

Accelerating culture change

Moving from compliance to leadership in building safety

Experience a safer
and more open world



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‘A robust golden thread of key information should be passed across to future building owners to underpin more effective safety management throughout the building life cycle.’

Dame Judith Hackitt, 2018

PART 1

Introduction

Culture.

One word, with far-reaching implications.

Culture is defined by the Cambridge Dictionary as: ‘The way of life of a particular people, especially as shown in their ordinary behaviour, habits, and their attitudes toward each other¹.’

It’s a word that’s taken on particular importance in the built environment industry in recent years, following a series of reports on building safety from Dame Judith Hackitt and the Industry Safety Steering Group (ISSG).

In essence, more needs to be done to accelerate culture change in the built environment industry, so we can move from a position of compliance to leadership in building safety. With an extensive supply chain involved in building projects, and a wide ranging number of groups, associations and authorities trying to tackle this issue, we felt it was our role to help provide advice and recommendations on what we believe are the best opportunities to help address this challenge, which is the reason for this white paper.

This white paper will follow the same framework as the most recent ISSG report, which breaks the issue of culture change to improve building safety down into three key areas:

- Leadership and collaboration
- Compliance and capacity building
- Responsibility and transparency

We’re also pleased to share that this white paper has been reviewed and approved by the following organisations, who agree that industry needs to both lead and take responsibility for accelerating culture change.



“This highly detailed white paper is a welcome insight into the necessity for culture change across the built environment, particularly in a post-Grenfell world. The Guild of Architectural Ironmongers is pleased to play an important role in increasing standards of competence across the sector and we are happy to see one of our members taking this stance.”

Douglas Masterson, Technical Manager for the Guild of Architectural Ironmongers



“This white paper is a valuable and timely call to action regarding the process of change that must take place in our industry. While updates to the regulations – many of which are outlined in this document – are undoubtedly important, culture change within the industry is, as the paper argues, indispensable. We must, for example, ensure staff at all levels in our organisations are fully competent to perform their roles; marketing must be conducted with integrity, resulting in clear and accurate product information. Above all, we must be aware of, and take responsibility for, the potential safety implications of our decisions.”

Michael Skelding, General Manager and Secretary of Door & Hardware Federation

¹ Cambridge Dictionary, ‘Culture’, <https://dictionary.cambridge.org/dictionary/english/culture>

Leadership and collaboration

What does the report say?

‘We continue to push for an increase in visible and effective leadership across the sector. We need to see evidence that we have a maturing industry that is able to reject and challenge poor practices, own and challenge safety standards, recognise and share best practice, and work together to find and drive innovative solutions to address issues around safety and culture.’
Industry Safety Steering Group (ISSG), 2022

At the start of 2022, the ISSG published its third annual report on the progress of culture change in the built environment industry. Over the last three years, the ISSG has met every three months, engaging with those involved in delivering residential high-rise buildings, challenging them to drive the much-needed culture change in industry. This is needed ahead of, as well as to help underpin, legislation.

There have been many incidents in recent years which more than highlight the fact that the culture around issues such as fire safety need serious attention.



The built environment industry must do better.

What is the Industry Safety Steering Group?

The ISSG was assembled to scrutinise the built environment industry’s proposals and progress towards culture change, on behalf of the Department for Levelling Up, Housing and Communities. The role of the group is to constructively challenge, recommend actions, help overcome any obstacles, and put forward proposals to accelerate change.

One of the worst care home fires occurred at Rosepark Care Home in Uddingston, South Lanarkshire, killing 14 elderly residents.

An inquiry concluded: ‘The management of fire safety at Rosepark was systematically and seriously defective.

The deficiencies in the management of fire safety at Rosepark contributed to the deaths. Management did not have a proper appreciation of its role and responsibilities in relation to issues of fire safety.’

And, only recently, 60 people had to be evacuated from a high-rise tower block in east London after a fire broke out. More than 125 firefighters and 20 fire engines were called to help tackle the blaze at the high-rise block of flats and offices in Aldgate East, with residents saying they had raised fire safety concerns with management many times before the fire started.

One resident, who had lived in the 22-storey building for 22 years, was quoted as saying: “There have been complaints about fire alarms, the ‘stay put’ policy and the high risk of fires on the wooden balconies, and guess what was burning today? The wooden balconies.”

Because there are three different companies managing the different parts of the building, the resident had said there was a ‘scrambled’ chain of communication when it came to dealing with complaints.

While the latest report identifies areas where the ISSG has seen valuable progress being made, it also highlights areas of continued concern. The ISSG is critical of organisations that state they cannot yet make changes until they see more detail, and are required by legislation to implement these changes.

So, what changes can we expect to see going forward, as part of the ISSG’s recommendations?

1 **Building Safety Act 2022**

The Building Safety Bill, which was introduced in July 2022, has now received Royal Assent and is an Act of Parliament, and therefore law. Now known as the Building Safety Act 2022, it makes provisions about the safety of people in or around buildings and the standard of buildings, to amend the Architects Act 1997, and to amend provision about complaints made to a housing ombudsman.

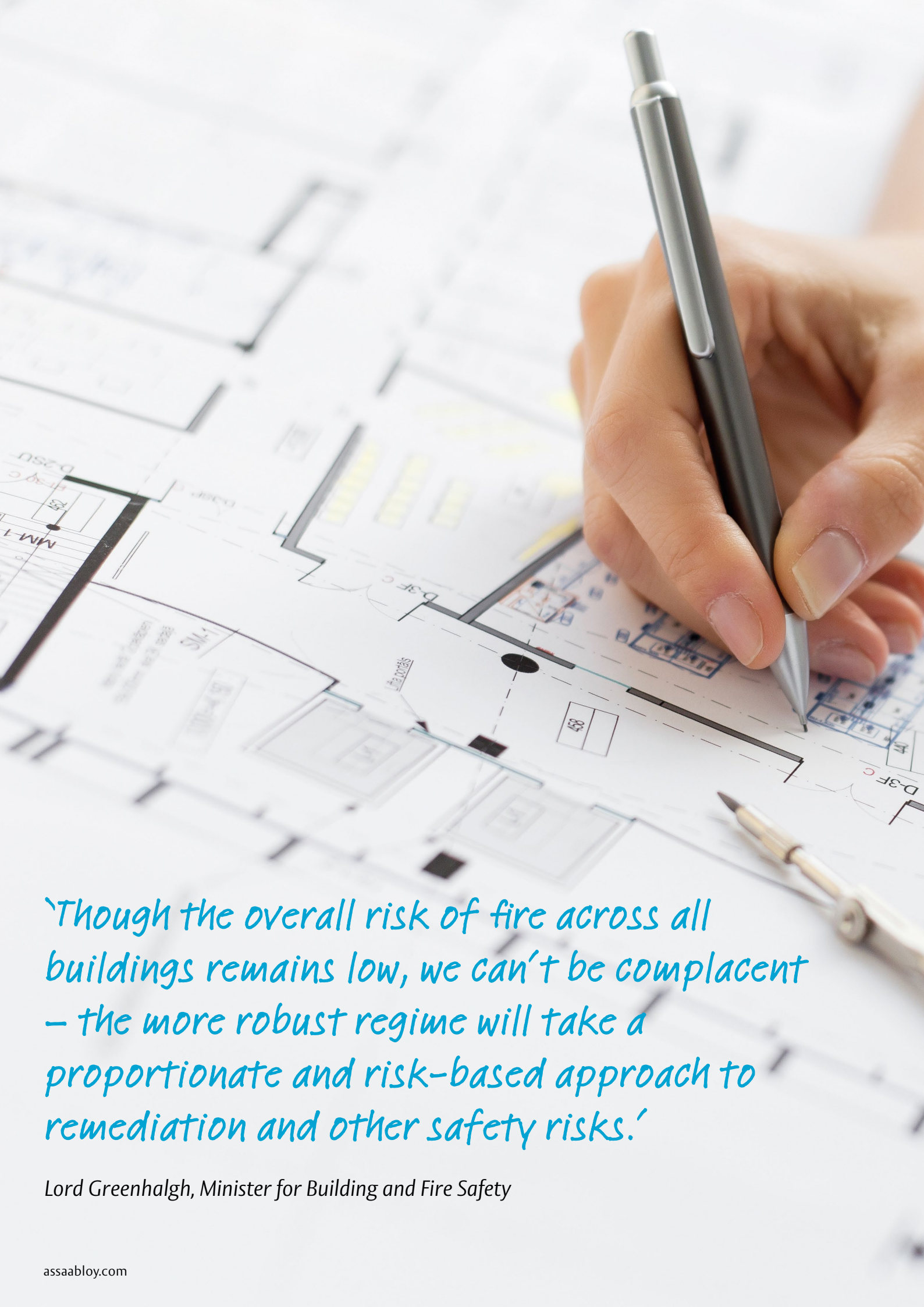
2 **Building Safety Regulator**

As part of the Building Safety Act 2022, a new Building Safety Regulator has been created. They will be responsible for overseeing and driving improvements in safety and performance of all buildings, and for enforcing a more stringent regime for higher-risk buildings. The Building Safety Regulator will be housed within the Health & Safety Executive, which will take centre stage in overseeing skills for inspectors and building control, and higher-risk buildings.

3 **Regulatory framework**

The building safety reforms have introduced a new regulatory framework for high-rise buildings. As part of this, construction products will be assessed with greater scrutiny, underpinned by a market surveillance and enforcement regime led nationally by the Office for Product Safety and Standards.

In essence, the national regulator will be able to remove products from the market that present safety risks, and prosecute or use civil penalties against any business that breaks the rules and compromises public safety.



'Though the overall risk of fire across all buildings remains low, we can't be complacent – the more robust regime will take a proportionate and risk-based approach to remediation and other safety risks.'

Lord Greenhalgh, Minister for Building and Fire Safety

PART 3

Delivering value by changing mindsets

The built environment should not be solely reliant on legislation to drive change; everyone involved throughout the supply chain should view building safety as a critical issue that they have a duty of care to lead on.

To achieve this, one fundamental change that's needed is a move from purely cost-based decision-making.

There is an increasing emphasis on life cycle costing to ensure all costs are taken into account during the decision-making process, not just those for capital investment. While alternative solutions might look better on this year's budget sheet and the bottom line right now, any savings can be quickly lost if the costs throughout the entire lifetime of a product are not taken into account.

While it can be tempting for decision-makers to try and save money where possible, this change in mindset will play a crucial role in driving culture change throughout the built environment industry. By taking a long-term view to decision-making, which prioritises the quality, performance and longevity of a solution, we will all be moving closer to the industry culture that the ISSG is advocating for.



Life cycle costing in action

Let’s use an example to show life cycle costing in action. Doors off a stair core in a busy school or hospital setting might be used between 500 to 1,000 times a day. Over the course of a week, particularly in a healthcare environment that is always being used, this amounts to between 3,500 and 7,000 operations. Over a year? Between 182,000 and 364,000.

For a door hinge tested to the minimum requirements of BS EN 1935 – which is 200,000 operations – the hinges would have to be changed, in the best case scenario, in a little over a year. If the doors were used at the maximum frequency, they would need to be changed practically every six months.

Accelerating the replacement of items such as hinges and other key door hardware products would also mean it’s highly unlikely the door or frame would have any cyclic frequency evidence or warranty. How, then, can this be policed?

Research from the Guild of Architectural Ironmongers (GAI) discovered that, on average, door hardware only accounted for a maximum of 1-2% of a total building project cost. However, once the build was completed and handed over, up to 30% of the building’s total maintenance spend could be attributed to door hardware².

While costs and the desire to meet budgets are important factors, it’s critical that consideration is given to ensuring all hardware is fit for purpose and can perform time after time, according to the design intent and refurbishment cycle.

One way to overcome this challenge is to undertake a lifecycle cost analysis. This assesses:

- The day-to-day demands on a door
- The flow of traffic through the building
- The maintenance and refurbishment plan

Ultimately, the aim of a lifecycle cost analysis is to ensure the products selected provide the best value for money throughout the lifetime of a building, balancing both the cost pressures of the build with the forecasted long-term maintenance spend. This approach to specifying solutions would play a pivotal role in meeting the ISSG’s industry culture change requirements.

Environmental Product Declarations

One feature decision-makers should look out for on products is an Environmental Product Declaration (EPD). This is a transparent, objective report that communicates what a product is made of and how it impacts the environment across its entire lifecycle. By mapping a product’s environmental footprint based on a detailed lifecycle assessment, an EPD enables those in the supply chain to quantifiably demonstrate the environmental performance of a product.

This provides information in both a standardised and consistent way, allowing products to be compared with one another by looking at various lifecycle stages. This further assists those responsible when looking to make an informed decision when choosing between different products.

One of the key issues around products – whether raw materials or finished goods – these days is that they are often sourced from the Far East, with the transport of these to the UK massively impacting EPDs. Using products that have been manufactured in the UK is one way to address this.



DOORS OFF A STAIR CORE IN
A BUSY SCHOOL OR HOSPITAL
MIGHT BE USED BETWEEN:

500-1000
times a day

² Guild of Architectural Ironmongers, 'Industry research sheds light on ironmongery budget estimates', <https://www.gai.org.uk/GAI/News/News-Items/2020/Industry-research-sheds-light-on-ironmongery-budget-estimates.aspx>





Compliance and capacity building

What does the report say?

‘The industry needs to urgently increase the competence and capacity of those working in safety-critical roles. This includes improved support for finding competent individuals and organisations through agreement at an industry level about the competence standards and assurance systems required.’

ISSG, 2022

‘The culture of the industry itself must change to one which takes responsibility for delivering and maintaining buildings which are safe for those who use them.’

Dame Judith Hackitt, 2022

In order to tackle compliance and capacity building, the ISSG has established a number of priorities.

Competence Steering Group report

The Competence Steering Group has made significant progress in developing its recommendations for a new system of oversight for competence. This culminated in the publication of its final report, ‘Setting The Bar’, which provides a blueprint to improve competence for those working on higher-risk buildings, as well as drive culture change.

It covers four key elements: a new competence committee sitting within the Building Safety Regulator; a national suite of competence standards, including new sector-specific frameworks developed by 12 working groups; arrangements for independent assessment and reassessment against the competence standards; and a mechanism to ensure those assessing and certifying people against the standards have appropriate levels of oversight³.

BSI national competence standards

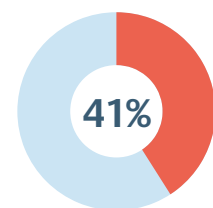
The British Standards Institution (BSI) are in the process of developing a suite of national competence standards. This includes the core criteria to be covered in an industry-led competence framework, and the competence frameworks for the three key roles in the new building safety regime.

However, the ISSG has stated its concerns about the industry’s ability to bring this together and deliver coherent frameworks of competences that meet the needs of the sector, citing the need for a rapid move towards using the standards and competence frameworks.

The ‘golden thread’ policy

Dame Judith Hackitt has recommended the introduction of a ‘golden thread’ to support those involved in designing, constructing and managing their buildings as holistic systems, taking into account building safety at all stages in the lifecycle. In order to develop a golden thread policy, the Building Regulations Advisory Committee formed the BRAC golden thread working group.

‘The golden thread is both the information that allows you to understand a building and the steps needed to keep both the building and people safe, now and in the future,’ says the Group⁴. It is hoped the policy will be an enabler for better and more collaborative working.



employers plan to increase investment in training over the next 12 months

Levelling up competency

In most industries, the need for training and development cannot be underestimated. The Open University's annual business report, which monitors the skills landscape of the UK, re-enforced the fact that skills shortages are a long-term strategic challenge for organisations – almost two-thirds of leaders admit they have struggled to find individuals with the right skills and experience when recruiting.

It's encouraging, then, that the results of a Confederation of British Industry and Birbeck survey found 41% of employers are planning on increasing investment in training over the next 12 months. Set against the ISSG's agenda for greater competence and standards, it's clear that this investment will be needed to help foster culture change throughout the built environment industry.

One of the proposed measures in the new industry competence standard for designers is for the principal designer to establish a Change Control Plan and record design changes within it. Commenting on this, Douglas Masterson, Technical Manager for the GAI – who is a member of the Competence Steering Group and co-chair of Working Group 12, which was established to increase competence in construction products – said: 'The potential introduction of a Change Control Plan and ensuring that even the smallest specification change is documented is something that will be welcomed by not just architectural ironmongers, but the whole building products industry.'

Regardless, training and development around these competencies has to be a priority for everyone throughout the supply chain. By viewing this as a long-term investment, the built environment industry can deliver products that prioritise building safety throughout the specification process. And by placing training and development centre stage, the industry can foster the right culture to drive this change forward.

Essentially, learning and improvement should be a culture that we are all striving for.

Identifying insights with BIM

One tool that will help deliver greater compliance and capacity building is Building Information Modelling (BIM).

First of all, it's important that BIM is seen as a process, rather than a piece of software; the process of assembling all of a building's parts and combining them to enable you to visualise how a building will look. However, it's more than simply a 3D rendering of a building. BIM enables decision-makers to assess which products and solutions are best for a project, while providing valuable information and insights about a building during its lifetime.

The NBS states:

'As part of this process, a coordinated digital description of every aspect of the built asset is developed, using a set of appropriate technology. It is likely that this digital description includes a combination of information-rich 3D models and associated structured data such as product, execution and handover information.'

This information can provide greater insights into what's the best solutions throughout a building's lifespan. And, as previously discussed, a specification process that places total cost of ownership at its heart can help deliver buildings that are built more effectively, last longer, and better meet the needs of its users.

This also ties in with the golden thread policy that has been developed. This requires that those responsible must be able to show that a building was compliant with applicable building regulations during its construction. They must also be able to identify, understand, manage and mitigate building safety risks in order to prevent or reduce the severity of the consequences of fire spread or structural collapse throughout the lifecycle of a building. The insights and information that BIM and digitalisation enables means these tools can help achieve the golden thread policy's objectives.

³ Construction Industry Council, 'Built environment and fire industries set out blueprint for improving competence and driving culture change', <https://cic.org.uk/admin/resources/built-environment-and-fire-industries-set-out-blueprint-for-improving-competence-and-driving-culture-change.pdf>

⁴ UK Government, 'Building Regulations Advisory Committee: golden thread report', <https://www.gov.uk/government/publications/building-regulations-advisory-committee-golden-thread-report/building-regulations-advisory-committee-golden-thread-report#golden-thread-definition>

⁵ Open University, 'Business Barometer 2021', <https://www.open.ac.uk/business/news/open-university-business-barometer>

⁶ Confederation of British Industry, 'Skills for an inclusive economy: CBI/ Birbeck Education and Skills Survey 2021', <https://www.cbi.org.uk/articles/skills-for-an-inclusive-economy-cbibirbeck-education-and-skills-survey-2021/>

⁷ GAI, 'Technical update: GAI helps to shape competency standards from designers and specifiers', <https://www.gai.org.uk/GAI/News/News-Items/2022/Technical-update-GAI-helps-to-shape-competency-standards-from-designers-and-specifiers.aspx>

Responsibility and transparency

What does the report say?

‘Proactively exploring the potential risks in an organisations’ building stock, products, or services and working to reduce these to a safe level. Transparent behaviour is making sure those affected by the risks are aware of the situation and are suitably engaged in the decisions that affect them. But responsibility and transparency are also about the need for a proportionate response that does not overburden the system with cost and bureaucracy.’
ISSG, 2022

The ISSG has identified the following as key areas to focus on in its latest report.

A ‘resident-centric’ approach

Organisations should take a ‘resident-centric’ approach to decision-making and take responsibility for putting right past problems. The ISSG stresses the need for companies to commit to funding remediation and mitigation, where it is needed and proportionate to the risk involved.

Safety reporting

The ISSG wants to see an increase in safety reporting, particularly voluntary reporting. It also requests that more organisations are transparent when it comes to collecting data on their yearly progress, as the ISSG believes this will create a greater understanding of the bigger picture in industry.

Above and beyond minimum requirements

One means of ensuring those in the supply chain take greater responsibility for the products being specified is to refuse to settle for the minimum requirements on product standards.

With decision-makers faced with the pressure to balance budgets, work to tight deadlines, manage workflows, resolve issues... It’s no wonder that, often, doing just enough can seem like the best option. However, satisfying the minimum legal requirement may not always deliver the best results.

Ultimately, while it may solve a short-term problem, the decision could have a longer-lasting impact on the overall performance of a product. Furthermore, there’s a good chance that the product will cost more in the long run to maintain, offsetting any initial cost savings that have been made.

Particularly when it comes to fire safety solutions, it’s important to ask this question: while a product might be technically compliant, when it’s a solution that might be needed to help save people’s lives, is meeting the minimum requirement enough?

Decision-makers and everyone throughout the supply chain should be advocating for products that deliver the best possible solutions.



Setting the standard

To ensure products operate as expected, they must meet certified standards and undergo stringent testing. This provides an official seal of approval that products meet the requirements expected for security, robustness, longevity, and fire safety.

For instance, it’s vital that the right accreditations are in place for those installing fire safety doors and its associated hardware. Key ones to look out for include:

- Warringtonfire’s FIRAS Installer Certification Scheme
- BM TRADA’s Q-Mark Fire Door Installation
- The GAI Diploma from the Guild of Architectural Ironmongers

And then systems must be certified and have undergone independent third-party testing. Fire doors should be tested to EN 1634-1 or BS 476 22, accredited by an organisation such as Certifire, who complete third-party testing and certification.

The same is true of associated hardware. So, for example, a controlled door closer installed on a fire door must be CE/UKCA marked, tested to the standard EN 1154, and fire-tested to the standard EN 1634.

Maintenance matters

One of the most important safety features in a building are fire doors. Acting as an essential barrier against flames and smoke, they have a vital role to play in building safety – but it's up to the industry, whether it's manufacturing these solutions, installing them, or maintaining them, to make sure this is undertaken to the highest standards.

And it's not just the fire door itself, but all the associated hardware too: the door frame and lining, intumescent seals, smoke seals, hinges, latches or locks, and door closers.



2

General wear and tear

This can cause door positions to change, leading to open gaps, holes, warping, and cracked glazing.

3

Obstructed doors

Fire doors that are propped or wedged open are not able to perform their role.

1

Damaged door closer

These prevent fire doors from closing properly, and so will not operate as expected.

4

Gaps

Often caused by incorrect ironmongery, gaps around fire doors mean fire and smoke can easily spread.

5

Damage or splits

Potentially a result of vandalism or poor maintenance work on a fire door.

7

Damaged or missing seals

If a seal is impaired, then it won't be able to contain smoke and fire.

6

Impaired hinges and latches

These can have a knock-on effect – poorly installed hinges, for instance, can cause a fire door to drop, which may mean locks are no longer aligned, which places additional stress on a door closer, and so on.



Of course, all of this assumes that a fire door and its hardware were correctly specified, tested, certified and properly installed before it was used in the first instance!

Once installed, a fire door is subjected to varying demands and pressures. As a matter of course, fire doors should be checked regularly, and particularly in high-rise residential buildings. If neglected, any issues could cause these systems to fail.

As a result, fire doors require a tailored maintenance programme, which considers how often and where within a building they're used, as this may have implications on the expected lifecycle of a system and its need for refurbishment, maintenance, and even replacement.

The lack of a mandatory fire door inspection scheme and maintenance programme is in contrast with the standardised procedures in place for many of the other fire safety systems found in shared properties, such as high-rise residential buildings.

Instead, the built environment industry should be advocating for bi-annual inspections as an absolute minimum, undertaken by third-party certified parties such as BRE or the Fire Door Inspection Scheme. Furthermore, an inspector should provide a detailed FIRA report so subsequent repairs and maintenance can be completed. This should also be mandatory and regulated, but in the absence of this, the built environment industry should be undertaking this as standard.

This is also in line with the ISSG's objective of seeing an increase in safety reporting.

What should a fire door inspection include?

- The identification of any potential issues that could impact building safety and effective product performance
- A detailed report, offering advice and recommendations on the necessary improvements needed
- A repair proposal, which can include replacement doors and a regular maintenance programme
- Inspectors should be suitably qualified and competent to ensure-certified to ensure all fire doors inspected meet all the required standards and regulations

Once again, this is a cultural change that we all need to adopt throughout the built environment industry.

Recommendation

Make sure the below are in place before a fire door inspection is carried out:

- An effective fire strategy and floor plans based on this;
- Door locations and fire ratings (FD60S for example)
- Related walls and their fire rating
- Asset list:
- Fire door register

This will make sure that the correct doors are looked at and they are inspected correctly.

Conclusion

Accelerating culture change in the built environment industry should be an ambition for everyone involved.

We have a responsibility and duty of care to make sure building safety standards are met, every time. While legislation is an important measure to drive change, this will often set safety standards at the minimum acceptable level of what should be undertaken. Instead, we – as an industry – should be advocating that the solutions we deliver for high-rise residential buildings exceed these requirements, taking pride in how these measures will create safer, futureproof developments that better meet the needs of its users.

In response to the ISSG's third report, Dame Judith Hackitt said: 'The time has come for... key players within the sector to stand up and demonstrate leadership. The key message must be that we need to go further and we need to go faster, ahead of legislation. It is time to differentiate between those who are ready and willing to do the right thing and lead the way and those who continue to try and hide.'

We hope you'll join us in moving towards a process that ensures the industry specifies better, championing a culture of best practice that ensures building safety is the absolute number one priority.

To discuss how ASSA ABLOY can assist you with accelerating culture change in the built environment industry, please contact us on doorhardwaregroup@assaabloy.com

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