

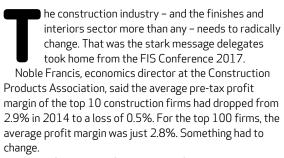






GET IT RIGHT

Delegates at this year's conference – held at Hanbury Manor, Ware in Hertfordshire this month – heard stark messages and urgent calls for action from speakers. **Chris Wheal** reports, photographs by **Russell Griffith**



Martyn Coyd, head of health and safety at Mace, explained that the industry's great strides in health and safety had resulted in the lowest number of construction site deaths last year – though the figure was still 30 – but there had been 454 suicides among construction workers.

"Two of our colleagues have killed themselves today," he said. "If you work in construction, you are 15 times more likely to die from suicide than from an accident."

As if that were not staggering enough, he added: "The building finishes trade is the highest risk sector. Plasterers, painters and decorators are at the highest suicide risk."

The stats are terrifying. Manual labourers are 44% more likely than average to die from suicide; in the skilled trades, men have a 35% higher risk of committing suicide; across the building and finishing trades, the risk of suicide is double the national average for all men, and men account for 81% of all suicides.

Coyd put up a slide showing that the building finishing trades had an even higher risk of suicide than farm workers – traditionally considered the biggest suicide risk occupation.

"I suspect there are lot of self-employed people being squeezed by contracts, people in the gig economy. I'd hate not knowing where I was going to be working next Monday," he said. Change here would save lives. Change here was crucial.



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David Frise (left) welcomes FIS delegates to Hanbury Manor, where the four keynote speakers (above) shared their hard-hitting views



The human costs add to the financial costs. Mistakes, errors and simple bad planning are losing construction firms 21% of turnover, Tom Barton, executive director of the Get It Right Initiative, said. A common plea from panel members and delegates alike was the need to take more time.

Coyd recalled one very unusual case – a client who told a construction team not to worry about finishing on time but to ensure they continued working at high quality to produce an excellent building.

"We've never got the time to make it right – but we've always got the time to put it right," Barton said.

CHANGE OF APPROACH

Changing attitudes to plan better, and to stop and replan when things go wrong, reduces errors and help the industry build more for the same money, Barton said.

And when consultant Geoff Wilkinson told delegates about possible changes to building regulations in the wake



of the Grenfell fire, the need for change was obvious. An electronic poll, conducted during the presentation, asked if delegates felt they needed to change their business model – a staggering 69% said yes.

Main contractor margins remain under stress (see table overleaf), but one part of the construction sector was doing OK, said Francis – housebuilding. Housebuilders' profits

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were effectively paid for by taxpayers through the Help to Buy scheme – or 'help to sell', as Wilkinson dubbed it.

Francis put up a chart showing the percentage of homes built that were supported by Help to Buy government subsidies. Gleeson topped the chart with 66%. The amount Help to Buy contributed per home, Francis said, was 14%. Another chart demonstrated the prevalence of small-

scale self-employment in the construction industry. Micro-firms – from one-man bands to nine people – made up the largest group. It showed that more people work in these tiny operations than in all the bigger firms put together, with small firms, employing 10 to 49 people the second biggest group.

ENERGY CRISIS

FIS chief executive David Frise raised concerns about energy use in buildings, coining the phrase 'broken buildings, broken people'. He flagged up the energy performance gap between what designers expected and what construction firms actually built.

Buildings use between 200% and 400% more energy than expected, he said. Taxpayers need to pay between ± 9 and ± 18 a year each to fund the power stations required to produce the extra energy needed. We are all victims; we are all paying the price.

But as Frise pointed out: "It's impossible to build something that's only poor on energy. If it's poor on energy, it has to be poor on everything."

He despaired at the number of buildings not built to specifications, but which were still seen as exemplars

GEOFF WILKINSON: HISTORY LESSONS

Building regulations expert Geoff Wilkinson gave an explosive presentation about how governments have wilfully undermined safe building standards.

Wilkinson lit the fuse with an attack on politicians for labelling the silencing of Big Ben during recent repairs as the 'biggest tragedy' facing the country. A far bigger tragedy, he said, was the Grenfell Tower fire – "where we watched, live on our TV, people burn to death".

Wilkinson pointed out that 87 sets of human remains had been found in Grenfell – that's 87 human remains not whole humans. "That is the state of the UK construction industry. That is what we have delivered. That is what we are all a part of," he said. "We are all part of the problem."

The Grenfell fire would change everything, he said, just as the Great Fire of London had in 1666, when the first building rules were implemented.

It was a regime that went on to be improved, toughened and updated over the years. But that changed after Margaret Thatcher was elected in 1979 when, according to Wilkinson, one Tory Cabinet minister couldn't get the house extension he wanted because the building regulations insisted on a specified construction type.

In 1984, prescriptive building regulation was effectively scrapped though the Building Act. Instead of setting out what had to be done and how, Wilkinson said, the legislation

was changed to: "You can comply in any way you like." As for retrofitting, he added, the rules boiled down to: "You mustn't make it any worse than it was".

From then, change has been piecemeal, said Wilkinson, with campaigners putting pressure on politicians to toughen up the regulations often in response to tragedies – actor Amanda Redman campaigned to stop children being scalded by bathwater, for instance.

The Blair/Brown Labour government introduced a Future of *Building Control Implementation Plan* in 2009, which set out in three-year tranches which regulations would be reviewed and when, so that industry could plan ahead. But, said Wilkinson, the review of Part B covering fire safety, which commenced in 2013, was never implemented.

In 2010, the coalition government, led by David Cameron and Nick Clegg, promised to scrap regulation. Cameron pledged in 2014 to have 'a bonfire of the building regulations' – in hindsight, an appalling term. His aim was to cut more than 100 regulations down to 10 and to scrap at least 90% of "thousands of pages" of regulations covering environmental standards.

Wilkinson left the audience in no doubt that the political folly of past governments was a major factor in the tragedies that followed. The 2013 inquiry into the Lakanal House fire of 2009 criticised how Part B was worded and how difficult it was to understand. "The coroner said the building regulations in this country were unintelligible," Wilkinson said.





Wilkinson raised concern about the product testing regime that developed in the absence of DCLG rules. We still rely on using wood as the fire base, when in reality buildings use a lot of plastic – and plastic causes fires to reach higher temperatures much faster. And a fully tested system – setting out panel size, fixing spacing and so on – might not be the same as that installed on site.

"You only know a product is safe if you use it exactly the way it was used in the test," Whilkinson said. A product might be tested but then a manufacture might alter the raw materials supplier or the manufacturing process and not re-test.

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because they looked good. "We all know a building that is poor but still wins an award," he said.

Frise said the sector could not wait for change to be introduced at the top and trickle down the supply chain.

"It needs massive change at the top, but contractors also have to prove we've built the thing we said we would. We need to focus on the product, the process and the people. It's no longer going to be acceptable to say: 'It's probably going to be alright'," he insisted.

FIS has already made a good start on tackling these issues, but Frise said it would also help members meet the new building regulations using a process that can be run on a smartphone or tablet-based app.

The app would enable members to track and provide evidence for each task completed from the original worksheets and specification, identifying products used and taking photos of the installation and any testing.

This kind of innovation is crucial. What was clear from the conference was that things cannot stay the same

The sector is not going to stay the same. And with suicide risks adding to the mounting regulatory and financial pressures, it is clear the industry faces a chilling choice: change or die.

offsite manufacturing solve the skills issues?

Yes: 22% No: 78%*

Do you think the next 12 months will mean you need to make changes to your current business model?

Yes: 69% No: 31%

Areas that allow for fire/smoke spread

Do you understand the building regulations?

Yes: 9% No: 91%

> **Unsealed Pipe** Penetrations/Ducts

> > Doors/Windows



Indeed, a spot poll of delegates at the FIS Conference found that just 9% understood the building regulations.

The Shirley Towers fire of 2010 prompted further proposed changes to regulations after falling cables killed fire firefighters. "That is another change to be incorporated into building regulations that has not been enacted, something else that hasn't happened," he said.

The government department responsible for building regulations is the Department for Communities and Local Government (DCLG) - or the "department for cutting long grass", as Wilkinson called it. But in his Budget of 2015, chancellor George Osborne announced that no

changes would be made to building regulations - a move that was "financially driven by the Treasury", said Wilkinson.

Unsealed/Open Joints

Unsealed Cable Penetrations

And then came Brexit, and everything ground to a halt. "That's how we got to Grenfell Tower: nobody taking responsibility, nobody making the necessary changes," Wilkinson said.

Brexit might have one benefit, he said. At the moment, an architect cannot specify a named product with known test results for a specific use as it falls foul of EU rules that allow suppliers in EU countries to compete under free movement rules. Architects must state that alternatives 'similar or equal' may be substituted.

Wilkinson pointed to the recent testing of seven cladding products certified for use on buildings more than 18 metres high. Four had failed but are used on 228 buildings; two that passed are not used on any buildings; the other one is used on only 13 buildings.

The inspection system was at fault too, said Wilkinson. "One third of the building control officers from the 1980s have retired," he said, with the rest not far behind. Even if the standards do get toughened up, there's going to be a huge shortage of skilled building control inspectors.

 For more views on the building regulations, see page 18



Sli.do polls on the day



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NOBLE FRANCIS: ECONOMIC FORECAST



Construction Products Association economics director Noble Francis was downbeat about the construction sector.

Activity in commercial offices peaked this year but new orders since the Brexit vote were 19% down last year and 24% down in the first half of this year. Francis predicted a 15% drop next year and a 5% fall in 2019.

But on a positive note, he said the situation was not as bad as the 35% fall after the financial crisis. And demand from technology, media and telecoms remains high, with demand for shared workspaces growing.

In the retail sector, the traditional supermarkets were struggling as Aldi and Lidl expand, said Francis. These two disruptor retailers are looking for big out-of-town shops that will attract other retailers to join them.

In education, Francis predicted a 3.6% drop in activity this year and a flat year in 2019, though the sector is set to suffer if student numbers fall as a result of Brexit.

Not surprisingly, new projects in the health sector are set for a similar fall of 3.2% in 2018 and then flat in 2019.

Brexit negotiations represented nothing but bad news for construction, with the UK government labelling the sector as a low priority sector in the discussions, Francis said. Yet the sector has serious skills shortages, high use of EU immigrant labour, especially in London, and even without tariffs, Francis wondered, products would be stopped at borders and checked, causing delays.

TOM BARTON: GET IT RIGHT INITIATIVE

In an interactive session, Tom Barton, executive director of the Get It Right Initiative, ran though common causes of error that take time to fix. He produced a list that echoed delegates' views:

- Inadequate planning (from task through to project level)
- Late design changes
- Poorly communicated design information
- Poor culture in relation to quality
- Poorly coordinated and incorrect design information
- Inadequate attention paid in the design to construction
- Excessive commercial (financial and time) pressures
- Poor interface management and design
- Ineffective communication between team members
- Inadequate supervisory skills

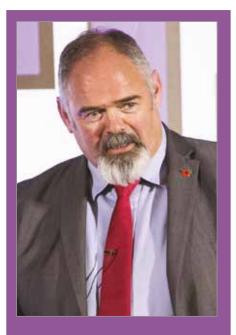
 Taking and allowing more time was crucial,
 alongside having the right skills and not
 being afraid to ask others for help when
 your skill and knowledge levels are not up to
 the task. But changing the industry's culture
 was vital. His five suggestions were:



What are the two most important areas where you would invest time, money and resources?

Skills and understanding 51%*
Culture 47%
Systems and processes 45%
Attitude 31%
Information 18%
Equipment 6%
Operating environment 2%

- Follow procedures
- Review errors
- Seek advice when lacking experience
- Adopt a 'don't walk by' attitude
- Strive to change attitudes and cultures.



MARTIN COYD: MENTAL HEALTH PRESSURES

Following up on his eye-opening revelations at the FIS Conference two years ago, Martin Coyd, head of health and safety at Mace, outlined why the construction industry still needed to do much more to look after its workers' mental health needs.

Speaking just days before 11
November and Remembrance Sunday,
with much of the audience sporting
poppies, he said: "A hundred years ago,
the biggest killer of young men was war.
Now they kill themselves."

Anxiety and stress now account for 27 million lost days at work, costing £100bn. One in four have a mental health issue in a year and with as many as 3.6 million people working in the construction industry and supplier side, that was too many to ignore.

The Building Mental Health campaign would provide 45-minute awareness sessions followed by a three-hour training course in mental health first aid, leading to a badge being worn on safety helmets. This would be CITB funded.

And big companies will recognise the qualification and training without insisting on it being repeated again for a new employer, insisted Coyd.

"There are hundreds of thousands of people in a grim place and those are the people we must help bring back by giving them the opportunity to offload and tell people how they feel," he said.

'Sli.do polls on the day