Climate Change
Predictions 2022

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AVIATION

1. Hydrogen-powered flight: visionaries and pragmatists

In our 2021 aviation prediction, we highlighted the development of hydrogen-powered fuel cells and hydrogen-based jet engine flight. However, bringing such new and innovative technology into commercial operation requires not just visionaries but also pragmatists. The adoption of hydrogen-powered flight on a commercial scale will require significant investment in terms of new aircraft, related infrastructure at airports and the adoption of new skills and expertise on the part of those responsible for aircraft maintenance and servicing. There will be a learning curve for aviation insurers in terms of the impact that hydrogen-powered flight has on the risk profile of their airline insureds. There is also currently a sting in the tail: at present, hydrogen is almost entirely produced from natural gas or coal. The International Energy Agency estimates that its global production is responsible for annual CO2 emissions equivalent to those of Indonesia and the United Kingdom combined. Yet, its clear environmental benefits give hydrogen an important role in the aim of the European Commission to meet the 2050 climate neutrality goal of the European Green Deal. The aim is to decarbonise hydrogen production using mainly wind and solar energy. None of this can be achieved overnight.

2. Action needs to follow the rhetoric on climate change

On 10 November 2021, the International Aviation Climate Ambition Coalition was launched at the COP26 climate change summit in Glasgow. Through this, 21 states (including the UK, the US, Japan, Canada, France, Kenya, Korea and Costa Rica) have made a commitment to working together to support the adoption of an ambitious global goal for the reduction of international aviation CO2 emissions by the International Civil Aviation Organization. We predict that this declaration will act as an impetus during 2022 further to advance the development and deployment, through international and national measures, of sustainable aviation fuels and of innovative new low and zero-carbon aircraft technologies that can reduce aviation CO2 emissions. The industry's commitment is ambitious: it is towards net zero CO2 emissions by 2050. Time for action to follow the rhetoric. For insurers, these new technologies will bring new risks.

CASUALTY

3. The HSE will focus on a safe transition to a carbon neutral economy

As part of Build Back Greener, the HSE will be supporting the delivery of the Government's 10-point plan for a green industrial revolution and a safe transition to a carbon neutral economy. The HSE will also be working with the Government and other stakeholders on new and emerging technologies in the workplace to reduce risk from activities such as 3D printing, systems involving artificial intelligence and the use of drones. In 2022 the HSE will focus on a review of its regulatory framework as it applies to current and future net zero activity – identifying the policy, regulatory, operational and evidential steps needed to support the innovation and development of new technology during the transition to net zero.

CONSTRUCTION AND ENGINEERING

4. Building for our future – time to engage in green climate-resilient construction

Climate-change literacy is now a fundamental discipline to all competent design. Consultants and D&B contractors must engage in green climate-resilient construction. This adds a plethora of factors for evaluation in the specification of new infrastructure and buildings. Projects must meet both client tender and planning criteria and also developing climate decarbonisation targets. Failure to account for these in the building process has consequences. Government and private tenders will place increasingly greater emphasis on procurement by reference to sustainable factors and fewer emissions. Brownfield development, the repurposing of existing buildings and adoption of new efficient technology are all factors which will differentiate our future buildings. These must also incorporate design life climate-resilience characteristics, accounting for flood risk, rising temperature, ground and coastal change and increased fire loading. The legal obligations to meet these new standards are developing fast. Insurers should ask additional pre-inception underwriting questions and survey larger risks to avoid additional future liabilities over a 15 year risk period.

5. Australian residential builders face multiple challenges

We expect to see emerging risks relating to exposures for residential builders, particularly with a focus on large developments. Floods in New South Wales, south east Queensland and Victoria early in 2021 put the spotlight on residential buildings in areas that are high risk flood areas. Another emerging issue surrounds the residential projects being built on reclaimed land in Western Sydney, which require significant earthworks to bring the sites to a standard sufficient to support residential homes without footings to bedrock. Due to the pandemic, Australia is also facing a critical shortage of building materials and many construction sites have languished through extended lockdown periods. These pressures will inevitably impact the future liability claims profile of construction participants.
Contributed by our Australian Legalign partner, Wotton + Kearney

DIRECTORS AND OFFICERS AND FINANCIAL INSTITUTIONS

6. Increasing transparency around ESG turns up the heat on D&Os

Investor demand and social inflation is moving the UK towards mandatory ESG reporting. From April 2022, the largest UK-registered companies and financial institutions will be required to disclose their climate change related risks. The FCA's July 2021 consultation, focusing on transparency around board diversity, tends to suggest that S and G are following hot on E's heels. D&Os need to be careful to ensure that all ESG information presented on behalf of the company is accurate. Although ESG disclosures are not yet mandatory in the UK, the risk of claims for greenwashing (or the S and G equivalent) remains an ever-present, and increasing, threat.

7. Corporate ESG pledges come with liability risks for D&O insurers

ESG has infiltrated legal areas that go beyond the strict arena of climate change. Business priorities are shifting in response to environmental awareness campaigns and the high profile given to COP26. This has led to increased recognition of the importance of corporate responsibility, sustainable finance and social values. Companies are promoting their ESG credentials in their marketing materials and corporate contracts. Pledges are made not only with the aim of reducing energy overheads, but because companies know ESG creates brand recognition and loyalty, and their customers, investors and employees are demanding commitment. Transparency and evidence of implementation will be scrutinised. ESG policy documents encapsulating clearly defined objectives, together with regular tracking of improvements against performance indicators should help companies and their directors navigate the risk of setting unachievable targets or overstating results. Given the risk of abusive marketing practices and the inevitability of legal claims, ESG exposure will need to be carefully considered by insurers during the D&O underwriting process.
Contributed by our Chilean office.

8. D&Os will be named in more US lawsuits over climate change

While there have been a number of lawsuits filed in the United States over the past couple of years against corporations and government entities related to climate change, only a limited number name D&Os as defendants in actions. However, with the increasing pressure on US companies to address environmental, social and governance (ESG) matters, shareholder activism has increased. This shareholder activism, in turn, has already led to board changes involving fossil fuel companies. Looking ahead, potential future actions against corporations may be focused on the failure of a board to meet investor expectations on certain ESG factors, including corporate actions on climate risk and energy usage. Additionally, corporate disclosure of initiatives on environmental and social actions that are voluntarily incorporated into annual reports and proxy statements - but not followed through by the company and its D&Os - may lead to future litigation.

Contributed by our US Legalign partner, Wilson Elser.

9. D&O exposures to climate change risk vary across jurisdictions

Directors and officers are facing increasing climate-related risks due to governance and continuous disclosure obligations and their interactions with institutional investors. Changing societal norms have created an expectation that directors should consider and act on financial risks caused by climate change. These risks vary in their maturity across jurisdictions. While in some jurisdictions, such as the US, climate-related risks are already leading to securities class actions involving directors and officers, the risk is still emerging in many others. In Australia there is still no mandatory requirement for specific climate change information in company reporting – although there is regulatory encouragement for it. Arguably, the need for disclosure is also addressed by the requirement to report on material risks. In the absence of specific regulatory requirements, directors and officers need to consider risks to the company's ability to obtain financing or insurance due to the company's climate credentials and the risk of activist litigation. Additionally, "greenwashing" has resulted in regulatory and activist legal action so advertising environmental credentials carries its own risks.

Contributed by our Australian Legalign partner, Wotton + Kearney.

INSURANCE ADVISORY

10. Spanish traders and financial entities must assess the financial impact of climate change risks

Spain's new regulatory framework for fighting climate change (Law 7/2021) came into force in May 2021. This sets ambitious national targets for reducing emissions and promoting energy efficiency and renewable energy by 2030 and 2050. Its wide reach covers transportation and infrastructure, building materials, mineral explorations and extraction, financial investments and more. Financial entities and regulated companies are subject to reporting obligations and must submit an annual report assessing the financial impact of risks associated with climate change generated by their activities. Also from 2023, credit institutions must publish decarbonisation targets for their financial portfolios. These measures will see Spain as a committed player in the global fight against climate change.

Contributed by our Madrid office.

INTERNATIONAL CASUALTY

11. The globalisation of litigation

ESG concerns, particularly the pursuit of claims relating to social injustice and climate change, will drive transnational litigation with parallel proceedings in multiple jurisdictions. The *Dieselgate* litigation serves as a case study for the pursuit of claims in many jurisdictions in relation to a single underlying issue. We see a growing recognition by courts and legislators across the world of the need to promote access to justice and to enable citizens to obtain compensation comparable with what would be received elsewhere, namely the US.

12. Climate related litigation will continue to increase

Climate related litigation is only just getting started. Claims will increasingly be brought using evidence to support the causal links between the impacts of climate change and the actions of individual companies. The ruling in *Milieudefensie et al v Royal Dutch Shell* is particularly significant because it is the first time a national court has held a private corporation responsible for reducing its emissions worldwide – including emissions within its supply chain. This decision is likely to encourage claimants in various countries to bring claims against other heavy-emitting companies. This is already apparent in Germany where two NGOs have filed a suit modelled along similar lines against Volkswagen, BMW, Mercedes-Benz and Wintershall Dea. While climate change litigants still have significant hurdles to clear, developments show that cases are more likely to progress to the evidentiary stage and result in substantially increased costs.

MARINE, ENERGY AND TRANSPORT

13. Collaboration and collective responsibility is the key to marine ESG advancement

The reliance on shipping for transporting 90% of the world's goods has heightened scrutiny about how the industry can achieve greater sustainability. Unchecked, emissions are projected to reach up to 130% of 2008 levels by 2050. Nine companies, including Amazon and Unilever, have already made promises to reduce their Scope Three emissions by aiming to achieve zero-carbon shipping by 2040. That is a commendable target, but the big questions are what is the right technology to adopt to achieve that goal and how will the associated huge investment be funded? This significant cost cannot be borne by vessel owners alone, plus account will need to be made for the risks associated with using new, untested fuels. There is also the question of how much of this cost can and will be passed on to shippers and consumers at a time when shipping costs are already at record highs. The COP26 Clydebank Declaration and the proposed green corridors are further positive steps for the shipping industry, but until countries that are key to the major shipping routes such as China also sign up, the impact may be less effective.

14. Climate activist litigation will fuel social inflation

This year will see a new trend in social inflation emerging, with climate activist groups using the courts to compel companies to comply more definitively with existing law and regulation around reducing emissions. The first example of this was seen in the collective action initiated against Royal Dutch Shell by climate groups and 17,000 civilians in the Dutch courts. In the 2021 judgment, the court agreed that Shell was not doing enough to mitigate its impact on the climate and ordered Shell to reduce global CO2 emissions by 45% by 2030. More recently, German climate activists have issued a claim against BMW, Daimler and VW on almost identical grounds. While this type of litigation does not seek the immediate financial impact of a penal monetary award, the longer term consequences of achieving more stringent emissions targets will be significant, both in terms of increased transition risk and managing ESG disclosure obligations. This climate activist litigation will have wider implications for all large carbon producing entities, who may choose to adjust their own emissions targets for fear of being targeted directly by activists.

15. North Stream II – pipeline´s completion: a risk to be considered

The completion of the North Stream II – pipeline from Narwa-Bay in the Leningrad-region of Russia to Lubmin in Germany and the commencement of the gas-deliveries will stabilise gas-supplies in Middle Europe, but might bring new risks to the environment and sensitive eco-systems of the Baltic Sea. Claims from accidents, leaks or even sabotage will have to be taken into consideration by underwriters not only with respect to the pipeline itself, but also for shipping, coast-property etc. that a primary incident at the pipeline might cause.

Contributed by our German Legalign partner, BLD.

16. Green hydrogen will fuel a new energy insurance market

Analysts have estimated the green hydrogen market could be worth €10 trillion by 2050. Given the market potential and the numerous green hydrogen projects already planned, including the US$36 billion Asian Renewable Energy Hub in Australia's Pilbara region, energy insurers should expect to see a significant increase in global demand associated with constructing and operating green hydrogen plants and pipelines. Green hydrogen developments are a positive news story for the world, particularly in the wake of the IPCC's 2021 Climate Change Report. However, the new technology comes with risks that underwriters will need to carefully consider. For example, green hydrogen is highly flammable and is difficult to store and transport. While these issues are being addressed through extensive global research and development, insurers will need to stay on top of these developments. This includes monitoring how the marine industry embraces ammonia, a fuel derived from green hydrogen, as a potential transportation solution.

Contributed by our Australian Legalign partner, Wotton + Kearney.

MOTOR

17. Greater collaboration in the drive to zero emissions

With the recent COP26 summit highlighting the need for urgent global collaboration to achieve the ambitious targets set in respect of global warming, there is a renewed vigour in the commitment to banning the sale of carbon emitting vehicles by 2040. Expect greater collaboration between automotive industry stakeholders to leverage economies of scale, and governments of leading markets to provide greater support to those in emerging and developing economies. But with key nations including China and the United States, as well as various car manufacturers, failing to put their names to the Glasgow pledge, it remains to be seen if there is sufficient political will to realise the ambitions of the Paris Agreement.

18. New legislation for electric scooters in Ireland

The legalising of e-scooters in Ireland will create new underwriting opportunity. Currently under Irish law, the use of electric scooters is not specifically regulated and by default is covered under the Road Traffic Act 1961. In an attempt to formally legalise their use, the Irish Government is set to enact new legislation in the form of the Road Traffic (Miscellaneous Provisions) Bill. The Bill would create a new vehicle category called Powered Personal Transporters (PPTs) that would not need a driving licence, tax or insurance. It is expected that a significant number of e-scooter service providers will start to operate rental services in major towns and cities. This will create an opportunity for insurers who can underwrite schemes for e-scooter sharing platforms and provide personal accident products without the requirement to have regard to road traffic legislation and regulations. In the UK, e-scooter trials are already in operation as part of the Government's strategy to tackle both the future and green mobility agendas, with legislation expected to follow an analysis of the data collected. It remains to be seen if the UK Government will follow Ireland's lead in legislating to legalise private e-scooters akin to electrically assisted pedal cycles (e-bikes), without mandating the provision of insurance against third party liabilities, nor the use of helmets.
Contributed by our Dublin office.

PRODUCT SAFETY, LIABILITY AND RECALL

19. You may have heard of green-washing but watch out for ESG-washing and social-washing

As the pressure builds on companies to monitor the working practices of their supply chains and disclose their ESG-related financial investment, the burden is on all businesses to be seen to be complying with their ESG obligations. As we have seen with the "Dieselgate" litigation, failure of manufacturers to comply with emissions regulations - or the greenwashing of credentials or their products to mislead consumers - can have dire legal and reputational consequences. An issue for insurers is whether this might trigger unforeseen liability risks, whether in the form of product liability, advertising liability or D&O exposures in the face of shareholder recoupment claims. Underwriters should seek evidence, pre-inception, that their corporate policyholders are issuing consistent and accurate statements regarding compliance with their climate, sustainability and ESG responsibilities in order to mitigate exposures and the reputational damage of being associated with companies that stray into "washing" their practices.

PROFESSIONAL LIABILITY

20. Construction Professionals: Carbon capture and storage will heat up PI claims in Australia

Carbon capture and storage (CCS) is poised to take a key role in Australia's greenhouse gas emissions reduction strategy. For construction-related professionals, this creates many exciting opportunities – including those relating to the Gorgon project in WA, which is the world's largest CCS project and the largest single resource project in Australia's history – and some new risks. The legal risks from emerging solutions for tackling climate change are exemplified in the collapse of RCR Tomlinson resulting from its unsuccessful transition from traditional engineering projects to solar farms. This has been partly blamed on delays to projects caused by complex regulatory requirements and has resulted in class action proceedings claiming hundreds of millions in damages. The regulatory framework for CCS on and offshore in Australia varies from state-to-state and at the Commonwealth level. The regulatory structures reflect the long-term life cycle of CCS being site selection, injection, closure (including decommissioning and rehabilitation obligations) and long-term monitoring. There are risks of leakage during the injection phase with residual risk remaining after closure. CCS legislation provides for the transfer of long-term liability for stored CO2 to the government after active injection operations have been completed. However, operators must meet specified conditions before this transfer is allowed and the transfer does not provide for an absolute release from liability. Insuring CCS offers exciting opportunities for underwriters to provide cutting edge insurance solutions to a new and sizeable market - to reach net zero by 2050, billions of tons of CO2 will need to be stored. However, the lack of risk history associated with these technologies (combined with the expected rise in project numbers, the complex regulatory landscape and the long tail nature of the liabilities) will make pricing challenging.
Contributed by our Australian Legalign partner, Wotton + Kearney.

21. Financial Advisers: Trend towards ESG investments is a risk as well as an opportunity

In response to client demand, investments that take account of environmental, social and governance (ESG) concerns are increasingly becoming an essential part of the portfolios advisers recommend to their clients. However, these are relatively new products and, as with all new products, issues arise as to whether they are properly described by their promoters and understood by advisers and their clients and whether they are inherently riskier than traditional investments. In giving their clients greener or more socially responsible investments, advisers may unwittingly be creating a mismatch between their clients' attitude to risk and their portfolios and that gives rise to the potential for claims if those portfolios underperform.

22. Pensions: The Pensions Scheme Act 2021 will bring increasing scrutiny and accountability and a daunting to do list

Pensions schemes and their advisers have a long to do list when addressing the myriad issues that the biggest piece of legislation affecting them in years has created. We predict that this is going to be the focus for the next 12 months as ensuring compliance is in everyone's interests. The Pensions Scheme Act 2021 requires trustees to limit the risks of climate change and support the green strategy adopted by government; to develop a plan for their own eventual demise; to prepare for providing information to the Dashboard (where we will be able to see all our information in one place); and to comply with new transfer rules. In addition, The Pensions Regulator will undoubtedly be looking to exercise its new powers to protect schemes from corporate transactions that could put a scheme at risk.

23. Surveyors and Valuers: Future uncertainties in commercial property offer opportunity and risk

The seismic change to our ways of working has significantly reduced office footfall and decimated many city and town centre service providers. Rents and values have in many instances had to be rebased, making some fall out inevitable in the short term where debt levels are no longer serviceable. However, confidence seems to be returning in office, retail and hospitality sectors; not least as informed and selective investment offers far greater growth opportunity whilst global interest rates remain low. The key will be creating high-quality assets which attract good occupiers and consumers. Central to this will be buildings which meet the ever-growing importance of sustainability and ESG, not least in the new impetus generated by COP26. RICS' forthcoming Global Guidance Note, entitled 'Sustainability and ESG in commercial property valuation and strategic advice' is crucial to facilitating awareness within the profession and is likely to have a significant impact on values going forward.

PROPERTY

24. COP26 :The clock is still ticking

At the end of COP26, the parties agreed to reconvene in Egypt in 2022 for COP27, where the focus will be on countries publishing their greenhouse gas reduction goals, known as Nationally Determined Contributions (NDCs). On the face of it, these measures sound like progress towards the all-important goal of a 1.5 degree temperature increase limit. But is it going to be enough? While the UN will be publishing regular reports on the countries that are doing well with their NDCs and calling out those that are not, it seems unlikely that this form of public shaming and praise alone will achieve the desired effect. To stand a realistic chance of reaching the climate goals, further measures such as carbon border tax adjustments (CBTAs) will be needed. CBTAs penalise high-carbon imports from countries without stringent climate targets. In the UK, the Treasury and Department for Business, Energy and Industrial Strategy have indicated that these penalties are under consideration but have cautioned they will take several years to implement and ideally would happen in collaboration with other governments. That might be ideal but the clock is still ticking.

25. The protection gap in flooding – considering all aspects of ESG

Flooding events have a devastating environmental impact, but the social impact cannot be understated. Moreover, not all people are affected in the same way. Research confirms that the largest group of people affected by flooding in poorer areas are tenants as they tend not to have alternative accommodation or the contents insurance that owner-occupiers usually take out together with building insurance. This creates a protection gap. Insurers will undoubtedly continue to play a key role in finding a solution to this gap and protecting vulnerable communities in line with Flood Re's "Build Back Better" campaign, which aims to ensure damaged properties are repaired so they are more resilient against future loss events. Across the world, climate change threatens a vicious circle of more severe flooding events and deepening inequality. Increasing insurance coverage among vulnerable communities can break this cycle, but the question remains where the responsibility should lie. Will it be down to society, the insurance industry, government or a combination of all three?

26. Smart tech is only part of the solution for cities

Cities will need to marry an improving investment in smart technology with better planning, mapping and an understanding of the built environment in order to avoid future climate disasters. It was encouraging to hear Sadiq Khan, Mayor of London, highlight at COP26 that our cities are leading the way for national governments to follow, proving to be more nimble, progressive and responsive. However, while measuring footfall, rainfall, ground stability or pollution is a great step forward, it is not the whole solution. We are still seeing serious flooding in our cities, so now we need to join up the data with real action on response planning specific to each location. As shown in our thought leadership on the interconnectivity of solutions, a co-ordinated response with structured goals is the key to real results.

27. The lifecycle of subsidence claims is likely to lengthen

We predict an increase in subsidence claims beyond the historic hotspots as temperatures rise over the coming decades. The need to act now to protect the environment must impact how subsidence claims are handled and mitigated going forward. Competing needs of tree owners, local residents and owners of damaged properties will need to be carefully managed. The landscape will change further with the far-reaching Environment Act 2021. For subsidence claims, local authorities in England will have to consult before felling street trees, unless exempt. Historically, tree removal has been seen as an acceptable way to mitigate the loss and prevent subsidence damage. The main alternative is underpinning, which is not only expensive but also has environmental ramifications. Lifecycles for subsidence claims will lengthen as members of the public object to tree removal with the inevitable adverse publicity for this highly emotive topic. Collaboration between all the key stakeholders is again key.

28. The positives and negatives of battery technology

Efficient power storage is a key element of a low-carbon economy. Lithium-ion batteries are proving a popular solution as they are rechargeable, have a high energy density, no memory effect and low levels of self-discharge. However, they are also risky if damaged or incorrectly charged as they contain flammable electrolytes. Lithium-ion batteries have been linked to many fires, including a significant fire incident involving a Tesla battery project in Australia. These fires are intense and difficult to bring under control, so determining causation can also be complex. Lithium-ion battery transportation and disposal are other issues that are causing concern for insurers. While the search continues for ways to make battery technology more stable, risks are being managed with better quality products, active maintenance and fire prevention strategies.

Contributed by our Australian Legalign partner, Wotton + Kearney.

29. Environmental liability remains a critical risk in Australia

Analysis of recent case law shows environmental prosecutions are increasing in Australia, particularly in the mining and waste industries. We are also seeing some companies, particularly prior offenders and companies on the watch lists of environmental groups, being investigated based on lower thresholds. As managing pollution remains a focus for governments at all levels, we also expect to see the legislative and regulatory framework evolve to address this serious issue. A recent example of this was the Industrial Chemicals Environmental Management (Register) Act 2021, which was passed on 18 March 2021. With regulatory activity on the rise, having appropriate environmental liability coverage in place remains a critical risk management strategy for many businesses.

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30. Climate-related liability precedent set in Australia

Climate-related liability has already been extended by the Australian courts to the government. In May 2021, Justice Bromberg of the Federal Court identified a novel duty of care owed by the Minister for the Environment to Australian children to consider potential personal injury to them due to climate change in deciding whether to approve the extension of a coal mine *(Sharma by her litigation representative Sister Marie Brigid Arthur v Minister for the Environment).* The decision, in which Justice Bromberg agreed that climate change would cause catastrophic and startling harm to young people, is likely to set an important precedent.
Contributed by our Australian Legalign partner, Wotton + Kearney.

31. Environmental liability exposures on the rise in New Zealand

New Zealand's environmental legislation, the Resource Management Act 1991, is being overhauled. The new regime will focus on achieving environmental bottom lines to be set by central government. One of the Government's express policy objectives is to increase the scope and severity of enforcement in order to deter offenders. We expect the new legislation will lead to an increase in both the frequency and quantum of environmental liability claims.
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