growth you make in any asset class is yours.

PENSION CONTROL

The third point is control. Some people think that if you join a pension scheme, you do not have control over how your money is invested, who it is invested with, and when you can access it.

If you are an employee, offered access to an employer's company pension scheme this is true of the who - but not usually of the how. The vast majority of company pensions will offer a wide range of investment choices for their members. This means that you have flexibility over the asset class you are invested in and the overall



A PENSION SCHEME'S **GROWTH IS EXEMPT FROM** TAX. THE FULL VALUE OF **ANY GROWTH YOU MAKE IN** ANY ASSET CLASS IS YOURS 1

allocation of your own savings, if this is your preference. Most schemes will also offer a well-constructed, default investment strategy for those who do not want to make such a choice.

Moreover, if you are an employee offered access to the company pension, you are also more than likely entitled to an employer contribution as well as the one you have to make yourself (with tax relief). Forgoing this is forgoing tax relief on contributions, tax-exempt returns, and essentially saying no thanks to part of your salary.

Tax relief and tax-exempt returns apply for all pension savers, not just employees in company pension schemes. For business owners, there is even more choice because owners have vastly more flexibility and control over their money. There are a variety of pension scheme structures to suit a variety of needs. C

Susan O'Mara is a financial services consultant with Milestone Advisory. To contact Milestone Advisory, phone 01 406 8020.



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CUPA PIZARRAS is the world leader in natural slate and has been producing and selling slate since 1892 - more than 125 years of experience. CUPA PIZARRAS owns 16 quarries and 22 processing plants in North West Spain, around the village of A Medua. From its 16 quarries, Cupa Pizarras produces 180 million natural slate units per year - a figure that equals 1 in 3 roofs per day.

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due to their exclusive knowledge in the roofing industry, offering SIG Ireland professional support throughout the full process; identifying needs, helping choose a high-quality slate, guaranteeing easy and efficient ordering and transportation, sales support and training. Cupa Pizarras also has a dedicated team helping merchants, contractors and specifiers to correctly choose and specify slate.

Cupa Pizarras offers merchants and specifiers

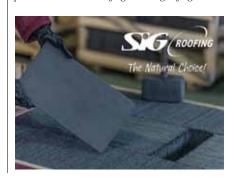
natural slate training and CPD days which run through the manufacturing process, the importance of traceability, vital testing standards and accreditations, classifications of slate, certain issues to be aware of, grading and fixing, orders and key advantages. The next CPD event in Ireland will be held on the 11th April at 7:45pm at the Queens



University Belfast.

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HSS HIRE & LAOIS HIRE GROUP FOLLOW THROUGH ON INVESTMENT PLANS



have recently unveiled their extensive range of new equipment as a result of large investment. This new equipment was purchased from EMS and FJS Plant Ltd. and has been steadily streaming into the Group's branches around the country.

EMS is the National Distributor for some of the most respected international brand names in the construction machinery industry and the HSS Hire & Laois Hire Group were delighted to work with them to bring new and improved kit into their hire portfolio. Among the new equipment purchased were Montabert Breakers - this brand use innovative high performance technology in product design and manufacturing making it an efficient and reliable choice for customers, two qualities the Group aim to supply with all their hire & sale products.

A massive order of new dumpers was also put in to EMS - ranging from 1 ton to 9 ton. These Mecalac swivel dumpers are top of the range with greater skip carrying technologies meaning reduced cost of operation. Many of the dumpers also feature a cab, hugely reducing the risk of accidents on site and number of times that the driver has to mount/dismount. The

efficiency and safety of cabbed dumpers has been proven time and time again and shouldn't be underestimated.

From FJS Plant Ltd. in County Kildare, a large variety of brand new high quality Kubota diggers were purchased, extending from 0.8 ton to 8 ton. FJS are known as the market leader in the supply of plant equipment in Ireland and have been helping the Group with their ambitious expansion plans for years. These new Kubota diggers are powerful and designed for comfort and will be a valuable addition to the Groups range of kit.

The HSS Hire & Laois Hire Group nationwide branches also boast extra supplies of everything from Powered Access to Generators to Hilti tools, providing a complete equipment management and hire service to big businesses, trade and DIY customers.

Managing Director, Michael Killeen says "Safety and quality are two of the core principles that the company work under, and this is reflected in our equipment and eagerness to provide our customers with the best of the best. We have been working with Seamus Flynn in EMS for 20 years, and Frank Smyth in FJS Plant Ltd for 10 years due to the products, and the







back-up service. Our customers like the products, there is less downtime on site and more operator satisfaction. We will continue to invest heavily so our customers can benefit from excellent customer service, well-maintained quality equipment and a commitment to health & safety".

With a product line of over 2,500 products, the HSS Hire & Laois Hire Group can be trusted to answer the needs of their customers in a quick, easy and affordable way. They also have a dedicated sales team and can sell anything from their hire range to help get the job done.

For more information, or any queries: Laois Hire: 1850 20 40 40 / laoishire.com HSS Hire: 1800 22 33 66 / hss.ie.

PROJECT COMMENCEMENTS UP 10% IN Q1 2019

TOM MOLONEY, Managing Director, Construction Information Services (CIS), writes 634 new projects were brought to site during the first quarter of 2019.

nitial indicators are pointing towards a 10% growth in projects commencing construction in Q1 2019 versus the same period of 2018.

According to the CIS 'Q1 2019 Construction Activity
Report', a total of 634 projects progressed to on-site in the
first quarter and this, according to our estimates, based on shell
and core values, is worth circa €4.7bn. There was over 8% growth
in the volume of projects being granted permission to proceed,
representing a value of circa €5.3bn. There was an increase of 5%
in planning applications by volume, and initial estimates for these
projects are €3.9bn.

In Q1, residential (including self-build) in volume terms leads the way with 1,214 projects worth €7.5bn being updated, followed by commercial and retail with 679 projects worth €1.8bn. Community and sport had 465 projects worth €372m; education, 446 projects worth €487m; civil and utilities, 360 projects worth €3.6bn; industrial, 354 projects worth €2.1bn; hospitality and student accommodation, 276 projects worth €1.3bn; and medical and care residential, 181 projects worth €704m.

Looking at the regional spread, Leinster continues to dominate with 2,503 projects worth $\[\epsilon \]$ 1.5bn; Munster has 1,379 projects with a value of $\[\epsilon \]$ 4.7bn; Connaught, 626 projects worth $\[\epsilon \]$ 1.2bn; and the Border Counties, 406 projects worth $\[\epsilon \]$ 629m.

RESIDENTIAL SECTOR

Bartra Capital Property Group has submitted a strategic housing application to An Bord Pleanála for an $\epsilon 80 \text{m}$ 222-bed 'shared living space' and 150 apartments in Cookstown Industrial Estate, Dublin. A strategic planning application has also been submitted to An Bord Pleanála by Gleanveagh Properties PLC for a $\epsilon 60 \text{m}$ development at Hollystown Golf Club, Dublin, which will consist of 133 houses and 120 apartments. Dublin developer Victoria Homes has also submitted a strategic planning application for 30 houses and 173 apartments in a $\epsilon 48.7 \text{m}$ scheme at Glenamuck Road South, Kilternan, Dublin 18.

John Sisk & Son has been awarded the main contract for a €120m public private partnership (PPP) for several sites as part of the Government's Social Housing PPP Bundle 1 scheme. Works have commenced on all these developments.

COMMERCIAL SECTOR

Office construction in Dublin is now moving to the city limits, with Sandyford and surrounding areas witnessing six large-scale office developments in the past 12 months, totalling $\in\!300\text{m}$. Walls Construction commenced work on the construction of a $\in\!32\text{m}$ office development at Innovation House in Sandyford, opposite the Luas station.

A planning application for a new €180m commercial development in Limerick city, expected to be the largest inner-city commercial development outside of Dublin, has been lodged with An Bord Pleanála. A decision is expected on the 'Project Opera' development in late 2019.

EDUCATION SECTOR

Cahalane Brothers, based in Dunmanway, has begun work on a €6m school extension at Clonakilty Community College in Co Cork. Planning permission to proceed was granted on 8th April for a new €9.4m school development in Kilbeggan, Co Westmeath.



Pre-Qualification Questionnaires have been advertised for an €11m post-primary school development in Drumcondra, Dublin.

To date, 17 tenders have been issued for the Summer Works Scheme (SWS), which is designed to allow schools to carry out small- and medium-scale building works.

CIVIL AND UTILITIES SECTOR

Construction has commenced on the N4 Coollooney to Castlebaldwin Road development, which is worth in the region of €150m and is expected to be completed in 2021.

Work has started on Phase 1 of the €13m Kilkenny Western Environs Infrastructure Scheme. Main contractor SIAC Construction will deliver the project, which includes a new 2.3km single-carriageway road with footpaths and cycle-ways and also the widening of the R695. The project is expected to take in the region of 18 months to complete.

INDUSTRIAL SECTOR

An Bord Pleanála has received an appeal against Wicklow County Council's decision to grant planning permission for the demolition of buildings and structures on site and the construction of a data storage facility comprising three data storage buildings and all associated site infrastructure. The works are due to be carried out by Crag Digital.

Prequalification questionnaires are currently being sought from contractors for the construction of a ϵ 4m Food Innovation and Incubator Hub Campus in Athenry, Co Galway.

MEDICAL AND CARE RESIDENTIAL SECTOR

Wexford-based DHD Construction has been appointed to build a $\[\epsilon 6.3 \]$ m, 140-bed nursing home at the former Kappa Smurfit site in Raheny, Dublin. Tenders have been issued to a pre-selected list of main contractors for the $\[\epsilon 19 \]$ m community nursing unit in Ballyshannon, Co Donegal. Plans were submitted in late March for a $\[\epsilon 14 \]$ m primary care centre in Ennis, Co Clare. $\[\epsilon \]$

For more information visit www.cisireland.com or call 01 299 9200.

CQMS '19 AN ODDS-ON FAVOURITE AT PUNCHESTOWN

he Construction and Quarry Machinery Show (CQMS) is set to take place at Punchestown Racecourse from June 21st-22nd. CQMS is Ireland's biggest construction machinery sales event and the only one of its kind in Ireland. It is estimated that the value of finance deals at the 2019 show would be in the region of €5 to €6m. We will see lots of new exhibitors at CQMS '19, showcasing a wide variety of plant machinery, tools and services to the industry. CQMS is an ideal place for end users to look at the latest equipment available for the Irish market.

Sales of construction plant machinery are recovering strongly since the recession, growing back to 2,500 items of new 'yellow plant' machinery sold last year compared to just 300 units sold during 2010 when the construction crash was at its worst.

This seems to be largely fuelled by contractors building houses. Whilst this is some way off the Celtic Tiger peak of around 5,000 sales per year, business is still expected to be very brisk at the Construction and Quarry Machinery Show (CQMS) - where over 10,000 visitors are

expected to inspect €70m worth of construction and quarrying machines, taking in everything from the very latest in remote technology which includes machine control guidance systems which will massively increase productivity and cut down on waste.

Visitors to the show, which is held every second year, will also be able to view and learn about the future of 'green machinery' such as the new wave of hybrid and electric dump trucks and excavators coming onto the market, which are just as powerful as their diesel equivalents. However, diesel is not yet dead as manufacturers are rising to the green challenge and are beginning to produce diesel powered machines that are exceptionally clean and quiet enough to rival their potential electric counterparts.





Rototilt and Kinshofer will be turning heads with their latest products in a dedicated demonstration area. Many Northern Irish dealers will be there, including Glendun Plant Sales, WAC McCandless, Epiroc and many more.

Komatsu will be showcasing their new pre-installed software which is the very latest in cutting edge machine guidance systems. There will be a host of other brand-new exhibitors such as welfare cabin providers Rego Hire and drilling and trenching experts Lucas Plant Hire. Ashbourne Truck Centre will also be showcasing their huge range of quarry-spec trailers. There is lot more for the visitor to view at the show such as new cabbed dumpers, new electric specialist equipment, quarry plant and demolition tools from Worsley Plant.

One highlight of the show will be the two-kilometre-long tipper truck route, where machines from the likes of DAF, Renault, Sino and MAN will be available for test drives.

AN EXPERT VIEW

Visitors can also take in the conference section, where Minister Damien English will talk about Project Ireland 2040 and where the Government will be focusing the spend on capital projects. Tom Parlon will talk on areas where the CIF feel this finance will be needed most, while Brendan Crowley, Head of Asset Finance at AIB, will give a talk on financing construction equipment in the future. There will also be speakers from the worlds of civil engineering and recruitment, and construction equipment manufacturers will talk about products we can expect to see in

Brian Coogan from CQMS, who also publishes Machinery Movers magazine said "CQMS '19 provides a really strong barometer as to how the economy is actually performing given that it is in constant touch with all the 2,200 machinery operators in the country involved in all civil, plant, civil engineering and infrastructural build projects. Construction equipment dealers can't get their hands on this type of machinery fast enough. Demand is growing and coming from the likes of small firms building houses to the very largest contractors working on the nation's biggest infrastructure projects. CQMS gives the industry an great opportunity to see the latest equipment and technology. It really is a one stop shop for all those involved with building in Ireland." [

For all Construction Industry Federation members and readers we are offering a FREE TRADE PASS FOR FRIDAY 21st of June. In order to register for your trade pass please type in the below link to avail of your FREE TICKET TO THE SHOW.

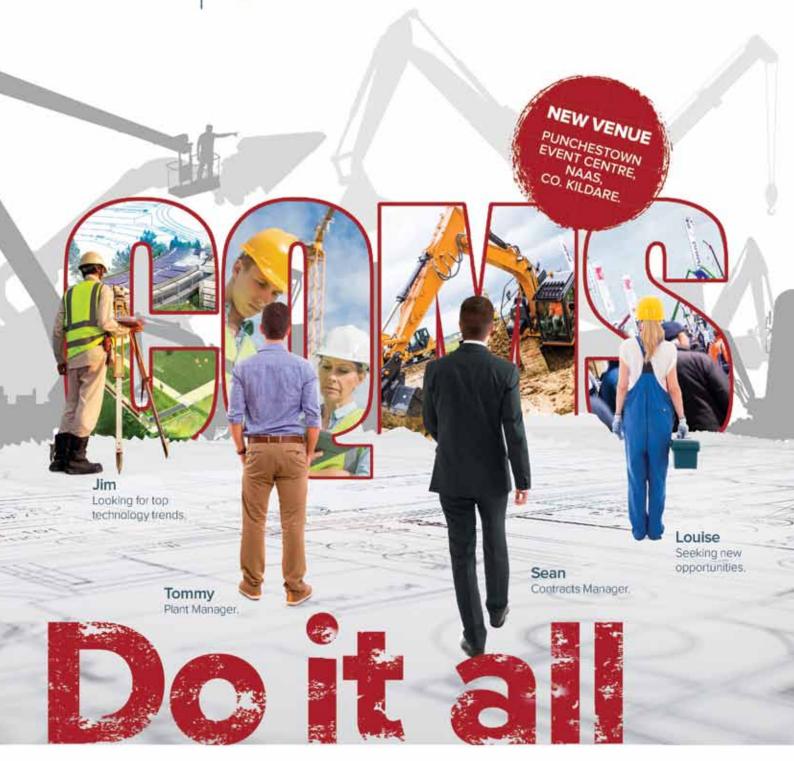
Follow the link www.eventbrite.ie/d/ ireland--dublin/cqms/

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AN EXAMINATION OF PRODUCTIVITY IN THE IRISH CONSTRUCTION INDUST

JEANETTE MAIR, Economic & Policy Research Executive, CIF, outlines the key findings of a comprehensive CIF survey on productivity in the Irish construction industry.

lthough the construction industry is a major component of the Irish economy, it experienced a prolonged period of stagnancy or declining productivity over the years 2000-2016, according to an official CSO report released last year. Overall, the Irish economy had 34% higher productivity than the euro area average in 2014. However, construction was 5.4% lower than the euro area average. According to the CSO and Department of Finance, this was the largest sectoral drag on productivity in the economy.

PRODUCTIVITY GROWTH

Productivity growth, which drives change in value added in the economy, is explained in terms of labour productivity and multifactor productivity. Gross Value Added (GVA) is the difference between the value of goods and services produced and the cost of raw materials and other inputs such as labour used in the production process. Labour productivity measures output in the economy relative to labour input. It is calculated as GVA divided by per person engaged or per labour hour in the economy.

As a result of the high concentration of multinational companies in Ireland, there are instances of very high productivity growth that result in a limited spill-over into the domestic and other sectors of the economy – including construction.

In Ireland, the construction sector has a larger share of total employment than it does of GVA. Construction employment represents approximately 6.4% of the total number employed in the State, while construction GVA is 2.5% of total GVA.

CONSTRUCTION PRODUCTIVITY

In early 2018, just before the release of the CSO 'Productivity in Ireland 2016' report, the CIF began to formally discuss productivity in the context of construction. These discussions emerged from the work of the CIF's Construction 4.0 Policy Committee, which sought to engage in the development of productivity-related research and put forward positive proposals in this policy area.

There is a substantial body of research on productivity in construction spanning many decades, with many reports published in recent years, most notable amongst them: CIOB's 'Productivity in Construction' (2016), (2016), the Farmer Review of the UK Construction Labour Model: 'Modernise or Die' (2016), and the McKinsey Report, 'Reinventing Construction: A Route to Higher Productivity' (2017).

CIF PRODUCTIVITY RESEARCH

Rather than try to emulate these reports, it was agreed that the CIF Economic and Policy Research Department would undertake a qualitative research project to examine 'productivity' in construction from the perspective of CIF member firms, to determine how the international research might apply in Ireland, and to recommend specific industry and policy actions to address total construction productivity.

The purpose of the research on productivity was to examine

how a representative sample of indigenous Irish construction firms $\,$ are faring in the current environment. Due to the critical lack of qualitative research in this area, the impact of the productivity problem at firm level is largely unknown. The research shows that at firm level, despite a range of external factors inhibiting productivity, firms that are investing in knowledge-based capital can improve their internal processes, thereby resulting in more efficient and effective project delivery and increased productivity.

PRODUCTIVITY CHALLENGES

The research discovered that the construction sector is contending with some very real challenges affecting its productivity capacity. For example, even though there has been a significant adoption of new technology by the construction industry in recent years, these applications tend not to be integrated with other systems in place (where there are systems in place) and therefore do not permit improved collaboration by construction project teams. Productivity measures should be providing data to the people who can improve project performance; and for this to happen the information must be current. Participants in the research warned that the quality of information available is at times poorly considered, and even out of date. The well-known business adage applies here: "If you can't measure it, you can't improve it."

Governments across the world are increasingly seeking economic growth that is smart, innovation-led, inclusive and sustainable. But a society that focuses on building innovation requires that policy systems be rooted in place from the government and state level through to the business sector and through to the research and education sector.

KEY FACTORS FOR PRODUCTIVITY IMPROVEMENT

- More investment in training and education
- More uptake of innovation
- Increased use of BIM, Lean and IT by client and contractor
- Reduction in waste and rework
- More customisable standard designs
- Improved uptake of pre-fabrication
- Better integrated supply chain
- Early Contractor Involvement
- More use of KPIs to select tenders
- More effective communication/collaboration between client, designer, builder and regulator
- Greater standardisation of processes across full project lifecycle
- More sustainable procurement

PRODUCTIVITY IMPROVEMENTS

Bearing in mind the idea of building an innovation ecosystem, the research findings point to productivity improvements in construction firms being driven by digital and technology trends, labour requirements (supply chain optimisation) and process gains (efficiency building and effective decision making, eg, using advanced analytics and performance measurement, etc).

According to the CSO and OECD data, productivity across the global construction sector is low by comparison to sectors such as ICT, advanced manufacturing and finance. Lower productivity data in construction can partially be explained by the fragmented nature of the sector and lack of vertical and horizontal integration of technology and innovation, as well as the bespoke nature of individual projects and cyclical nature of capital investment.

ACTION PLAN

The research found that future productivity growth in construction



will continue to be undermined without the identification and implementation of an action plan to address productivity in construction more broadly. Some actions can be addressed by industry itself, while others should be addressed by the range of stakeholders operating in the built environment, including our policymakers.

We know that the construction sector has shifted in recent years from being comparatively less dynamic compared to other sectors of the economy, to one which is showing a greater appetite for innovation and investment in knowledge-based capital. Since the recession, the educational composition of construction sector employment has changed considerably. By 2017, 47% of the workforce had a third-level qualification, compared to 28% in 2007 (CSO, Labour Force Survey/QNHS).

INNOVATION

There are other industry and societal trends taking place in terms of innovation, off-site fabrication and new digital and robotic technologies that will exert market pressure on the industry regardless of the existing policy environment. We are already seeing this market pressure manifest in the growing demand for such technologies and innovative products, which are increasingly being used to improve product and service delivery on more complex projects.

INTERCONNECTED ECONOMIES

In its 2016 'Productivity in Construction' report, the CIOB pointed out that in an interconnected economy, it is critical to examine the effectiveness of a sector, and not just its efficiency. To put this is more demonstrable terms for construction, this means looking not just at how efficient and productive construction is, but at how effective it is at assisting other parts of the economy to function more productively - by providing the quality homes, schools, offices and transport infrastructure. The CIOB questioned whether policy should be concerned with delivering productivity in construction versus delivering the built environment more productively.

The research report presents a summary of the qualitative and attitudinal research, along with a discussion on the participants' recommendations. The report also contains a series of proposed

recommendations to be considered by industry, the State and the supply chain, together with a concluding discussion on the recommendations for future research.

Combining the following four factors will help to drive productivity growth in construction:

- Improved labour utilisation
- Investment in R&D and innovation
- Supply chain optimisation
- Adoption of new technology in the procurement, design and production process.

STAGES OF THE CONSTRUCTION PROCESS

Preliminary design stage	50% (pre-commencement and at the start because there is less congestion, and information is flowing		
Outline proposal stage Preliminary design stage			
But of all dealers above			
Detailed design stage			
Production of information stage			
Tender stage	10% (between tender and start when planning is		
Project planning	positile)		
Onsite construction stage	40% (mid-way through to completion because		
Completion stage	services are provided)		

There are close to 20 recommendations contained in the CIF's 'An Examination Of Productivity In The Irish Construction Industry' report, a selection of which are set out below:

- CIF should work with the Construction Sector Group to develop a clear framework for mapping productivity-enhancing actions leading to better supply chain optimisation. Clients (and their agents) must consider playing a role in the industry's productivity, particularly regarding the uptake of new technology and resourcing of design teams. Upfront planning and sequencing with all project stakeholders should be built into every construction programme.
- Government should focus on increasing public support options for company-level R&D, such as tax credits, grants, innovation vouchers and loan schemes. For example, the introduction of a small business innovation research scheme would assist construction SMEs to build scale and stronger routes to market.
- Make downstream investments, including the use of procurement policy with more equitable distribution of risk and reward to help to create markets for SME companies.
- All stakeholders in the construction industry need to continue to improve how apprenticeships and careers in construction are viewed by the general public, so that they appeal to more young men and women, and in turn attract good calibre individuals to the industry to ensure it is well positioned to adapt and prosper in the future. All parties should work together to ensure careers in construction offer clear paths for professional development and progression.
- A solid pipeline of public capital investment should be maintained to give certainty to industry, thereby allowing it to plan investment in human capital, R&D and innovation.
- Early Contractor Involvement, earlier planning, and better control of the construction process by people who understand construction and timescales will lead to higher productivity outcomes for the industry.

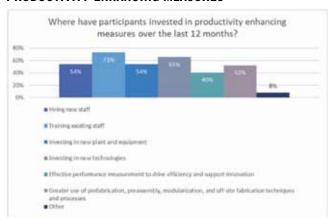
FACTORS AFFECTING PRODUCTIVE CAPACITY AS RANKED BY CIF RESEARCH PARTICIPANTS



OPPORTUNITIES

The primary aim of the research was to identify specific opportunities that the construction sector could pursue today to improve its productivity. By focusing principally on the project or task dimension, participants explored how delivery could be made more efficient and pinpointed several opportunities that would make it possible to effectively improve total construction productivity without impacting on quality.

INVESTMENTS MADE BY RESEARCH PARTICIPANTS IN PRODUCTIVITY-ENHANCING MEASURES



Over the past year, the companies sampled in this research have made consistent and multiple investments in terms of training existing staff, new technologies, new plant and equipment, hiring new staff, off-site construction and performance measurement. The resilience of the industry has been tested many times over the years, but never more so than during the past decade. This past decade also happens to have coincided with some of the most advanced technological and digital developments in the industry's history.

If the desire is to improve total productivity in construction, then continuous effort in proactive work life by all stakeholders involved in the procurement, design, construction and operation of our built environment is required. C

Contact Jeanette Mair at jmair@cif.ie for a copy of the full research

Sincere thanks are due to the CIF member companies who participated in this research. Their generosity in terms of time, knowledge and insight have made this research project possible and worthwhile.



GENERATION **PPRENTICESH** ww.apprenticeship.ie



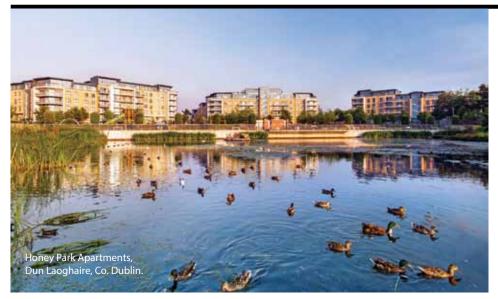
There are over 5,000 employers using apprenticeship as a talent pipeline in Ireland and as part of the expansion of apprenticeship it is intended that by 2020 more than 7,000 employers will be taking on apprentices.

Find out more about apprenticeship at www.apprenticeship.ie





COMMERCIAL FEATURE — GAS NETWORKS IRELAND



DIGITAL SOLUTIONS FOR **NATURAL GAS**

atural gas offers benefits for both new and existing dwellings, it's versatile, can be used to power a range of appliances including gas boilers for space heating and hot water, ovens and hobs, tumble dryers, real flame fires and outdoor lighting. It is convenient and reliable with a constant uninterrupted supply piped straight to homes, there is no need to order, arrange deliveries or have bulky tanks or heat pumps occupy valuable garden space. It is trusted by over 670,000 households nationwide and supported by over

3,000 Registered Gas Installers.

Gas Networks Ireland is part of the Ervia group, it owns, operates, builds and maintains the natural gas network in Ireland and connects all customers to the network.

Gas Networks Ireland recently introduced online application and payment for home owners looking to make the switch to natural gas. Home owners can apply and pay for a gas connection from the comfort of their home via the Gas Networks Ireland website - gasnetworks.ie.

In 2018, Gas Networks Ireland connected over

7,000 new housing units to the natural gas network, all of which complied with Part L of the building regulations (conservation of fuel and energy). In the past 5 years, we have secured orders to connect over 23,000 new housing units. This is in addition to the 3,500 existing housing stock we connect year on year.

Natural gas is also one of the most cost effective ways of meeting current and future Part L of the building regulations in combination with renewable technologies such as photovoltaic (PV) panels, solar thermal panels or combined heat and power (CHP) units.

A great example of this is the Honey Park Apartment blocks located in Dun Laoghaire, County Dublin, constructed by Cosgrave Developments. There are three blocks built between 2016 and 2018, the Neptune 197 units, the Leona 159 units and the Charlotte 160 units. Cosgrave Property Group have established an excellent reputation throughout Ireland for the quality of both their residential and commercial developments.

One of the apartment blocks in Honeypark is affectionately named Neptune. This consists of 197 apartments, located over a basement carpark extending under the entire block. The block has a natural gas fired Communal District Heating Scheme installed in tandem with a CHP installation.

The Part L renewables contribution was delivered by installing a gas powered Combined Heat and Power (CHP) engine that allows the efficiencies of on-site generation to be harnessed.

The Neptune Building was set up with a natural gas prepay system called Prepago. This allows each apartment to manage their heating and hot water supply. Prepago delivers the benefits of the pay-as-you-go or prepay business model. Using software, Prepago provides an "out of the box" system without any particular hardware solution or expensive billing engine add-on. Prepago is an away mode app. This allows homeowners to control their space heating and hot water remotely. They can turn on or off the heating system from their office, in the car or on the street etc.

Prepago heating is controlled by the swipe of a finger on a smart phone or by SMS, ensuring natural gas and the digital age go hand in hand as we move towards the next generation of building regulations. For more information on this system, visit prepago.ie or honeypark.ie/newsite/Cosgrave/





BALANCING THE PROCUREMENT SCORECARD

TERRY MCADAM, RSM, writes that cost and value for money remain valid considerations in respect of the tenders submitted, but they cannot be viewed in isolation.

he confidence of the public in the ability of the State to deliver construction projects of scale has been eroded by a series of recent controversies. The National Children's Hospital project is only the latest example of delivery issues within projects of this nature. The implosion and collapse of the UK-based Carillion group impacted on the completion of schools here in Ireland, while, separately, there have also been reviews conducted to assess the structural integrity of other school buildings already in operation.

There are many lessons to be learned from these projects and the problems they encountered. In the case of the National Children's Hospital, preliminary reviews have highlighted shortcomings with regard to many critical disciplines including project governance, design and execution. These matters are indeed important, but are they the entire story as to why some sizeable construction projects fail to deliver to expectations? The role of the initial procurement process, in contributing to challenged projects, also seems worthy of some examination.

COST FOCUS

Over the past decade, as a response to the financial crisis and its impact on the public finances, there has been an increased focus on the cost of goods and services, and the value for money they represent. There is a very different risk profile attaching to the procurement of a commodity, such as laptops, on a one-time basis from a vendor and the award of a multi-million, multi-year contract for the construction of a hospital or school to a contractor. Cost and value for money remain valid considerations in respect of tenders submitted for a construction contract, but they cannot be viewed in isolation from other equally important concerns.

GOOD PROCUREMENT PRACTICE

The principles of good procurement practice should encourage those who author and approve Requests for Tenders pertaining to construction projects, and those who evaluate the subsequent submissions received, to reward contractors for providing evidence of the following:

- An extensive track record of the successful delivery of contracts of a similar scale and complexity;
- An appropriately structured, skilled and experienced management and delivery team of a suitable scale to deliver the project within the proposed timeline brought forward;
- A comprehensive understanding of the risks inherent within the project and how these may be mitigated where possible;
- Sustained financial performance and tangible evidence of access to the funds to undertake the project in question; and
- Robust quality management processes to underpin both the quality of the project deliverables and ongoing engagement with the procuring authority via project reporting and meetings.

The balancing of the tender evaluation scorecard to give proper relative weighting to these non-financial and operational elements alongside the tendered cost is likely to lead to the selection of a contractor on the basis of a tender which can more accurately meet the description of the most advantageous received.

PROCURING WITH CONFIDENCE

To approach the delivery of a construction project of scale with



confidence, the procuring authority, and its board, will need to feel assured that they have appointed a contractor with the correct skill set, resources, knowledge, experience, financial robustness and commitment to see the project through to a successful conclusion. Both parties will share a common purpose centred around project progression and completion. However, such quality contractors can only exist when they are making an appropriate return on each project they undertake, given the scale and nature of the project concerned and its risk profile. Conversely, procuring authorities that focus excessively on cost and value for money considerations, leading to contractors submitting very keenly priced tenders, may find themselves not receiving bids from the better operators. Hence, the procuring authority may find itself unintentionally increasing the risk profile of a construction project by awarding the contract to operators with less resources, weaker financial standing, or reduced track record. Such an outcome is clearly neither in the interest of the State or taxpayer.

As the country looks forward to the delivery of flagship initiatives such as 'Project Ireland 2040' and 'Rebuilding Ireland', it is imperative that project delivery issues are consigned to the past. Revisiting the relative priorities within the construction procurement phase is a key step in ensuring we adopt a more sustainable approach to construction project delivery.

Terry McAdam is a management consulting partner with RSM.



RMD KWIKFORM REINTRODUCES **KWIKSTAGE ACCESS SCAFFOLDING** SYSTEM INTO IRELAND

MD Kwikform, the global leaders in formwork falsework and ground shoring solutions has reintroduced its popular scaffolding access system, Kwikstage Access, into the Irish construction market.

Recognising the buoyancy of the construction sector in Ireland, and the increasing demand for high productivity access systems, RMD Kwikform felt that the time was right to reintroduce this popular system back into Ireland.

The high load rating with a high degree of rigidity make Kwikstage Access suitable for a huge variety of applications. With Project Ireland 2040 recently announced on the horizon and the huge variety of projects designated within this, an access system that is flexible to accommodate a huge



range of uses will be in high demand. Pat McGahan, RMD

Kwikform's Sales Director, believes that another one of Kwikstage Access' strengths, its simplicity to erect and dismantle, will be key for many customers. "During the recession of 2008 and 2009, the construction industry lost many skilled trades, including scaffolders, as workers looked for opportunities overseas.



These skills are still in short supply and the industry cannot afford to wait to train up new skilled workers. It's here that a simple system like Kwikstage Access offers many advantages."

The Kwikstage Access system itself is incredibly simple to erect, and using captive elements instead of loose fittings it is also easy to transport and to store. It also has

the advantage of having a full suite of accessories to support it.

Says McGahan, "As the construction industry gears up to deliver all the projects that are currently being floated around, the need for simple to use, safe, and highly productive systems will increase. It is exactly here that Kwikstage Access comes into its own." C

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Bringing structures to life

HBFI HAS CAPACITY TO FUND 7,500 HOMES OVER A FIVE-YEAR PERIOD

HUBERT FITZPATRICK, Director, Housing, Planning & Development, CIF, outlines what services housebuilders can expect from Home Building Finance Ireland.

ome Building Finance Ireland (HBFI), the new State lender for small- and medium-sized builders/ developers, has an initial €750m to fund the delivery of up to 7,500 new homes over the next five years.

Michael Broderick, Chief Executive Officer of the HBFI, and his team attended all the Irish Home Builders Association (IHBA) Regional Workshops that took place in February/March 2019. HBFI made detailed presentations to members in relation to its mandate, governance, funding and targets; what it will fund, and the applicable lending criteria.

HBFI has €750m available for funding (from the ISIF) and access to a further €750m, which can be raised on the markets if required. It will have the ability to fund 7,500 housing units over a five-year period, which could entail advancing €1.5bn over that period.

HBFI will fund site purchases, subject to



terms and conditions to include refinancing; fund the development of a site subject to an overall cap of 80% loan to cost for the project; and will require first ranking full fix and floating charge over the assets of the entity including the project.

Lending criteria provide that the development must be for a minimum of 10 units, must have planning permission or have submitted a planning application, and must be commercially viable. Funding will only be provided to corporate entities. The maximum term of the facility will be five years, with a 20% equity requirement and the maximum financing for a single entity being €35m.

The indicative cost of HBFI funding is a margin of 5%-8% over Euribor, with an entry fee of up to 1% and an exit fee of up to 1%.

The IHBA workshops provided an ideal opportunity for members to interact directly with the chief executive of HBFI and his team so that a greater understanding is available across the sector in relation to the development funding offering from HBFI. C

HBFI is currently considering applications for funding. Visit www.hbfi.ie for further details and to learn about the application process.



MEETING THE REGULATIONS **CHALLENGE HEAD ON**

ROBERT BUTLER, Head of Learning & Development, CIF, details the Building Regulations training programmes available to CIF members.

ver the past five years, significant updates to Irish Building Regulations have taken place, which will have a substantial impact on the future of Building Control in Ireland. CIF Learning & Development offers three programmes of varying duration that cover all aspects of our changing regulations. The emphasis of these programmes is to deliver content that will impact on site when learners return with the ability to apply their learned knowledge in a meaningful way.

WORKING WITH THE ASSIGNED CERTIFIER – A SITE MANAGER'S APPROACH

'Working with the Assigned Certifier - A Site Manager's Approach' is the newest programme from CIF Learning & Development. This runs for one day and provides practical insights for those working at site-level management or supervision who deal with the Assigned Certifier, and who wish to fully understand their role in this critical aspect of construction activity.

The programme has four modules covering BC(A)R legislation in the following

- Regulations and Certification Structure - Duty holders and roles
- Inspection Plans Implementation rules and procedures
- Practical implementation of BC(A)R on site covering products and materials, and persons arriving on site
- Elements that require design from builder/main contractor/subcontractor; ancillary certificates to BC(A)Rs; and documentation.

The programme then moves to provide the learner with an understanding of the Assigned Certifier's role and requirements, covering Assigned and Ancillary Certifiers, Assigned Certifier's Duties, Ancillary Certifier's Duties, and Builder Certification Requirements.

The one-day programme is completed with a practical case study, whereby participants are invited to examine some practical examples of BC(A)R-related issues and discuss how these examples would be approached.

CIF SITE MANAGERS – A PRACTICAL APPROACH TO BUILDING **REGULATIONS**

'CIF Site Managers - A Practical Approach to Building Regulations' is an accredited City & Guilds Assured programme. It is ideal for those involved in site supervision or site management who wish to fully understand this complex role to achieve compliance with current regulations and best practices. The two-day programme comprises five modules, which cover the practical application of Codes and Standards to be aware of on site.

The programme covers Building Regulations and TGDs, Planning, Fire and DAC, Building Control (Amendment) Regulations, CE Marking/Agrément certification, other standards and Health and

The critical aspect of the management of certification on site for full compliance means providing information on requirements of products and materials, persons arriving on site, materials and product ordering processes, elements that require design from the builder/ main contractor/subcontractor, ancillary certificates to BCARs, and documentation.

Outside of the normal products with unusual certification requirements this programme aims to cover the wider range aspects of certification by delving deeper into all aspects of certification to include, for example, fill material, concrete, masonry units, anchors, reinforcing and structural steel, and many more.

The fourth module introduces a sample construction project to bring real applicable learning outcomes which can have an immediate impact on site.

The final module is a demonstration of learning in which candidates are provided with a handout detailing a range of orders and suppliers issues that could



be encountered during a construction project. Participants analyse each issue and detail what type of documentation and certification they would expect to encounter, provide, or be provided with.

CIF QQI LEVEL 6 BUILDING REGULATIONS

'CIF QQI Level 6 Building Regulations' covers everything about the Building Regulations, from when they were updated in March 2014 to the current day. Given the wide and varied implications of the Building Regulations for the construction industry and beyond, participants in this programme can undertake the full programme, which is delivered over 10 days of classroom activity over 10 weeks, or in select modules that suit their particular skills/knowledge gaps. Those who successfully complete the full programme will be awarded a QQI Level 6 Special Purpose Award.

The CIF continues to play a significant role in the development of the Building Regulations. Its in-depth knowledge of the Building Regulations is reflected in the detailed content knowledge of the experts who deliver this valued and progressive programme. C

For more details, visit www.ciftraining.ie or contact Robert Butler, Head of Learning & Development on 01 406 6071, email: rbutler@cif.ie



RECOVERY SLOWLY REACHING SOUTHERN AREAS

RONAN O'BRIEN, Executive, Southern Region, CIF, reports on construction activity in the southern region.

he National Planning Framework (NPF) aims for more balanced regional development by selecting regional cities as centres for concentrated development outside of Dublin. Three of these cities (Cork, Waterford and Limerick) are located in the CIF southern region. The NPF aims to grow the populations of these cities by 50% in the next 20 years. In order to achieve these targets, significant investment from both the public and private sector will need to be made in the region, primarily in infrastructure and housing.

The region has only recently started to experience the benefits of the economic recovery. The Construction Information Services 'Construction Opportunities Report 2019' showed €2.546bn worth of construction projects are in various stages of development in Munster. While the majority of projects are in Cork, there are recent signs that more projects will commence in 2019 in the mid-west and south-east. However, contractors in the southern region are still reporting a very competitive tendering environment.

INDUSTRIAL

There are a number of large construction projects in Cork's Life Sciences cluster with MSD, Johnson & Johnson, Stryker, Pfizer, BioMarin and Eli Lilly all expanding their facilities. Johnson & Johnson, for instance, is investing €300m on an extension project in Ringsakiddy, Co Cork.

In Limerick, recently announced projects include an expansion of Johnson & Johnson's contact lens manufacturing

facility. Edward Lifesciences has also announced a €160m development, and Regeneron plans to build a new laboratory building.

Finally, Astellas Pharma has invested in a new warehouse facility in Killorglin, Co Kerry.

INFRASTRUCTURE

Three years ago, investment in civil infrastructure in the southern region was practically non-existent. Thankfully since then, works have commenced and progressed on a number of large infrastructure projects in the region.

Two of the largest road projects in Ireland are currently underway in the south-east, with the €230m New Ross Bypass and the M11 Gorey to Enniscorthy Bypass well advanced.

A new container terminal for the Port of Cork is currently being constructed in Ringaskiddy, and enabling works have commenced on the Dunkettle Interchange upgrade project. Construction works are also due to begin in 2020 on the N22 Macroom-Ballyvounrey Bypass.

Advanced works have begun on the Coonagh-Knockalisheen Distributor Road in Co Limerick and the Enniscorthy Flood Relief Scheme will begin in 2019. Works are also nearing completion on the Dinish Wharf Extension in Castletownbere, Co Cork.

Tenders are currently being sought for the Killaloe Bypass, R494 upgrade and Shannon Crossing. Works are also expected to commence in Q2 2020 on the N69 Listowel Bypass in Co Kerry.



Water infrastructure projects are ongoing in Cork at the Glasslinn Road Pumping Station, Bandon Wastewater Treatment Plant and Bandon Watermain Sewer Network Scheme. In Tipperary, work is underway on the design, build and operation of the Thurles Regional Water Supply Scheme.

AGRI-FOOD

In the agri-food sector, Glanbia is proposing to build a €140m cheese facility in Waterford Port with the facility scheduled for commissioning in 2022.

Dairygold is building a cheese production building in Mogeely, Co Cork and has another major development at its Mallow

There are a number of whiskey distillery projects in the region, the largest being the maturation warehouse expansion in Dungourney, Co Cork, by Irish Distillers. In West Cork, the Clonakilty Distillery has recently opened and permission has also been granted for a distillery in Skibbereen.



COMMERCIAL

In Cork City, several large office developments, such as Penrose Quay, Horgan's Quay and Navigation House, commenced construction in 2018. These will continue into 2019 as they reach construction and fit-out stage. Outside the city centre substantial office developments by O'Flynn Group are underway in Little Island and Ballincollig. These projects will bring an additional one million square feet of new office accommodation to Cork once completed.

The Waterford North Quays development projects a €350m investment in Waterford City with a mix of commercial, residential and office accommodation. The development also involves a new pedestrian bridge across the River Suir and the relocation of Waterford's Plunkett Station,

both of which will require public funding. Work is expected to start before the end of the year.

In Limerick, plans have recently been lodged for the long-awaited Opera Centre development, and a number of office developments are ongoing in Plassey.

EDUCATION

There are a large number of school projects taking place throughout the region, ranging from single classroom extensions to brand new schools. Some of these projects include school developments in Croom, Co Limerick, and Mallow and Blarney in Co Cork. In Enniscorthy, Co Wexford, there is a new school building at St Patrick's Special School. In Co Clare, Ennis Community College is being expanded.

A number of student accommodation

buildings are also being constructed in Cork.

In the third-level sector, construction of a new student centre building will shortly commence at the University of Limerick, and works are due to commence on a new health innovation hub at University College Cork. Both UCC and University of Limerick recently announced they have purchased sites in their respective city centres and plans are expected to be lodged in 2019 for both.

RESIDENTIAL

A total of 18,072 new housing units were completed nationwide in 2018, of which over 4,000 units were constructed in the southern region.

Many members report that it is still "not viable" to build housing in the volumes needed. In many areas, the cost of delivery is greater than the market value. Input costs are increasing and concerns are being expressed about an increasing "viability" challenge for many private sector residential projects.

Overall though, 2019 looks like a year in which the revival in construction activity levels will reach more parts of the region. Smaller contractors are particularly busy on many extensions, retro-fits, maintenance and new builds. Specialist subcontractors continue to report a busy time across all sectors and there are increasing pressures in the supply chain. In a way, all of these challenges combined are very good indicators of a growing industry. C





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GREEN SHOOTS CULTIVATE POSITIVE BUT CAUTIOUS OUTLOOK FOR NORTH-EAST

JAMES BENSON, Executive, Eastern Region, CIF, writes that a steady rise in house construction activity indicates improving market conditions in the north-east, but there are a number of challenges that need to be addressed if this is to be sustained.

ositivity with caution is the current sentiment in the north-east. CIF members in the region are expressing a positive outlook for the remainder of 2019, but are aware that significant challenges will need to be overcome in 2019 to deliver to market potential.

In recent years, the construction industry has come to expect the housing market to regain and increase momentum in Q1 of any year, and this is significantly aided with the renewed availability of bank exemptions on loan-to-income thresholds for a certain percentage of potential homebuyers. This momentum in 2019 has been decelerated with Brexit uncertainty, and until the full impact becomes known reports in the north-east region suggest a conservative approach is being taken by some purchasers.

ACTIVITY GROWING

Activity in the region is expected to continue to grow through 2019, with market values reaching replacement costs in an increasing number of locations. Regionally where activity is occurring, developments are testing the market in phases with relatively conservative initial numbers. When the market value in an area, as a minimum, reaches replacement cost, we are witnessing positive activity.

Some locations within the north-east experienced considerable rising housing completion numbers in 2018, with Meath up almost 40% year on year for total dwelling completions. Louth also saw a substantial jump in unit completions in 2018, up over 60% from 2017, with market viability and consumer interest high in the area.

In Duleek, Co Meath, for instance, Ashcroft Property Development Ltd (APD) has just completed a 50-unit starter home development called Berford. This is the first medium-sized housing development to be started in Duleek for almost 15 years.

The A-rated family homes have large gardens, an abundance of natural light, and have attic trusses designed to facilitate any future upward extensions. They are also wired for electric vehicle charging points.

APD is also just finishing the 47-house



COMPLETIONS

ONE

LOCATIONS WITHIN

THE NORTH-EAST

EXPERIENCED

CONSIDERABLE

RISING HOUSING

COMPLETION

NUMBERS FOR

2018 WITH MEATH

UP ALMOST 40%

YEAR ON YEAR FOR

TOTAL DWELLING

COMPLETIONS

ONE

OTHER TOTAL DWELLING

COMPLETIONS

Eastham development in Bettystown, Co Meath.

REGIONAL SPATIAL AND ECONOMIC STRATEGY

Together with the other areas of the eastern region, the north-east faces several challenges to reach optimum delivery in 2019.

The Eastern and Midland Regional Assembly, one of eight regional authorities, is currently undergoing the process of formulating and adopting a Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region. The principal purpose of the RSES is to support the implementation of 'Project Ireland 2040' - The National Planning Framework (NPF) and National Development Plan (NDP) - by providing a strategic planning and economic framework for development in the region. The Draft RSES is welcomed, and the aspirations set-out for the region are supported. Provision for the development of the 'New Homes in Small Towns and Villages' initiative is welcomed. The initiative is planned to support the renewal of development in small towns and villages and support the principle of achieving more compact growth and usage of public services in areas of the region.

Nonetheless, concerns continue regarding a strict implementation of planning policy calling for a density of 35 housing units per hectare in development proposals where the market isn't receptive to the restricted options available through this policy, and concerns have been expressed about the conservative projections for population growth to 2031 and the potential associated effect on land zoning.

BUILDING REGULATIONS

While the construction industry supports quality building and maintenance of standards, ongoing changes in regulations continue to impact on costs. Housebuilders in 2019 will need to manage increased costs arising from updated Building Regulations and Standards under Part L: Conservation of Fuel and Energy in Dwellings relating to

INDUSTRY ANALYSIS



nZEB and Part F: Ventilation. An increase in the mandatory number of units requiring airtightness testing will rise from one in four to all units in any given development under the new standards for Part L, coupled with the additional validation of ventilation systems requirement under Part F, accounting for just some of the changes.

Changes to standards with associated additional costs ultimately affect the viability of building and are an additional cost for first-time purchasers of new homes.

HELP TO BUY

The 'Help To Buy' incentive scheme for first-time purchasers of new homes has had a profound impact on the rate of commencement of new scheme houses in all regions. Increased activity in the northeast has coincided with delivery numbers since the introduction of the scheme. Many housebuilders within the eastern region estimate that between 40% and 70% of sales of starter homes in their new developments are sold to qualifying first-time purchasers who are dependent on the initiative to enable deposit requirements. The Help To Buy scheme is currently due to expire on 31st December 2019, and an extension of the scheme or some form of continued assistance for first-time purchasers is

required or the recovery of house-building levels in the region will decrease, and any recovery of house building in all provincial Ireland could be deferred further for a substantial period.

IRISH WATER CONNECTIONS

Since 1st April 2019, Irish Water connection agreements for water and wastewater services follow a standardised water connection charging policy, which brings welcomed clarity to charges payable countrywide. This policy also brings a requirement for the provision of security for water supply and wastewater collection infrastructure with Irish Water that housebuilders need to observe. Planning authorities will no longer be required to include conditions in a grant of planning permission requiring bonds and/or cash securities in respect of water supply and wastewater collection infrastructure.

LIHAF FUNDING

Infrastructure is a crucial constraint to the development of much potentially viable lands for residential development in the region. While Local Infrastructure Housing Activation Fund (LIHAF) funding is welcomed, there is considerable inconsistency in the way some local

authorities administer the fund. Adequate funding to enable the further roll-out of additional LIHAF schemes is essential to development in the region. Clarity and simplicity are also required to facilitate partnership arrangements between the local authorities and the development sector for the delivery of potential residential units.

SKILLS SHORTAGES

Wage inflation is a national challenge and significantly impacts the region. Rising costs due to wage inflation and the limited availability of specialist trade and contract work continues. Apprentice registrations as of February 2019 are up 37%, year on year, from 2018, albeit from a base of 224 to 306. Plumbing and carpentry/joinery account for over 85% of all registrations, while crucial trades, such as tiling and plastering have recorded zero growth and are not addressing the deficit identified for wet trades.

With increased activity in the region, the industry culture of compliance with the **Building Control Amendment Regulations** 2014 is essential for quality building and consumer satisfaction. Continued support of CIRI by the industry and its establishment on a statutory footing by Government will reinforce this. C



THE WONDER OF WETROOMS

Sarah Viney of Marmox considers the attractions and challenges of creating a wetroom

wetroom is effectively a fully waterproofed bathroom, where walls and floors are 'tanked' or sealed with layers of water resistant material. Their advantages are many, easier to clean, as there's no shower screen or tray to worry about and if you go for a wall-hung sink and toilet, the floor can be kept completely clear.



In addition they should prove more hygienic as the opportunities for mould growth are much restricted compared to a standard bathroom layout. Wetrooms are particularly good for the elderly or less able bodied. With no shower step to negotiate, adding half height screens can allow a carer to remain dry whilst assisting someone in the showering area.

In some respects a wetroom can be viewed as a blank canvas – free from most of the normal obstructions – which can then permit greater design freedom in respect of the finishes. Tiles are the most popular wall and floor covering. In all situations, adequate provision must be made to remove water from the room, which requires both a drain outlet and direction for the run-off.



For a workable wetroom therefore, probably the best way of achieving this is to make use of a pre-sloped tileable shower base.

The most user-friendly option is to purchase one which offers the same positive physical characteristics as the best tile-backer boards, but incorporates an adequately sloping surface and an integral drain that is adjustable for direction of outflow and it is essential that the waterproofing membrane laid beneath the tiling can be permanently sealed to this drain.

Given that these multiple criteria are met, then with their ease of maintenance and the sense of luxury, a contemporary wetroom is considered super-stylish by both design professionals and property pundits, meaning that – properly executed – they can add to both the enjoyment and the value of a home.

FOR FURTHER INFORMATION PLEASE CONTACT: MARMOX (UK) LTD., CAXTON HOUSE, 101-103 HOPEWELL DRIVE, CHATHAM, KENT ME5 7NP.

TEL: 01634 835290 FAX: 01634 835299

EMAIL: sales@marmox.co.uk WEB: www.marmox.co.uk

"PUSHY" IS ANOTHER WAY OF SAYING "DRIVEN"

As part of the CIF #BuildingEquality 2019 campaign, LORRAINE BRADY, Design and Bid Manager, BAM Ireland, shares her story as a woman in construction.

orking in construction is a highly rewarding career. I get to follow our projects from the moment that a 'Request for Proposal' (RFP) lands, to driving the strategy to win, pitching the proposal to the client, waiting and watching for the win, and hopefully to seeing the project rise from the ground and ultimately be handed over to a delighted client.

There is a great sense of achievement to see a finished project, which started out as an RFP. Every phase of a project, from bid to build, has its own unique requirements, demands and challenges. Every day is different, and I have the pleasure of interacting with our site, design, commercial, marketing and digital construction teams. There is great variety in my role at BAM Ireland, and there are always new skills to be learned.

EXCITING CAREER

I do believe there is a lack of awareness about the exciting and varied career opportunities available in construction, due in part to the perception of the industry being male-dominated and muddy. But that couldn't be further from the truth. Well, the muddy bit anyway. My role is just as likely to take me to a meeting in the city centre as it is to take me to a construction site. That's the beauty of it. You get to do a bit of everything, which makes each day genuinely different from the last. I am passionate about construction and never bore of seeing those green BAM cranes on the skyline.

ROLE MODELS

When I look at the women I consider to be my female role models, those women 'who rose above the ranks' in my current and past work environments, they all have one trait in common. None are just 'average' performers, all are high achievers and are driven and passionate in all that they do. Therefore, I believe that women in construction, or in any industry for that matter, who strive for senior management positions, must be a little more 'brilliant, dedicated, and must



continuously and consistently outperform their male peers to get noticed.

Unfortunately, this can sometimes translate into a perception that women who do well in some industries are "pushy", but this to me is just another word for "driven", and I think this is something that we can all learn to live with. But I do wonder for how much longer women will need to prove they are twice as good as men to get ahead.

MENTORING

Finding a mentor (or someone with more experience than you) is a very useful tool in your learning process. Having moved from an architectural practice to a global engineering, procurement and construction management (EPCM) company, I was very lucky to work with one of the best industry project managers who also acted as a mentor. A mentor can provide crucial feedback. It puts a stress test on your skills

and challenges the knowledge areas where you might be weak. Don't be afraid to admit you don't know something and be open to any advice that a mentor provides. The key is to understand that finding the right mentor could be the difference between success and failure.

Over 200 people attended this year's CIF's International Women's Day Breakfast, which is sponsored by CPAS/Milestone Advisory, Mercury Engineering, Kingspan, Topcon, Philip Lee, Collen Construction, Eaton, Glenveagh Properties PLC, BAM, Flynn Management & Contractors, Walls Construction and Hilti Ireland.

To learn more about the CIF #BuildingEquality campaign and to share your own story, visit www.cif.ie/buildingequality

ECA CALLS FOR TRANSITION PERIOD FOR ADOPTION OF NEW ELECTRICAL INSTALLATION RULES

Irish Standard IS:10101 will be the new technical standard and set of rules to be followed for all electrical installations from next year. SEAN MURPHY reports on preparations for its introduction and adoption.

he worldwide electrical industry and infrastructure are changing rapidly as electronic advances and environmental awareness forces mankind to innovate. Ireland has come a long way since the ESB was established in 1927. The Electro-Technical Council of Ireland (ETCI) was established in 1972 to set down the wiring standards, which have evolved in conjunction with its European partners at the International Electrotechnical Commission (IEC).

Today, the sector works to National Rules for Electrical Installations, known as ET:101 (2008). But, it will soon align with the latest European Standards through the introduction of an updated National Rules for Electrical Installations.

TECHNOLOGICAL ADVANCES

Electrical installation has advanced at an exponential rate in recent times, with robotics, data centres, electric vehicles, solar panels and other microgeneration systems becoming widespread.

Ireland's national standards authority, the NSAI, assembled industry specialists to advise on the new European rules, to adapt them as required for Ireland's needs, and to adopt the rules in the form of the new Irish Standard IS:10101.

The NSAI Technical Committee 2 (TC2) was established to oversee the new installation standards. The committee includes experts from right across the electrical industry, through associations representing contractors, suppliers, manufacturers, designers, academics and estate or facility managers. Regulatory bodies CRU and Safelectric also have a seat on the committee.

NEED TO REVISE

Charles Dunn, Chairman, NSAI TC2, explains that the need to revise ET:101 arose from many issues, not least being the sheer amount of time elapsed since ET:101 was produced in 2008.

"Ireland is on its fourth edition of the National Rules, whereas the UK is on

its 18th edition of its National Rules," he explains. "It has been over two years since we started on the road to IS:10101, and the target is to publish the completed document by June 2019. This will allow a six-month time period before implementation in around January 2020."

Under the Electricity Regulation Act 1999, CRU has the responsibility to determine the rules for electrical installations. CRU previously empowered ET:101, and CRU will have to determine when the change to the new IS:10101 will be implemented. Designers' specifications will need time to change, especially for projects which may not be built for several years. Suppliers will need to stock product required by the new rules, including "noncombustible" domestic boards and RCDs for domestic lighting boards.

Contractors pricing work will need to factor in any additional costs into projects that will be certified after the implementation date. Installers and certifiers will require training up on "what's new".

TRANSITION PERIOD

Sean Downey, Director, Specialist Contracting, CIF, says the Electrical Contractors Association (ECA) believes that it is imperative that there is a considerable period of transition that takes account of the needs of the existing qualified personnel operating validly in the sector, as well as those who are about to transition through the apprenticeship system.

"ECA would support the establishment of a technical working group led by either the CRU or the current SSB, Safe Electric," he says. "The mandate for this working group should be to mitigate the risks associated with the introduction of such a significant change in the technical standards for electrical installations. This should include, but not be limited to, ensuring that licensed contractors and those designing installations have access to the new rules, are provided with rapid upskilling to bring them up to date with the new technical standards, and have access to operable technical support



for queries that may arise in the course of their daily operations. The working group should have input from industry, education and training providers, regulators and the standards body to ensure a consistent approach," Sean Downey concludes. C

SUMMARY OF PROPOSED KEY **CHANGES IN IS:10101**

- Residual Current Devices (RCDs) to be installed on lighting circuits in domestic premises
- Arc fault detection devices (AFDDs) will now be recommended
- Introduction of the Electromagnetic Compatibility (EMC) Directive
- Cables to be rated Class Dca s1b,d2,a2 in accordance with EN50575
- Distribution boards in domestic installations to be noncombustible
- Model certificates will now be
- A new chapter Chapter 8 Energy Efficiency – has been added.

IQUEST ENTERS NEW ERA WITH REBRAND TO BUSINESS POST EVENTS

SEAN MURPHY profiles the CIF Corporate Partner iQuest, as it embarks on a new era of development and name change to 'Business Post Events'.

he growing popularity of construction-related conferences as learning and networking events has resulted in the development of a very successful partnership between CIF and conference and event organiser iQuest.

For anyone who has attended CIF conferences and summits in Croke Park in the past couple of years, or the International Women's Day event in the Morrison Hotel, Dublin in March, iQuest will be a familiar name, as this was the company that brought together many of the different elements that went into organising those events.

Recently, entrepreneur and owner of The Sunday Business Post, Enda Coineen, through his company EnCircle Business Post 365 Ltd, added the events and conference company to his portfolio, when he acquired it from founder Michael Nolan.

The acquisition forms part of a broader strategic plan for the development of Enda Coineen's media and business services

Michael Nolan said the acquisition would deliver a significant boost for the company.

"We have had a great partnership with The Sunday Business Post, and this most recent deal is a natural progression," said Michael Nolan, who has led the successful development of the iQuest brand over the past 18 years.

NEW MANAGING DIRECTOR

Michael Nolan now assumes the role of Chairman, Business Post Events, and he becomes a member of the advisory board of the group, as a new era begins with the appointment of Sarah Murphy as Managing Director, Business Post Events.

Speaking about her appointment, Sarah Murphy said, "I am excited and look forward to bringing Business Post Events to its next stage of development and expanding the strong portfolio of events we manage. Our growing programme will celebrate the current booming business market in Ireland and champion the successes of the Irish diaspora with the inclusion of international

Last year, the company organised a total of 14 events across the business, construction, banking and finance, IT and



property sectors.

CIF EVENTS

As a corporate partner of CIF, Business Post Events offers CIF members heavily discounted rates for all CIF events, and it will be organising a growing number of CIF events in the coming year. These include the CIF Annual Conference at Croke Park on 2nd October next and the upcoming Digital Construction Summit 2019 in June. In between, it will also introduce a new conference - The CIF Southern Region Construction Summit - which will take place on 4th September at the Clayton Hotel, Cork.

CIF DIGICON

In the meantime, The CIF Digital Construction Summit 2019 (CIF Digicon) with the theme, 'Digital... The End Of Construction As We Know It?', will take place at Croke Park on 13th June.

CIF Digicon 2019 will focus on the road to Construction 4.0 and how the construction sector can move beyond the digital 'catch-up' phase. It will feature a premium line-up of discussions on the latest digital technology within the built environment.

The summit will delve into the latest technologies and digitisation of processes within the construction industry, and it will provide deeper insights into critical issues such as project management and job site monitoring, VDC Technology, big data in construction, and the road towards BIM 3 in virtual construction.

The summit offers an excellent opportunity to learn more about recent technology advances, and to hear about challenges faced in complex construction projects from industry-leading inspirational speakers from both home and abroad.

Speakers will include:

- Chris Toomey, Vice President, Capital Projects & Infrastructure Practice, McKinsey & Company
- Alexandra Bolton, Deputy Director, Digital Built Britain
- Paul Doherty, President and CEO, The Digit Group, Inc (TDG), USA
- Emma Hayes, Managing Director, Digital Built Consultants Ltd
- Paul Brennan, Head of Digital Construction, BAM Ireland

CIF Digicon 2019 is sponsored by Topcon, Kingspan and Magnet Networks. 🕻

To learn more or book your place for CIF Digicon 2019, visit www.digitalconstruction.ie

NEARLY 8% OF IARNRÓD ÉIREANN CONTRACTORS FAILING DRUG AND ALCOHOL TESTS

larnród Éireann's Kay Doyle talks to MIMI MURRAY, about how random drug and alcohol testing has created a safer workplace, and how some over-the-counter medications are placing lives at risks on site.

andom drug and alcohol testing of Iarnród Éireann (IE) staff has led to a reduction in the number of test failures, with a failure rate that is lower than 1% for IE staff. However, the failure rate remains high among contract staff, at between 7% and 8%.

While the figure for contractors has reduced a great deal in the past few years – it previously stood at 17% – it's still "worryingly high," says Kay Doyle, Strategic Safety Manager, IE.

Most test failures are for cannabis or cocaine use. But some fail as a result of taking over-the-counter medicines such as Solpadeine or codeine-based cough bottle medications. "Staff are tested for everything and refusal to test is regarded as a fail," Kay Doyle explains.

TESTING POLICY

IE's drug and alcohol policy has been in place since 2007 and is underpinned by the Railway Safety Act 2005. The company spent a year negotiating with unions before implementing the policy, which sees everyone in the company subject to testing.

"We test a minimum of 5% of the workforce across the whole company each year. We randomly select areas to go to and people from the list. There are nearly always contractors on site, so they are tested on railway work sites at the same time.

"When contractors tender for work, they are told that they have to comply with our drugs and alcohol policy and we advise that they should have a drug and alcohol policy themselves. They know upfront that there's a possibility their staff are going to be tested. If they want to work with us, then they have to comply.

"An example of how the policy works can be seen in that at one point, one of our better contractors had four individuals who failed tests, which is totally unacceptable. But, they completely upped the ante in their company after that."

DISCIPLINARY PROCESS

Following a fail, IE staff are removed from safety-critical duties immediately. They then go into a disciplinary process, and many are dismissed. When a contractor's employee fails, they are not allowed on site again. They can also be found guilty of an offence under the Railway Safety Act (2005).

"We have a permit to work system, and we blacklist the ones that fail," she says.

CODEINE-BASED MEDICATIONS

While cocaine and cannabis pose the biggest problem, workers have failed for more innocuous substances, and they may not even realise there is an issue with what they have consumed.

"Codeine-based medicines show up. People will fail the test for



the use of codeine, and after that, we will take advice from a medical officer as to whether they are fit to be in work. If the medication label says 'do not operate machinery' the individual may not be fit to be in work. They can be impaired. It can be a genuine mistake in some cases, but we give every employee and contractor the policy. There is a lot of information in that to explain what is not allowed. People think over-the-counter medication is not a problem, but it can be a serious problem. It may not be illegal, but it can affect your judgement," she says.

EMPLOYEE ASSISTANCE PROGRAMME

The company has an employee assistance programme in place that supports anybody that might have a problem with drugs or alcohol.

"If someone puts up their hand and says they have a problem, they will be helped. They won't be allowed to perform safety-critical duties, but every effort is made to assist their rehabilitation. We realise the workplace is no different than society in general, it's a big problem out there, and we will do all we can to help."

In closing, Kay Doyle highlights the need to have a strict drug and alcohol policy.

"Some of these people are driving road/rail vehicles, diggers and dumpers on tracks. You could have a person driving a digger with a jib, and if they're impaired, it would be easy for someone to get killed. Our priority is to provide a safe work environment for everyone that comes to work on our property, be they staff member or contractor. We are all mindful that we work in a challenging environment and one wrong move, can end in tragedy," she concludes.

CIF's Working Group on Health and Welfare is developing a standard working document on the management of intoxicants in the workplace. Once complete, it will be made available to all CIF members for their use.

ANNUAL GMIT CONFERENCE FOCUSES ON ADOPTION OF DIGITAL CONSTRUCTION TECHNOLOGY

The GMIT International Construction Management Conference 2019 highlighted the growing importance of digital construction technology.



peaking at the ninth Galway-Mayo Institute of Technology (GMIT) Annual International Construction Management Conference, John O'Regan, Director, AECOM, said that in 2018 the value of construction output rose by 17.6% to around €20bn and tender prices rose by up to 6.5%. Looking forward to 2019, he projected a 20% increase in construction output to €24bn and a rise in tender prices of up to 6%.

Other speakers at the event included Pat Lucey, President, CIF; Paul Oakley, Director of BIM, BRE; John Egan, Director, BIM Launcher; Padraic King, BIM Manager, King and Moffatt Building Services; and Niamh McNulty, Head of HSQE, Coffey Construction.

Paul Oakley, BRE, said that BIM and the implementation of BIM standards can enable the adoption of change within the industry and change the way it works and manages various processes.

"BIM is at the heart of change going on globally within the industry," he said. "However, when using BIM, we need to begin with the end in mind and consider what data is required throughout the lifecycle of the building. Decisions can then be made on structured data rather than guesswork."

BIM Launcher's John Egan stated that the construction industry needs to "build better" in order to meet projected population growth in Ireland and throughout the world.

"To build better will require industry to change and adapt. To do this, the industry





must bridge the automation capability gap, promote a shared dataset approach throughout all aspects of a building's lifecycle and collaborate to develop improved industry workflows."

Padraic King, BIM Manager, King and Moffatt Building Services, outlined the benefits seen by King and Moffatt from its implementation of BIM. "The benefits include increased coordination between trades, reduced waste during the construction process, accurate ordering of materials, and increased quality of information and drawings," he explained.

Pat Lucey, President, CIF, highlighted the improvements in safety that have been achieved within the industry as an example of how the industry can work together to make improvements and attract more people to develop careers in construction.

"We have learned from safety failures of

the past, and this is key to attracting people into the industry. This also shows what the industry can do when our goals align."

TECHNOTEACHERS ASSOCIATION AWARDS

At this year's conference, the TechnoTeachers Association, which represents secondary school teachers of technology-based subjects, presented its National Student Awards 2018 to students who excelled in technical studies.

In all, 42 technical awards were presented across three levels: Junior Cert, Leaving Cert and Applied Leaving Cert, in addition to the Martin Hayes Memorial Award, which was presented by Tom Parlon, Director General, CIF, to Brian Mac Amhlaoibh, Gaelcolaiste Chiarrai, who achieved the highest mark in Construction Studies at Leaving Certificate level in 2018.

CIF CORK BRANCH CHAIR CALLS FOR ROLL **OUT OF CORK INFRASTRUCTURE PROJECTS**

his year's CIF Cork Branch Annual Dinner took place at Fota Island Resort, Cork, with over 270 people from all sectors of the industry in attendance. Special guests included Councillor Patrick Gerard Murphy, Mayor of the County of Cork; Councillor Joe Kavanagh, Deputy Lord Mayor of Cork; Ann Doherty, CEO, Cork City Council; and Tim Lucey, CEO, Cork County Council. Pat Lucey, President, CIF, and Tom Parlon, Director General, CIF, as well as Government representatives Kevin O'Keefe TD and Senator Colm Burke, and guests from Cork Chamber and various other industry bodies were also in attendance.

Addressing the guests, CIF Cork Branch Chairman Donal Cahalane said, "The fact that I am standing here this evening is a testament to the renewed growth and positivity in the industry. Just four short years ago I was plying my trade close to the eastern border of the EU. Since then, the Irish construction industry has welcomed thousands back into the workforce, increasing GDP from 5.3% in 2015 to 7% in 2018.

"Our city skyline is again reaching upwards with student accommodation



and office developments. Tourism and conference prospects will also be given a boost with the addition of new hotels in the city centre.

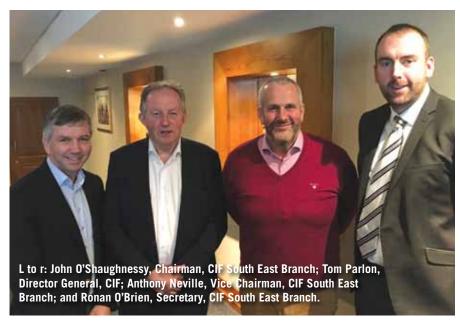
"To allow Cork to achieve the population growth goals set out in the NPF and NDP, infrastructure projects contained in the NPF, such as the Dunkettle Interchange, the Ballyvourney By-Pass, the

M28 Cork and the M20/ Northern Ring Road, need to be built."

The CIF Cork Branch would like to thank Cork Builders Providers for their sponsorship of the event.

This year the CIF Cork Branch was proud to support the Oesophageal Cancer Fund charity. C

JOHN O'SHAUGHNESSY REAPPOINTED AS CHAIRPERSON OF CIF SOUTH EAST BRANCH



t the Annual General Meeting (AGM) of the CIF South East Branch, which was held at the Tower Hotel, Waterford, John O'Shaughnessy, Managing Director, Clancy Construction, was reappointed as branch chairperson and Anthony Neville, Director, Anthony Neville Homes Ltd, was appointed as the branch's new vice-chairperson.

Tom Parlon, Director General, CIF, who attended the AGM to update members on CIF work on their behalf welcomed the reappointment of John O'Shaughnessy and appointment of Anthony Neville, saying, "The South East Branch will be well served by having John O'Shaughnessy and Anthony Neville working on its behalf to ensure there is a strong voice at national level for the south-east." C

IHBA REGIONAL WORKSHOPS FACILITATE CONSTRUCTIVE ENGAGEMENT BETWEEN INDUSTRY STAKEHOLDERS

he 2019 Regional Housing Workshops, hosted by the Irish Home Builders Association (IHBA), were positively received by the over 330 members who attended the series. The workshops, which were available free of charge to all CIF members, were hosted in regional venues in Dublin, Meath, Limerick, Kilkenny, Wexford, Cork, Sligo, Galway and Tullamore.

The overwhelmingly well-received presentations covered topics and issues such as Planning and Development Amendments, Building Regulations, Brexit and Standards, Delivery/Cost Viability, CIRI, Land Development Agency, and Leasing Scheme Arrangements.

Attendees were also updated on the numerous consultation engagements that are ongoing with various bodies through the IHBA.

The new national standardised connection charging policy for water and wastewater, and the associated requirement for a surety bond to be in place with Irish Water, was explained in detail. Other areas of noteworthy interest included the progress and movement on construction waste and options now available to homebuilders and developers.

Each of the workshops included a presentation by Michael Broderick, Chief Executive Officer, Home Building Finance Ireland, who outlined how the recently established funding initiative would operate, key requirements for financing, and how applications would be assessed.

Gas Networks Ireland was also in attendance at each workshop



and representatives spoke about Draft Building Standards Part L: Conservation of Fuel & Energy for Dwellings and Part F: Ventilation, and how possible heating and ventilation systems could meet the expected new requirements in the future.

Hubert Fitzpatrick, Director, Housing, Planning & Development, CIF, was delighted with the attendances and the level of engagement at the workshops. "Collaborative discussions between the members and panellists allowed members the opportunity to highlight their specific areas of concern and discuss these in detail with the relevant people," he said.

For those unable to attend, the sessions have been recorded and are available to watch back through the Members' Section of the Construction Industry Federation's website. C

GALWAY GETS CONSTRUCTION BOOST

he CIF Galway Branch Annual Dinner was held at the Salthill Hotel, Galway recently. Special guests included Seán Canney TD, Minister of State at Department of Rural and Community Development and Department of Communications, Climate Action and Environment; Pat Lucey, President, CIF; Tom Parlon, Director General CIF; and Fergal Bradley, Western Chairperson, SCSI.

In her address, Tara Flynn, Chairperson, CIF Galway Branch, called for greater diversity in the industry. Name-checking Galway-woman Alice Perry (1885-1969) -Europe's first woman engineering graduate - Tara Flynn said, "Due to the skills shortages in our industry, attracting more women into our sector has moved from being the right thing to do to being a real commercial priority."

She noted that 2019 was the first year in recent times that Galway was experiencing slow but notable growth.

"I welcome the number of projects underway in Galway at this time, which include educational, residential and



commercial developments. There are also several large-scale developments in the pipeline for the coming year. I hope that the Galway Port development, currently in planning, will soon be given the green light to ensure the long term future of the port."

The CIF Galway Branch would like to thank main sponsor DRS Bond Management for its support, as well as additional sponsors Roadstone, and Coshla Quarries. C



CIF PRESIDENT CALLS FOR CHANGE IN GOVERNMENT PROCUREMENT POLICY

ROBBIE COUSINS reports from the CIF Construction Management Summit 2019, which took place recently at Croke Park.

he focus of the CIF Construction Management Summit 2019 was to address management issues directly affecting construction businesses, and how they can compete and maintain their competitive edge.

Speakers at the event included Pat Lucey, President, CIF; Kieran McQuinn, Research Professor, Economic and Social Research Institute (ERSI); Stephen Bowcott, Chief Executive Officer, John Sisk & Son; David Meade, motivational speaker; Mary-Liz Trant, Executive Director, SOLAS; and David Clark; Head of Manufacturing & Innovation, The McAvoy Group.

In his address, Pat Lucey said that the National Development Plan and 'Project Ireland 2040' are drivers to revitalise urban centres and rural communities outside the greater Dublin area.

"The NDP can transform Cork, Limerick, Galway and Waterford into an economic corridor to act as a complementary counterbalance to Dublin's economic growth. But we need to learn from the lessons of the past if this is to happen."

He said that it has been evident for years that the public sector procurement system is not fit for purpose, but he is encouraged by



the series of public consultations that have been taking place, which he hopes will lead to changes in policy.

"Change is now urgently needed," the CIF President said. "Last year, about 70 contractors went into examinership due in part to Government contracts that place all the risk on the contractor, and a procurement system that operates on the principle that the lowest bidder wins.

"I believe more early contractor involvement could be a leverage point in the system. It would be good to see this practice

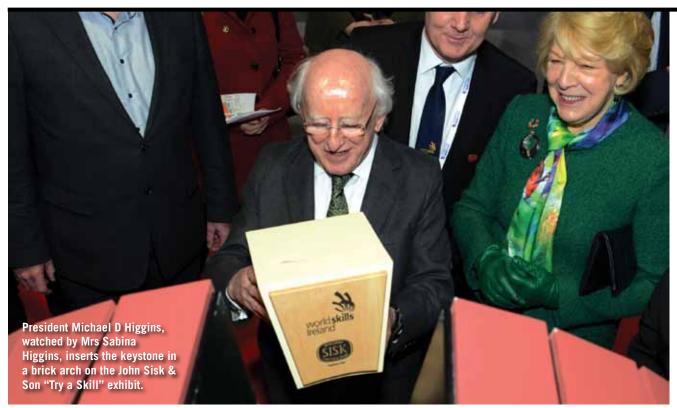
become a standard option in the coming years. The only way we can progress and learn is through collaboration built on trust, and we have the vehicle for that now in the form of the Construction Sector Group. The CIF won't be found wanting in its efforts to make this succeed."

Kieran McQuinn, ESRI, said that the economic outlook was positive, despite Brexit, and other international issues. "We think the economy will grow by just under 4% this year and by just over 3% next year."

In his presentation, which focussed on how John Sisk & Son had radically improved productivity through the use of Lean construction and digital construction technology, Stephen Bowcott said that he had come to the view that the required number of workers needed in the coming years was considerably fewer than is being suggested.

"I believe that if the industry can address its productivity issues, it could meet its needs with an additional 25,000 workers, rather than the 60,000 or so being suggested."

The CIF Construction Management Summit 2019 was sponsored by Kingspan and Topcon. C



OVER 15,000 PEOPLE ENJOY IRELAND SKILLS LIVE FESTIVAL ATMOSPHERE

Organisers were overwhelmed with the attendance at the inaugural three-day Ireland Skills Live event. SEAN MURPHY reports.

ver 15,000 students, parents, teachers and industry members attended the inaugural Ireland Skills Live event at the RDS Simmonscourt, Dublin, which took place from 21st to 23rd March.

President Michael D Higgins was among those in attendance and he chatted with many of the competitors during his visit.

The Ireland Skills Live event is a very important exhibition," President Higgins said. "I don't mind saying, I would love to see all parents bring their young people here. I believe that this exhibition will in time be as important as the Young Scientist & Technology Exhibition."

Speaking on behalf of the organisers, Donal Keys, Co-Chair, World Skills Ireland, said the attendance was far beyond their expectations.

This week we had over 15,000 second-level students visit Ireland Skills Live, something we could only hope for back in October on launch day," Donal Keys noted. "We also have over 100 sponsors here, resulting in private industry working alongside public educational bodies, Government Departments and Semi-State Bodies. This is how Ireland can work when we all come together; and look what we can achieve."

Ray English, Co-Chair, World Skills Ireland, said he looked forward to "coming back next year, when the event will be even bigger and better, if that is possible."



WINNERS

The winners at Ireland Skills Live came from across the country. It was a successful inaugural competition for the new Technical University of Dublin. TU Dublin came away with no fewer than seven medals, in the disciplines of Bricklaying, Painting and Decorating, Welding, Visual Merchandising, Car Painting, Logistics, and Aircraft Maintenance.

Cork Institute of Technology brought home five medals and national titles to Leeside. These included medals in Construction Plant Fitting, Industrial Mechanic Millright, Metal Fabrication, Plasterwork, and Refrigeration.

Peter Jenkins of Waterford Institute of Technology (WIT) won the first silver medal in Building Information Modelling (BIM), and he will now go on to represent Ireland at the World Skills Finals in Kazan, Russia, in August.

Autodesk sponsored the BIM competition, and Matthew Bell, Head of Global Strategic Alliances, Autodesk, said they were delighted to be part of the Ireland Skills Live event.





"Ireland punches way above its weight in the international BIM arena. To have the winner going on to the World Skills Final is fantastic," Matthew Bell commented.

Jack Lynch of GMIT was successful in the Cabinetmaking category and Liam Meehan of Sligo IT took the National Carpentry title. Dundalk IT won two medals, in Joinery and Automobile Technology.

Speaking after the event, Pat Lucey, President, CIF, said that at a time when the construction industry is looking to show young people that it offers sustainable and exiting career options, he was moved by the energy and excitement in the arena.

"I was delighted to be able to attend Ireland Skills Live across the three days and witness parents and children totally engaged by the competitions and the energy in the hall. I believe this was a landmark event for the construction sector and our goal of attracting more young people."

APPRENTICESHIPJOBS.IE

Dermot Carey, Director, Safety and Training, CIF, was also





delighted with the turnout and response.

"It really was a fantastic event and a great showcase of construction to young people. A new website apprenticeshipjobs.ie – which is under the management of SOLAS - was also launched at the event. This apprenticeship jobs board provides construction firms with a fully resourced service to offer apprenticeships to as broad a base as possible."

The five main sponsors of Ireland Skills Live were the Higher Education Authority, SOLAS, Department of Education and Skills, and the Government of Ireland. Industry partners included CIF, John Sisk & Son, Designer Group, ESB Networks and Autodesk

Category sponsors included John Sisk & Son, Jones Engineering, BAM Ireland, King & Moffatt, Burke Joinery, Kingscourt Brick, TU Dublin, and Crown Paints, amongst others.

NATIONAL SKILLS SILVER MEDAL WINNERS

Aircraft Maintenance: Eric Noonan, Midland Aviation Automobile Technology: Declan Moore, DKIT Beauty Therapy: Alannagh O'Sullivan, Kerry ETB Bricklaying: Jason Shanahan, TU Dublin Building Information Modelling: Peter Jenkins, WIT

Cabinetmaking: Jack Lynch, GMIT Carpentry: Liam Meehan, IT Sligo

Car Painting: Ben McNair, Ballyfermot/TU Dublin

Cookery: Aisling Delaney, IT Tralee

Construction Plant Fitting: Brian Muldoon, CIT Cloud Computing: Oliver Bal-Petre, IT Tallaght

Electrical Installation: Barry Forde, MSL ETB

Hairdressing: Abigail Sheridan, Waterford CFE

Heavy Vehicle Mechanics: Daniel Curtin, Athlone IT

Industrial Mechanic Millright: Niall Connelly, MSL ETB/CIT

Joinery: Mark Wasson, DKIT Logistics: Megan Yeates, TU Dublin

Metal Fabrication: Patrick Twomey, CIT

Painting & Decorating: Nathan Richardson, TU Dublin

Plasterwork: Jake Shannon, CIT

Plastic Die Engineering: Luke Brennan, Autolaunch Ltd, Sligo

Plumbing and Heating: Jack O'Donnell, Athlone IT

Refrigeration: Dylan Casey, CIT

Restaurant Service: Ruairi Grealish, Shannon School of Hotel

Management

Sheetmetal: Mairtin Scattergood, TU Dublin Visual Merchandising: Jenny Mangan, TU Dublin

Welding: Jack Gartlan, TU Dublin



SISK AND DESIGNER GROUP LAUNCH SENSORI FACILITIES MANAGEMENT COMPANY

ohn Sisk & Son and Designer Group have partnered in a joint venture to create Sensori Facilities Management. This new company has come about as a result of Sisk acquiring a 50% holding in Designer Group's facilities management business, which supplies integrated property facility management services to leading organisations across both public and private sectors in Ireland.

Mark Cullen, who was previously FM Operations Director at Designer Group, has been appointed as managing director of the new company, and he says that Sensori Facilities Management complements the strategic focus of both Sisk and Designer Group.

"Sensori Facilities Management will define what facilities management will become, not just in Ireland, but further afield, He says. "We are incredibly excited by what we can achieve and what we can deliver for our existing clients and new ones that we will welcome to Sensori Facilities Management.

"As Sisk and Designer Group are both industry leaders in BIM and data analytics. this will continue to be a fundamental part of how we manage all buildings into the future. We will continue to invest in this technology for the betterment of built assets into the future."

Speaking at the launch event, Stephen



Bowcott, CEO, John Sisk & Son said, "Sisk is a long-established family business. Our journey to a facilities maintenance business started well over 20 years ago when we established Sisk Rail in the UK, which at its core is an FM business. More recently we created a JV with Designer Group FM in August 2018 for the PPP Schools Bundle 5. Our relationship with Designer Group also goes back over 20 years, and we have completed many fantastic projects together. As a result, we have built up a very strong working relationship, and the businesses share many core values.

"We look forward to the growth of this new business, which has great teams throughout the country. We expect to strengthen our relationship with our existing customers and expand our service

Also speaking at the launch event in City

Hall, Dublin, Michael Stone, CEO, Designer Group, said that the new partnership with Sisk will enable them to provide a complete turnkey solution to existing customers, thereby enhancing the service offered to win new ones.

'We can assist with design to make your buildings easier to maintain, by installing additional sensors and controls.

"As part of our strategy for managing buildings for life, we have developed a wealth of experience in the area of energy management and have been helping our customers to reduce their energy costs in the buildings that we maintain."

Sensori FM will be involved in designing aspects of buildings that will bring longterm benefits. That service revolves around the word 'Life' - the life of the building and, arguably, more importantly, the life of each person who uses each building either in a working or residential capacity.

Sensori FM provides full turnkey project works, planned preventative maintenance, integrated facilities management, 24/365 emergency reactive call out helpdesk, energy management, BIM, design and build engineering and PSCS accreditation.

The company offers a nationwide service and has invested in multiple electric company vehicles to reduce its carbon footprint further and enhance its environmental credentials.



JOHN PAUL JOINS 'KEEP SAFE' SCHEME

ligo Fire Station recently welcomed over 100 fifth and sixth class primary school children from Carbury National School, St John's National School, St Edward's National School and St Brendan's National School for a 'Keep Safe' event sponsored by the Health and Safety Authority (HSA) and facilitated by Junior Achievement Ireland.

The Keep Safe event is an opportunity to present children with practical safety messages in a new and interesting way, in order to keep them safe in any number of situations. The objectives of the Keep Safe programme are to help children:

- Become aware of personal and home
- Learn how to react to dangerous situations
- Foster good citizenship
- Learn how to recognise hazards and



manage risks

Learn how to stay safe within the context of, for example, road safety, water safety, fire safety, site safety and farm safety.

Fiona Gallagher and Niall Hahessy, both from John Paul Construction, took part in the event on behalf of the construction sector. They advised students on hazard identification techniques for everyday situations and on how to take a precautionary approach near work

High levels of interest were assured as a result of the use of 'Spot the Hazard' posters, the donning of personal protective equipment (PPE) and provision of CIF's 'Play Safe - Stay Safe' colouring booklets.

Speaking about the event, Fiona Gallagher, who works as a health and safety advisor with John Paul Construction, said, "It was an honour to be invited to take part in such a worthwhile event. I was delighted to see the enthusiasm from the youth, and to have the opportunity to discuss 'health and safety' with our next generation of workers." C

HSA ERGONOMIC RISK GUIDE ESSENTIAL READING FOR HEALTH AND SAFETY PROFESSIONALS

he Health and Safety Authority (HSA) has published a new guide - 'Managing Ergonomic Risk in the Workplace to Improve Musculoskeletal Health' - for health and safety professionals.

The guide is essential reading for anyone who manages ergonomic risks in an Irish workplace. It is of particular relevance for the assessment of manual handling tasks in construction, including glazing, stone cladding, kerbs, etc.

The guide gives direction on the actions that

need to be taken in order to manage ergonomic risks. It explains the main ergonomic risk factors that may affect a person's health when carrying out work activities; outlines the risk assessment process involved in managing ergonomic risks; and gives guidance on useful risk assessment tools that can be used to quantify ergonomic risk factors. C

The guide can be downloaded at www.hsa.ie/eng/publications_and_forms



HAYS ANNOUNCES €5000 BURSARY COMPETITION FOR CONSTRUCTION PROFESSIONALS

o help counteract the challenge of widespread skills shortages in the construction and property industries, Hays Construction & Property has announced it is investing in the development of Irish professionals. Its latest initiative is to offer industry professionals the chance to win a €5,000 bursary to be spent on undertaking accredited professional education courses to develop their knowledge and expand their

Mike McDonagh, Managing Director, Hays Ireland, says the bursary came about as the firm works with highly motivated construction professionals on a daily basis who regularly cite career development as a key career driver.

"In this employment market, upskilling and continual professional development can really set you apart from other candidates who are looking for that next step in their career. The Hays Ireland €5,000 bursary is a great opportunity to upskill in your area and positively impact your career."

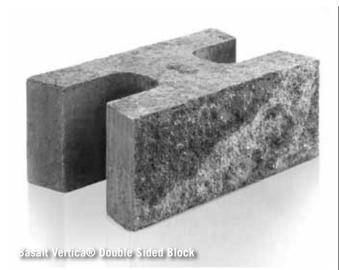
The competition is open to all professionals working in the construction sector, whether they are starting out in the industry, want to take their career to the next level, or are considering changing their career entirely. The lucky winner of the bursary payment will receive consultation from experts at Hays on the training courses available to help them meet their career aspirations.

In 2018, Hays celebrated its 50th anniversary and has been operating in Ireland for over 20 years. Hays Ireland has grown to include over 100 recruiting specialists, working in offices in Dublin, Cork, Limerick and Galway, who help both organisations and professionals develop and grow. C



To learn more or to enter the bursary competition, visit www.hays.ie/hays-bursary and complete the entry form.

STRUCTURAL RETAINING WALLS MADE EASY WITH AG'S NEW VERTICA DOUBLE-SIDED BLOCK



ne of the UK's and Ireland's leading manufacturers of innovative concrete products, AG, has launched a new structural retaining wall block in response to the growing demand within the housing sector and beyond for a double-sided product that lends itself well to machine

The Vertica® Double-Sided Block is versatile, aesthetically pleasing, and ideal for finishing walls, completing the final course on a standard Anchor Vertica* (MacWall*), and it comes into its

own for parapet walls, and small barrier extensions, as well as stop end blocks.

Developed as a solution to avoid unsightly finishes on parapets and walls, the block's double face adds a professional, attractive finish to walling, without the need to add railings, slab walling or

The versatile blocks can also be used to build single course, low gravity walls, making them the ideal choice for divider walls in commercial and large-scale residential schemes.

Commenting on the new product, Rodney Davidson, Commercial Director, AG, says, "We are already experiencing high demand for Vertica® Double Sided Blocks within the house building sector and look forward to working closely with engineers, architects, contractors, developers and housebuilders as the product's popularity grows."

Available in a broad range of warm earth tone colours (Basalt, Canelletto, Cashel and Corrib) and natural textured finishes (straight-cut and stone-cut), the variety offered by Vertica® Double Sided Block means that it can be adapted to suit any environment.

The blocks have been manufactured to BS EN 771-3:2011+A1:2015 specification for masonry units, meaning customers can rest assured that they are of the utmost quality and strength. State-of-the-art factory-controlled vapour curing employed during the precise production of the blocks significantly reduces efflorescence, the naturally occurring chemical reaction that can lead to unsightly blemishes. C

To find out more about AG solutions, visit: www.ag.uk.com or email specifications@ag.uk.com

FOR YOUR DIARY

Helping you plan ahead

Monday 13th, 4:00pm

CECA EXECUTIVE COMMITTEE MEETING

Location: CIF Head Office. Construction House, Canal Road, Dublin 6

Contact: Denise Tuffy

Tel: 01 406 6000, Email: dtuffy@cif.ie

Tuesday 14th, 11:00am **EXECUTIVE BODY MEETING**

Location: CIF Head Office, Construction House, Canal Road, Dublin 6 Contact: Gillian Heffernan

Tel: 01 406 6016, Email: gheffernan@cif.ie

Wednesday 15th, 1:00pm

PTCM COMMITTEE MEETING

Location: CIF Head Office, Construction House, Canal Road, Dublin 6 Contact: Denise Tuffy

Tel: 01 406 6000, Email: dtuffy@cif.ie

Thursday 16th, 8:00pm

DONEGAL BRANCH MEETING

Location: Mount Errigal Hotel, Letterkenny, Co Donegal Contact: Justin Molloy

Tel: 091 502680, Email: jmolloy@cif.ie

Tuesday 21st, 4:00pm

MID WEST BRANCH MEETING

Location: Castletroy Park Hotel, Limerick

Contact: Brid Cody

Tel: 021 435 1410, Email: bcody@cif.ie

Wednesday 22nd, 7:00pm-9:00pm

SOUTH EAST BRANCH MEETING

Location: Brandon House Hotel, New Ross, Co Wexford Contact: Brid Cody

Tel: 021 435 1410, Email: bcody@cif.ie

Wednesday 22nd, 8:00pm

NORTH WEST BRANCH MEETING

Location: Breaffy House Hotel, Castlebar, Co Mayo Contact: Justin Molloy

Tel: 091 502680, Email: jmolloy@cif.ie

Monday 27th, 1:00pm-3:00pm

CORK BRANCH EXECUTIVE MEETING

Location: CIF Offices, 4 Eastgate Avenue, Little Island, Cork Contact: Brid Cody

Tel: 021 435 1410, Email: bcody@cif.ie

JUNE

Monday 10th, 4:00pm-6:00pm

WICKLOW/NORTH WEXFORD BRANCH MEETING

Location: Glenview Hotel,

Glen of the Downs, Delgany, Co Wicklow

Contact: James Benson

Tel: 01 406 6061, Email: jbenson@cif.ie

Wednesday 12th, 8:00pm-10:00pm

MIDLAND BRANCH MEETING

Location: Hodson Bay Hotel. Athlone. Co Westmeath Contact: Justin Molloy

Tel: 091 502680, Email: jmolloy@cif.ie

Monday 24th, 1:00pm-3:00pm

CORK BRANCH IHBA MEETING

Location: CIF Offices, 4 Eastgate Avenue,

Little Island, Cork Contact: Brid Cody

Tel: 021 435 1410, Email: bcody@cif.ie

Wednesday 26th, 3:00pm

MBCA EXECUTIVE COUNCIL MEETING

Location: CIF Head Office, Construction House, Canal Road, Dublin 6

Contact: Denise Tuffy

Tel: 01 406 6000, Email: dtuffy@cif.ie

JULY

Tuesday 2nd, 11:00am-1:00pm

2019 EXECUTIVE BODY MEETING

Location: CIF Head Office, Construction

House, Canal Road, Dublin 6 Contact: Gillian Heffernan

Tel: 01 406 6016, Email: gheffernan@cif.ie

Tuesday 9th, 10:00am-1:00pm

IHBA NATIONAL COMMITTEE MEETING

Location: Midlands Park Hotel, Portlaoise

Contact: Cathy Gurry

Tel: 01 406 6008, Email: cgurry@cif.ie

Wednesday 10th, 1:00pm

PTCM COMMITTEE MEETING

Location: CIF Head Office, Construction House, Canal Road, Dublin 6

Contact: Denise Tuffy

Tel: 01 406 6000, Email: dtuffy@cif.ie

AUGUST

Monday 19th, 1:00pm-3:00 pm

CORK BRANCH EXECUTIVE MEETING

Location: CIF Offices, 4 Eastgate Avenue,

Little Island, Cork Contact: Brid Cody

Tel: 021 435 1410, Email: bcody@cif.ie

Thursday 22nd, 8:30am-10:30am KILDARE BRANCH MEETING

Location: Osprey Hotel, Kildare Contact: James Benson

Tel: 01 406 6061, Email: jbenson@cif.ie

Thursday August 22nd, 4:00pm-6:00pm

KILKENNY BRANCH MEETING

Location: Lyrath Estate Hotel, Kilkenny

Contact: James Benson

Tel: 01 406 6061, Email: jbenson@cif.ie

Tuesday 27th, 11:00am-1:00pm **EXECUTIVE BODY MEETING**

Location: CIF Head Office, Construction

House, Canal Road, Dublin 6 Contact: Gillian Heffernan

Tel: 01 406 6016, Email: gheffernan@cif.ie

SEPTEMBER

Tuesday 3rd, 11:00am-1:00pm

IHBA NATIONAL COMMITTEE MEETING

Location: CIF Head Office, Canal Road,

Ranelagh, Dublin 6 Contact: Cathy Gurry,

Tel: 01 406 6008, Email: cgurry@cif.ie

Monday 9th, 4:00pm-6:00pm

WICKLOW/NORTH WEXFORD BRANCH MEETING

Location: Glenview Hotel, Delgany,

Co Wicklow.

Contact: James Benson

Tel: 01 406 6061, Email: jbenson@cif.ie

Monday 9th 6:00pm-8:00pm

GALWAY BRANCH MEETING

Location: Ardilaun Hotel, Galway

Contact: Justin Molloy

Tel: 091 502680, Email: jmolloy@cif.ie

CIF TRAINING COURSES CIF training and education programmes for May-June 2019

CODE	DATE	DURATION	LOCATION	
RPM 3525	20th May	Half Day	Dublin 6	
			Athlone	
	-	-	Dublin 6	
			Galway	
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EMC 3560	27th May	2 Davs	Dublin 6	
			Cork	
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BCC 35572	31st May	1 Day	Dublin 6	
BCC 35572	31st May	1 Day	Dublin 6	
SI 3562	-		Limerick	
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CODE	DATE	DURATION	LOCATION	
EM 3682	5th June	1 Day	Dublin 6	
			Athlone	
			Cork	
			Dublin 6	
			Dublin 6	
	11th June	3 Days	Galway	
	14th June		Cork	
SSSP 3569	10th June	2 Days	Limerick	
SSSP 3570	24th June	2 Days	Dublin 6	
AC 3680	10th June	1 Day	Cork	
AC 3680	10th June			
AC 3680 AC 3681	10th June 26th June			
		1 Day	Cork	
AC 3681	26th June	1 Day 1 Day	Cork Dublin 6	
AC 3681 RPM 3649	26th June 17th June	1 Day 1 Day Half Day	Cork Dublin 6 Dublin 6	
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THE EXPERTS' EXPERT

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