



Building
Safety in the
Digital Age

Embracing Technology for Enhanced Building Information

## **Table of Contents**

| Summary of Building Safety       | 03 |
|----------------------------------|----|
| Fire Remains a Burning Issue     | 07 |
| Generation Rent                  | 13 |
| Building Towards a Better Future | 19 |
| A Different Way is Possible      | 24 |
| Taking the Next Step             | 34 |



#### **Summary of Building Safety**

The ground-breaking reforms in The Building Safety Act 2022 (BSA) have instigated the biggest changes to building safety in the UK's history.

In the aftermath of the Grenfell Tower fire in 2017, the Hackitt Review identified serious failures in residential building safety, especially in higher-risk buildings over 18 metres tall. The misunderstanding or misinterpretation of legislation, tendencies to do things quickly and cheaply, ambiguity around roles and responsibilities, the inability to access critical building information and inadequate tools to monitor oversight and control risk all reinforced the need to radically rethink building safety.

#### How did we get there?

While Grenfell brought to light the true extent of the problems surrounding building safety in the UK, tenants have been bearing the burden of unsafe living conditions for far longer than the dire consequences of the disaster. However, while this was a tragic incident, what Grenfell did was kick start much-needed attention and action into building safety, especially the critical need for building safety information, that should have happened long before.

So, what are the problems and

why weren't these issues identified before?

A large part of the problem is that UK housing stock is ageing. There hasn't been a drive for new, good quality, affordable municipal housing since the sixties and seventies when there was a surge of mass building of social housing. As such, many buildings don't adhere to modern regulations and have not been built with newer, improved safety standards in mind. Those buildings that have been renovated, have also used materials and practices

that don't necessarily meet today's more stringent building standards or didn't at the time a building was changed. And, with more focus on homeownership from the eighties, the investment needed to maintain these older buildings waned.

At the same time, much of this municipal building stock that was once controlled by councils has been sold off to private landlords. The deregulated landscape meant that some landlords may not have been prepared for the roles and responsibilities that ensure a building is maintained and assessed properly for building safety risks.

#### Where we are today

With the overall increase in living costs over recent years, which may include rent, utilities and other essential expenses, tenants have far greater expectations in terms of living standards. As a result, they are becoming far more conscious of the building condition in which they live. And rightfully so.

As the special rapporteur at the Housing Rights Watch stated, "The human right to adequate housing is the right of every woman, man, youth and child to gain and sustain a safe and secure home and community in which to live in peace and dignity."



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 Special rapporteur at the Housing Rights Watch

Understandably, Fire safety concerns resulting from the Grenfell Tower tragedy that claimed the lives of 72 people, have also heightened, meaning tenants are now more vocal about the overall safety of their building. All this has led to a greater emphasis on transparency and accountability in the management of buildings, not only in the way buildings are maintained, but also in the way information is provided and communicated to tenants.

The Building Safety Act (BSA) legislation was developed in response to Grenfell and aims to prevent similar disasters from happening in the future, while improving overall building safety, particularly for high-rise buildings. Building owners are now legally required to manage building safety



risks, demonstrating transparency of building information to the Building Safety Regulator (BSR), during the design, construction and completion of all buildings. This includes evidencing the way a building has been built and should give practical examples that the owner not only understands the risk associated with each building in a property portfolio but can adequately manage and control them.

For in-use buildings, a 'Principle Accountable Person' will also need to show measures are in place for the repair and maintenance of common parts of a higher-risk building. Residents should also have access to key building information and, if their concerns raised go unheard, they can raise them with the BSR. For those owners who do not meet their obligations, criminal charges may be filed.

To ensure necessary consideration has been given to building safety risks at each stage of the building life cycle, the regulatory framework defines a three-stage gateway system that will ensure a building complies with requirements within the Act before it is signed off for completion. Owners now have a duty to establish a digital record of up-to-date, accurate and accessible information across these gateways through to the operations and maintenance phase of a building.

This 'Golden Thread' of information must contain safety checks and certifications that can be accessed by residents.

While measures are clearly being put in place to improve the safety of tenants, six years on from Grenfell, has enough been done to date to ensure people feel and are safe in their homes?

To understand resident perception around building safety and maintenance, and what has and needs to be done, sister companies Zutec and Createmaster surveyed a national sample of 2,000 UK non-freehold tenants twice over an 18-month period (from 2021-2023) to assess whether their impression of building safety has changed.

The striking results revealed that the majority of UK non-freehold tenants do not feel 100% safe within the building in which they live, with only four in 10 tenants surveyed saying they feel completely safe in their homes

This figure remained consistent, with no change in the 18 months between the two polls, despite mounting pressure on asset owners and property managers from the Hackett Review and associated incoming building regulations, such as the Building Safety Act 2022, to do more for resident safety.



Comparing both sets of data, what does appear to have changed is that access to fire and safety information and asset owner/property management communication has significantly improved

**40%** stated they have access to, or have seen, building fire certificates, with **22%** more respondents in 2023 saying communication from their asset owner or property manager was excellent **(43%)**.

However, when it came to how maintenance, nearly half **(43%)** of UK non-freeholders report an unaddressed maintenance issue and two-thirds do not feel their maintenance issues are promptly resolved

The findings signal some clear improvements in available and accessible building information over the 18-month period, but it's also apparent more needs to be done across the industry. Newly enforced regulation, the stipulation for a digital Golden Thread of information across the asset lifecycle, and the requirement to register buildings with the BSR by October 2023, and supply key building information with the commitment to digitise this data so it is accessible to all relevant stakeholders for better auditing



and decision-making, will go further to remediate these relationships. The emphasis is to ensure all stakeholders, including tenants, have access to the building information, risk is mitigated, and issues are resolved quickly.

This is just the start of the journey for most, and while we have a long way to go as an industry to get to a spot deemed truly acceptable, progress is being made and the way we think about safety is changing for the better. Together, with the right tools, technology, process and practices we can make safety front and centre of everything we do within the construction industry and protect the rights of tenants.

# Fire Remains a **Burning Issue**

"Every time the bells go, I pray it's not a high-rise fire. Because there's a real chance it's wrapped in flammable material"1

- Dave Badillo, a firefighter at North Kensington fire station



In the early hours of 14 June 2017, firefighters could not have imaged the scale of the fire that would meet them at The Grenfell Tower. When it appeared that the building's exterior cladding system had accelerated the fire, a national programme of extensive testing was put in place to review the cladding on other high-rise buildings. As the review progressed, it became apparent that the whole regulatory system in the UK was unfit for purpose, and this left room for shortcuts, and "Like most shortcuts, it was an ill-chosen route." Since then, a major independent review of Building Regulations and Fire Safety has been undertaken, led by Dame Judith Hackett, with a particular focus on higher-risk, high-rise residential buildings.



- 1 Dave Badillo, 15 June 2022, 'I was the first firefighter into
- 2 "The Devil and Tom Walker," Washington Irving

The review exposed serious flaws in the regulation and management of high-rise buildings in the UK and has turned UK building regulation on its head. After the examination of the regulatory system and related enforcement and compliance for multi-occupancy high-rise residential buildings, the government has been working towards creating a sufficiently robust regulatory system for the future that ensures residents feel that the buildings which they live are safe and remain so

The resulting Building Safety Act (BSA) legislation was introduced in Parliament in 2020 and received Royal Assent in 2022. With first provisions coming into force in June 2022, it now aims to improve building safety and prevent similar disasters from happening in the future putting an emphasis on digitising building information.

As such, the Principal Accountable Person, who is either the owner of a building or an individual named on the leasehold as responsible for the maintenance of common parts, is now required to manage and control building safety risks, demonstrating transparency of building information during the design, construction, completion and operation of all buildings.

"Unfortunately, the construction sector is the last in a long line of sectors that have suffered major catastrophic events which have led to multiple fatalities and then brought into a hazard regulation regime. This has resulted in a move from a prescriptive to a goal-based approach to risk management by enforcing a building safety case."

Gus Carroll, Director at the Safety
 Case Partnership and
 Co-founder of
 Empirisys.

77

As well as key building information, a building safety case is required to help manage risk throughout a building's life, not just provide evidence of as-built compliance with safety regulations and standards.

It is a comprehensive document that is a key component of the building safety process and is designed to ensure that the building is safe for all its occupants.

The building safety case typically includes information on the design and construction of the building, as well as details of any fire safety measures and potential risks. It may also include information on the building's ongoing maintenance and repair programmes and any changes made to the building over time.

"The safety case explicitly focuses on fire and structural integrity risks and requires an Accountable Person to take a view of the building as a whole system. Not compliance driven, as compliance is a minimum measure, the Accountable Person must "make the case" on why the building is safe and how it will remain safe over its life cycle. The safety case must answer five simple questions: what can go wrong, what happens if it goes wrong, what control measures are in place, do they work when required, and how do you know? And each of these is underpinned by having access to up-to-date, accurate and relevant information held in the building safety management system."

- Gus Carroll, Director at the Safety Case Partnership and Co-founder of Empirisys.

The key requirement of a Building Safety Case is to ensure that appropriate consideration has been given to fire risk prevention and the structural safety of a building and that adequate information is accessible to the right people at the right time.

Building owners or operators must be able to demonstrate that protective measures have been put in place to reduce the risk of the spread of fire and structural failure and how they will reduce the severity of an incident should one occur. For more on this head to The Health and <u>Safety Executive (HSE), 'Safety case:</u> what you'll need to know and do'.

While this is all a step in the right direction, how safe do tenants in high-rise buildings actually feel and has this improved over time?

Our research explored tenants' perceptions of building safety,

maintenance and the information they receive. With this research we aim to understand what is being done so we can support the industry and our clients in preparing building information and getting ready for compliance.

Our survey identified that residents don't feel 100% safe in their homes. When asked how safe they feel at home, thinking specifically about the risk of fire, just over a third (39%) said they felt very safe. This figure remained consistent, with no change in the 18 months between the two like-for-like polls conducted. A further 2% of respondents felt somewhat unsafe, and the majority (46%) responded they felt somewhat safe.

Whilst encouraging to see that only 2% of respondents felt somewhat unsafe, most respondents only felt somewhat safe, implying that there is still a lack of confidence in the safety of homes.

#### Thinking of the risk of fire, how safe do you feel in your own home?

Very safe 39% ↑

Somewhat safe 46% ↑

Neither safe 12% ↓

Nor unsafe 2% ↓

Very unsafe 0% ↓

Zutec and Createmaster research powered by OnePoll (like-for-like data from 2021-2023) To gain further insight into why residents may feel unsafe, we asked them if they had observed or experienced fire safety issues in their homes. The research uncovered that over a third of residents polled (36%) said they had experienced issues where fire safety was still failing in critical areas, including faulty fire alarms, unreliable fire extinguishers, blocked corridors, or locked fire escapes.

# What fire safety issues have you observed or experienced in your building/home?

| No fire safety issues                                    | •    | 20% ↑ |
|--|------|-------|
| Items stored in corridors                                |      | 14%   |
| No sprinkler systems                                     |      | 15%   |
| Fire extinguishers not working or not inspected properly |      | 13%   |
| Propping open of fire doors                              |      | 13%   |
| Fire alarms not working                                  |      | 12%   |
| The building has failed fire safety checks               |      | 11% ↓ |
| Fire escapes locked                                      |      | 10% + |
| A walking watch/ keeping guard                           |      | 9%↓   |
| l don't know   |      | 5% ↓  |
| N/A - I have not observed or experienced these           | •••• | 39%↑  |
| Other (please specify)                                   |      | 1% ↓  |



## Increasing awareness around fire safety

Other findings highlight increasing tenant and leaseholder awareness around correct fire safety procedures, yet respondents also flagged a lack of consistency in the information provided by their landlord. For instance, four in 10 (43%) residents say they have not seen any fire safety certificates in their building.





















However, these figures are improving, with 22% more respondents in 2023 saying communication from their asset owner or property manager was excellent (43%), compared with 2021 levels.

2021





2023

21%

43%

Furthermore, 44% now indicate they have access to fire safety certificates, representing an 11% increase from 18 months ago, which shows progress is being made.

Additionally, whilst one in 10 respondents were unaware of who

was responsible for fire safety in their building, an impressive 90% knew who to approach with their concerns.

090%

of residents know who is responsible for fire safety in their building/home.

It's clear asset owners have responded to the new and upcoming regulations and there is definite improvement, but crucial knowledge and information gaps still exist. At the same time, in this post-Grenfell age, residents are now more acutely aware of the risks associated with living in high-rise buildings and are rightfully expecting more from responsible parties.

# Response times for fire safety remain sluggish

Taking immediate action once a fire safety issue has been flagged is non-negotiable. Unfortunately, a fifth (21%) said that the party responsible for maintenance responded quickly when safety-related issues were raised. In fact, 27% of residents stated they feel their home is very poorly maintained, up significantly from 9% in 2021, making it three times more likely for residents to have a poorly maintained home than 18 months ago.





### Residents are three-times more likely to have a poorly maintained home than 18 months ago.



When asked about the extent to which they were satisfied that their voice was heard concerning fire safety and maintenance issues, less than a quarter (22%) felt 'very satisfied' with the service received. It indicates a worrying disconnect between resident and responsible party.

These are results which should be taken seriously, if asset owners, residential developers and property managers are to rebuild consumer trust and confidence in their ability to provide proper protection and safer dwellings to residents.

Commenting on the findings, Emily Hopson-Hill, Zutec's Chief Operating Officer said:

"Following Dame Judith Hackitt's considerable work post Grenfell, and the massive legislative focus placed on resident safety above all else, these results mean the industry still has a lot of work to do.

The findings show there have been some clear improvements in available and accessible building information over the 18-month period. The collective effort already being made by developers, asset owners and property managers towards regaining trust with tenants is starting to show in our survey results. However, newly enforced regulation, the stipulation for a digital "Golden Thread" of information across the asset lifecycle, and the requirement to sign-up to the Building Safety Regulator in October 2023 will go further to remediate these relationships as the emphasis is to ensure all stakeholders, including tenants, have access to the building information and issues are resolved quickly. It will also have the added bonus of effective asset operation, while driving up quality, strengthening compliance and reducing risk.

Ultimately, residential safety and security must move on from a box-ticking exercise to become baked into the whole building lifecycle, from planning to building to handover and beyond. Asset owners are already taking steps in the right direction to digitise data so it is accessible to all relevant stakeholders for better auditing and decision-making. With the regulatory landscape changing, now is the time to up the ante to ensure their residents feel 100% safe in their properties.

In the here and now it's non-negotiable."

Emily Hopson-Hill, Zutec's Chief Operating Officer





### **Generation Rent**

Ongoing housing issues have resulted in a crisis that makes affordable properties unobtainable for many in the UK, and the quality of available rented housing can be poor. People are finding it increasingly difficult to afford a safe, secure and comfortable home.

As an example, according to Shelter, over 1 million households are waiting for social homes and, last year, 29,000 social homes were sold or demolished, while only 7,000 were built. This deficit in social housing has forced people into the private rental sector. At the same time, easier home ownership dating back to the 'Right to Buy' scheme in the 1980s has progressively driven up house prices so now it's increasingly difficult for first-time buyers to get on the property ladder and rental prices have soared. The majority of more affordable properties available to potential homeowners today are leasehold, and also likely to be in a high-rise block.

But what are the realities of being a renter or leaseholder, and how many people are living in substandard, and potentially unsafe, circumstances as a result?



# Why does the UK have a housing crisis?

The answer to this question depends on how far you go back to assess political, economic and social causes.

But the reality is, several factors have played a part in this crisis, from planning policies to development to housing prices skyrocketing over the last decade. According to the National Association of Property Buyers (NAPB), the average house cost will soon be more than ten times the average salary. This makes the UK one of the most expensive housing markets in the world.

Understanding the state of UK housing is complex and influenced by a variety of factors, that we delve deeper into below:



#### Low interest rates:

There has been an extended period of low interest rates since the 2007/2008 financial crisis when, in an effort to support the economy, rates were cut from 5.75% in July 2007, falling to just 0.5% by March 2009. This dramatic shift meant the Bank of England's base rate was the lowest it had been over its 300-year history, which meant low interest mortgages that have been tracking this base rate in recent times

As a result, homebuying became increasingly desirable which not only meant more people could move up the housing ladder, but it also encouraged more buy to let. As a consequence, this demand alongside more affordable mortgages have made it a false economy, steadily pushing up house prices to the point where first-time buyers now struggle to save up enough of a deposit to buy. This, alongside growing tuition fees and student loans, as well as wages that could not keep up with housing prices, has made it a landlords' market. On top of this, now interest rates are increasing again, it's added more barriers to purchase, as potential buyers cannot get the loans they require for inflated-value homes. Unfortunately, now the requirement for rental properties has outstripped supply.



#### **Policy:**

The requirement of planning permission, in the Town and Country Planning Act of 1947 meant that the right to develop land was no longer a given of ownership. Despite tougher planning making it harder to push projects through, there was a surge of social housing developments during the 50s, 60s and 70s. However, when the Conservative party's 'right to buy' policy in the 80s gave council tenants the ability to buy their social housing, municipal housing wasn't replaced, and the mass building of affordable housing slowed down.

However, it will be essential to significantly increase the amount of private and social buildings, given the size of the backlog. Council and social housing is only part of the solution. According to Think Tank Centre for Cities, <u>4.3 million homes are missing from the United Kingdom</u> and inefficient and outdated planning laws are at the heart of the problem. The current UK discretionary planning system is one which allows local authorities to make decisions on planning applications based on their own discretion and judgment. It is the process by which planning permission is granted or denied for a particular development project. The local authority may approve the planning application, with or without conditions, or reject it outright. Replacing the discretionary planning system with a new rules-based, flexible zoning system could help clear the backlog of unbuilt homes.

These factors have resulted in limited ageing housing stock that, if not purchased by homeowners, was largely owned by private landlords. Leasehold properties have also soared in the past decade, with many landlords now living overseas. This became a tipping point, where rental and leasehold stock was becoming increasingly neglected by unregulated landlords, which often put commercial gain over safety.





"This research [Think Tank Centre for Cities] shows that UK planning policy has held back the economy for nearly three quarters of a century, stifling growth and exacerbating a housing crisis that has blighted the country for decades.

Big problems require big solutions and if the Government is to clear its backlog of unbuilt homes, it must first deliver planning reform. Failure to do this will only continue to limit England's housebuilding potential and prevent millions from getting on the property ladder."

- Andrew Carter, Chief Executive, Centre for Cities.

77



#### Life before building regulations:

Much of the housing in the UK is old and was built before modern building codes and regulations were in place. This means that it may not have been constructed to the same standards as more modern buildings and may require more maintenance and upkeep to keep it in good condition.

Where some buildings have been retrofitted this still could have been many years ago, and the standards in which this work has been done has not always been reviewed, or regulations enforced. Some argue that there has been an oversight in legal protections for tenants to ensure that their landlords maintain their properties to a reasonable standard. But with the high-profile coverage of issues such as cladding and fire safety in residential blocks, landlords are now being held more accountable for the conditions of their properties, particularly with the BSA 2022 coming into effect.



#### **Lack of investment:**

In some cases, landlords or property owners may not invest enough money in maintaining their properties, either because they cannot afford to do so or because they prioritise profits over upkeep. This can lead to a cycle of disrepair and neglect that can be difficult to break.







#### **Cultural factors:**

It could be argued that there is a cultural tendency in the UK to prioritise home ownership over renting, which may lead to less emphasis being placed on maintaining rental properties. Additionally, there may be a sense of British stoicism that encourages people to put up with subpar living conditions rather than complain or demand better.

The ramifications of the Grenfell disaster and resulting enquiry and legislation is tipping the scales and tenants and leaseholders are having more say.

# The realities of being a renter or leaseholder today

Our research revealed many UK tenants and leaseholders are living with outstanding maintenance issues in their homes

- » Nearly half (43%) of UK non-freeholders report an unaddressed maintenance issue
- » Communication between building management and residents improved by a fifth (22%), but still remains fragmented, inconsistent and lacks detail say 35%
- » Service satisfaction declined by almost 10%
- » Two-thirds do not feel their maintenance issues are promptly resolved

From faulty fixtures to unaddressed snagging issues and ongoing defects, the surprisingly high levels of outstanding maintenance issues raised by almost half UK nonfreeholders (43%) questioned, indicates many are living in uncomfortable, and potentially unsafe, circumstances.

Sadly, the quality of maintenance provided seems to be getting worse. Residents don't feel their issues are being addressed quickly enough and they are three-times more likely to have a poorly maintained home than 18-months ago.



Almost half of respondents (43%) flagged an existing and unaddressed maintenance issue. Of these, mould and fungus problems were the most common, raised by around two in five (39%), with a similar number flagging broken doors and windows (42%), leaks (36%) or damaged floors, walls and ceilings (36%). Largely unchanged on 2021 levels, it highlights that maintenance delays remain a thorny issue of contention between owner and occupant.

#### What needs fixing?

| Doors or/ and windows —         | 42%↑  |
|---------------------------------|-------|
| Mould/fungus ————               | 39% ↑ |
| Floors, wall or ceilings ——     | 36%↑  |
| Leaks ————                      | 31% ↑ |
| Light bulbs ————                | 20%↓  |
| Entry system —                  | 18% ↓ |
| Skirting boards ————            | 17% ↓ |
| Fire alarm system or sprinklers | 13% ↓ |
| Vandalism —                     | 13% ↓ |
| Lift —                          | 10% ↓ |
| Other —                         | 14% ↓ |

Zutec and Createmaster research powered by OnePoll (like-for-like data from 2021-2023) While there is certainly room for improvement, it's important to recognise that there are many responsible property owners and landlords who take good care of their properties, and that efforts are being made to address some of the systemic issues that contribute to housing disrepair.



"Despite landlords spending billions on repairs, it's clear from our research that more needs to be done for tenants to feel safe in their homes. Supply chain and skills shortages are an ongoing issue for asset owners.

However, as the sector faces tougher pressure to meet health and safety measures and new and updated regulatory requirements, such as Building Safety Act 2022, they need to think differently about how they address them. A greater understanding of digital tools is needed to galvanise action. The best solutions and technology to develop, collate and then surface the right building information will provide a valuable resource for maintenance, repairs upgrades, retrofits and communication back to tenants, while also supporting their path to compliance and the golden thread of information."

> Maria Hudson,
>  Group Chief Marketing Officer at BuildData Group





## **Building Towards** a Better Future

The resounding sorrow that consumed conversations in the direct aftermath of the Grenfell tragedy was that it was avoidable. The many stories of raised concerns and complaints, from the people who called Grenfell Tower home, showed residents went unheard for too long.

While the enquiry into the Grenfell tragedy is undergoing phased reports addressing the failings that led up to the tragic night of 14 June 2017, broader conversations also began about how to balance the relationship between landlords and residents. During government consultations for the Social Housing Green Paper (published 14 August 2018), which aimed in part to ensure homes are safe and decent, 72% of respondents agreed changes to what constitutes a decent home should be considered.



It was clear there was more to do so that all social housing residents live in better conditions. The Social Housing white paper, published on 17 November 2020, committed the government to review the Decent Homes Standard as well as the Decent Homes Standard in the private rented sector, which is currently in review (as this paper is published) with a view to being introduced and enforced in England.

"Providing quality and fair social housing is a priority for this government.

The complaints process is opaque, inaccurate and chaotic with too many stages and little clarity on the roles and responsibilities of those involved."

- Rt Hon James Brokenshire MP, Secretary of State for Communities

While landlords are still grappling with the fallout from Grenfell, they are also facing financial challenges due to the current economic situation. As they stresstest their housing models in this period of uncertainty, housing associations, developers, asset owners and of course regulators

are certain of three things: building safety must be fully accounted for, combatting damp and mould is a serious maintenance priority, and communicating effectively with residents is a matter of due diligence and respect.

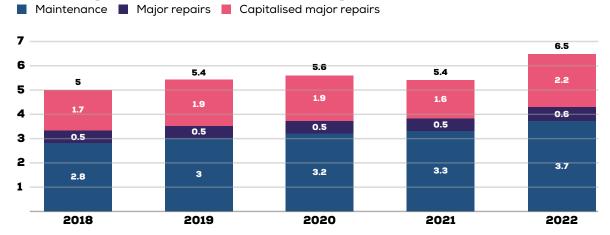
# So, what are the challenges facing those that own residential blocks, and what is being done about them to build a better future?

Cumulative factors including Brexit, COVID, and the Russian invasion of Ukraine triggered a massive shock to the global economy resulting in climbing inflation and interest rates, and shortages in materials and labour, which put pressure on core costs in the residential sector. At the same time, post-Brexit labour shortages have created uncertainty in the operating environment, making it harder to maintain ageing building stock.

Disrepair and the need to fix fire safety issues by retrofitting properties in the aftermath of Grenfell have seen renewed commitment to investment in occupied buildings across both private and social housing.

According to Regulator of Social Housing (RSH) housing associations invested record amounts in repairs and maintenance in the last financial year, with £6.5bn spent on existing stock.

#### Total repairs and maintenance spend (consolidated) (£m)



Source: Regulator of Social Housing

£3.7bn was spent on maintenance, while £0.6bn was allocated to major works and £2.2bn on capitalised major repairs.

For others the efficiency gains associated with investment into intangible assets such as software and services are making an impact keeping buildings up to standards.

"The safety and well-being of our customers is our top priority. To be able to guarantee this for all the homes we own, we need an accurate and complete set of data on handovers and assets. Working with Createmaster has changed the process by adding structure and standardisation removing risk and improving compliance by making sure that everything is done the same way."

Emma Burton, Assistant Director of Building Safety, Peabody



While testing the business and calculating mitigating measures, Ed Farnsworth, Deputy Group Finance Director at L&Q, a housing association operating in Greater London, is focused on post-Grenfell building safety.

Mr Farnsworth told Social Housing:

We've allowed for £50m a year over the next five years on fire remediation works. We are and we will be pursuing third parties that are liable for that. But we know that is challenging and takes time.

At the same time, they recognise the need to ensure homes are decent.

We're also investing in ensuring we meet the Decent Homes
Standard.

After The Hackitt Report concluded incompetency played a significant part in the Grenfell Tower fire, the Direct Works Forum (DWF), which represents the in-house repairs services of social landlords, has been working on a new system that aims to improve repairs and maintenance within organisations.

When the DWF carried out a survey to test 550 experienced and skilled trade staff, they found that 52% were incompetent or not capable of doing their entire job description. They believe that the entire technical side of the construction and maintenance industry is broken.

Regulatory changes are driving a more connected industry and asset owners, residential developers and property managers must prepare for this wave of digitisation, while workers must become accustomed to using digital technology in their everyday lives.

When considering the regulations, standards and qualifications that may impact competency, Keith Simpson, project lead and founder of DWF, told Inside Housing:

And they [regulations, standards and qualifications] change all the time so you've got to keep updating those. The materials change all the time, especially with retrofitting. The technology is changing, so people have got to get trained on that technology and then demonstrate that they are competent using that technology.



It's only with initiatives and systems like this in place, that new standards and training will be embraced to uplevel competency and improve asset management.

In the private sector, action is also being taken. For example, 49 developers have signed the <u>Developer Remediation Contract</u>, taking responsibility for all necessary work to address life-critical fire-safety defects arising from the design and construction of higher-risk buildings. This demonstrates that responsible parties within both the public and private sector are stepping up, becoming more accountable for their decision, mindsets are changing, and the importance of safety is becoming top of the agenda.

Additionally, a new report by Build-to-let (BTL) lender Paragon Bank, who polled 500 landlords, reveals that 62% either strongly or generally supported the Decent Homes Standard for the private rented

sector.

They also conclude the <u>Government's</u> <u>own data</u> demonstrates that the proportion of 'non-decent' privately rented homes has fallen from 44% in 2008 to 23% over the past 15 years.

Although it's encouraging to see the number of non-decent homes falling, is it happening quickly enough? As stated, our findings reinforce the difficulties facing residents and landlords today, revealing that the majority of UK non-freehold tenants do not feel 100% safe within the building in which they live and that almost half (43%) reported an unaddressed maintenance issue.

It's clear we will only achieve a better-built future if we work as an industry to understand and address regulatory and resident requirements. Higher levels of investment in existing stock should work alongside sector-wide accredited standards and training to retain a competent workforce that has technological expertise. New reforms in building safety will no longer leave any room for incompetency or inefficiency.

According to the English
Housing Survey, the proportion
of 'non-decent' privately
rented homes has fallen from
44% in 2008
to 23% over the past 15 years

# A Different Way is Possible

#### Things must change – but how?

The UK housing market has been broken for some time. High costs and lack of affordable housing are contributing to a challenged and pinched housing market, that hasn't seen real safety and maintenance improvement for some time.

Recent research from Resolution Foundation found up to 2.6 million people aged 18-34 are living in properties in a poor state of repair, where heating, electrics or plumbing are not in full working order and damp is present.



Furthermore, the Resolution Foundation's findings reveal that up to one in 10 people across the UK, find themselves in this predicament, with the highest concentrations among young people, low-income families and from minority ethnic backgrounds.



It seems like the situation may get worse before it gets better.

Worse still, the rising costs of living will make it even harder for people to afford a roof over their head. Recent statistics have shown that there are at least 320,000 homeless people in Britain, making it the highest rate of homelessness in Europe.

The Grenfell Disaster reignited the conversation around the right to adequate housing, bringing real stories to mainstream consciousness that have been hard to ignore. We have a moral imperative to ensure everyone lives in security, peace, and dignity.

"Everyone deserves decent, safe, and suitable homes and we are committed to increasing supply and driving up standards."

 A spokesperson for the Department for Levelling Up, Housing and Communities

Despite positive movement made by the Government, industry experts, developers and asset owners alike, for the reform of building safety practices, the reality is that it's getting more and more complex for landlords to keep on top of everything to be prepared for new regulatory changes, and as an industry we need to work together to find the right ways to respond.

Of the 2,000 UK non-freeholders we polled one in two reported an unaddressed maintenance issue and they are 3x more likely to have a poorly maintained home than 18-months ago.







#### What's being done?

When Dame Judith Hackitt released her government-commissioned 'Building a Safer Future' Report in the wake of the Grenfell tragedy, a fundamental aspect was the need for stronger oversight of building information and accountability, especially for higher-risk buildings.

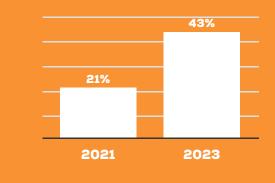
The new regime places legal responsibilities on those who design and build higher-risk buildings, and those responsible for managing structural and fire safety when they are occupied. This means key building information and a building safety case must be available, including inspections and certificates, to evidence that the claims made about a building's safety are true, and so the regulator can make a clear assessment of building safety risks at any time. Simultaneously, residents should be able to understand the safety aspects of the building they live in.

Our findings show there have been some clear improvements in the availability and accessibility of building information over the 18-month period. 22% more respondents in 2023 saying communication from their asset owner or property manager was excellent (43%), compared with 2021 levels.

Furthermore, 44% now indicate they have access to fire safety certificates, representing an 11% increase from 18 months ago, which is definitely a step in the right direction.

Additionally as stated, whilst one in 10 respondents were unaware of who was responsible for fire safety in their building, an impressive 90% knew who to approach with their concerns.

Over the 18-month period, 22% more respondents in 2023 saying communication from their asset owner or property manager was excellent (43%), compared with 2021 levels.



However, while communication is improving, 35% said communication was fragmented, inconsistent and lacked detailed information, while four in ten who responded still highlighted, they had not seen this crucial document in relation to their building.



Against the backdrop of the BSA and new Fire Safety England Regulation 2022, which became binding in January 2023 under Article 24 of the Regulatory Reform (Fire Safety) Order 2005 (Fire Safety Order) to impose requirements on responsible persons in relation to mitigating the risk of residents, these figures are a stark reminder to landlords and asset owners that more work needs to be done.

This includes providing access to legally required information that assuage fire safety concerns while ensuring issues are being addressed and having digital document processes in place that will be able to provide easy access to the information to make better decisions faster, while staying compliant.

# Digital document processes - From nice-to-have, to non-negotiable

In light of building safety reform, the mandate for change and technological adoption within the built environment has never been stronger. It will be an offence to allow residents to occupy an unregistered high-rise building after 30 September 2023 and new buildings completed after 1 October 2023 must be registered before residents can occupy them. At the same time, Principal Accountable Persons (PAPs) must provide highlevel information (Key Building Information) to the Building Safety Regulator.

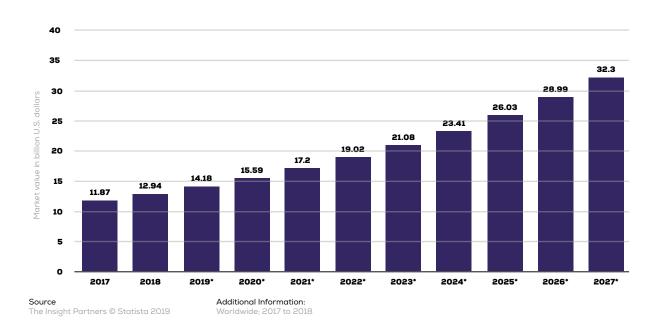
Where the surge of remote working during the pandemic emphasised the importance of digital document processes across industries, including the construction sector, it is the regulatory aftershock of the Grenfell tragedy and the legislative drive towards a net-zero future that is making digitisation nonnegotiable.

Businesses aiming to go paperless are looking for the right tool to do so. It's no surprise the trend for document management systems or enterprise content management (ECM) is on the up, with market projections tracking to increase value to 32.3 billion U.S. dollars by 2027.

But it's the construction sector, historically the slowest industry to digitise, that is now seeing a more aggressive trend of digitisation. The architecture, engineering and construction (AEC) tech ecosystem has experienced an explosion of investment in recent years.

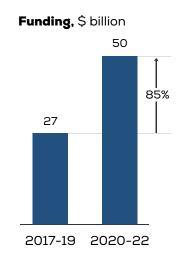
According to recent research from McKinsey, an estimated \$50 billion was invested in AEC tech between 2020 to 2022, 85 percent higher than the previous three years.

### The size of the enterprise content management (ECM) market worldwide from 2017 to 2027, Statista.

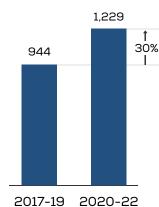


### Global investment in architecture, engineering, and construction tech grew to \$50 billion between 2020 and 2022.

#### Global deals in AEC tech







<sup>1</sup>AEC = architecture, engineering, and construction. Incl management buyout, management buy-in, add-on, secondary buyout, public to private, growth and expansion, and private investment in public equity.

Source: PitchBook, November 15, 2022

Industries that generate a lot of data, such as the built environment, are looking for robust and scalable document and data management within a common data environment that can streamline, help manage information and automate workflows across entire portfolios. And it needs to be classified, stored, accessible, backed up and secure.

With more transparency demanded by the Building Safety Regulator through the new <u>three-stage</u> <u>Gateway approval system</u>, being able to produce key building information is a requirement that can't be ignored. Duty holders accountable for higher-risk, high-rise residential buildings now must ensure building safety is considered at each stage of the design, construction, completion and occupation of a building.

A golden thread of building information will need to be created, stored and updated throughout the building's lifecycle.

### **Key Recommendations**



# Use technology and processes to make regulatory compliance easy

Being able to easily share and update building information is now critical for accountable parties. Without the right tech stack, workflows and processes in place to share with regulators and tenants, meeting obligations set out by the BSA 2022 will become increasingly difficult. To prove compliance, asset owners and landlords must adopt technology that will make managing, maintaining and sharing building information easier.



# Store data in one place to easily locate the right information quickly

When building information needs to be available and accessible across gateways in line with The Building Safety Act, asset owners, developers, contractors, building operators or landlords need a simple platform where they can easily store, manage and then share information with inspectors and the regulator when required. By putting data into one platform, not only is data more accessible, searchable and visible, but information, such as certificates can be flagged for renewal. This means those responsible can find information when they need it so they can make the best decisions based on the latest data, therefore minimising risk.



# Use industry templates to ensure there are no gaps in your building information

Using proven templates to process, categorise and structure documents, asset owners, developers, contractors, operators and landlords can take their existing building information and digitise it to see all their key building information in one platform and identify any missing documentation. With legacy buildings and ongoing projects accounted for in one place, they can rest assured that everything they have added to a building follows the latest Building Safety Act requirements.



#### Store data in a secure, certified platform

When building information is required by law to be up to date and readily accessible, it's important to use a certified information security management system so you know your data is safe and will never be lost or unavailable. Asset owners, developers and landlords will be able to mitigate risk while protecting asset information from day one and enable support for future building operations.



# Ramp up training and create super users to ensure seamless adoption

When you are onboarding teams, it's vital that someone internal is responsible for the project's outcome. Even the most well-intentioned implementation will fall down if core team members cannot cross-train. According to Mckinsey, 70% of all digital transformations fail. Effective education, training and super user programmes will ensure successful software rollouts for asset owners, developers and landlords.

#### Why a platform matters

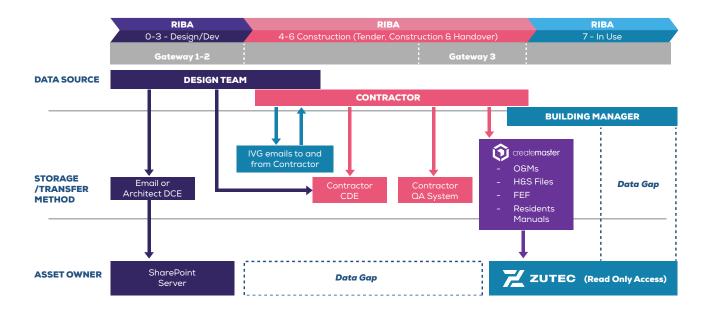
For key building information to underpin effective safety management throughout the building life cycle, and resident collaboration with the duty holder strengthened, interoperability between existing systems is needed.

Construction technology has typically been fragmented and information

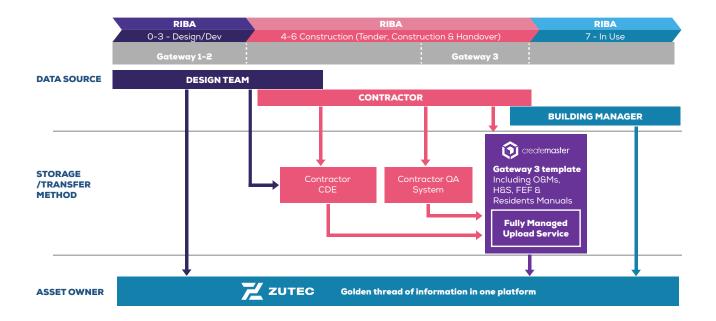
previously held separately must now be passed on across the broader ecosystem.

Interoperability is important in an industry that involves so many different stakeholders, including architects, engineers, contractors, subcontractors, and project owners, all of whom may use different software tools and platforms.

#### **Current landscape: Disjointed process**



#### **Golden Thread Solution: Zutec CDE**



For example, a digital asset register that contains all the information required for the operation, maintenance, decommissioning and demolition of a building, should now be integrated with maintenance scheduling software, computeraided facilities management (CAFM) software, building information models (BIM), or with the Building Safety Regulator.

Only a system that enables integration and connects all the disparate information into one place can provide a more comprehensive view of a project, helping stakeholders make better decisions and demonstrate the safety of the building throughout its life cycle.

# **Taking the Next Step**

"Everyone now knows that fire safety is not a 'nice-to-have', it's essential. And we can no longer turn a blind eye to maintenance. Yes, we're seeing a big shift in attitude across the sector, prompted by tougher safety regulations, but it hasn't got enough momentum yet, and more needs to be done at a policy level to include greater industry participation, from those designing buildings to technology innovators. Only this will ensure a catastrophe like Grenfell never happens again."

- Jeslin Joy, Head of Solutions Engineering at Zutec.





If regulation is playing a central role in catalysing changes in building safety and housing quality, then technological adoption is the key to its success. Every piece of research says that construction is the least digitalised sector on the planet. But adoption is happening fast and there's evidence to suggest that digitalisation is already positively impacting the industry.

Significantly, McKinsey found that in the past, more than four in ten successful construction players achieved 60% of their margin expansion in less than two years from tech-enabled efficiency improvements. The challenge is that nobody has quite connected the dots yet across the building life cycle.



More than Four in Ten successful construction players achieved 60% of their margin expansion in less than two years.

Overall, despite major changes in policy, our research clearly revealed

the lag between legislation and action. Until residents feel 100% safe in their properties and maintenance issues are promptly resolved, there is still work to be done. Considering, 35% of UK non-freeholders said communication was fragmented, inconsistent and lacked detailed information, improved discord between regulators, residents and landlords with the use of technology could make this process easier and more efficient. If information and communication is ineffective, the risk of failure is much, much higher.

When costs are climbing, productivity is of the essence and if the industry doesn't digitise, they will have an inefficient building management mechanism. Typically building information is siloed across systems and formats of varying quality, from file storage platforms to PDFs, or paper copies. If building information is not managed correctly and the transfer of information is not adequately shared between stakeholders, a comprehensive view of a building cannot be obtained.

If duty holders are not aware of what needs to be done on a daily basis, the chance of fire risk increases. If an asset is not appropriately managed as a result, the lifespan of a building will be considerably shorter. With decreased efficiency, profitability is forfeit.





Looking to the future with the rise of predictive modelling and the use of AI, it's important that data is correct for it to stand a chance of working. Without a connected data-driven approach, predictive modelling or AI is impossible.

While the future may appear somewhat abstract, ground-breaking reforms in The Building Safety Act 2022 are much more concrete and obligations require immediate action. Contractors, Developers, Asset owners and Operators will be required to maintain a digital golden thread of

information that allows someone to understand all safety aspects of a building, as well as how to keep it safe.

Ultimately, for digital technology to help improve the current situation from both a residential and asset owner perspective, real-time analysis of building systems from the design and construction phases through to the operations must continually monitor activity in a building to drive better collaboration, communication and efficiencies across stakeholders, but most importantly safety.

Zutec is an established CDE that offers a one-stop shop for quality management, regulatory compliance and BSA Gateway support.

To find out more visit our website, book a demo or please reach out to us at info@zutec.com and one of our experienced team will be in touch.

Createmaster is the market leader in Digital Handover for UK construction.

To take full control of your asset data, get in touch with our expert team at contact@createmaster.co.uk to arrange a consultation and a bespoke demonstration.

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