## White Paper:

How timber construction supports the economy and contributes to Net Zero by 2050

NOW IS THE



# TIME FOR TIMBER: THE FACTS

- It is now clear that achieving Net Zero by 2050 is a core objective for the Government
- As a major contributor to carbon emissions, the UK Construction industry has a key role in achieving Net Zero 2050
- The use of correctly designed and engineered timber solutions are a key driver in the delivery of Net Zero 2050
- A design led approach is crucial to successful risk management where timber solutions are used
- The property investment market is starting to demand low to net zero carbon timber buildings
- The Hackett Review will have a profound and positive impact on the competency of the delivery of buildings in the near future
- Implementation of additional risk management via quality programmes provides assurance to stake holders involved in providing insurance cover for timber construction

## **NOW IS THE TIME FOR TIMBER**



### ACHIEVING NET ZERO

# In June 2019, the UK became the first major economy in the world to pass laws to end its contribution to global warming by 2050.

The target requires the UK to bring all greenhouse gas emissions to net zero by 2050, compared with its previous target of an 80% reduction from 1990 levels. The UK has already reduced its emissions by 42%, whilst growing the economy by 72% and putting clean growth at the heart of its modern Industrial Strategy.

As well as appreciating the financial benefits involved in supporting sustainable projects, banks and insurers must begin to assess the future costs they'll be liable to, should extreme weather and rising oceans become more common. Ultimately, these companies hold their own destiny, as well as their future profitability in their own hands. Therefore, as the UK and the rest of the world begins to recover from the shock of COVID-19, it's possible that the next global shock could have much more catastrophic and irreversible implications.

Although the UK Government announced that it has a target to achieve Carbon Net Zero by 2050, at present, there is no road map to how this will be achieved.

Consequently, there is a real risk that we will not meet these targets and the opportunity to address the global climate change issue will be lost. Will future generations look back at 2021 and see it as the year the construction industry failed them?

We are at a crossroads in the UK and on a global basis: the world has woken up to the detrimental impact that we are having on the planet and recognises that it is time to act. As individuals we can make a difference in how we behave, in the choices that we make and with our actions; however, this is not enough. It is at the centre of government that the most decisive action is needed to arrest the march of climate change.

Crucially, with the global population increasing and steadily becoming more urbanised, there is an urgent need to change how we build high density and singlefamily housing. There is an obvious answer: to use renewable, sustainable and environmentally positive materials produced in such a way that there is a lighter impact on the planet.

The construction industry has a tremendous opportunity to make a significant and meaningful contribution to the delivery of the whole climate change agenda. That is why we - the construction industry - owe it to future generations to challenge these misconceptions and demonstrate to the financial and insurance industries that timber is a viable and sustainable long-term solution to the country's environmental and housing crises.

With ambitious targets set for the UK to reach carbon net zero by 2050, timber is the primary building material that will help the country reach its targets: it is sustainable, replenishable, and can be positively recycled at the end of use. Opponents may point to the risk of fire; however, self-interest has caused some to ignore the body of evidence that exists regarding the very predictable nature of timber and how it performs. Furthermore, the impact of good design, engineering, detailing and construction has been wilfully overlooked.

Whilst timber is the chosen building material for many of the country's leading housebuilders, there is a whole world of construction that could benefit from the learnings this progressive sector has made by adopting offsite and MMC techniques. These insights could have a profound effect if they are extended to the wider construction market, where the full impact of timber on the carbon footprint of a project will have a demonstrable benefit.

This is in harmony with the Government's agenda of Building Back Better - with its emphasis on green initiatives - which clearly recognises that there is a need to create jobs to avoid a financial downturn. But we should be creating those jobs to ensure the green transition happens as quickly as possible, which in turn propels us towards net zero carbon. Sustainable projects are a critical way that the Government can create jobs and replenish local economies to protect communities from future environmental and health hazards.

In the current economic climate, it is noted that investors - both corporate and individual - are demanding better standards from the companies and funds they hold. Positive financial returns are naturally expected, but there is a growing interest in seeing environmental, sustainable and governance (ESG) principles being applied. This may be commercial pragmatism in response to public and government sentiment, but it cannot be ignored; viable, reliable and robust solutions are available today and for a renewable future.

Indeed, according to an article in the Financial Times late 2020, the majority of ESG funds outperform the wider market over 10 years. This study of sustainable funds counters claims that ESG investment comes at the expense of performance. What's more, with a growing focus on the effects of modern ways of life to health and mental well-being that the recent pandemic has only served to amplify; it has been proven that timber structures provide for a better living, working and learning environment.

There is a huge focus on the climate crisis and the financial services sector holds the key. The Time for Timber campaign has been founded to directly target the financial and insurance industries, to counter the misconceptions around timber and deliver a compelling narrative about its place in the sustainable buildings of our future. //

"Increased use of Wood in Construction will be required to permanently remove carbon from the atmosphere, in order to offset remaining residual emissions in the UK and achieve Net Zero by 2050."

Climate Change Committee, 6th Carbon Budget, December 2020

### THE ECONOMIC BENEFIT

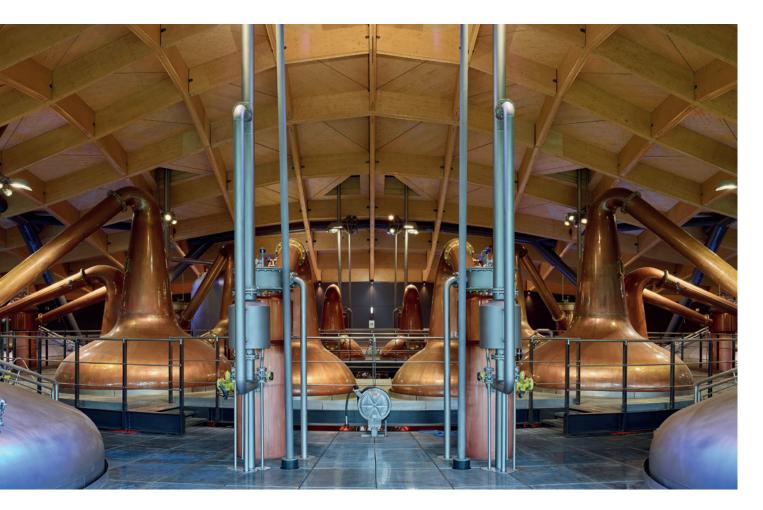
For years, the climate change movement was led by the so-called 'eco-warriors', a myriad of non-profit organisations and dedicated small investors who shared a collective desire to drive change within big companies. They protested outside business headquarters, filed shareholder resolutions and spoke out at annual meetings in order to make their points.

Large investors, in contrast, largely remained silent – at least in public. However, in the wake of the Paris agreement, a rising number of large investors now seem highly alert to the investment risks of global warming. As of 2020, this group seems to recognise that drastically cutting greenhouse gas emissions represents good business sense. Delaying action on emissions, will only mean more radical intervention is needed in the future at greater financial cost, and with larger impacts on society. Plus, by taking action now, companies can plan to achieve long-term, sustainable economic growth from a low-carbon economy.

There is little debate that climate change will dominate our lives and economies in years to come. Recent announcements from the likes of the World Economic Forum, the Bank of England and leading blue chips like Microsoft, which demonstrate that climate risk has moved centre stage into the world's most influential boardrooms only furthers the point.

To this end, the world's largest companies now forecast nearly \$1 trillion at risk from climate impacts. Conversely, the same companies have identified \$2 trillion in opportunities from investments into sustainable business areas, such as low carbon technologies. Therefore, for the business community, climate change has become a thing of now and not a thing of the future. Across modern boardrooms, daily discussions focus on how companies can meet climate challenges, as well as making the best use of any potential opportunities.

However, making the most of these opportunities requires foresight and investment. To this end, financial institutions, banks, investors and insurers must understand the risks they face in order to move to the next stage and build for the future. There are wide range of timber engineering solutions commonly used in the UK. As the UK's leading organisation representing the structural timber sector and associated supply chain companies, the Structural Timber Association (www.structuraltimber.co.uk) has an objective to drive quality and product innovation through expert technical guidance and research - underpinned by education, training and event programme. **//** 





### TIMBER CONSTRUCTION AND THE INSURANCE INDUSTRY

The technical advancement of structural timber has given designers and engineers the ability to consider the use of timber as an alternative to concrete and steel. Managed in the right way, timber can be considered no more of a risk than any other building material. If the construction industry has recognised its part in achieving net zero, then what of insurers and investors?

Looking at the global approach to the use of engineered wood systems, outside of the UK, there is a robust industry in other countries from North America, to Scandinavia, through central Europe to Australia. As insurance is a global industry, there is certainly something to be learned from other countries insurers' experience and the performance of buildings they cover. With the focus now on rebuilding the economy and to mitigate the future risk of climate change, the Time for Timber campaign is central to starting the dialogue between the construction industry and those that insure buildings, from site to completion, and beyond.

#### INSURANCE & TIMBER CONSTRUCTION PROJECTS

It's clear that the insurance sector is feeling rather risk averse at present. Having come through some tough years, the future threat that the pandemic causes in terms of claims are unknown and with this uncertainty, coming fast on the heels of the issues raised by Grenfell, it is no wonder that the building industry causes a bit of a headache for brokers and underwriters. From the conversations that have arisen since the start of the Time For Timber campaign, when it comes to insuring projects that involve timber, there is a real reluctance to take on what is perceived as additional exposure now, whether that's from understanding the design of the building, or from the potential of fire, or even from water damage. It is these misgivings and uncertainties that have highlighted the need for this campaign, to educate and reassure the construction insurance sector as to the benefits of timber.

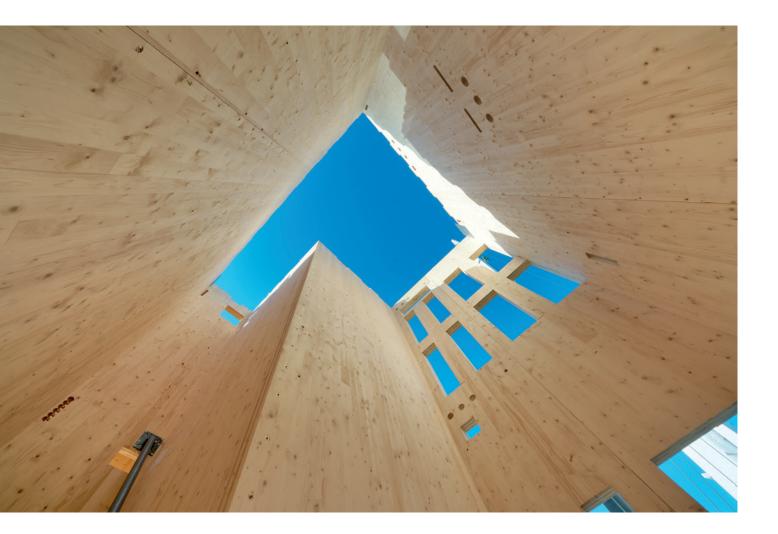
With many countries, from Australia, to Austria, Scandinavia and the US having more experience of structural timber, this could provide a road map for the UK market. The beginning of 2021 saw major firms leading the way in the global insurance network with many backing timber projects in the US. AXA XL's North America president of construction business Gary Kaplan stating "the construction industry is seeing significant benefits working with mass timber. It's a sustainable building material that can be prefabricated, requiring fewer workers and less safety concerns. It can speed up construction time. And from a design perspective, mass timber construction has a lot of curb appeal. From a risk perspective, it can be challenging. But when a broker like Gallaghers comes to us on behalf of a client, like major commercial contractor Swinerton, we knew we needed to take on the challenge to find a solution appropriate to the risk." This direction of travel is also supported by Lloyds of London "Even where the exposures are difficult such as wood timber frame construction, or uncertain as with construction projects deploying new technologies, the panellists stressed that Lloyd's tends to see a lot of everything and thus is in position to consider risks others may shun."

The positive benefits that the increased use of timber brings to the economy, climate change and achieving net zero are clear; albeit clear to those in construction. It is evident that facing a climate crisis, there needs to be a consolidated approach to how we, as a joined-up economy can move forwards. This follows on from many insurers recognising the perils that climate change can bring, from increased risks from flooding, or from the forest fires that have dominated the news agenda in California and Australia in just one year.

Environmentalists and economists welcomed the news that the number of insurers withdrawing cover for coal projects more than doubled this year and for the first time US companies have taken action, leaving only a very few insurers as the "last resort" for fossil fuels. In fact, last year saw the 35 biggest insurers on their actions on fossil fuels, declared that coal - the biggest single contributor to climate change – "is on the way to becoming uninsurable" as most coal projects cannot be financed, built or operated without insurance. This added to the news that pension providers are focussing on net zero, with Aviva recently setting a 2050 net-zero target for its own auto-enrolment (AE) default pension funds. It also called on the government to make all AE default funds set the same goal. With the rise in returns in ESG funds, then the momentum created by insurers backing out of coal should hasten now that ethical investment is squarely part of the news cycle.

Are we therefore on the cusp of change, as the economy recovers from the pandemic and looks to mitigate further risk from the much larger threats caused by climate change? Are we at the point where those in the construction industry work closer with their partners in construction insurance to improve the risk dynamics to educate any stakeholders whether they be builders or owners?

The Time For Timber campaign will continue to highlight the topics that insurers want to talk about and want to understand in order to bring constructors and insurers closer together to allow the increased use of engineered wood systems to meet the UK Government's commitment to net zero by 2050. //



#### LESS ENERGY TO MANUFACTURE

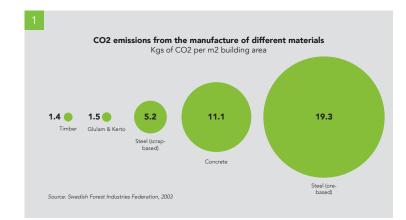
## Wood isn't manufactured, it grows and is the only truly sustainable construction material available.

The construction industry is currently responsible for 35% of total global greenhouse gas emissions\* produced by global economic activities. Wood, engineered for use in building as timber, has a much lower carbon footprint than other building materials such as concrete and steel. (1 & 2)

Timber is carbon negative from the cradle to the grave. It also stores more carbon than it emits during processing and installation. (3)

# Timber as the only truly renewable building material needs to become the new standard. Now is the Time for Timber. //

\* Hurmekoski, E. 2017. How can wood construction reduce environmental degradation? European Forest Institute



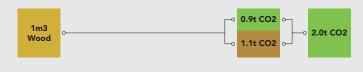
Net emissions of CO2 including carbon sink effect Kgs CO2e/m3 27,000 17,000 5.000 -1,000 3,500 500 Light Concrete Block Sawn Timber Recycled Steel Rigid PVC Steel Alimunium Source: RTS, Environmental Reporting for Building Materials 1998 - 2001

#### Carbon saved through substitution

0.9 tonnes of CO2 is stored within a m3 of wood.

This is less CO2 emissions than the production of an equivalent amount of fossil fuel intensive materials, such as steel, concrete or plastics where, generally, **1.1 tonnes** of CO2 is used.

This amount, coupled to the  $0.9\ tonnes$  of CO2 stored within the wood, means that every m3 of wood substituting for fossil fuel-intensive materials saves a total of roughly 2 tonnes of CO2.



Source: Dr. A Fruhwald, University of Hamburg, Centre for Wood Science & Technology

#### FASTER CONSTRUCTION

Recently, the UK government reaffirmed its commitment to building more homes, as well as working to reshape the nation's economy. Whilst advancing this agenda, those involved must also respect an existing commitment to achieving Net Zero emissions by 2050. Fortunately, recent publications, such as the 'Government response to the Housing, Communities and Local Government', identify how both goals can be more easily achieved through a greater commitment to modern methods of construction (MMC).

Such solutions are helping to speed up the rate of housebuilding and therefore, in looking to increase the pace of change of building within the UK and achieve the targets.

According to Oliver Novakovic, technical and innovation director at Barratt Developments, one of the UK's largest housebuilders, "The reports I read are saying, we can't make enough homes to sell. With timber frame, we know we can deliver homes quicker than other approaches, therefore in the short term it is a good opportunity for the timber frame institutions to show the true benefit they have; an opportunity to say this is the technology we can use and we can deliver timber frame houses on our site". Of course, with the use of structural timber, MMC solutions aren't only allowing to make the build process more efficient, but greener too. Thankfully, structural timber frames are already used, according to research by the STA in 2017, in more than 23% of new build homes in the UK, with a steadily increasing annual market share.

Similarly, investment in the future is important to Oliver Novakovic of Barratt Developments, "we have purchased a timber frame company, Oregon and now we're looking at how we deliver more timber frame. There's no doubt, that under MMC, timber frame has got a long history in this industry, which gives people confidence and it's the system that we are using most of."

Although timber construction has a long heritage in the UK, its contemporary use as an engineered factory assembled timber frame system is recognised as a modern method of construction. Additionally, structural timber is increasingly used as part of a trend for panellised building systems. Within this market, timber systems such as structural insulated panels (SIPS), alongside the use of the more familiar timber frame systems are increasingly specified and have quickly becoming a recognised solution to meet the challenges of factory controlled, speedy, energy efficient, modern methods of construction. **//** 





#### **FUTURE PROOFING**

The increased use of timber can only be a positive in that it provides for a better built environment for generations to come by pushing towards a net zero economy and supports energy efficient buildings throughout their life cycle reducing carbon emissions in use.

Structural Timber can have a significant role to play in creating a circular economy, contributing over £8.5 billion to the financial system and subsequent employment opportunities. In addition it can provide a carbon sink, enhanced health and wellbeing benefits and beyond.

As such timber needs to be at the heart of construction. The increased regulatory requirements to improve energy efficiency of buildings can be met with ease when using structural timber.

A timber construction's total lifespan can be extended, to suit the flexible way we will be living in the future. In fact, many of the schemes that have been shortlisted in the Home of 2030 Government initiative, are centred around the use of timber, as a sustainable, scalable, carbon neutral material.

The Government has committed to introduce a Future Homes Standard in 2025, as part of its journey towards meeting the legal target of all the UK's greenhouse gas emissions to be net zero by 2050. It is estimated that currently new & existing homes account for ~20% of the emissions. They expect a home built to the new standard will have 75-80% less carbon emissions than one built under the current Approved Document Part L 2013 of the Building standards. The new Approved Document Part L of the Building Regulations for England and Wales and Section 6 of the Scottish Building Standards will have a meaningful uplift towards the Future Homes Standard. The intent is to make new homes more energy efficient and to future proof those in readiness for low carbon heating systems, most notably the declining acceptability of using fossil fuel, most notably gas.

With this increasing focus on efficiency of the fabric of the building as non-fossil fuel heating systems are proposed by 2025, the use of timber frame and structural insulated panel construction can offer a good deal of external wall flexibility when the demands for high thermal insulation are required. In simple terms it is easier to fill the building envelope in a structural timber internal leaf with insulation than filling a cavity between two traditional masonry wall skins.

In the winter months, structural timber buildings are quick to respond to heat as the insulation is close to the inside of the building. The high thermal mass properties of materials like concrete and bricks means that more energy is required in the initial heating process as there is loss to the heating of the structure. Without this heavy energy absorbing internal structure to heat up first, occupants in timber frame buildings benefit from a fast heating response, which results in low heating bills.

The Committee on Climate Change (CCC) highlighted the built environment contributes up to 40% of the UK's total carbon emissions – a figure which includes both embodied and operational carbon. To meet the significant carbon reductions required to achieve net zero emissions by 2050, there must be a significant transformation of the construction industry, and current outputs, to both lift productivity, as well as the quality and efficiency of houses built. It is vital to these targets that new build housing must be built to higher energy efficiency standards, Ultimately failure to build houses to a higher standard now will result in higher end costs for future consumers.

In 2020, a report compiled by the All Party Parliamentary Group for the Timber Industries, How the timber industries can help solve the housing crisis, highlights the key role timber industries can play in helping the Government meet its targets for housebuilding whilst working to achieve net zero carbon emissions by 2050. The report argues that using timber in construction is key to meeting emissions targets and urges the Government to implement the recommendations of the Climate Change Committee by increasing the use of timber in construction.

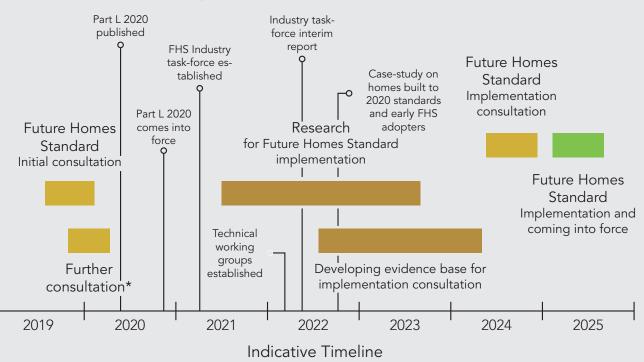
Martin Whitfield MP, chair, APPG, said:

"This report addresses an important dilemma governments have: increase housebuilding whilst reducing carbon emissions. The timber industry will provide skilled jobs, it can deliver sustainable and affordable homes and it should be at the forefront of addressing the climate emergency we face.

"Housebuilding should be part of an environmental revolution that is firmly integrated into our net-zero emissions targets. Using timber will lock carbon within homes for generations and is considerably more environmentally friendly than other core building materials such as concrete."

The Structural Timber Association estimates there is existing capacity to double the number of homes built using timber frame to 100,000 homes. This demonstrates there exists both the technology, means and capacity to solve both the housing and climate crises. This focus on low embodied carbon and reduced, low carbon emissions from structural timber buildings in use it is clear, now is the time for timber.

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**Roadmap to the Future Homes Standard** 

\*Further consultation to incorporate work on: Work to existing buildings / Overheating in existing dwellings / New non-domestic buildings

#### HEALTH AND WELLBEING

Choosing the right materials when designing a building can help the welfare of its occupants. As an organic, natural material, wood can breathe and help maintain a comfortable and healthy indoor climate.

The use of timber in construction is known to have numerous positive effects on human health, proven in various studies. People working in environments with more wood are observed to show lowered heartbeat rates, a decreased perception of stress, decreased blood pressure and increased interaction. A closer connection to such a natural material can only help to promote a feeling of warmth, security and home and an overall sense of wellbeing. In creating safe environments, employees and an increasing number of studies point to workplaces that are more productive and have lower rates of absenteeism and sickness. With an increased awareness in the concept of biophilic design within the building industry to increase occupant connectivity to the natural environment through the use of direct nature, indirect nature, and space and place conditions, then timber is the best placed natural material to fulfil these requirements.

One environment where timber is the material of choice is in many hospitals and care facilities, where it is seen to promote mental and physical wellbeing. A high-profile example of this is Maggie's Charity, which provides those diagnosed with cancer and their families with free practical, emotional and social support. The charity aims to promote wellbeing and bring joy to patients and the design of their clinics is a vital part of this. Picking two of the centres, Maggie's Oxford, is built entirely from engineered timber which creates a light, modern and enjoyable environment that blends with its surroundings. Maggie's Manchester, is laid out over a single storey with a natural timber structure. The use of glazing and exposed timber allows the centre to be illuminated with natural light.

In the commercial office space, the return on investment of a building can now be considered to include the occupants and calculating their reductions in sick leave and attrition. The use of timber is seen to improve the office environment, as many organisations have determined using the WELL measure from The International WELL Building Institute™ a leading the global movement to transform our buildings and communities in ways that help people thrive.

With the focus on health and wellbeing of a building's occupants, then timbers strong biophilia credentials, the affinity that we have towards the natural world, are best placed to advance the health and well-being in buildings globally. //



### THE STRUCTURAL TIMBER ASSOCIATION

The Structural Timber Association (STA) supports and backs the Time For Timber campaign. The STA is a trade body which is heavily focussed on the provision of technical support for its 872 members. The association is committed to providing the most up to date guidance to members and clients in the use of structural timber systems. In respect of this there are over 140 documents in the STA library ranging from safe handling, sustainability, and performance, through to risk mitigation strategies.

With an increased need focus on fire safety in construction, some key research has recently been commissioned by the STA into fire research in timber frame systems. This resulted in the publication of the first timber frame pattern book which demonstrates the fire resilience of different timber frame panel systems for when a building is in use. This research complements the acknowledged fire mitigation process for structural timber buildings during construction, the site safe programme

In addition to this, the STA is currently undertaking the most comprehensive fire research programme on structural timber systems ever proposed. It is likely that the results will be published, as they become available, through 2020 and 2021, responding to concerns from the market on fire resistance. This investment by the industry of £750,000 is the largest undertaking ever recorded. **//** 



### FIRE RISK AND MITIGATION

When utilising timber as the structural element to a building there are procedures and considerations that can be addressed in order to mitigate the risk of fire. This can be achieved through knowledge of the extensive and competent testing that has been carried out by the global structural timber community. Architects and engineers both in the UK and across the world are now proficient in designing schemes that protect the structural integrity of their buildings, sometimes encasing the structural timber elements in fireproof products. These approaches should alleviate the assumption from insurers that once the material is compromised, a lot of the building will be damaged and potentially require significant repairs.

In support of this, The Structural Timber Association has embarked on a continuous improvement programme addressing concerns on the fire resistance capability of timber in construction. These programmes address risks of timber both during construction and in use.

The STA Site Safe programme recognises un-protected timber can be vulnerable to arson attacks or accidents during hot works on site. Site Safe is a process to ensure the building is constructed in accordance with 16 safety steps to mitigate risks of fire spread.

In response to concerns about structural timber buildings in use the STA has overseen, in recent years, investments close to £750k in fire research confirming timber is a safe building system when built correctly. Furthermore, in responding to the latter, the STA introduced STA Assure, a quality and competency programme to address any risks of compartment fire failure associated with bad workmanship. Working to increase the quality in the sector, the purpose of STA Assure is to inspire confidence for all stakeholders in structural timber through an independent quality audit programme. In support of this approach, the STA has formal recognition that STA Assure accredited members (Silver or Gold) meet the warranty requirements of:

#### LABC Warranty

- Premier Guarantee
- Protek Warranty
- Build-Zone Warranty
- Self-Build Zone Warranty
- ABC+ Warranty

To further strengthen the recognition of the scheme across the housebuilding sector, the STA reached a formal agreement with the NHBC in 2019, who recognise the benefits of STA Assure. The NHBC now recognise STA Assure Silver/Gold members as compliant with the NHBC's Certification process for timber structures. //

### TIMBER FRAME COMPETENCY AWARD SCHEME

The Timber Frame Competency Award Scheme was established as a mechanism to set an industry-wide standard for erectors and installers of structural timber frame. These training programmes are designed to promote best practice and provide tangible evidence of quality standards throughout every stage of the design and construction journey.

The STA has turned the insurance markets opinion of the timber sector from a misconceived misunderstanding to a positive outlook, because of the innovation and best practice that STA Members operate to.

With STA Assure and the STA Erectors Structural Timber Frame Competency Award Scheme, many underwriters and insurers are advising that they are prepared to recognise companies compliant with the scheme, as it shows good corporate governance, risk management and potential policyholders trying to mitigate their loses.

These schemes are recognition of the STA working more closely with the insurance sector, with the encouragement that there is an increasing appearance on Construction Proposal Forms from insurers actually asking for membership of the STA, and whether they are practicing within the membership guidelines. //

### WHAT DO INSURERS NEED TO KNOW?

As the use of engineered timber products increases, there is an ongoing debate from across many sectors, from the designers, contractors, building owners and users, right through to the insurance sector. As insurers are being asked more often to look at timber-based schemes, there is a requirement to evaluate the insurance premium requirements against the differing risks to those of concrete and steel frame structures.

There are many risk factors that insurers have to consider when underwriting a structural timber construction both at the build stage, through completion and into occupancy.

Many of these risks may be common to all types of construction, while others may stem from a lack of experience, or through understanding of the technical details as this as seen as a relatively new method of building in the UK. This new approach to building, using materials such as Cross Laminated Timber (CLT), also doesn't fit into the long-established construction classes and therefore there is a comparative lack of data to help insurers when underwriting these types of buildings. A wealth of performance data and guidance in the use of structural timber can be found through many of the industry bodies, including The Structural Timber Association. TRADA, Wood Campus and Wood For Good. //



### CONCLUSIONS

One of the most significant concerns insurers have is around the increased risk of fire. Whilst legitimate, insurers are lagging behind in their understanding of how the latest materials and fire engineering methods are reducing this risk.

To evidence, the Structural Timber Association undertook research into this issue. It ran multiple full-scale fire tests to EN1365 on different timber frame systems; comprising walls with insulation and plasterboard variability and even penetrations in the walls for sockets. The European standard was chosen as it is seen within the industry as the 'gold standard' of fire testing. The outcome has resulted in a robust comprehensive suite of evidence-based solutions for timber frame systems that will deliver high levels of resilience and quality of fire safety, all comfortably complying with EN Standards.

This research (along with ongoing further research) provides convincing evidence that the timber industry

is leading the way when it comes to fire protection, regulatory compliance and all round best practice risk management on a construction site.

There is a desire to support timber construction, to meet the challenges and to help the government achieve its net zero target by 2050, then there are some elements that need to be taken into consideration to lower the premiums of a structural timber building, these may include:

- Ensuring early contractual involvement
- Bringing in insurance brokers on board as early as possible
- Selecting contractors with experience of working with structural timber
- Creating a fully formed fire/water damage plan for insurers before going on site
- Making sure that FM contractors adhere to all rules and regulations, ensuring that any 'penetrations' are re-fire stopped to main protections. //

## NOW IS THE TIME TO:

- INVEST IN BUILDING IN TIMBER
  FOR THE PROSPERITY OF THE
  COUNTRY AND ITS RESIDENTS
- FOR EMPLOYMENT
- FOR THE ECONOMY
- ULTIMATELY FOR SAFEGUARDING THE ENVIRONMENT, TODAY AND TOMORROW.

## **NOW IS THE #TIMEFORTIMBER**

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