



Allianz Insurance plc

Construction

Part 2
**Legislation,
risk management
and insurance**

Allianz 



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Allianz Insurance plc

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Our experts have a wealth of knowledge that can help our customers and brokers keep up to date with legislation, stay informed of industry developments, and better manage their risks – thus enabling them to manage insurance costs, reduce risks and concentrate on running successful businesses.

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Euler Hermes Group

Euler Hermes Group, the world's leading provider of trade-related insurance solutions, helps customers worldwide to trade wisely and develop their business safely. Its financial solidity, risk analysis and integrated global structure, enable the Group to provide companies of all sizes with the domestic and export market knowledge they need to successfully manage their trade receivables in changing economic environments.

Introduction

With a government target of one million new homes by 2020 and a variety of commercial and infrastructure projects underway, the construction sector is set to benefit from this growth. As activity increases, insurance has an important part to play in its future success.

Understanding the issues facing the sector and providing robust risk management advice to support growth, will be key for the insurance industry.

This, the second White Paper in our two part series on construction, takes a look at some of the associated regulatory changes and risk management topics, highlighting the insurance related issues.

Legislation, risk management and insurance

In addition to the market conditions, changes and challenges facing construction firms (covered in part one), it's also important to be aware of the legislation and regulations relating to areas such as health and safety and fire risk. These can affect insurance in the construction industry and also influence the risk management strategies that firms need to adopt.

Construction (Design and Management) Regulations 2015

The Construction (Design and Management) Regulations 2015 (CDM 2015) are designed to secure health and safety in the industry by setting out what people involved in construction work need to do to protect themselves, and anyone the work affects, from harm.

The requirements, which came into force in Great Britain in April 2015 replacing CDM2007, are designed to help the construction industry sensibly plan works so that risks are managed from start to finish. This includes having the right people for the job at the right time, cooperating and coordinating work, sharing information about the risks and how they are being managed, and consulting and engaging with workers about the risks.

The regulations mean that all duty holders - clients, designers, principal designers, principal contractors, contractors and workers - will need to be aware of their duties to ensure compliance. Among the changes they introduced are:

- Clients now need to appoint a 'principal designer' for all projects involving more than one contractor.
- Clients' duties are now applicable to domestic as well as commercial projects.
- A construction phase plan is now required for all projects.
- The threshold for notification of projects to the Health and Safety Executive (HSE) has changed.
- Notification no longer imposes additional duties.
- The explicit competence requirements have been removed.
- Everyone working on a construction project should be able to demonstrate capability and have the necessary information and resources to fulfil their legal duties.
- The Approved Code of Practice has been replaced with HSE and Construction Training Board industry guidance.

A summary of the duties is available on the HSE's website www.hse.gov.uk/construction/cdm/2015/summary.htm



Construction site waste management plans

Legislation relating to environmental and waste matters is complex, with the requirements differing around the UK. However, the common theme is the statutory duty of care that applies to anyone who produces, stores or transports waste to keep it safe and ensures that anyone who carries it is authorised to do so and can transport, recycle or dispose of it safely.

Although the Site Waste Management Plans Regulations 2008 were repealed on 1 December 2013, site waste management plans (SWMPs) are still regarded as good practice. In addition, using a SWMP can help a construction firm reduce costs, help limit harm to the local environment, improve energy consumption and reduce the amount of waste going to landfill.

The following tips will help ensure a SWMP is effective and can enable a construction firm to meet its legal requirements.

- Appoint a competent person to take responsibility for the SWMP throughout all stages of the project.
- Identify the types of waste that will be produced throughout the project and estimate the quantities of each type.
- Assess where, when and what materials can be recovered, reused, recycled or disposed of.
- Set realistic targets for both on and off site options for reuse, recycling and disposal of each type of waste.
- Plan procurement and storage arrangements to reduce excessive on-site storage and materials handling.
- Monitor housekeeping standards and the control of waste throughout the site.
- Explain the operation of the plan to all contractors and workers.
- Ensure that everyone understands their role in contributing to adequate reports and records.
- Regularly monitor, maintain, update and review the plan.
- Compare and record the final performance against targets with an explanation of any deviations.
- Retain the plan for two years and use the information to assist in future projects.

Occupational diseases

Health and safety initiatives have helped to reduce the number of injuries in the construction sector, but it remains a high risk industry accounting for a large percentage of fatal and major injuries. The nature of the work also means it's a high risk sector for health issues too, with figures from the HSE showing that more working days are lost due to work-related illness than to injuries.

These are some of the common health issues for the sector:

2,500

construction worker deaths
in 2005 as a result of
asbestos exposure (HSE)



5,000

cancer registrations and 3,700 cancer
deaths in construction each year (HSE)



10m

people worldwide will die from
asbestos exposure before it's
fully controlled (IOSH)

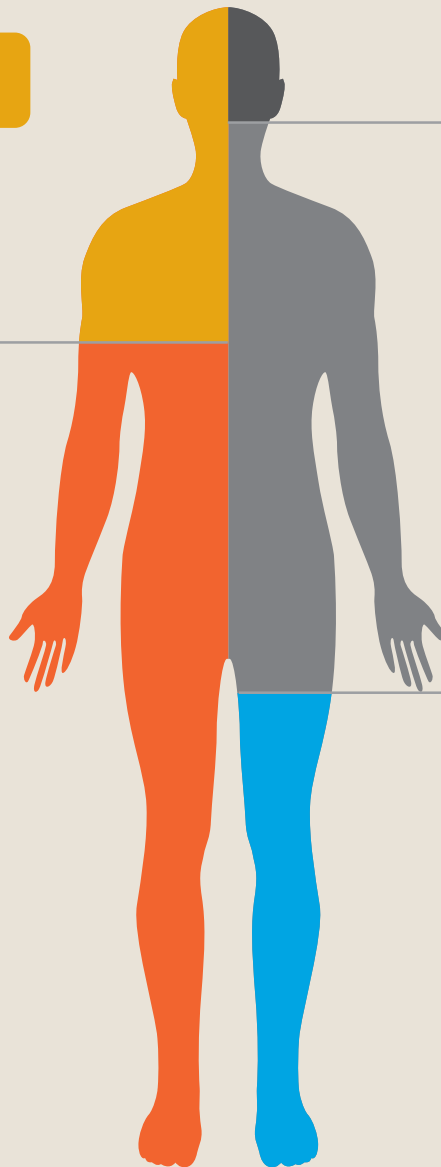


100

For every fatal accident in
2012/13, approximately
100 construction workers
died from a work-related
cancer (HSE)



1,300 skin cancer registrations
relating to solar radiation and
Polycyclic Aromatic Hydrocarbons
from coal tars and pitches (HSE)



15

15–60 years to develop symptoms of asbestos-related diseases (HSE)

60



The nature of working in construction means that it may not be possible to avoid working with asbestos and other silicate minerals. However, there are some recommended measures which can be taken to mitigate the risks of asbestos exposure and cancer.

These include:

- ensuring that air levels are measured regularly (preferably daily) to monitor the risk of asbestos.
- wearing protective respiratory equipment and clothing.
- employers providing decontamination areas for workers at sites where asbestos is present.
- undergoing routine medical examinations for early detection of illness.
- Ensuring that any worker who is liable to disturb asbestos during their work receives the correct level of information, instruction and training so they can work safely and without risk to others.
- Complying with the Health and Safety Executive's asbestos essential task sheets.
- Using recognised and approved equipment such as class H vacuum cleaners to mitigate risk.
- Destroying disposable personal protective equipment so that it cannot be re-used.
- Not allowing employees to take home used clothing.

Construction workers should also ensure they take precautions against the sun and UV rays through application of sun cream, wearing long sleeved shirts where possible and regularly checking skin for unusual marks or moles.

For more information visit HSE's internet site on managing construction health risks:
<http://www.hse.gov.uk/construction/healthrisks/index.htm>

Cancer

With more than 5,000 cases of occupational cancer and approximately 3,700 deaths each year, construction has the largest burden of occupational cancer amongst the industrial sectors. In total, the sector accounts for more than 40% of all occupational cancer deaths and registrations. Lung cancers were the predominant type, resulting from exposure to asbestos, silica and diesel engine exhaust emissions. Solar radiation and Polycyclic Aromatic Hydrocarbons from coal tars and pitches also account for around 1,300 skin cancers in the sector.

Hazardous substances

Dusts, chemicals and other potentially harmful substances are common in this sector but, when inhaled, can lead to respiratory and lung diseases. These substances can also contribute to skin conditions. As an example, cement based products such as concrete and mortar can cause skin problems including dermatitis and burns.

Physical health risks

Back and upper limb disorders are also an issue, with the construction sector having one of the highest incidences of these problems. Construction workers have a high risk of repetitive strain injury, due to the nature of the work they carry out and manual handling is the most common cause of injuries that last more than seven days in the sector.

The sector also suffers from one of the highest rates of ill health caused by noise and vibration. This can include tinnitus and hand-arm vibration syndrome.

Reducing the risk

As well as risking lives, not taking a proactive approach to reducing the incidence of occupational diseases can affect a business financially, both in terms of increased absence but also insurance costs, and seriously damage its reputation.

The HSE recommends treating health like safety, following the 'assess, control, review steps' to identify and reduce exposure.

Further information

The Institution of Occupational Safety and Health is running a campaign, No Time to Lose, to raise awareness of the risks associated with workplace cancer. More information can be found on its website at www.notimetolose.org.uk



Noise induced hearing loss

Hearing loss caused by exposure to noise at work continues to be a significant occupational disease, with around 170,000 people in the UK thought to suffer from deafness, tinnitus or other ear conditions from this exposure.

It's particularly a problem in the construction sector, where workers are exposed to high levels of noise from loud machinery and sudden explosive noises such as those made by cartridge operated tools. HSE figures show it is one of the sectors - alongside manufacturing, extraction energy and water supply - with the highest average annual incidence rates of new cases qualifying for Industrial Injuries Disablement Benefit.

The insurance industry has also seen a dramatic rise in the number of noise induced hearing loss claims. Allianz saw a 250% increase in new claims between 2010 and 2015, with claims in the first quarter of 2015 hitting a new high.

Employers' responsibilities are outlined in the Health and Safety at Work Act 1974 and the Control of Noise at Work Regulations 2005. These require employers to prevent, or reduce to a minimum, any risks relating to noise exposure at work.

To do this, employers must assess the risk in their workplace and take steps to reduce exposure. Strategies can include:

- Introducing a low-noise machinery and equipment purchasing policy.
- Using a different, quieter process or quieter equipment.
- Removing workers from the vicinity of noisy work, for example, through using an excavator with a cab and preventing others from being in the area.
- Using sound barriers such as temporary shields to contain noise.
- Rotating workers to limit their exposure to noise.
- Ensuring machinery and equipment is properly and regularly maintained.
- Providing workers with personal hearing protection where required and ensuring it is used properly and maintained. However, protection shouldn't be used as an alternative to controlling noise.
- Training workers so they are aware of the risks associated with loud noise and understanding the steps they can take to minimise exposure.

Health surveillance, in the form of hearing checks, is also important where workers are exposed to noise. These will detect any problems and enable the employer to take steps to prevent further damage.

Mental health and wellbeing

Safeguarding employees' physical health is essential but employers must also consider their mental health and wellbeing. Figures from the HSE show that around 0.4 million working days were lost in the construction sector in 2015/16 as a result of work-related stress, depression or anxiety.¹

Possibly because of its macho image, employees in construction can really struggle to open up about their mental health problems.

Analysis of data for 2011 to 2015 by the Office for National Statistics revealed that low skilled labourers in construction had a risk of suicide three times higher than the average for England. Those working in skilled construction jobs were also at an increased risk.

Supporting employees with mental health issues is therefore important. Public Health England recommends actions including mental health first aid training, specialised suicide awareness prevention training for managers and using internal communication as a means to foster a culture of openness about mental health.

The HSE can also provide support and guidance. Its Management Standards for work-related stress set out the characteristics of an organisation that is managing this issue effectively. It provides a range of tools associated with the Management Standards that can be used to identify issues and make improvements. These can be found on its website at <http://www.hse.gov.uk/stress/standards/downloads.htm>.

Public Health England, Business in the Community and the Samaritans have also worked together to provide assistance to employers wishing to tackle this issue. An employer's guide on how to prevent suicide and minimise the impact if it does happen is available at <http://wellbeing.bitc.org.uk/all-resources/toolkits/suicide-prevention-toolkit>

¹ <http://www.hse.gov.uk/statistics/industry/construction/index.htm>

² <https://www.gov.uk/government/news/new-data-reveals-suicide-prevalence-in-england-by-occupation>



Fire safety

Every year there are hundreds of fires on construction sites, with factors such as arson, the use of flammable liquids and hot works, and the shift towards more timber frame construction fuelling the risk.

To help construction firms manage this risk, the Fire Protection Association, RISCAuthority and the Contractors Legal Group publish a Joint Code of Practice, Fire Prevention on Construction Sites. Currently in its ninth edition, it applies to projects with an original contract value of £2.5m or more, although the threshold may be lowered for higher risk projects such as timber frame construction and high rise buildings.

As well as helping to reduce the risk of accidental and malicious fires, compliance with the code can also be a condition of insurance cover. Where this is the case, non-compliance could result in cover being withdrawn, which may have implications for the construction contract itself if it stipulates that insurance must be in place.

The code covers fire risks that could affect a construction project, from ensuring fire safety is factored into the design phase and establishing emergency procedures, through to dealing with site security to prevent arson and how to deal with waste materials. It also includes sections looking at specific risks such as hot work, high-rise construction sites and large timber frame structures.

The HSE also publishes guidance on fire risk in its publication, Fire Safety in Construction.

- The code is available to purchase from the Fire Protection Association's website, www.thefpa.co.uk/shop/ and the HSE guidance can be downloaded from its website at <http://www.hse.gov.uk/pubns/priced/hsg168.pdf>

Suicide

Leading **cause of death** for men **under 50**

Biggest killer of **young people** between 20 and 34

18,998 deaths caused by suicide in England (2011–15).

Source: Public Health England²



Workplace transport

Every year there are more than 5,000 accidents involving transport in the workplace, with HSE figures showing that around 50 of these result in fatalities. Unfortunately, its statistics also show that being struck by a moving vehicle is one of the top five causes of death in the construction sector, with 21 construction workers dying this way between 2010/11 and 2014/15.¹

But, by incorporating workplace transport safety into risk management, these incidents can easily be avoided.

The first step is to conduct a workplace transport risk assessment. This is legally required and needs to cover all work activities that involve moving vehicles. It should take into account the types of hazards that might be present, who might be at risk and what controls are already in place. It should also be recorded, reviewed and updated to reflect any significant changes.

This risk assessment can then be used to design a workplace transport risk management system. This will concentrate on the following four areas:

- **Site** – to reduce the risk of accidents, this needs to be well-designed and maintained. Routes should be as wide as possible, avoiding potential hazards such as overhead cables and sharp bends. They should also be well signed, with speed limits and adequate lighting.
- **Vehicles** – these must be suitable for the purpose for which they are used and drivers must be able to see clearly around the vehicle, be able to prevent it from moving where necessary and be aware of any defects before they attempt to move it.
- **People** – human error lies behind many accidents so make sure drivers are well trained, fit to drive and aware of the policies relating to driving. Driving policies should detail the requirement to report any health problems that may affect driving as well as disciplinary procedures relating to driving under the influence of alcohol or drugs.
- **Use** - procedures must be in place to ensure the safe operation of vehicles on construction sites. This can include using banksmen and signallers to direct vehicle and crane movements around the site.

Establishing a robust approach to risk management around workplace transport will help to ensure a good level of safety and prevent accidents.

¹ <http://www.hse.gov.uk/statistics/industry/construction/construction.pdf>

Confined spaces

Every year there are a number of fatalities and serious injuries as a result of work being undertaken in confined spaces. According to the HSE, these incidents can happen to either the individuals working in these spaces or those who attempt to rescue them.

Working in confined spaces, which can include excavations, storage tanks, enclosed drains, vats and unventilated or poorly ventilated rooms, poses a number of risks to individuals. These include a lack of oxygen; poisonous gas, fumes or vapours; the space being suddenly filled with liquids or solids; fires and explosions; and heat.

To ensure no one is put at risk, the Management of Health and Safety at Work Regulations 1999 require employers to carry out an assessment of the risks to determine what safety measures are required. If this identifies risks of serious injury due to working in a confined space, the Confined Spaces Regulations 1997 will also apply.

These contain the following key duties:

- Avoid entry to confined spaces where possible – this could include doing the work from the outside, using long handled tools or probes, water jetting or steam cleaning or using remotely operated equipment.
- Follow a safe system of work if entry to the confined space is unavoidable – this could include ensuring individuals are adequately trained and fit to undertake the work; providing mechanical ventilation or breathing apparatus; checking the air quality and monitoring this; and providing suitable work equipment, lighting and methods of use.
- Put adequate emergency arrangements in place before the work starts. These could include establishing means of communication and emergency procedures before the work takes place, providing appropriate rescue equipment, and carrying out emergency drills to ensure procedures are practicable and will work.



The risk control measures need to be proportionate to the size and scope of the risks identified in the risk assessment and must still fulfil the range of legal duties outlined above with regard to the health and safety of operatives undertaking the work, other workers or contractors in the area, and the general public.



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Insurance – Construction sector

From the construction of homes, buildings and commercial renovations to roads and larger infrastructure projects; the insurance needs of the construction industry can be complex.

Frequently working to strict timescales and relying on various items of plant and machinery can increase the risks faced by construction firms with losses having a significant impact on the business' financial stability and operating efficiency. Having the right insurance in place can therefore help when things go wrong.

Types of insurance

A range of insurance and risk management solutions are available and appropriate selection depends on the individual circumstances and needs. In addition to Employer's Liability and Public Liability which are key covers for any client, not just contractors, there are various different types of policy to meet the needs of the construction industry. Ensuring the right amount and type of cover is in place is essential and the use of expert intermediary advice is recommended.

Contractors All Risks (CAR)

Wherever there is the construction of buildings, civil works or maintenance being

carried out, there is the potential risk of loss or damage. Responsibility for this will be held by either the contractor or employer, as stipulated in the contract governing the works. A CAR policy therefore sets out to protect the responsible party against the costs of damage to permanent or temporary works regardless of whether this is on site or in transit. It also covers plant and machinery, employee's effects and professional fees and debris removal. The policy can be written on an annual basis for automatic cover on a range of contracts undertaken, or on a single contract basis as required for specific contracts; providing up to a year's cover following completion for contract obligations as part of the maintenance or defects liability period.

Project policy

A project policy is made up of component covers and designed to meet the more short term needs of employers who, from time to time, undertake one-off construction projects. For example, when an extension is being built or an existing building is being worked on. Some or all of the component covers can be combined into a single policy or depending on the risk, placed separately by a broker to form a bespoke tailored package. The components may include:

- Contract works – cover for damage to materials, permanent and temporary works
- Existing structures – cover for damage to existing structures being worked upon
- Contractors plant – cover for owned and hired-in plant
- Employer's Liability – compulsory legal liability protection for employee injury or illness due to work
- Public Liability – legal liability cover for injury to the public and loss or damage to property

- Non Negligent Liability – Joint Contract Tribunal (JCT) clause 6.5.1 (previously 21.2.1) is contained in the JCT Standard Form of Building Contract and requires insurance to cover non-negligent damage to adjoining or surrounding property. For example, due to removal or weakening of support, subsidence, heave, vibration and collapse
- Delay in start-up (DSU) – A business interruption cover for the financial loss of a delayed start caused by damage insured through the contract works insurance.

The manner in which the covers are combined or placed, including whether this is on an annual or project basis, depends on which party is being insured and the contract conditions in place.

Erection All Risks (EAR)

Construction work frequently involves the erection or installation of machinery or equipment with effective installation crucial to carry out works. EAR provides cover for machinery undergoing assembly, installation, erection, testing and commissioning on contract sites and during the subsequent



maintenance period. As with a CAR policy, the party (contractor or employee) responsible for insuring against the loss or damage will be stated in the governing contract and cover can be arranged on an annual or single basis.

Where existing machinery is being moved and there is no construction of a new structure, an EAR policy may be too wide in some areas but still need amendment of the existing structures exclusion to cover the machine itself. In these circumstances, a Machinery Movement policy may be more appropriate. An all risks policy, cover can be tailored specifically in terms of the machinery itself, the operations undertaken and the perils required. As in the case of EAR, this insurance can be arranged on a one off or annual basis.

Contractors Plant and Equipment (CPE)

According to PANIU's (Plant & Agricultural National Intelligence Unit) annual report, the majority of the 2,325 reported thefts in 2014–5 were for smaller machinery items due to being easily removed from site, transported and concealed. But constructional

plant isn't just susceptible to theft losses as it may be damaged in transit or destroyed by fire. CPE provides insurance cover against the cost of unforeseen loss or damage to both owned and hired-in plant, machinery and temporary building, including the associated legal liability.

Inherent Defects Insurance (IDI)

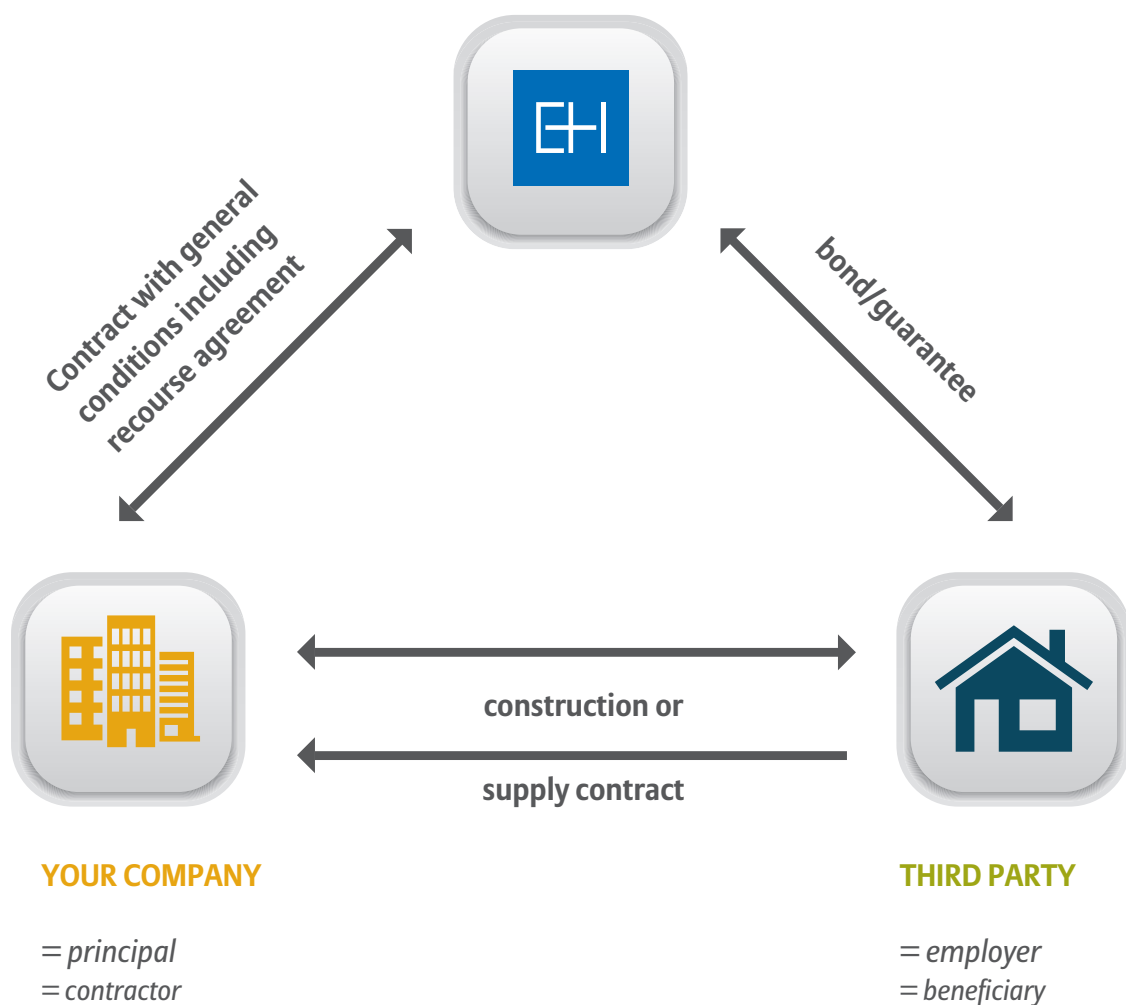
Another cover commonplace in the market is Inherent Defects Insurance (IDI), also referred to as Building Defects Insurance or Latent Defects. This is generally a 10 or 12 year insurance on the works against latent defects which later cause damage – in private dwelling houses, this would normally be under the National House Building Council scheme, but for commercial buildings, this cover needs to be sourced in the wider market. In some jurisdictions such as France, this cover is mandatory.

To find out more about Allianz construction insurance policies and protection against the cost of loss or damage to building works, contact materials and equipment, please speak to your insurance broker.



Bonding – Construction sector

Bonding is an arrangement commonly used in many sectors, including construction, where one party – the surety – guarantees the obligations of another party – the construction firm – to a third party – the client.



By putting this surety in place, the contract employer will have the necessary security that, if there is a breach of contract, typically where the construction firm is declared insolvent, the bond will be available to pay any damages and enable it to get another contractor in to complete the project.

In the UK, the majority of public works have some form of bond in place. For the private sector, the decision to insist on a bond will depend largely on the risk appetite of the client, however it is strongly recommended, especially for larger contracts.

Types of bonding products

There is a range of bonding products available to reflect the different requirements of construction projects. For example at Euler Hermes the construction sector range includes:

- Bid bonds – these are used in public works tenders and provide security that the contractor the work is awarded to will actually sign the contract and undertake to perform the work as contracted.
- Advance payment bonds – these provide security for the repayment of advance payments or payments made on account.
- Performance Bonds – providing the guarantee of the contractor's performance of its contractual obligations.
- Retention Bonds – can be offered in lieu of retentions being withheld by the employer under a contract
- Bonds for joint ventures and consortia – major construction contracts are often carried out by a consortium.

Arranging bonding

Where a contract requires bonding, the construction firm (perhaps via its broker), will be responsible for arranging the bond. The size, scope and nature of the bond will be set by the contract but the value will typically be 10% of contract value.

As payment under the bond is triggered by the construction firm's insolvency in the vast majority of cases, the surety will take into account the firm's financial strength and credit risk when underwriting the bond.

The nature of the contract will also be an important underwriting factor in the assessment of the company's ability to perform their contractual obligations.

Market forces

Demand for bonding is influenced by market forces, as the volume of building projects grows then so will demand for bonds. Equally in such economically uncertain times, and on the back of seeing many large well known construction companies incur significant contract losses, employers will turn to bonding to provide added security that their contracts will be completed.

To find out more about the range of Euler Hermes bonding options, please visit www.eulerhermes.co.uk/bonding

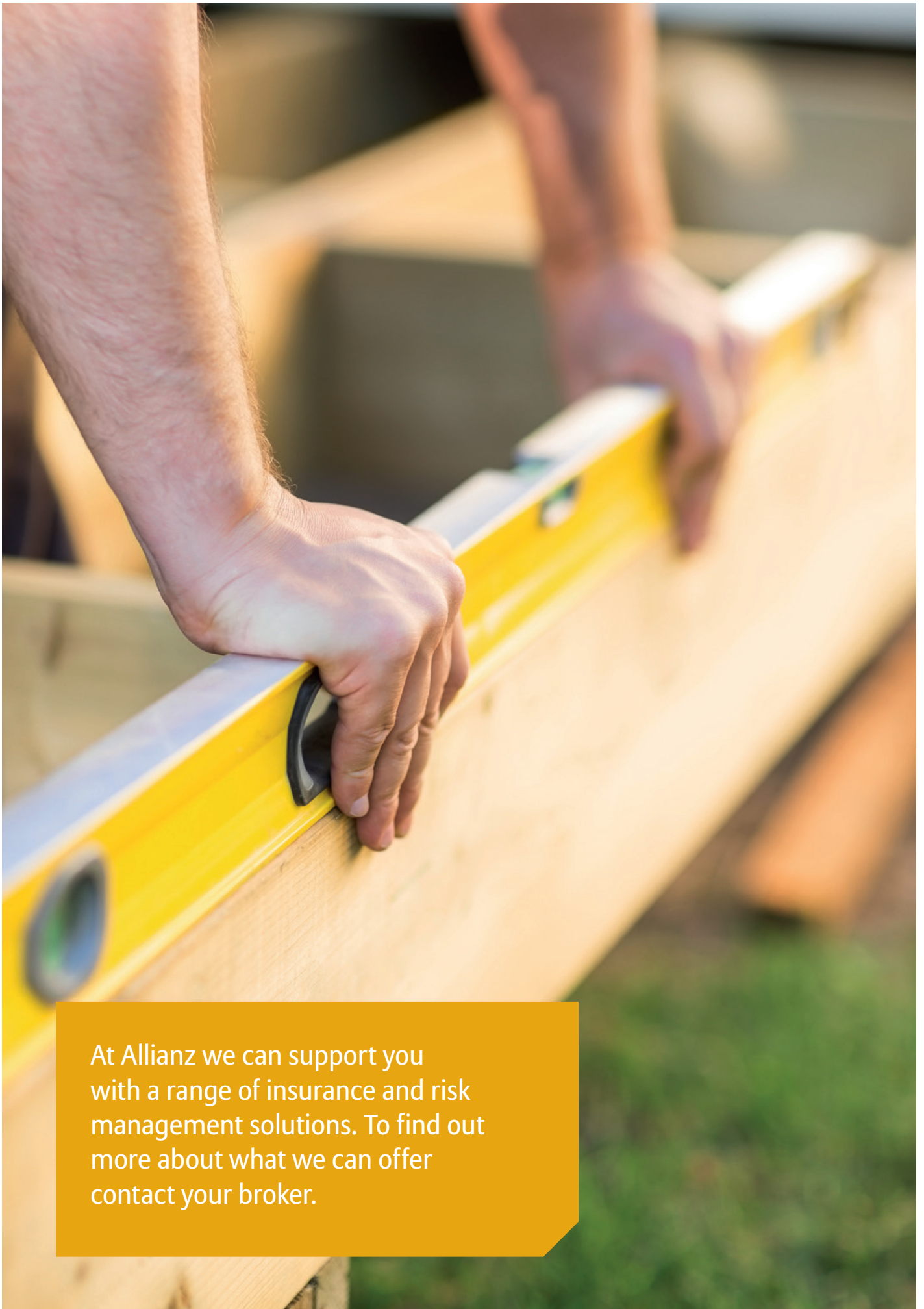
Conclusion

As the construction sector continues to benefit from demand for housing, commercial and infrastructure projects, it will be essential for the insurance market to understand the issues it faces in order to support this growth.

While there are plenty of opportunities, they also face a number of significant changes and challenges. As discussed in part one of this construction White Paper series, these range from Brexit and the continuing skills shortage through to the increased use of technology and issues relating to climate change.

Alongside these challenges, construction firms also need to understand their legislative and regulatory requirements. These affect their day-to-day operations and failure to comply can result in significant penalties as well as reputational damage.

Providing risk management advice and insurance insight is a key way the insurance industry can support these businesses. By working together, insurers and brokers can ensure the construction sector continues to build on its successes.



At Allianz we can support you with a range of insurance and risk management solutions. To find out more about what we can offer contact your broker.

