

SPEC FINISH

FIS

The magazine of FIS
representing the finishes
and interiors sector

www.thefis.org



The importance of upskilling and the rise of the academy

Legislation

The difficulties
obtaining credit and
options available

FIS Conference 2019

Around 120 join
Rethinking Construction
debate

Technical

Drylining -
why the early bird
gets it right



We think of solutions,
so you don't have to.

**Nevill Long's dedicated team of interiors
specialists will give you the inside knowledge.**



Expert insight. Specialist knowledge. Technical experience. They make all the difference at every stage of any project as you'll discover working in partnership with the team at Nevill Long. As well as the right ceiling, drywall and partitioning solutions to meet your required performance, you can access a wealth of problem-solving know-how.

So don't just pick our products. Pick our brains too.



CEILINGS / DRYWALL / PARTITIONS

encon.co.uk

Welcome

SPEC FINISH

CONTACT US

EDITORIAL

Editor:
Stephanie Cornwall
Email:
stephanie.cornwall@warnersgroup.co.uk

SpecFinish
Warners Group Publications
West Street
Bourne
Lincs PE10 9PH

ADVERTISING

Advertising inquiries:
Robyn Teague
Email:
robyn.teague@warnersgroup.co.uk

SUBSCRIPTIONS

SpecFinish is distributed to members of FIS and other selected finishes and interiors businesses. If you wish to receive a copy of SpecFinish or would like to amend or cancel your subscription, please contact either info@thefis.org or telephone 0121 707 0077.

FIS

FIS
Tel: 0121 707 0077
www.thefis.org
Email: info@thefis.org
FIS, Unit 4, Olton Bridge
245 Warwick Rd
Solihull, West Midlands
B92 7AH

SpecFinish magazine published on behalf of FIS by Warners Group Publications plc and the views expressed in this journal are not necessarily those held by FIS or the publishers. The publishers shall not be under any liability in respect of the contents of the contributed articles. The Editor reserves the right to edit, abridge or alter articles for publication.
© All editorial contents SpecFinish 2019



Armstrong ceilings help npower with in-house sustainability - see our news section.



WELCOME

At the time of writing this, we were all fresh with ideas and inspiration from the FIS 2019 conference - Rethinking Construction, while busily pulling together the first *SpecFinish* to hit your mail trays in 2020.

We hope you've all enjoyed a well-earned break over Christmas and that your businesses ended the year on a positive note, with plenty to look forward to in 2020.

Some great insights and advice came out of the autumn conference, including economic forecasts in the light of Brexit, actions following the fallout of Grenfell, off-site thinking and digitalisation. We've included a full review of the event, as well as our Digital Roundtable, in this issue and will be focussing on some of the ideas and updates presented at its breakout sessions by the likes of Clarkslegal, Grigoriou Interiors, Red Umbrella, MAC Construction, Fabrick and CABB, in future issues.

The credit crunch is something we've all been feeling, particularly at the end of the year, and in this issue our Legislation focus looks at the reasons as well as potential actions.

Upskilling and the rise of the academy form the focus of this issue's Skills feature, with British Gypsum's David Hall amongst those contributing.

We welcome several new faces into their roles within our Movers and Shakers section, and also took time out to speak to Pete Carter, a plasterer-turned-electrician about what inspired him to make a new award-nominated invention, which is gradually gaining ground within our industry.

So all that remains now is to say 'Happy New Year' - we look forward to enjoying another successful year of working alongside you!



"Some great insights and advice came out of the autumn conference, including economic forecasts in the light of Brexit, actions following the fallout of Grenfell, off-site thinking and digitalisation."

Stephanie Cornwall
Editor



EDITORIAL CONTRIBUTORS



Joe Cilia, FIS

Joe is the technical director at FIS. He provides support to members of the association, and works with relevant bodies on legislative and technical standards.



Philippa Jones

Philippa is a solicitor with Womble Bond Dickinson. She advises on construction and engineering dispute resolution and has experience of a range of disputes including contract disputes under the major standard form contracts as well as disputes relating to payment, delay and defects.



David Cant, Veritas Consulting

David Cant is a Chartered Safety and Health Practitioner extraordinaire. He has a wealth of industry experience and is the MD of Veritas Consulting.

↓ IN THIS ISSUE

6

Voice of the Industry

8

News round-up

14

Legislation

Philippa Jones looks at why it has become harder to obtain credit and some of the options available.



16

Technical

Why the drylining quality checking process should encompass all stages of the project.



18

Professional Profile

We interview a plasterer turned electrician who invented an innovative new product designed to make life easier for both trades.

20

FIS Conference

Full coverage of the issues discussed and speakers' insights at Rethinking Construction, our 2019 conference.



23

Events

Full details of forthcoming diary dates.

24

Movers and Shakers

People appointments and accomplishments.

26

FIS Digital Roundtable

A look at how technology is impacting our supply chain.

28

Skills

Why more needs to be done to support qualified skills people and ensure they're embarking on a solid career path within our industry.



30

Health and Safety

How a simple, well-recognised strategy can help assess and manage health and safety needs in the workplace.



DO YOU HAVE 2020 VISION?

IAIN MCILWEE Chief executive
Finishes and Interiors Sector



The number 2020 tends to conjure up thoughts of perfect (twenty twenty) vision, so it is almost ironic that, the immediate future feels less clear than usual. As we enter a new decade, Brexit still dominates the headlines, the priorities of our new government are not wholly clear, we have some fundamental trust issues to address in construction and there is a lack of clarity around many pivotal investments.

Despite the backdrop of uncertainty there is work out there and at FIS our mission is clear, it is to get members specified, work with members to set standards, get our best practice advice embedded in specifications (to improve quality and make our members lives easier), help where we can manage day-to-day issues and to provide a collective hub to solve common problems and highlight opportunities.

People matters remain our top priority. Firstly we must ensure that individuals in our workforce in the finishes and interiors sector are competent to do the job. Our Working Groups are all now at various stages of developing competency frameworks to test and developing training tools to support improvement. Wherever we can, we are looking at what we can do to standardise supervision and share best practice in this field. At the same time, we need that (diverse) pipeline of new blood and we have the Fit-out Futures programme shaping how

we recruit and induct more effectively and looking at how we work more closely with training providers to address fundamental failings in provision.

Process is number two on our list. There has been a lot of review following Grenfell, we have some new legislation in place and more changes in regulation and enforcement to come, but we mustn't wait for this, we need to start to change now, to find ways to work together as a supply chain more effectively. Through our Working Groups we are targeting improvements in productivity through reducing re-work. This is not just about what we can do better, but carrying the concerns of our members up the supply chain, looking at the key drivers of safety, quality, occupational health and sustainability to ensure we all collaborate more effectively and start to deliver the marginal gains required.

We can't talk about process without referencing culture. How much of what we do remains undermined by wrangling over variation, stressing over credit and tying ourselves up in knots with contracts that do not share or accurately reflect the risk individuals carry? 2020 brings a new government and with it we need a fresh approach. Without doubt some behaviours will change over time, but to elicit rapid and effective improvement we simply have to stop awarding contracts to companies who treat their supply chain with contempt!

Engagement with and promotion of members is another top priority for FIS.

In the final quarter of 2019 we launched our new website, you will see further improvements to this during 2020 in terms of how it presents information and crucially how it projects our members. We will also be working closely with our new partner organisation Barbour ABI to extend our digital reach. Our new webinar programme too is aimed at helping break stuff down and make it more accessible and we will continue to run Regional Contractor Forums (which have been very well received and provided excellent input into our programme).

Our final priority is to be primed and ready for change, to ensure that we are clear about how Brexit and any new legislation will impact you, ensure that you are briefed on changes to employment legislation coming through in April, new interpretations of Product Safety Regulations and how they will impact contractors and suppliers, changes to training and apprenticeship funding and of course the introduction of Reverse Charge VAT coming through in October - we'll be dusting off the toolkit again this month!

So whilst I don't have 2020 vision, I can say with certainty, FIS and our colleagues at SpecFinish will continue to keep all channels of communication open, continue to build on our FIS Product Process People approach to quality, continue to provide deeper support to measure and manage competency and carry on keeping you up to speed on innovation in and around our sector.

A2 Versapanel
IS NOW THE ONLY
A2 CEMENT
PARTICLE BOARD
WITH 3rd PARTY
AGRÉMENT



A2, s1-d0 reaction to
fire classification in
accordance with
EN 13501-1

PERFORMANCE
CE marked according
to EN 13986

STRENGTH
Exceptional mechanical
performance

QUALITY
Trusted UK supply
for over 20 years

Contact our technical/sales team on

01925 860999

www.euroform.co.uk

info@euroform.co.uk



T 01925 860999
E info@euroform.co.uk
W www.euroform.co.uk

Euroform is part of the
PTG PERFORMANCE
TECHNOLOGY
GROUP
www.PerformanceTechnologyGroup.com

Noise solution provided for airport college problem



A bespoke secondary glazing solution from an FIS member has overcome an acoustic issue for a college at the end of Stansted Airport runway.

Stansted Airport College which is part of Harlow College, is a relative new-build, having taken its first intake of students last year.

A partnership was developed with Manchester Airport Group over five years to secure the acre of land to build the college and it was funded via two separate £3.5million grants from the South East Local Enterprise Partnership (SELEP) and Essex County Council, along with a £300,000 grant by Uttlesford District Council and a £50,000 funding contribution from the Savoy Trust.

Designed by Pascall+Watson and built by Willmott Dixon, the college is the first on-site education facility of its kind at any major UK airport. Courses on offer for the students include; aviation operations and cabin crew, engineering and aircraft maintenance, hospitality and events management, pre-apprenticeships, apprenticeships and work transition courses.

London Stansted Airport is the third busiest airport in London, carrying 25 million passengers a year, with one runway serving all take off and landings, so noise was a huge factor for college users. Typically, a Boeing 737 (one nautical mile high) before

landing, can produce sounds levels in the region of 90-100dB. The WHO (World Health Organisation) recommends acceptable classroom noise levels to be 35-40dB, so a significant reduction needed to be made. Even though high performance primary double glazing had been installed, it did not meet the acoustic requirements.

Selectaglaze was approached to help and went on to install 32 units across the site with Series 10 - 2 and three-pane horizontal sliders and a Series 41 casement door. All

were installed with a cavity of 200mm and tightly sealed.

Principal of Stansted Airport College Karen Spencer said: "It is hard to believe that we are at the end of the runway, as it is so quiet inside the building. Often, the only giveaway that an aircraft is taking off is the amazing panoramic view out of the windows."

The glazing also provides thermal insulation.

www.selectaglaze.co.uk

New load-bearing system developed

Etex Building Performance is supporting the construction industry's push for more efficient, performance-led ways of building with the launch of Thrubuild, a new load-bearing system from its EOS brand.

Thrubuild combines a load-bearing, light-gauge steel frame from EOS and external Weather Defence sheathing board and internal Frameboard from Siniat, while drawing on Promat's expertise in passive fire protection. The single solution is manufactured offsite at Etex's production facility in County Durham. The finished panels can then be delivered to site ready for installation and made watertight once windows are fitted.

Thrubuild was developed with the support of the business' Innovation and Technology Centre in Avignon, France. The system has been rigorously tested in wall and floor applications.



New risk management tool

FIS has launched a new risk management tool to encourage a culture of scrutinising risk in a structured way at the outset of a project.

It has been created to help members embrace the thinking behind the Product Process People (PPP) Quality framework. The FIS Risk Register (a spreadsheet) gives people a structured framework so they can interrogate their projects before they start, whereby they measure risk and understand the severity of the outcomes. They record the risk, allocate responsibility and people.

It enables a structured assessment on the severity and probability of each risk occurring, so that any unacceptable high risk issues can be scrutinised in more detail and management strategies put in place. The tool contains a range of useful links to additional tools and information that will support companies using it.

FIS CEO Iain McIlwee said: "Grenfell and the subsequent work we have been involved in has

changed the way we think about risk and failure in construction. Whilst risk is unescapable in any construction project, it is vital that as an industry we get better at measuring, managing and mitigating. This simple tool is built on the premise that if you can't measure it or didn't think about it, you can't manage it. It aims to help people to score risks."

He said it was seen as an evolving tool that will be developed in conjunction with other tools currently being developed through FIS working groups to help businesses of all sizes focus on where and how failure can happen and avoid it.

"Everything we learn from our ongoing engagement and problem solving with and our member community and the wider work we do, will be played back into this tool and it will be updated regularly. As a community, we need to learn from each other's mistakes," he said.

www.thefis.org/knowledge-hub/product-process-people

Acoustics prompts second restaurant ceiling choice

Edinburgh entrepreneur Peter Humphrey put sound absorption at the top of the menu when planning the interior design and fit-out for his family's latest restaurant venture.

"We think noise levels need to be pitched to give ambience with comfortable bustle but not so noisy that you can't have easy conversation," said Peter, who opened the first Loudons restaurant in the city's financial district eight years ago and has just opened a second on the ground floor of the Adagio aparthotel in New Waverley, in Edinburgh Old Town.

"We knew that whenever you have a space

with hard surfaces you need something to absorb sound, so when we did the first Loudons we had to look at the best way of handling the acoustics within the constraints but with the appearance we wanted."

The Armstrong ceilings now in place at the new restaurant are made up of 100m² of Perla Tegular mineral tiles, set within Axiom Classic canopies, to visually separate the public dining area from the open kitchen area. The ceilings were installed by Edinburgh-based specialist subcontractor AG McDougall and Partner.

www.armstrongceilings.com



Encouraging break-outs at economics school

A bright, shared space designed to lure students and staff alike out of their rooms has been designed at the London School of Economics.

QIC Trims worked extensively with architect firm Rogers Stirk Harbour and Partners and specialist interior fit-out contractor BDL to integrate perimeter details to house lighting and a specialist stretch ceiling over numerous floors and open space areas which fits with the modern décor.

Until now, there had been no square, quad or court areas at the London School of Economics, which is unusual within institutions of higher education. It occupies a dense area of narrow streets squeezed between Aldwych, Lincoln's Inn Fields and Kingsway, and architects Ivan Harbour, Tracy Meller and Andrew Morris of Rogers Stirk Harbour and Partners have designed two linked steel-framed blocks, one of which is six storeys and the other 12, that are regular and mostly right-angled. The new block, entitled Centre Building, contains lecture theatres, academic offices, meeting rooms and break-out places for students.

www.qic-trims.com

Fit-out specialist doubles capacity

Leicester interior fit-out specialist EE Smith Contracts has invested £1m in a new spray and polishing shop at its headquarters on the Clarendon Industrial Estate.

The new complex has doubled the firm's capacity in painting and lacquering and will enable it to take on more apprentices and trainees.

The firm works on high-end hotel, commercial and residential projects mostly in London, manufacturing, supplying and fitting bespoke joinery and carrying out full interior fit-outs.

Managing director Neil Bottrill said: "We have taken on an adjacent unit which had become vacant and invested in 10 new spray booths which allows us to really up our capacity and increase efficiencies. Not only can we increase the throughput of the unit but it also means that we can train more youngsters in what is a highly specialised skill!"

The majority of EE Smith's projects are in London, and the new client experience centre will allow customers to view some of the company's work at its headquarters.

www.eesmith.co.uk



ISG awarded contract for £11 million Cheshire fire training facility

ISG has secured the contract to deliver a new, world-class training facility for Cheshire Fire and Rescue Service (CFRS) – its latest win via the influential North West Construction Hub (NWCH) procurement framework.

Constructed on the service's current Sadler Road site in Winsford the project, which is only the second of its size in the country, sees ISG extend and refurbish a range of existing buildings to create immersive training zones, helping CFRS deliver some of the most advanced and realistic training scenarios to its firefighters.

The new zones will simulate real-life situations, with a petrochemical training rig, motorway simulation scenario, railway track and confined space training area, where firefighters will be able to practice and refine their response to a range of serious incidents.

ISG will build a series of different structures across the site including traditional terraced houses, an industrial zone, training classrooms as well as a central hub for the service's occupational health staff.

The site will also include a simulated section of motorway (complete with

gantries and signs) and a replica farm building, with the team prioritising efficiency by building all of the different structures simultaneously to ensure the world class facility can be fully operational in the shortest possible timeframe.

Neil Walker, ISG framework director, said: "We're immensely proud to be embarking on our fourth project for the Cheshire Fire and Rescue Service, with this strong partnership helping transform the service's built environment assets and create strong community hubs of learning and technical excellence."

ISG has extensive experience working across the blue light sector, and most recently delivered the Lymm Response Hub and Safety Central for CFRS, which was officially opened by Princess Anne in 2018. The centre provides a community learning experience for all age ranges, teaching safety and life skills through sensory tours. ISG has also worked with Cleveland Fire Authority to deliver a four-year, £22 million programme of works, including the creation of four new fire stations.

www.isgplc.com

Disability in the workplace – free guide on creating an inclusive environment

Citation, which specialises in HR, employment law and health and safety, has put together a free guide for fellow FIS members on how to create an inclusive recruitment process.

It covers topics such as how to

welcome disabled people into a business, complete risk assessments and make reasonable adjustments so disabled colleagues don't face barriers to doing their job.

www.citation.co.uk

Construction and fire industries set out sweeping proposals

A wide-ranging set of measures to improve the competence of those who design, construct, inspect, maintain and operate higher risk residential buildings (HRRBs) and make them safer for the public has been set out by a cross-industries group backed by Government, the Industry Safety Steering Group and Dame Judith Hackitt.

The measures were proposed by the Competence Steering Group (CSG), set up by the Industry Response Group (IRG) to tackle competency failings identified in the Hackitt Review, Building a Safer Future, following the Grenfell Tower fire.

The CSG has brought together more than 150 institutions and associations (including FIS) across the full spectrum of construction, built environment, fire safety and building owner/manager sectors, all working towards the common purpose of raising competences to improve life safety. In its interim report Raising the Bar, the CSG urges designers, engineers, building standards officers, site supervisors, fire safety enforcement officers and fire risk officials working on HRRBs to adopt the measures.

It is also calling on government to play its part by requiring that any company or individual working on a central Government construction project, including those to retrofit existing HRRBs, must meet the competence frameworks set out in the report. Local authorities and the wider public and private sectors are urged to follow suit.

Dame Judith Hackitt's review identified a lack of consistency and rigour in the processes and standards for assuring the skills, knowledge and behaviours of those working on HRRBs and concluded this was a major flaw in the current regulatory system. The competence frameworks developed by the CSG and its working groups tackle these shortcomings by setting out the appropriate knowledge, qualifications and skill sets required for individuals working on HRRBs, how they should be assessed and by whom.

In addition, Raising the Bar calls for:

- A new oversight body – the Building Safety Competence Committee – which will monitor assessment processes, »

draw up a central register of dutyholders eligible to work on HRRBs and continually drive improvements across the sector. This recommendation dovetails with proposals set out by the Ministry of Housing, Communities and Local Government in its recent consultation.

- Government to mandate individuals working on HRRBs to be registered/certified by a recognised professional/or certified body.
- All organisations, including professional bodies, carrying out the assessments and reassessments of an individual's competence should themselves be subject to a rigorous system of oversight by a body such as UKAS or the Engineering Council.
- The building safety regulator to hold and

maintain a register of those qualified to perform the key roles with the advice of the Building Safety Competence Committee. And, additionally, to provide sign-posting to registers which should be held by the professional and trade bodies of those qualified and competent to work on HRRBs.

- The period of reassessment to be no less than every five years.
- Common principles of continuing professional development (CPD) to be established for each sector, which the Building Safety Competence Committee should use to hold sectors to account.
- Fire safety CPD materials to explain basic fire science to be available to anyone working on HRRBs or managing occupied HRRBs.

'Accepted need to change'

In launching the interim report, Chief Executive of the Construction Industry Council and chairman of the CSG, Graham Watts, said: "It is clear that industry organisations have accepted the need to change. The working groups propose to raise the bar through a more rigorous approach, including training, assessment, reassessment and third-party accreditation. Combined with a new oversight layer, we think adopting our measures will result in a paradigm change to improve competence and industry culture."

FIS has been heavily involved, particularly in working Groups 2 and 12, installation and products. Chief Executive Iain McIlwee said key principles in the document would be used to drive up quality and safety in the sector.

Ultra-green ceilings help npower

Ceiling tiles by Armstrong Ceiling Solutions are providing a green in-house solution for utility company npower.

Armstrong's new Dune eVo mineral ceiling tiles replaced the manufacturer's traditional Dune tiles at npower's office in Solihull which has around 600 employees. Being 100% recyclable, the range has been designed to provide improved acoustic performance through a new surface that is also brighter and smoother.

More than 2,000m² of the old Dune tiles were returned to the company's production facility in Gateshead for recycling while the new Dune eVo tiles were installed over eight floors (550m² per floor).

www.armstrongceilingsolutions.co.uk



FIS

FINISHES & INTERIORS SECTOR

Building a better fit-out and finishes sector... together.

Our mission is to set members up for success by bringing people together through shared activities, knowledge, events, products and services. We create conditions for all our members to improve performance and win work.

7 REASONS TO JOIN!



WINNING WORK

FIS promotes its members through an extensive outreach programme.



EXPERT ADVICE

FIS extends your team and helps you with day to day problems.

"During a live project, we called on FIS for technical expertise regarding an issue with CE marking. Their response was swift, informed and, above all, resolved the issue. We recommend FIS membership to anyone in the interiors sector."

Tony Johnston, Sound Interiors Ltd



MARK OF QUALITY

FIS allows you to demonstrate your quality credentials to your clients.



FIGHTING YOUR CORNER

FIS is the voice of the finishes and interiors sector representing you.



CHAMPIONING FIT-OUT

FIS brings the finishes and interiors community together.

"For any company that actively works within the fit-out sector, I strongly recommend membership of FIS. We have gained from the FIS groups we have associated with, and became nationally recognised as a Gold Winner in the annual Contractors Awards competition."

Julian Sargent, Style Partitions

**PRODUCT
PROCESS
PEOPLE**

MANAGING YOUR RISKS

FIS will help you to identify your risks and how to overcome them.



DELIVERING SKILLS

FIS is providing the training and skills the sector needs.

"Being part of FIS gives us the back-up we need, and gives our clients confidence in the products we offer."

Tony Regan, Building Additions

**FIND OUT
MORE**

thefis.org
membership@thefis.org
0121 707 0077



CCF helps new hospital meet patient wellbeing targets

Patient wellbeing has been the key consideration for a purpose-built ceiling solution at the new Royal Papworth Hospital on the Cambridge Biomedical campus.

Insulation and interior building products distributor, CCF, supplied Rockfon products which are designed with healthcare buildings in mind for the site.

HOK, the global design, architecture, engineering and planning firm responsible for the design of the hospital, chose the products because the firm felt they offered technical suitability, low maintenance requirements, and were aesthetically-pleasing.

Senior Project Architect at HOK, Stephen Herbert, said: "We were looking to partner with a manufacturer that could provide a full range of ceiling systems appropriate to the specific requirements and functionality of each space. During the specification process, we were also very mindful of the need to comply with the Government's Health Technical Memoranda for the NHS (HTM) and how the ceilings would perform within the healthcare setting."

Two sizes of Rockfon Blanka D edge tiles were installed throughout ceilings within the main entrance hall and arterial



walkways. The tile has the highest A1 fire safety classification, a matt white surface which offers increased light reflection and diffusion, while also concealing tile grid work in an attractive way.

Purpose-built for healthcare environments, Rockfon MediCare Standard ceiling tiles were also specified as it was felt they offered good sound absorption, a high fire safety rating, and resistance to bacteria and infection.

The Royal Papworth Hospital opened its doors in May 2019 and now provides state-of-the-art care for 22,400 inpatient and day cases and 48,400 outpatients.

www.ccf ltd.co.uk
www.rockfon.co.uk



Mental health training continues apace at Mansell

An additional eight members of the Mansell Finishes team have recently completed mental health training and qualified as Mental Health First Aiders.

The company's commitment to mental wellbeing has been driven from the top down, with directors Angela Mansell, Steph Mansell and Colin Bolton successfully finishing the training, and more than 20% of people directly employed by the business having now completed the two-day course.

The training covered the Mental Health First Aid Action Plan, including how to undertake an initial assessment of a person if it was thought there may be a mental health issue developing. Other areas covered included depression and suicide, anxiety disorders and psychosis.

Anyone from within the business can now reach out to the company's Mental Health First Aiders at any time and have the necessary support should they need it.

Business Support Director at Mansell Finishes Steph Mansell, said: "Suicide is the biggest killer in the construction sector which really is alarming. One of our key values as a business is to 'Go Home Safe', so we wanted to take some positive action in helping our people to look after their wellbeing, in particular with reference to raising mental health awareness.

"So in addition to the training we have already undertaken, we have plans in place to ensure that every member of our team improves their knowledge and understanding of mental health, whether that be the two-day Mental Health First Aider training or the one day course."

The company has implemented a support affiliation with Red Umbrella, an expert mental health support organisation.

www.mansellfinishes.co.uk

Ireland tour follows product launches

MDF and OSB manufacturer Medite Smartply toured its home market of Ireland, visiting specialist timber distributors and builders' merchants across Ireland, following a number of product launches in 2019,

with the aim of better connecting with local customer bases and building contractors.

Head of innovation and Ireland sales David Murray said: "The aim is to better understand the challenges faced by the

industry and to demonstrate how our extensive product range solves many of these daily challenges on site and in workshops".

www.mdfosb.com



THE UK CREDIT CRUNCH

Philippa Jones takes a look at why it has become harder for those in the fit-out industry to obtain credit, and looks into some of the options presented.

The 2007/08 credit crunch originally started in America and quickly affected global markets, including the UK economy. The crash was the product of defaults in the once buoyant sub-prime mortgage market.

The fund shortages which followed resulted in UK businesses being forced to make sharp economic choices because interest rates rose as a way to compensate lenders for taking on additional risks. A well-known casualty of the credit crunch was the UK bank Northern Rock.

Parties in the construction industry were forced to make strict commercial decisions owing to a restricted supply of credit. Today the effects of the credit crunch are slowly easing. However traditional credit has become more difficult to obtain from leading lenders such as banks who have become overly wary of lending funds to individuals and corporations.

Fortunately, alternative providers have recognised the needs of the market and sought innovative fiscal ways of providing credit whilst maintaining low interest rates.

How the fit-out industry is viewed So how do credit providers view the fit-out industry?

Recently banks have become less willing to loan to the fit-out industry. This has opened up a market

for alternative lenders to provide competitive lease finance for entire fit-out projects ranging in value from £1,000 to £10,000,000 on repayment terms between one to seven years.

Such lending agreements are termed 'asset finance'.

Credit options available to members' clients

Generally businesses who want to carry out fit-out works to their commercial premises will choose one of three options:

1. Paying cash out of capital reserves.
2. Borrowing a bank loan.
3. Leasing the fit-out project which is 'asset finance'.

What is asset finance?

The asset finance industry is worth an estimated £32billion a year in the UK and is growing at a rate of roughly 5% per annum. While nearly all companies will lease something in one way or another (vehicles, mobile phones, even coffee machines), an ever-growing number of businesses are funding their fit-out projects with asset finance which has led to an increase in suppliers offering finance options.

In simple terms, the funding arrangement involves an asset finance provider (lessor)



Philippa Jones

Philippa is a solicitor with law firm Womble Bond Dickinson. Philippa assists with, and advises on, construction and engineering dispute resolution and has experience of a range of disputes including contract disputes under the major standard form contracts as well as disputes relating to payment, delay and defects.

**FIND OUT MORE**

For support with late payment, call FIS on 0121 707 0077 or find more tips online at www.specfinish.co.uk/category/features/commercial-legal

purchasing the asset on the business's behalf, therefore shouldering the upfront costs of the fit-out, and in turn the company (lessee) agreeing to lease or rent from the finance provider for regular usage payments.

Asset finance is suitable for all business structures including limited companies, sole traders, limited partnerships and public limited companies.

The term length is determined by how long the lessor is willing to allow for repayments to take place. This is usually calculated on the acceptable level of risk and profit/interest allowed by a particular provider.

What drives choices?

Borrowers' choices can be driven by factors such as:

1. Significant tax benefits: Leasing products such as office furniture during a refurbishment project can make the repayments deductible against taxable profits in the year the expense is incurred.
2. Fixed payments for accurate budgeting and forecasting: Unlike other methods of finance such as floating rate loans and overdrafts, when leasing, payments are fixed for the duration of the lease period. This allows the parties to budget efficiently with certainty.
3. Getting the right solution today. By spreading the cost of a fit-out project over several years rather than through a lump sum, parties can obtain a solution that fully meets their needs now in a flexible manner, rather than being restricted by their capital budget.
4. Preserving future borrowing power: Leasing means parties preserve their existing bank credit lines, without compromising future working capital, allowing them to draw on credit in the future.
5. Turnkey funding: Fit-out and furniture costs can form part of the lease from planning to design, partitioning, ceilings, furniture, flooring and more.

How the process of getting credit has changed

Ultimately, changes in the market place have shown traditional lenders such as high street banks and financial institutions are less willing than they once were to lend to the fit-out industry. As a result of being unable to secure funds using conventional methods, many businesses have decided to draw down on cash reserves to finance projects.

Asset finance has established as an alternative method available to parties wishing to complete a fit-out project. Various non-traditional providers offer leasing options to the construction industry depending on needs.

Legalities to consider

Parties evaluating their finance options should consider:

- Any tax benefits to be gained from their financial arrangements

- The effect of the economy fluctuating on interest rates
- Risks associated with ownership and
- The repossession rights in the event of default.

This article is intended to give a general overview of possible credit options available to clients of FIS members and does not constitute financial advice in itself. As with any financial product, members should obtain independent legal advice before choosing credit options.

Advantages and disadvantages of using cash to fund fit-outs:**ADVANTAGES**

- All assets bought belong to the company from the outset.
- Once paid, there are no ongoing repayments to budget for.
- Depreciation deductions can be considered on assets.
- Annual investment allowance (AIA) can be claimed to the value of £200,000 per financial year.

DISADVANTAGES

- The cash flow can be left vulnerable by tying up capital in assets that tend to depreciate quickly.
- AIA does not allow parties to offset payments against taxable profits.
- Limited budgets can restrict the scope or quality of the fit-out.

Advantages and disadvantages of a bank loans to fund fit-outs:**ADVANTAGES**

- Parties can plan repayments over the term (usually between one and 10 years).
- Repayments can be tied in with the lifetime of the assets purchased with the loan.
- There is no requirement to give the lender a percentage of the profits.

DISADVANTAGES

- This option is not very flexible. For example, parties may be charged for repaying early and may have high interest rates associated with overdraft and commercial loan products.
- Risks are posed if the loan is secured against personal property or assets repayments are subject to fluctuations in interest rates.

Considerations when leasing to fund fit-outs:

1. Monthly regular payments can be planned as part of expenditure, along with rent meaning the costs can be spread in line with the investment return which improves cash flow.
2. Borrowers can decide the term and frequency of payments according to business needs, typically a lease would be spread over three to five years, thus it is not a short-term arrangement.
3. Agreements can cover all costs, including design and build, furniture, fittings and equipment.
4. Fixed payments are easier to budget for and allow accurate budgeting and forecasting.
5. 'No-deposit' options can protect cash flow as there is no need for an initial deposit, enabling borrowers to redeploy valuable working capital elsewhere for greater investment return.
6. This option preserves parties' borrowing power with traditional bank loans/ overdraft facilities.
7. There are tax advantages. Often repayments can be offset against profits.
8. Cashflow issues throughout the term may result in parties defaulting on repayments.



THE EARLY BIRD GETS IT RIGHT



Joe Cilia, FIS Technical Director, explains why the drylining quality checking process should encompass all stages of the project and not just be on completion.

Any quality process relies on an understanding of what is expected at each stage and how this will impact on the next stage of product development up to and including the final delivery. This is a principle that applies equally to an aircraft, a car and in this instance drylining.

Sometimes known as 'quality circles', this process ensures that products are not handed on to, or accepted for, the next stage until they are checked. This is to ensure that unsatisfactory work isn't compounded by simply moving on. For example, there would be no point in installing the head and base track if the setting out was in the wrong place.

It makes sense because ultimately a contractor wants to complete the work first time, to schedule and without snags, to ensure prompt payment and enable the team to move on to the next project without delays and return visits.

Quality issues can include wrong and damaged materials, out of tolerance, cracking and sometimes the issue of not meeting a client's expectations for finish which we explored in the last edition of SpecFinish (www.specfinish.co.uk/the-lowdown-on-enhancements).

FIS working groups are made up of members with particular knowledge in their given field. The drylining working group looked to develop a checklist that could be adapted by members

to address each project in turn. As such it can be viewed as a comprehensive checklist where contractors choose the touch points and select a range of questions to check the quality at points agreed with the main contractor and the delivery team.

This collaborative rather than combative approach ensures that issues are addressed during rather than at the end of the project, which may involve complete or partial dismantling of the installation.

Key to the success of this staged approach to quality is photographic evidence, especially at the early first fix stage but not excluding completed works which may be prone to damage from follow-on trades.

The checklist is divided into the following design stages to provide natural checks points:

- Design
- Procurement
- Delivery
- Installation (work area, setting out, first fix, second fix, boarding, finishing, protection)
- Hand over

The design section is designed to identify risks associated with compliance and responsibility. There have been examples where contractors have inadvertently taken on responsibility that should have been elsewhere in the delivery team, resulting in costs and losses which were avoidable.

"As a risk register, it is a comprehensive detailed list of things to consider prior to installation. It's a great tool!"

Will Hart, Taylor Hart

Procurement is an opportunity to ensure that compliance and warranties, if required, are addressed, again dealing with issues before they arise, often when the project is at a handover stage.

Most checklists deal with the installation, but this list also covers questions to check that the latest set of dimensioned drawings is received and a door schedule that shows the weight as well as the clear openings to avoid an obvious issue when the door frames and doors arrive. Checking at this point about a sample area also enables a quality benchmark that can be approved before work is started.

Having a question agreed to check that the work area is clear and watertight before starting is a good way to concentrate the main contractor's mind at the appropriate time.

Issues connected with the setting out can be costly to address on completion so attention at this stage will pay dividends later. For example checking if any drylining sits under beams painted with intumescent paint that will need boxing is a current issue that may be missed and should be considered before the first fix commences. This is the opportunity to deliver specific tool box talks and check that a fitters pack has been issued clearly showing abutment head and interface details which may include junction details to address cavity protection in apartment design.

Ensuring that the insulation is correctly installed is amongst the checks included in the second fix section as well as checks to ensure the first layer of boards are correctly installed and have been photographed, because it is expensive to start removing boards in the case of a dispute.

The quality of the finishing offers the greatest potential for snags so check that the conditions are right and that sufficient lighting is available to replicate the lighting in use, especially if there is a potential for glancing light.

Finally get the work protected and if required photographed and handed over formally before leaving site.

The 94 suggested questions are broken into 12 easy to digest sections that contractors can use to integrate and create bespoke quality check lists for drylining.

The check list can be downloaded here www.thefis.org/knowledge-hub/working-groups/drylining-working-group



FIND OUT MORE

If you would like to join us at our next meeting on 19 March please follow this link www.thefis.org/events to register.

- Work area
- Setting issues
- Insulation installation
- Finishing conditions
- Protection



Addressing issues from the site gate to the work face

By **Gavin Palmer,**

Chairman of the FIS Drylining Working Group

The FIS Drylining Working Group is made up from members of FIS and industry experts from suppliers, distributors and contractors. The working group addresses issues impacting the sector, produce guidance notes and contribute to industry standards.

Meetings are based around the FIS Product Process People initiative designed to reduce risk.

Currently we are addressing compartmentation and service penetrations, looking at the proposed changes to drylining workmanship tolerances in BS 8000:8 and commenting on the NHBC chapter 9 standards for home builders.

Working with the Health in Construction Leadership Group, we will start the process to report on material handling of plasterboard from the site gate to the work face aimed at reducing musculoskeletal disorders (MSD). And in light of the CIC recent 'Raising the Bar' report on competency we will be discussing what competency means and how training can be developed specifically for the home builders' sector to provide a carded workforce in housebuilding.

This year we will also be looking at how light gauge steel framing (SFS) is providing new opportunities for the drylining sector.



JACK OF TWO TRADES MASTERS SITE CHALLENGES

We interview a plasterer turned electrician who invented an innovative new product designed to make life easier for both trades.

No-one can be a jack of all trades! How often have we heard that term? While getting an expert to do an expert job is always good mantra, there are times when experience of more than one trade can provide an overall insight that will help bring a project to a successful conclusion more easily and timely.

Pete Carter, who followed in his family footsteps, changed career twice, and has now used the knowledge and experience gained from all his work life experiences to take on yet another role – as an inventor – is living proof of that theory.

"I have worked in all areas of the building trade," said Pete, who is based in Southend-on-Sea. "My dad was a plastering subcontractor from the 1960s to 1980s, who employed 40-50 plasterers. My earliest memory is of being with him on a building site. I can recall being around building sites from the age of about four. At weekends and during school holidays I was always there with him."

Following in his dad's footsteps brought its own challenges and rewards. "My dad would not let

me put plaster on a wall until I could lift a bag of cement over my head. I managed to do this when I was about 12, so I started plastering then and by the time I left school, I was already plastering extensions," said Pete.

Having joined the family business after leaving school, Pete lasted until he was 21 before he decided it wasn't for him long-term.

"I have basically got a short attention span. Once I'd learned something and felt I'd mastered it, I wanted to move on," he said. "By that time I'd decided I no longer wanted to be a plasterer because I wasn't as fast as it as my dad nor as good at it as my brother and I didn't like being 'average!'"

"I had a change of direction and started building extensions when I was 21. I did the whole thing from digging the footings to the brickwork. Business grew and grew and at one point I had seven people working for me."

Then, in the late 1990s, as changes in P3 building regulations for electricians came into effect, he re-trained and qualified as an electrician which, he states, "is the only thing I'm actually qualified at". He worked in various UK locations and it was during this



1



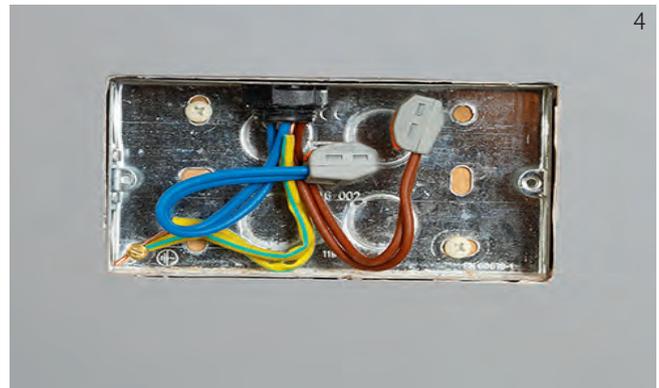
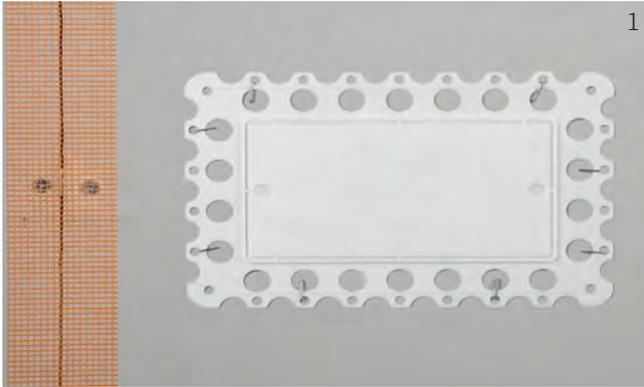
2



3



4



third stage of his career, while working on a large building in Leigh-on-Sea, that the inspiration for what was to become an award-nominated invention began to form in his mind.

Working on an 80m-plus ground floor area with more than 40 spotlights on one ceiling, which had to be perfectly aligned a metre apart, he considered some of the frustrations faced by both electricians and plasterers during second and third fix.

"The structure of this ceiling made it very difficult to perfectly space the spotlights a metre apart, and there were fire regulations to consider," he said. "I came to the conclusion that I'd just have to drill them all out and put the wires in, but this left 40 holes in the ceiling that then needed to be plastered over. I thought to myself 'there has to be an easier way'."

A family man with three children and three step-children, Pete also decided at the age of 53, that he was tired of working six days a week and believed there had to be a way to minimise some of the stress resulting from his work.

The challenges created by spotlights with metal springs, holes that can be damaged during different fixes, wires that can be difficult to locate following plastering, the impossibility of being able to pass a trowel over a spotlight hole and further potential damage if spotlights ever have to be removed following flooding, prompted Pete to develop his solution to all these problems 18 months ago.

While the practical solution for electricians is obviously for the holes to be drilled out prior to plastering, many plasterers understandably

refuse to work with drilled-out surfaces because it can affect the standards of, and ease of completing, their own work. The plasterer's preference is for the ceiling to be plastered and the hole cut out after. But, as Pete is keen to point out, this can create all manner of difficulties for the electrician if they have mis-measured even slightly and can result in damage to the new plaster finish.

"At this stage plasterers hate electricians and the electricians hate the plasterers – it's a known fact!" Pete said.

Pete invented Beadmaster, which enables a perfect finish to be achieved around sockets, switches, downlights and sprinklers and can reduce time on site by two to five days, by cutting down on re-work and snagging. It consists of a plastic cover plate that is stapled to the plasterboard, enabling plasterers to skim over socket, switch, downlight and sprinkler holes quickly and easily. The centre is then removed with a hooked blade which follows the groove of the Beadmaster to reveal smooth, rigid edges.

After initially promoting the products through social media, Pete sold around 10,000 of the products between November 2018 and June 2019. He has since gone into partnership with FIS member Aask us Ltd, which manufactures profiles and trims for ceilings and partitions and began marketing the product last summer. The product is now well regarded and recognised – so much so that it was nominated for the Innovative Product of the Year in both the Building Awards and London Construction Awards.



FIND OUT MORE

Beadmaster products are manufactured in the UK to support British industry and are 100% recyclable. For more details visit www.beadmaster.co.uk

RETHINKING CONSTRUCTION

2019 FIS Conference interrogates the Grenfell failings, how to act against an uncertain economic backdrop and addresses productivity, off-site thinking and digitalisation issues.

Around 130 decision makers from FIS converged on the National Football Centre at St George's Park Hotel in Burton upon Trent recently to hear experts from across the construction sector discuss its changing environment, impacts on the supply chain and how we need to evolve to meet current demands.

Following the FIS AGM and election of new board members, incoming FIS President Helen Tapper kicked off the event by paying tribute to Andrew Smith, immediate past President, and welcoming new Vice President, Richard Jones of Paramount Interiors, as well as new FIS

Board Members Richard Grimes, Grimes Finisings, Lydia Sharples, Nevill Long and Stuart Roberts, CCF.

"As a contractor, everything I do will be underpinned by a desire for contractors of all sizes to obtain the knowledge and skills they need to run their businesses with confidence," she said. This, combined with the community aspect that enables exchange of good practice and expert technical support, means FIS is highly regarded by the whole construction sector, she added.

"As well as the steady flow of new guides and tools to help us with the day-to-day

knowledge, it is encouraging to see the thought leadership of FIS helping to raise our profile, most recently in the form of the PPP quality framework and the competency SAKE framework. Both reference so heavily in the ongoing work post-Grenfell!" she said.

Announcing the re-launch of the FIS Fit-out Futures Programme, Helen said: "This amazing project has enabled us to really scale up our skills team over the past two years. We are now entering the next phase, a focus on how we attract and induct people into our sector and deepen our relationship with training providers to address fundamental failings in the system."

THE FAILINGS OF GRENFELL

The failings of Grenfell were put under the spotlight by Martin Taylor, Director of Regulatory Policy for the Local Authority Building Control in his keynote speech.

Throughout all stages of the inquiry, the need for cultural change and introduction of the right behavior has been prevalent, he said.

Regardless of whether we work on buildings of 10 storeys or those of 18m-plus, the new regulatory controls arising from the inquiry will affect all of us going forward, he stressed.

With clear standards and guidance now laid out, there is no room for complacency, Martin told those at the conference. Every detail of building control will have to be signed off going forward.

A series of 'gateway points' are being incorporated into the building safety regime

for high-rise residential buildings in England, requiring the responsible dutyholder to demonstrate compliance at set points during design and construction. Gateway points will be introduced before planning permission is granted, before construction begins and before occupation. At each of these three points, dutyholders will have to demonstrate they are actively managing risk before they can proceed to the next stage of the development.

In terms of resources, he said there are insufficient building control inspectors and fire control engineers in the industry, while the need for a competency and skills framework to ensure there are people out there to manage the buildings in use had never been more apparent.

Martin Taylor





THE ECONOMIC OUTLOOK

The Construction Products Association's Economics Director Dr Noble Francis spoke about foresights for the UK economy post-Brexit, long-term structural changes and impacts.

Since the UK referendum, we have had consistent UK economic growth overall, Dr Noble told delegates. "The reason we have had this growth is that three-quarters of our economy is driven by consumption. Whilst the average person in the street is employed and there is real wage growth, they feel happy to spend. They are largely not even reading about Brexit," he said.

Businesses, on the other hand, can't just ignore Brexit, he stressed. "We can't ignore the political chaos. Businesses need to do forward planning, as you all know better than I, primarily in the autumn for the year ahead, three years' time, five years or sometimes even 10 years ahead if they are planning major investment."

Over the past year, despite manufacturing capacity constraints, businesses have not been willing to invest, he said. "They are reining in investment plans. Activity over the past year has generally been OK, but what we would normally see when there are capacity constraints is continuous business investment."

He said this is because there is just "no visibility" going forward. "What we used to do as construction forecasters was forecast five years ahead – the current year was based on past year activity, the following two were informed forecasts and the final two years were projections. But trying to forecast five years ahead now is non-sensical.

"One of the key impacts of the uncertainty has been upon the exchange rate. What we have seen since the referendum are depreciations in sterling against the Euro and the UK dollar. There has been heightened uncertainty."

The sterling depreciation makes a big difference for those importing materials, products or components to go within machinery, he said. It also impacts on fuel and energy costs, which has a knock-on effect on haulage costs.

"No-one really knows what's going to happen and if they tell you they do, they are making it up," said Dr Noble. "All you can do is

go on the most likely options"

We therefore need to look at both short-term and long-term options, he advised. Another extension to Brexit would be "painful for everybody" he said. "The persistent uncertainty is hindering things more than anything else."

The most likely option would be signing up to Boris Johnson's deal, which would see us entering into an implementation period until the end of next year, but with nothing to actually implement, this timescale is likely to be extended, leading to even more long-term uncertainty, he said.

"Short-term certainty would arise from signing up to the deal because day-to-day business can go on, just as it has with the extensions, but it does not give that long-term certainty. Without that long-term certainty, you are not going to get the major investments in commercial and residential construction, industrial factories and so on."

A no-deal scenario, along with revoking Article 50, were less likely options, said Dr Noble, therefore the autumn forecast had been based on the most likely one, assuming there would be an extension and a general election, then the deal.

"We get short-term certainty whereby consumers and SMEs don't deal with the EU, largely continue to ignore Brexit and just carry on with day-to-day activity. Whilst unemployment remains low, as it historically has, and whilst there is real wage growth, they will continue to spend and SMEs will continue to operate. But you still get the long-term uncertainty without any apparent end point which means larger firms and international investors will continue to rein in major investment plans."

Dr Noble envisaged increased merger and acquisition activity next year.

"There are a lot of international investors that have a lot of money who may not be willing to invest in a brand new offices tower, but they may be willing to invest in an existing offices tower with long-term

tenants or in buying up some UK companies, because this is where the depreciation in sterling has made them cheaper."

Looking at January to June last year, construction output had been 2% higher than a year ago, but that growth was down to housing, infrastructure and some warehousing, he said. Activity since the summer was envisaged to be slowing. Commercial building overall fell by 6.9% and it was thought this would fall again by 4.7% next year. This is primarily down to a fall in commercial offices towers and "the woes of retail" (ie a shift in online shopping leading to more commercial warehousing).

2019 saw an 11.2% growth in infrastructure and 3.7% is envisaged for 2020, but this had been dictated by a few major projects which are over-budget, behind schedule and would only benefit a small number of very large contractors

Industrial growth was 0.6% and is forecast as 7.8% for 2020. The low growth figure this year is down to a drop in industrial factories but there had been growth in commercial warehousing alongside this.

Speaking about building regulations post-Grenfell, Dr Noble said the increased need to do a quality job, to be transparent about it and to be able to prove it has been a quality job was likely to drive digitalisation for those working in our sector, and while he himself has been cynical about the investment in such technology up front, he feels there is a genuine place for it now.

Government is driving off-site manufacturing, which he said is high-cost capital investment up-front for long-term investment and questioned whether off-site manufacturers are generally making any money.

Climate change will also drive change in the construction sector going forward, he said and finished on an optimistic note, stating that there is likely to be growth in office and retail, and there are still plenty of opportunities out there for FIS members.

'BE PREPARED FOR CHANGE'

The reduction in investment within construction, predominantly in the retail sector, declining skills within carpentry and bricklaying, and fair payment practices were all put under the spotlight by the Department for Business, Energy and Industrial Strategy's Deputy Director for Construction Fergus Harradence in his keynote speech.

His advice for FIS members in 2020 concerned building safety checks,

professional indemnity insurance and reverse VAT.

"It is worth looking at the Hackitt Review and working out what the implications of it will be on your business," he advised and went on to add: "Don't forget to prepare for the implementation of the reverse charge VAT in October. There won't be another stay of execution, so don't leave yourself open to risk."

Fergus Harradence



Martin Adie



Nathan Shearman



Elina Grigoriou



BREAKOUTS WITH THE EXPERTS

Six experts led breakout sessions throughout the course of the day for conference delegates.

Martin Adie of MAC Construction discussed why productivity in construction is not improving because the amount of time spent on snagging and redoing, and looked at how we can start to move into defect free construction.

Wellbeing was put into focus by both Nathan Shearman of Red Umbrella and Elina Grigoriou of Grigoriou Interiors. While Nathan looked at it from the perspective of underlying issues and new

ways to support our workforce, Elina focused on how the design of interior spaces can impact on wellbeing.

David Rintoul of Clarkslegal gave advice on how to get paid on time and manage variations, while David Ing of Fabrick looked at how to drive effective communication in the modern construction sector and Gavin Dunn of CABE zoned in on how to recognise and manage risks.

David Rintoul



David Ing



Gavin Dunn



TO INFINITY AND BEYOND

John Waterman of Willmott Dixon talked of the legacy approach to construction and how the industry must move beyond the finite method of negotiation and thinking to a more infinite sustainable model – he ended the event with a message of hope that the culture in construction is changing and for the better for all.



AN OPEN DEBATE

The event ended with an open discussion on how the sector needs to address some of the challenges raised together. Hot topics included the need to better manage risk going forward, but that extra cost needs to be quantified and shared appropriately, concerns about the legacy of neglect and how the risks that this presents to contractors, the need to stamp out retentions and the importance of widening recruitment to deal with our growing skills crisis.



Dates for your diary

22 January

FIS Contractor Forum
16:00 – 18:00
Transport for Greater Manchester, 2
Piccadilly Place, Manchester M1 3BG

29 January 2020

FIS Scottish Contractor Forum
16:00 – 18:00
Construction Scotland Innovation
Centre, Unit 3B, 3 Watt Place, Hamilton
International Technology Park G72 0AG

4 February

FIS President's Lunch
12:00 – 15:30
Plasterers Hall, One London Wall,
London EC2Y 5JU
Includes presentation of FIS Fit-Out
Futures Awards

4 June

FIS Awards Lunch
12:00 – 16:00
Royal Lancaster Hotel, Lancaster
Terrace, Bayswater, London W2 2TY

3 March

Operable Wall Working Group
14:00 – 16:30
Atrium, London

3 March

Partition Industry Working Group
10:30 – 13:30
Atrium, London

11 March

Ceiling Industry Working Group
10:30 – 13:30
Saint-Gobain Multi Comfort Centre,
London

19 March

Drylining Working Group
10:30 – 13:30
Atrium, London

19 March

Steel Framed Systems Working Group
14:00 – 16:30
Atrium, London

24 March

Heritage Plastering Working Group –
10:30 – 13:30
Saint-Gobain Multi Comfort Centre,
London

3 November

Partition Industry Working Group
London

3 November

Operable Wall Working Group
London

10 November

Ceiling Industry Working Group
10:30 – 13:30
Atrium, London

12 November

Steel Framed Systems Working Group
14:00 – 16:30
Atrium, London

12 November

Drylining Working Group
10:30 – 13:30
Atrium, London

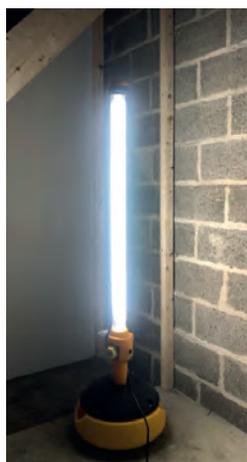
19 November

Heritage Plastering Working Group
10:30 – 13:30
Atrium, London

HALF PRICE OFFER ON DEFENDER PLASTERER'S LIGHT

The Defender LED Uplight or plasterer's light is the latest version of the award winning Uplight.

The Defender plasterer's light stem is capable of being suspended from a ceiling or scaffold, or placed horizontally on a bench or on the ground.



Defender Uplight Features

- Allows longer working hours
- Illuminates dark work areas
- Bright white light
- Less eye strain
- Near shadow free light
- Self righting base
- Low power consumption
- Cool touch
- Shatterproof tube
- Lightweight & easy to carry
- Detachable shoulder strap
- Multi linking capacity
- 110v power output



ONLY
£74.50

Defender Uplight Specifications & Technical Data

Lamp: 20WT8 LED cool daylight
Light Output: 1600 Lumen
Voltage: 110V
Overall Height: 1.5m
IP Rating: IP46
Weight: 6.5kg
Cable length: 5M

HALF PRICE
OFFER

Former Lakeside MD joins Stortford Interiors

Steve Coley, immediate past president of FIS, has now joined Stortford Interiors.

Steve had owned and been managing director of Lakeside Ceilings & Partitions Ltd, for more than 12 years and has a wealth of experience within the interiors sector, having started his career as a ceiling fixer in 1988, joining the board of the AIS (Association for Interior Specialists) in 2012, and serving as FIS president from 2015 to 2017.

Formerly chairman of the FIS Skills board, he was a staunch supporter of the Fit-Out Futures Programme which seeks to address the acute shortage of skilled operatives in the fit-out sector by working with partners such as CITB, Jobcentreplus, local authorities and colleges.

Stortford Interiors recently opened a new Midlands office, located in Redditch. Steve will be the new Regional Manager.

He said: "This is a wonderful opportunity. Stortford's has an exceptional reputation and a strong and diverse business model. This is a very timely expansion and the regional team can't wait to get cracking"



Long service award

Armstrong Ceiling Solutions has rewarded a longstanding employee with a certificate and gifts.

Ian Young has just celebrated 35 years with the company. Andy Goodwin presented him with a certificate, and a crystal whiskey decanter and glasses at the Scottish Contractor Golf Day at St Andrew's recently.

Entrepreneur of the Year finalist

Paul McKenna, who founded mac-group in 2002 with a mission to construct, restore and re-purpose buildings, was a finalist for the EY Entrepreneur of the Year gala awards, which took place in Dublin in November.

Paul has built his company from a niche interior fit-out contractor with one employee to the ninth largest main contractor in Ireland, with more than 200 employees across the UK and Ireland, multiple award wins and more than £185 million turnover. Mac-group offers traditional construction, volumetric modular, design and build and specialises in commercial interiors.

New skills and training lead appointed

George Swann has been appointed as new Skills and Training Lead at FIS and will take up the post in January 2020.

George has been employed in training and training development since 1979, serving 22 years in the Corps of the Royal Engineers, the construction arm of the British Army, before moving on to monitor and tutor apprentices and develop and deliver training and qualifications.

He has worked for CITB since 2002 in varying roles including as a training developer providing information, advice and guidance on standards and qualification revision. He developed the National Occupational Standards for construction industry occupations and has recently facilitated the review of the National Occupational Standards for Demolition, Construction Operations and Civil Engineering Services, as well as drafting CITB Training Standards.

George said: "I have had the opportunity to work with FIS in recent years and admired the whole approach to the development of people and the values that the organisation projects. It is certainly exciting times for the finishes and interiors

sector as we look beyond skills and get to grips with what competence is and how we develop our members' teams across the supply chain. I am looking forward to joining the team, meeting the members and getting stuck in"

FIS CEO Iain McIlwee said: "He will be a real asset to the organisation and our members in helping to really get to grips with the changing landscape of qualifications in the four home nations while strengthening our links with and support for our network of training providers. He will also bring fresh thinking about how we work together to improve assessment, training and competency in the existing and future workforce as well as how we manage the CPD requirements emerging from the Grenfell Response work."



ISG creates new European MD role

ISG has appointed Aydin Karaduman to the newly-created role of Managing Director for Europe.

Aydin, a former CEO of DIC Asset AG and Bilfinger Real Estate, will take direct responsibility for ISG's businesses in Germany, France, Spain, Luxembourg and Switzerland, and will be based in Frankfurt.

He said: "ISG has big ideas and significantly invests in its people to positively affect that structural change



that our industry needs to deliver better for customers. It's this ambition and commitment that permeates throughout the global business that first attracted me to join ISG, and I see major opportunities for our European operations as we move forward into what will undoubtedly be a highly dynamic built environment market over the short to medium term."

Chief Operating Officer for Fit-Out, Matt Blowers, said: "Attracting leaders of Aydin's calibre is a real testament to the overall market perception and future growth prospects of the ISG business across Europe. We are breaking new ground in how we operate across the continent, introducing new procurement approaches, technology and enhanced transparency – with a different way of doing business, based on trust, relationships and collaboration."

New director sought following CITB resignation

CITB's executive team is currently looking to recruit a new director to lead its industry engagement and communications, following Mark Noonan's resignation from the role.

Chief Executive Sarah Beale said: "Mark played a significant part in laying strong foundations for the new CITB but has decided that the time is right for him to hand the baton on to a successor and for someone else to lead the next phase of the journey we have started together, allowing him to continue to develop his career

elsewhere, with new challenges."

She said he had made a huge difference in CITB's customer-facing engagement and how it communicates and manages industry relationships and will leave "a strong legacy".

Mark will officially leave on 29 February 2020, to allow time to recruit a successor and provide a handover, prior to the organisation implementing its new three-year business plan and a consultation regarding the levy that supports it.



Senior appointments made by Mansell

Mansell Finishes has appointed Colin Bolton to the newly-established role of Business Development Director and has taken on Paul Rigby as its new Head of People.

Colin has more than 15 years commercial experience and in-depth knowledge of on-site and off-site project works. Having previously worked at Mansell Finishes for 12 years, in late 2017 he re-joined the company following 18 months working in commercial management.

Angela Mansell said: "Based on his successful track record of winning work and building strong working relationships with our clients and other stakeholders, Colin will excel in this role. He makes a very strong addition to the senior management team, is well respected in our sector and will bring valuable experience to the table as we look to our next phase of development and growth."

In his role of Head of People, Paul Rigby's remit extends across the full HR discipline, including recruitment, training, career progression and rewards. He has held senior HR roles at Pochin's Ltd and Forrest and has more than seven years' experience at CITB.

"Paul's appointment is a significant coup for the business as he brings a wealth of sector experience and people knowledge to the table," said Angela. "While it is unusual for a business of our size to have such a senior person in place for this role, I am passionate about looking after our people in the right way. This also extends to their health and wellbeing and we have already made great strides in these areas."

New client director

East Midlands interior fit-out and refurbishment specialist Butler & Willow has expanded its leadership team with the addition of New Client Director, Becky Garton.

Becky was previously Head of Hotel Sales at Greene King and has also held the role of National Account Manager at Whitbread PLC.

Becky will be based at the company's showroom in Long Eaton.



IN TERMS OF TECHNOLOGY IT IS ALL ABOUT GETTING DIMer

Manufacturers, technology providers and contractors took part in a Digital Roundtable organised by FIS to look at how technology is impacting our supply chain, barriers to implementation and the support the industry needs to successfully digitalise.

How is technology impacting on our supply chain?

The “Golden Thread” of information was isolated as top priority. Alan Brown of Forza Doors believes that this starts with manufacturers and stressed the importance of an asset management system that follows the provenance of a product. He said: “It isn’t just about the design stage, it’s about the journey of that product all the way through. Key is the handover of information.” He used examples of how Forza are developing installation videos to make information as easy to digest as possible. Diane Butterworth (Diane Butterworth Ltd) agreed, stressing BIM (Building Information Modelling) is a key part of digital management, it is now much more than a “question on PQQs”. She highlighted that companies don’t always have to understand the technology, but know where to get the expertise you need.

Sean Sibthorpe of Overbury prefers the term DIM (Digital Information Management) “a focus on a single source of truth goes from estimating to when it was delivered to when it is an O&M”.

New methods of managing people, the movement of people and helping track competence and support training were key priorities for Richard Knight of Grafter and Ian Heptonstall of the Supply Chain Sustainability School. Matt Kingswood of the Digital College highlighted the productivity gains to be had from e-learning and proctoring as means to get people trained more efficiently, with less time off-site.

Willmott Dixon Construction’s Digital Manager, Chris Johnson talked up the impact of point cloud noting they are “starting to deploy cloud scanning at a couple of different project stages and helping to bridge the gap between design and what’s actually happening on site”. This exciting technology has

added “very good transparency into the process and the accuracy of the workmanship” that “allows us to capture issues early.”

Angus McAlpine of Payapps underpinned the value of software in supporting the process, but also helping to “break down barriers”, “creating a more transparent, process” and overcoming some of the contractual and payment issues. “The last thing you want to do is be sitting there searching through multiple historic excel spreadsheets working out whether someone has got a valid variation, you actually need to be able to look back and have a clear audit trail throughout”.

Why do we think construction is among the least digitalised sectors, what is holding back investment?

Mark Norton, Head of BIM at ISG, chairs the FIS Digital Construction Group, he believes keeping abreast of changes within the digital arena is a critical issue for main contractors. “A key thing we’ve noticed as a contractor engaging with our supply chain is the need for agility” he said. “Process can go out of date very quickly. What we were doing six months ago isn’t necessarily that applicable today. Software changes instantaneously and every day we’re seeing new software pop up. Is it good? Should we be looking at it? Do they talk to each other?”

Investing in such a fast paced and uncertain environment is difficult, Kelvin Steel of Stortford Interiors recognised this at the specialist end of the market where contractors are “stuck in the middle”. Drawing upon his experience with BIM he noted little consistency in client and contractor requirements “it’s a question of feeding design requirements on a project by project basis, some want AutoCAD, some Revit and others use Inventor”. Kelvin noted that large investments can be a

“Process can go out of date very quickly. What we were doing six months ago isn’t necessarily that applicable today. Software changes instantaneously and every day we’re seeing new software pop up.”

challenge - contractor businesses tend to invest in solving issues on particular projects and then evolve innovation across the business – who and how business cases for capital investment were created was a challenge.

Chris Johnson, noted that a barrier was often that people are frightened of disruption. He felt fear was misplaced, emphasising that “the importance of good staff to a business’s productivity should never be underestimated, and BIM could never replace real jobs. But it could enhance them.”

Rob Aitchison of Automated Markets drew on his experience of the NHS and the billions that have been wasted on technology. “People don’t want more applications, they want things that work.” He talked of the potential Block Chain, but emphasised that the workings needs to be “hidden” or people get caught up in the technology and lose sight of the problem. He believes the key to success is “making it compatible”, ensuring solutions work for all. He also stressed it is vital that each individual involved in integration is considered and more needs to be done to help them to understand the “advantage to them of digital solutions”.

Barry Chapman, Managing Director and Co-Founder of Chalkstring, agreed and felt strongly that training is often overlooked, both in terms of understanding return on investment and implementation. He stressed “the technology is proven. But to me, it’s not just the technology, it’s the people and their ability and the training and the process, go with it”

Supply chain collaboration and who should ultimately fund the costs surrounding digital management tools was debated, with recognition that supply chain partnerships that extended beyond individual projects were essential to a fair share.



What support does the industry need and what are the drivers?

Improvement in life safety and quality were the key driver for change with Jack Dearlove of ISG adding that this is being driven on all fronts, probably most significantly at present from the insurance industry.

Gal Farhi, Director at Waveline advised us to look beyond the technology. “The technology is not the key, people and processes are. Innovators who understand processes, the companies in the industry that think about real problems, will be the winners. The best solutions that I see, and I see people pitch every day, are from people who are so far down the line with the subject matter experts that they understand the problem really, really deeply. This allows them to come up with a solution that is simple whilst being sophisticated – not because people in construction are simple, but because they are sophisticated enough to know that overly-complex solutions don’t work”

To conclude the debate, FIS CEO Iain McIlwee underlined the opportunity to use the Digital Construction Group to review and share good practice throughout the FIS community.

“Quality is a catalyst and FIS is an enabler,” recognising the need for universal solutions he said. “When you find solutions, don’t let them vanish in your businesses as part of a day-to-day, don’t let them vanish in your projects. Let’s start to pull together those case studies and where you think things are working. We’ve got a community, we can test through that.”

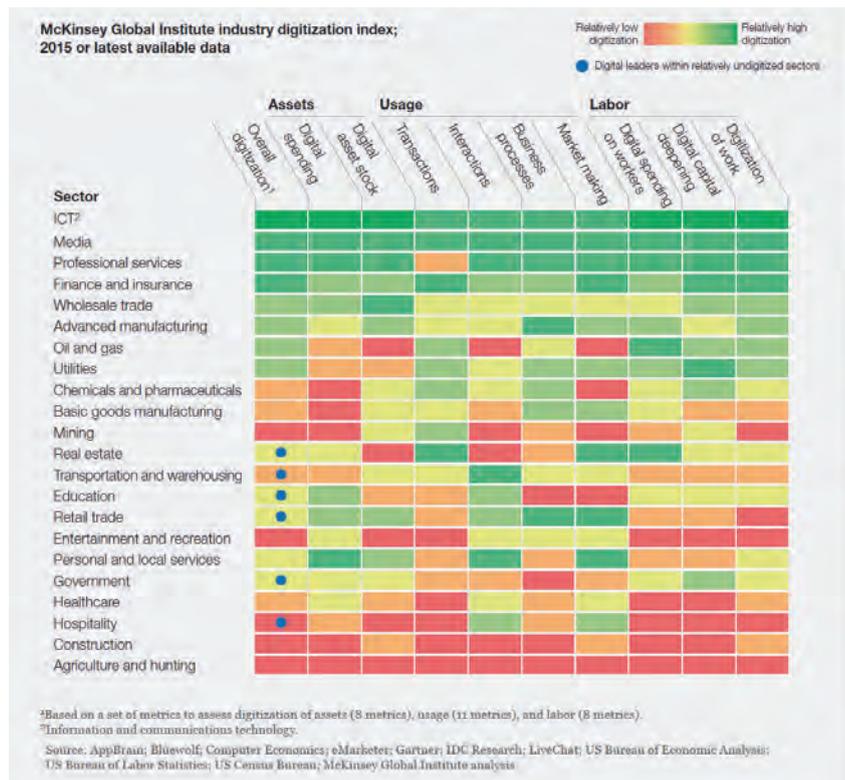
The FIS Digital Construction Group meet regularly to explore the impact of technology on the sector.

A full transcript of the Round Table is available to read on www.SpecFinish.co.uk



FIND OUT MORE

A full transcript of the roundtable is available online. Please visit www.specfinish.co.uk





Why more needs to be done to support qualified skills people and ensure they're embarking on a solid career path within our industry.

The skills gap in the UK construction industry is well documented and it is estimated that there will still be a shortage of more than 168,500 workers across all disciplines in the next five years. Many programmes and initiatives are geared at attracting more young people to our industry but how do we ensure they are employed in the right roles and then retain them?

David Hall, Training Partnerships Director at British Gypsum, believes 'up-skilling' is the solution. David is continually analysing and evaluating the success and merits of existing training courses and identifying new ways in which we can promote the industry as an aspirational career choice to young people.

"Whilst undoubtedly, a large proportion of the work that needs to be done is centred around

engaging with young people at the start of their career decision-making process, it is also evident that more needs to be done to support those who have recently achieved their plastering diploma to continue to 'up-skill' and to find employment," he said.

"A quick look at college graduation numbers shows that we do actually have a wealth of students at colleges who complete their diploma qualification in their respective construction trades but many are being let down by the lack of a structured route into employment once their course has completed. Of the 60 colleges British Gypsum works with in the Thistle Partnership, we have supported 3,500 students to achieve their plastering diploma during the 2018-19 academic year alone, yet only 900 of these students were apprentices, which has left 2,600 plastering diploma students with whom we can provide no evidence that they enter the construction industry at all.

"The industry also needs to look more closely at improving the skills of existing workers and apprentices if we are to effectively address the skills gap. Investing in 'up-skilling' training so that individuals with basic skills can become more competent in a wider variety of tasks will go a long way to help organisations create the qualified and experienced workforce needed."

Earlier this year British Gypsum embarked on a pilot training scheme where 25 individuals, a combination of diploma plastering students from the Thistle Partnership colleges and those already employed in the construction industry but looking to improve their skill set, were given a six-week bursary and a free residential training course at



"A wealth of students at colleges complete their diploma qualification in their respective construction trades but many are being let down by the lack of a structured route into employment."

the company's training academies in Cumbria, Leicestershire and Kent.

Designed to help individuals improve existing trowel skills and give them the ability to skim competently, practical training included straight flat wall application, finishing internal angles, bulkhead to ceiling application, working on large wall areas along with many other topics. Course attendees were also given training on business skills and what they need to do to become self-employed, labour only, subcontractors.

"By the end of the six-weeks it was evident that the pilot scheme was a real success and had helped to boost skills and abilities of all of those enrolled on the course," said David. "The feedback received from individuals and employers has been brilliant. All students highlighted how it has enabled them to improve their skill, speed and efficiency at skimming, giving them greater confidence to enter the industry as skilled tradespeople."

As well as providing skills training, the course aims to provide attendees with help finding employment. "We are thrilled to say that all 25 individuals that attended the pilot are all now plying their trade as plasterers in the construction industry as a result," said David. "For those employers who had sent existing members of staff on the course, they also agreed that their employee's confidence and ability had improved massively on completion of the course and that the 'up-skilling' has resolved many of the previous skills gaps they encountered. As a result, productivity had also increased, along with employee morale and job satisfaction.

Reinventing the system: The rise of the academy

To drive change we are now seeing industry working in partnership with training providers to develop academies.

One company set upon this route is Measom Drylining. Managing Director Andrew Measom believes we should be doing more to show that progressive career opportunities are possible. His company has teamed up with Havering College to open the first Drylining Centre of Excellence at its Rainham Campus, which delivers taster courses in drylining and beginner drylining courses.

Andrew said: "This partnership is the culmination of about 20 years' worth of work to get something off the ground in the drylining industry. The reality is we need to emphasise to people that there is a career path in this industry. It's an equivalent of plastering, people just don't know about it!"

Organisations like Havering are going to be at the forefront of the next stage of development in the drylining industry, he said. "The current system is failing and we need to drive through a change. This is the start of it!"

Horbury Group's apprenticeship scheme, the Horbury Academy, recruits around 20 trade apprentices and 10 technical, professional and management apprentices each year, and is a partnership with The Sheffield College.

Recognised qualifications are NVQ level 2 for tradespeople and level 3 to 6 for technical, professional and management.

Horbury Group says it is committed to developing young men and women into skilled tradespeople, technicians, professionals and managers because it will ensure the sustainability of its long-term business. It aims to bring in 250 qualified staff to the business over the next 10 years.

Last year Cameron Drywall also began working with West Lothian College and the CITB to initiate a Drylining Apprenticeship at the Livingston-based college. The courses last 18 months, with apprentices attending college once a week, completing an SVQ Level 2 in Interior Systems Drylining. The rest of their time is spent on site, working with experienced dryliners to hone their practical skills.

Suppliers like Voestalpine Metsec plc are leading by example, with the business aiming to have a staggering 20% of its workforces made up of apprentices by 2020. Apprentices get involved in all areas of the business including IT, tool making, structural design, sales, maintenance, project engineering, profile manipulation, custom roll forming, quality and more with two-year apprenticeship courses providing Level 3 CITB Digital Technician (NVQ) and Level 3 BTEC in construction and the built environment.



FIND OUT MORE

For advice on taking on an apprentice or upskilling your workforce, download guidance from www.thefis.org, contact the FIS on skills@thefis.org or phone 0121 707 0077.

British Gypsum is running its Site Ready Skim Course nationwide in 2020, partnering with training providers across the country to increase the numbers of skimming plasterers coming into the construction industry. For details visit www.british-gypsum.com/technical-advice/training/about-our-technical-advices/full-range-of-courses/site-ready-skimming-courses.



Project Futures maintains 80% retention rate

Stortford Interiors (UK) Ltd in conjunction with the FIS Skills team, launched a leading SME and social value response to the UK skills crisis in launching Project Futures. Now in its second year of apprenticeship onboarding, apprentices from across London are operating on British Land developments under tier one contractors Sir Robert McAlpine.

Project Futures develops new apprentices in the realms of Carpentry, Drylining, Site Managers and Interiors Systems Installers, producing award-winning apprentices in a progressive inclusive environment. Project Futures apprentices study level 2 and level 3 apprenticeships in a variety of disciplines with the educational 20% provision undertaken at the Construction College North London, Barnet and South Gate College and South Walk Construction Training Centre.

Project Futures boasts a strong mentoring programme led by former apprentices, confines a 2:1 ratio of site manager mentors to apprentices on site and believe strongly in reducing apprenticeship poverty by paying fair wages, providing starter tool kits and maximise CITB grant levy returns for all additional short duration courses provided by the FIS Skills Approved Training Provider Network.

To date Project Futures maintains an 80% apprenticeship starter to year two retention rate and in year two 50% of the apprenticeship intake are female.

Project Futures is led by Stortford Interiors Operations Director Paul Leach and FIS Sector Skills Engagement Manager Amanda Scott. It is supported by the CITB London Region Apprentice Team.

THE BOWTIE METHOD

David Cant discusses how a simple, well-recognised strategy can help assess and manage health and safety needs in the workplace.

If we're looking to drive workplace accidents ever closer to the zero option we may need to take a closer look at the way risk is identified and managed.

That's never going to be a one-off employee awareness-raising exercise because familiarity can frequently lead to a cutting of corners or a basic flouting of the rules. It's just human nature.

Safety in potentially complex scenarios can be simplified for ease of understanding, with diagrams helping to identify areas that need attention, and this is where the Bowtie Method can assist your organisation.

This bowtie is a diagram first used on a company training course in Australia 40 years ago. The fact that it has crossed time and distance to be with us today is an indicator of its effectiveness.

Shaping up for effective risk assessment

The Bowtie Method takes its name from the shape of a diagram created when a scenario is described and analysed in diagram form.

It puts the 'top event' as a result of the hazard at the centre of the bow. At the left are the threats of which could lead to the event; at the right, its consequences.

Creating the diagram does two things. It offers a visual summary of all potential incidents associated with a given hazard and defines what an organisation does to control those scenarios by putting in place barriers to unsafe operation.

But just as no gentleman's wardrobe is complete with just one bowtie, risk management is not complete with just one bowtie diagram. Once the barriers are identified, the bowtie method probes them to identify the ways in which they too might fail. These circumstances are called escalation factors.

By examining the relationship between barriers and their escalation factors, it's possible to see how a safety system might be weakened. Think of the Swiss cheese effect, when the holes line up and effectively remove the safeguards around a particular process.

But let's not mix our imagery. The basic

bowtie diagram needs to be integrated into a holistic safety management system, where it can provide an overview of what activities keep a barrier working, and who is responsible for maintaining that barrier.

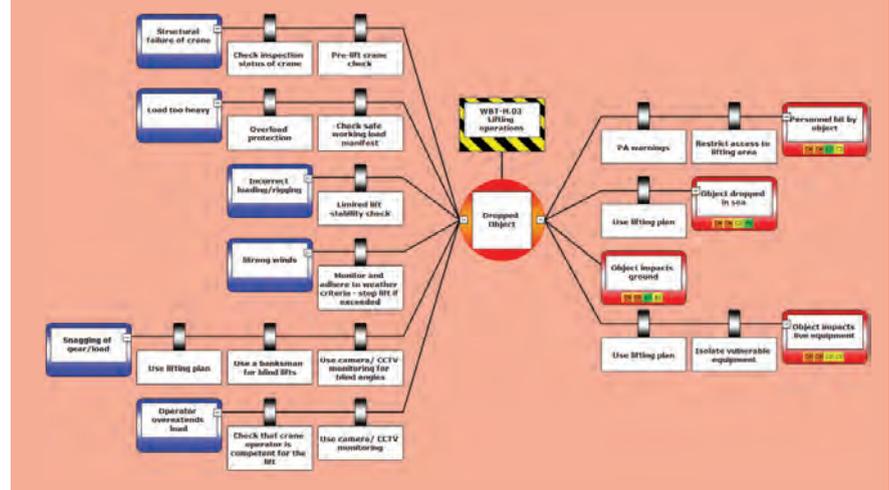
But don't give responsibility for anything to individuals without also passing on its bedfellow, the authority over it.

By offering both, ownership and empowerment are conferred on the individual, and a more effective safeguard will result because employee mindset will have been changed.

Whether you are working on complex work activity or routine risk management tasks, a bowtie will come in very handy.

5 top tips for hazard assessment:

1. Keep in mind that the hazard will define the scope of what you are assessing and will be a description of a potential source of harm. Hazards can be an object, a condition or an activity. If the hazard describes how we get to an accident, it is probably better defined as a threat – for example, in the current UK driving theory test, those sitting the exam are given marks according to what is a developing hazard rather than a potential one.
2. Consider the top event. This will be the point at which you are no longer happy with how a hazard is being managed. Generally, the top event will not be a disaster yet, but will be the loss of control moment that precedes a disaster.
3. Examine the relationship between barriers and their escalation factors to see how a safety system might be weakened.
4. Don't give individuals responsibility for something unless you have also put them in charge of that area.
5. There should be continual review. Don't stop at risk assessment. Learn from incidents, monitor your safety management system by performing barrier-based audits and share risk management information with all employees.



FIND OUT MORE

Referring to the FIS health and safety handbook can help to identify hazards and threats specific to your own area of work and assist in creating your own customised risk assessment strategy. To download the most up-to-date copy, visit www.thefis.org/knowledge-hub/healthandsafety

KEEPING YOU BUILDING

When you're against the clock, and the pressure's on, you don't need any hold-ups. What you do need is a supplier you can trust, and service you can count on. Simple.

To find out more about what we're doing to be completely customer focused, visit:

ccfltd.co.uk/completely-customer-focused

CELEBRATING OVER

4 YEARS

COMPLETELY
CUSTOMER
FOCUSED



MEDITE CLEAR – MDF designed for use in the most environmentally sensitive and wellbeing-conscious specifications



Let's do the right thing!



MEDITE CLEAR is an MDF panel produced using specialist zero added formaldehyde resins, ideal for sensitive areas such as museums and buildings aiming for environmental certifications, where the lowest possible VOC emissions are required.

There is an increasing demand from specifiers for clean and clear product information. **MEDITE CLEAR** is an MDF that is aware of its delicate surroundings. Let's work together to create a cleaner, clearer future – **do the right thing with MEDITE CLEAR.**

To find out how we are setting new standards in timber panel engineering, go to: www.mdfosb.com/medite-clear

MEDITE®
SMARTPLY® 
INNOVATIVE TIMBER PRODUCTS