



SUSTAINABILITY IN CONSTRUCTION: THE CHALLENGES FOR THE LIABILITY MARKET

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1. Introduction

- Following COP26 there is political commitment to help mitigate climate change risks and achieve net zero, e.g. the Glasgow Financial Alliance for Net Zero and Global Coal to Clean Power Transition Statement.
- Not dealing with the energy markets here, but consensus that the energy crisis is likely to lead to construction industry to innovate and adopt low carbon technologies.
- Risk transfer provided by the liability insurance sector allows the construction sector to function, including product manufacture and innovation in support of net zero.

1. Introduction

Climate Change Litigation

- The climate litigation landscape is already active. Civil action groups are becoming more organised, paving the way for climate litigation with potential consequences for changes in the law, as well as changes to policy wordings and coverage.
- A climate change ‘duty of care’ - while establishing causation in claims against contributors to climate change is very difficult, the notion of a climate change duty of care is already being tested.
- Construction methods that are eco-friendly in some present their own risks, including susceptibility to ignition, burning and water damage.

2. Construction & UK Building Safety Act

Context and Background

- The Building Safety Act 2022, HMG's response to the cladding and building safety crisis. Ambition to change both regulation and culture within the UK construction industry.
- Following the Grenfell Tower fire, it became apparent that there are many construction products which are not subject to a designated standard or which do not conform to a technical assessment.
- Act provides powers to identify and make regulations for 'safety critical' products (where the failure of such products would risk causing serious injury or death). Requires manufacturers to supply clear performance information when placing products on the market.

2. Construction & UK Building Safety Act

A New Regulatory Regime

- The Act creates powers to enable the Secretary of State through regulations to make provision for the marketing and supply of construction products placed on the UK market.
- The draft Construction Products Regulations 2022 published as the new Act was making its way through Parliament set out the designated standards for construction products which will be required to be safe before being put on the UK market.
- A new national Regulator is being established in the Office for Product Safety and Standards.

2. Construction & UK Building Safety Act

A New Regulatory Regime

- The new regulations will:
 - prohibit the marketing or supply of construction products which are not considered 'safe products'.
 - impose other requirements for the purpose of securing that construction products which are not safe products are not marketed or supplied;
 - impose requirements in relation to the marketing or supply of construction products which are safe products
- The relevance for liability insurers is that there is likely to be a tougher testing regime for construction products. We might expect there to be greater levels of in-built safety and hopefully less risk for insurers.

3. Modern Methods of Construction

Introduction

- Insurers recognise these risks but also appreciate their customers' appetite for using 'greener' construction methods and materials.
- There is an opportunity for the insurance industry to provide risk management advice to and to balance of risk mitigation with sustainable construction.
- Construction methods address losses from fire and water damage, which includes flood, water ingress, sprinkler leakage, and escape of water (EoW), are addressed with the insurance impact components of material damage (MD) and business interruption (BI) considered.

3. Modern Methods of Construction

Timber Construction

- Often described as the ‘sustainable choice’. This remains a major area for debate.
 - Over their lifetime, wood products are associated with lower greenhouse gas emissions than other building materials including steel, concrete and aluminium.
 - Require relatively less energy to extract and harvest than other resources.
 - Timber has the potential to continue yielding products almost indefinitely with a relatively short growth cycle.
- Challenge for the insurance market is well documented: cf *‘RISCAuthority -Insurance challenges of massive timber construction’ - Jan 2022*

3. Modern Methods of Construction

Timber Construction

- There is a way forward led in part by new regulation (as described earlier) to support sustainable construction:
 - *Fire Safety Challenges* - timber is currently exempt from HMG's ban on the use of combustible cladding materials. We shall shortly have a new framework for the production of these products and their use in buildings:
 - Property Protection/Fire Mitigation Systems;
 - Escape of Water Prevention systems;
 - 'Hybridisation' of construction methods e.g. blending traditional and modern methods.

3. Modern Methods of Construction

Low Carbon Concrete

- Concrete is the second most globally used material after water. UK produces circa 109Mt of ready mixed concrete and precast concrete products annually.
- All concretes to BS85001 are based on Portland cement, or CEM1, but mostly contain additions, or other cementitious materials. These include:
 - Ground granulated blast-furnace slag (GGBS)
 - Fly ash
 - Silica fume
 - Limestone powder
 - Pozzalana

3. Modern Methods of Construction

Low Carbon Concrete

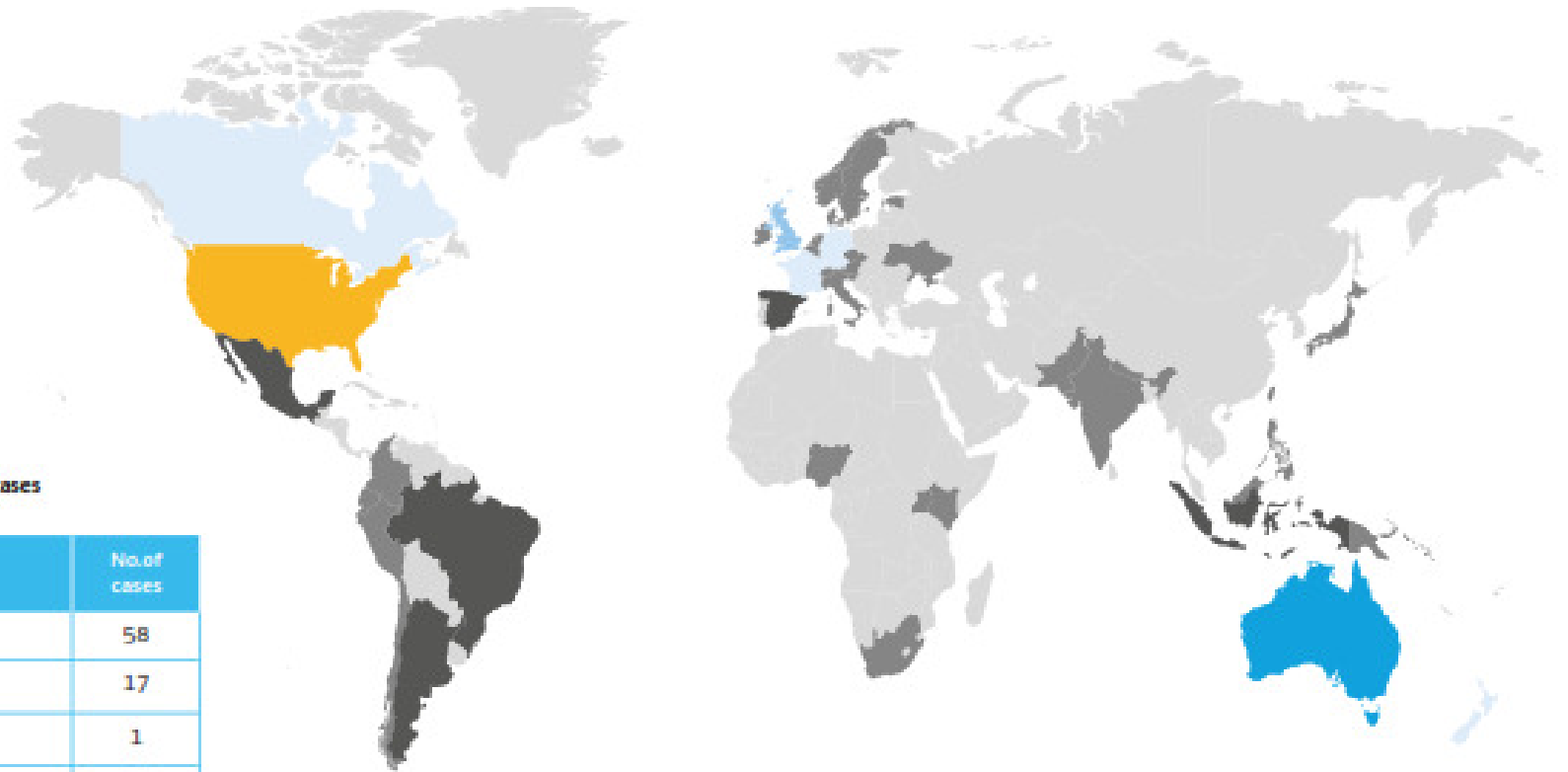
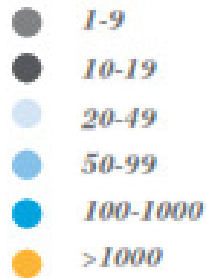
- Significant savings can be made to the embodied carbon of concrete by specifying the cements that include additions.
- *Challenges*
- The higher the proportions of additions within the concrete, the slower the strength gain of the concrete. Risk associated with suspended slabs or post-tensioned elements.
- Higher strengths of concrete require a larger proportion of cement and the embodied carbon in higher strength concrete is greater per cubic metre than a lower strength concrete.
- Reports of North American losses associated with losses related to concrete and concrete forming due to various issues.
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3. Modern Methods of Construction

Other Technologies

- Offsite Manufacture
- Automation - Automation in bulk earthmoving is well established,
- With dozers and graders able to operate using digital data to achieve required formation profiles. This has recently extended to use on hydraulic excavators for work on foundations, drainage trenches, etc.
- There are carbon-savings to be made from each of these technologies but they are not risk free cf. ACM cladding.
- Better regulation of construction products is essential for comfort to the insurance market.

4. Climate Change Litigation Risks



Cross-jurisdictional climate litigation cases

Where	No. of cases
EU	58
UN	17
East African Court of Justice	1
European Court of Human Rights	7
European Committee on Social Rights	1
Inter-American System of Human Rights	5
International Centre for Settlement of Investment Disputes	9

4. Climate Change Litigation Risks

- What do we mean?
 - Claims against contributors to climate change. Arising from the concept that there is a duty on public and private actors to exercise their powers to prevent harm to a population that can be directly linked to climate hazards resultant from the actors' actions or activities.
 - Eg, in the Netherlands, the District Court of the Hague found that Royal Dutch Shell must reduce its carbon dioxide emissions by 45% by 2030 (against 2019 levels). The claim was brought by seven environmental associations and NGOs acting as co-claimants (*Milieudefensie v Royal Dutch Shell* [2021]).

4. Climate Change Litigation Risks

Case study

Leading litigation cases against contributors to climate change

Massachusetts v Environmental Protection Agency [2007] (USA)

The first successful climate change case in which the Supreme Court recognised that greenhouse gases are air pollutants that could endanger public health or welfare.

Friends of the Irish Environment v The Government of Ireland & Ors [2020] (Ireland)

The Irish Supreme Court determined that Ireland's National Mitigation Plan falls short of specificity because a reader of the plan would not understand how Ireland will achieve its 2050 goals. However, the Court found that the claimant lacked standing to bring its claims under the constitution or the European Convention of Human Rights (ECHR).

Sharma v Minister for the Environment [2021] (AUS)

First Instance decision that the environment minister has a duty to take reasonable care to avoid causing personal injury to Australian children when deciding to approve the extension project for a coal mine. Overturned on appeal by the Full Federal Court.

- Establishing causation in climate change claims is currently difficult.
- For instance, if properties are flooded because of climate change, it is challenging to attribute the damage from one-off events to past GHG emissions. However, the cost of defending a company against such claims can be financially prohibitive.

3. Climate Change Litigation Risks

Greenwashing Claims

- Greenwashing when representations are exaggerated and made to mislead environmentally conscious consumers or investors.
- In Australia, by way of a foretaste of future trends, the Commonwealth Bank of Australia was faced with litigation in August 2021 over shareholder concerns that the bank's investment portfolio ran contrary to the bank's own 2019 Social and Environmental Framework and Environmental and Social Policy.
- As a result, insurers are seen as financial enablers, and with the perception that they have deep pockets, they too could be the focus of litigation if they continue to insure those policyholders who refuse to put in place appropriate measures.

4. Climate Change Litigation Risks

- The buildings and construction sector accounted for 36% of final energy use and 39% of energy and process-related carbon dioxide (CO₂) emissions in 2018, 11% of which resulted from manufacturing building materials and products such as steel, cement and glass. (*IEA - Global Status Report for Buildings and Construction 2019*)
- We might expect some of these litigation risks to make their way to the construction industry and its liability insurers.

5. Risk Mitigation for Insurers

Insurers / underwriters

- Develop Net Zero plans
 - Plans will need to consider climate impacts, including supply chains.. Insurers can help their customers mitigate claims and reputational risk by educating them on resilient net zero plans.
- Take steps to ensure conduct is fully compliant with objectives
 - Ensure full alignment between all corporate statements and internal practices. With businesses rushing to adopt new sustainability targets, the risk is that business operations cannot keep pace with expectations.

5. Risk Mitigation for Insurers

Insurers / underwriters

- Engage with New Technologies. Now.
 - Ensure that the insurers fully understand the technologies, products and methodologies that policy holders are adopting.
- Regulation
 - The role played by regulators and Government will be key. Insurers must ensure that they are continue to follow the rapidly changing regulator space and, where necessary, lobby for clarity of regulation.

5. Risk Mitigation for Insurers

Insurers / underwriters

- Seize the opportunity
 - With challenges comes opportunity and businesses have the chance to drive and benefit from environmental opportunities, which include opportunities in green technology, green building and renewable energy.
 - It has been estimated that the benefit to UK manufacturing alone in producing zero carbon compatible equipment could be more than £200 billion between now and 2030.
 - Insurers have a clear opportunity to evolve their business models so that the primary emphasis is on helping to build deeper resilience and risk mitigation among their customers.



CONCLUDING REMARKS

Questions & Answers

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