The bigger picture

The $10 trillion role of insurance in mobilising the climate transition

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Foreword

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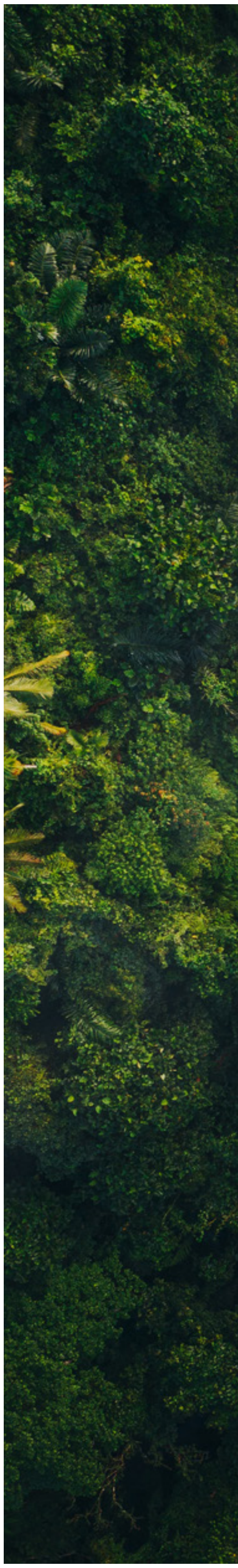
The global response to the climate crisis represents a systemic failure in our collective approach to risk management. Growing levels of economic damage and human suffering are not being met with the political resolve, capital mobilisation or global collaboration needed even though we have known about the crisis for decades.

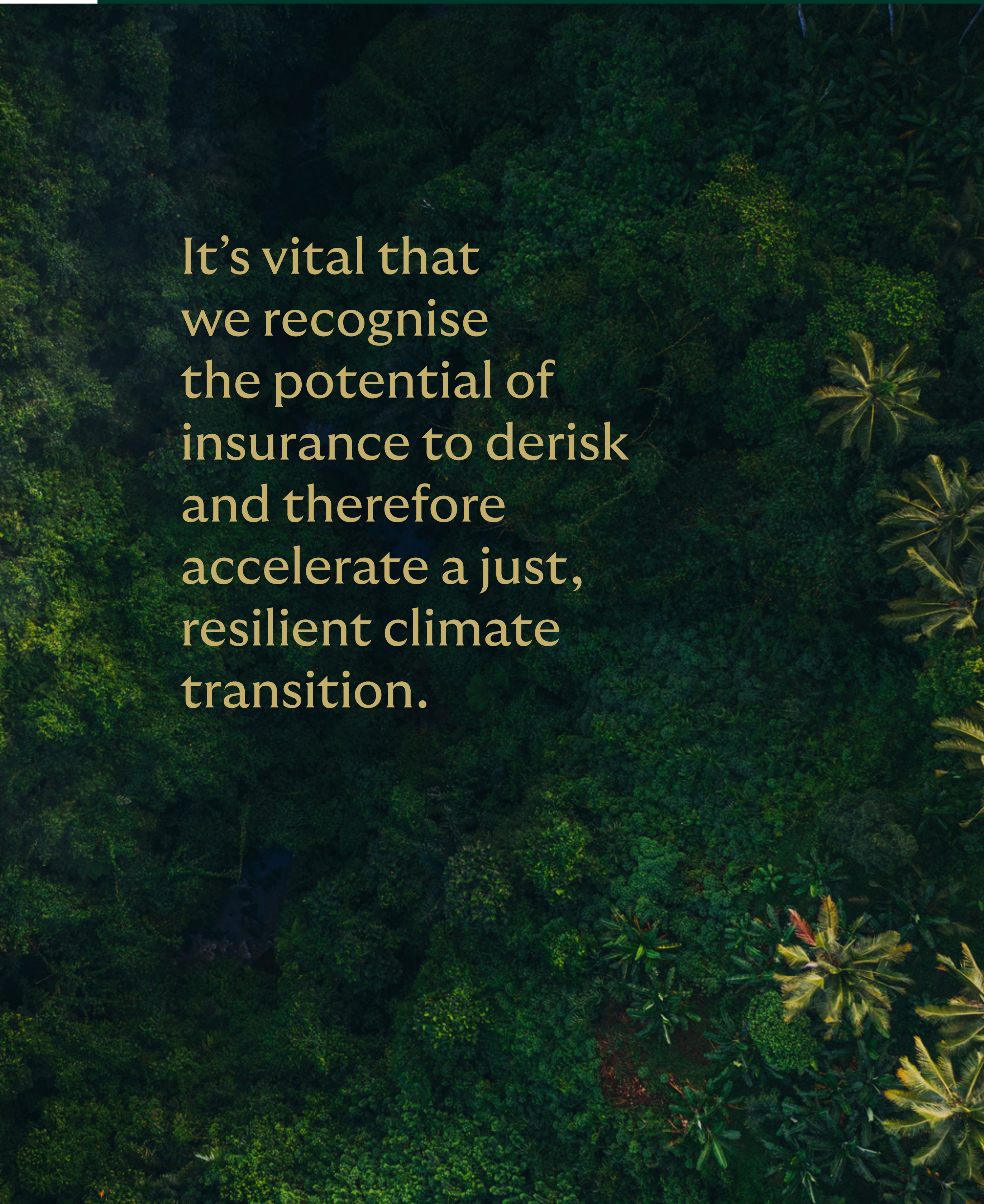
To catalyse change at the speed and scale required to address this long-standing failure in our complex global economy, we need three things. Firstly, an 'action architecture' of bold, exponential goals on a timescale meaningful to CEOs and Ministers alike – so 2030 not 2050! Secondly, we need to harness the 'ambition loops' between supply and demand, and between public and private sectors – whereby ambition and action by one encourages more ambition and faster action in the other. And thirdly, we need radical collaboration among different actors, to agree on the mid-term system goals and the broad pathways to get there so all can commit and be more confident in the role they must play.

At COP26 the UN Climate Champions and COP26 Presidency launched such an architecture of ambition with the 2030 Breakthroughs – at last moving away from the era of broad abstract targets to specific deployment goals for each key sector. As part of this, it's vital that we recognise the potential of insurance to derisk and therefore accelerate a just, resilient climate transition.

However, to truly harness this potential radical collaboration will be required among markets, clients, and regulators. Courageous leadership will be required to convene challenging conversations, foster innovative solutions and deploy them before they are proven to accelerate our collective learning.

I welcome this paper and hope it launches a conversation that leads to the definition of a clear set of 2030 Climate Insurance Breakthroughs. Radical collaboration across the insurance value chain is necessary to define these, map implementation pathways, and lead early innovation and deployment to build confidence and drive necessary solutions at scale.





It's vital that we recognise the potential of insurance to derisk and therefore accelerate a just, resilient climate transition.

Executive summary

Developed and emerging economies face unprecedented challenges as they seek to achieve net zero and climate resilience.

Without sufficient insurance to de-risk markets and communities, a smooth and swift transition will be impossible.

Insurance should serve as a great enabler to clear obstacles for the net zero transition while supporting the adaptation and resilience needed to face inevitable climate impacts.

Insurance systems play essential roles in most areas of economic activity. Without the financial derisking and risk governance insurance provides, most business operations and investments would come to a halt. One result of the ubiquity of insurance is that it frequently fades into the background. Businesses often take for granted both that the insurance capacity they need will always be available and that traditional, usually short-term approaches to working with the insurance industry will remain optimal and viable in the future.

But things are about to change.

This paper sets out two structural pressures that the insurance market will face over the next five years to 2030.

- $19 trillion in investment has already been committed to financing the climate transition through to 2030. Deploying these funds on the development, construction, and operation of climate-related infrastructure and technology will require additional insurance coverage for up to $10 trillion of this investment.[1]

- In parallel, insurance premiums for physical risks and natural catastrophe protection are set to increase by 50% by 2030, reaching $200-250 billion globally,[2] due to increased losses from climate events, accelerated growth in exposures, implementation of climate risk disclosures and governments transferring public liabilities to private markets.

There is no guarantee that the market will meet this demand at the speed, scale and scope required. If businesses and insurers are to prepare and adapt to these pressures, new ways of working are needed.

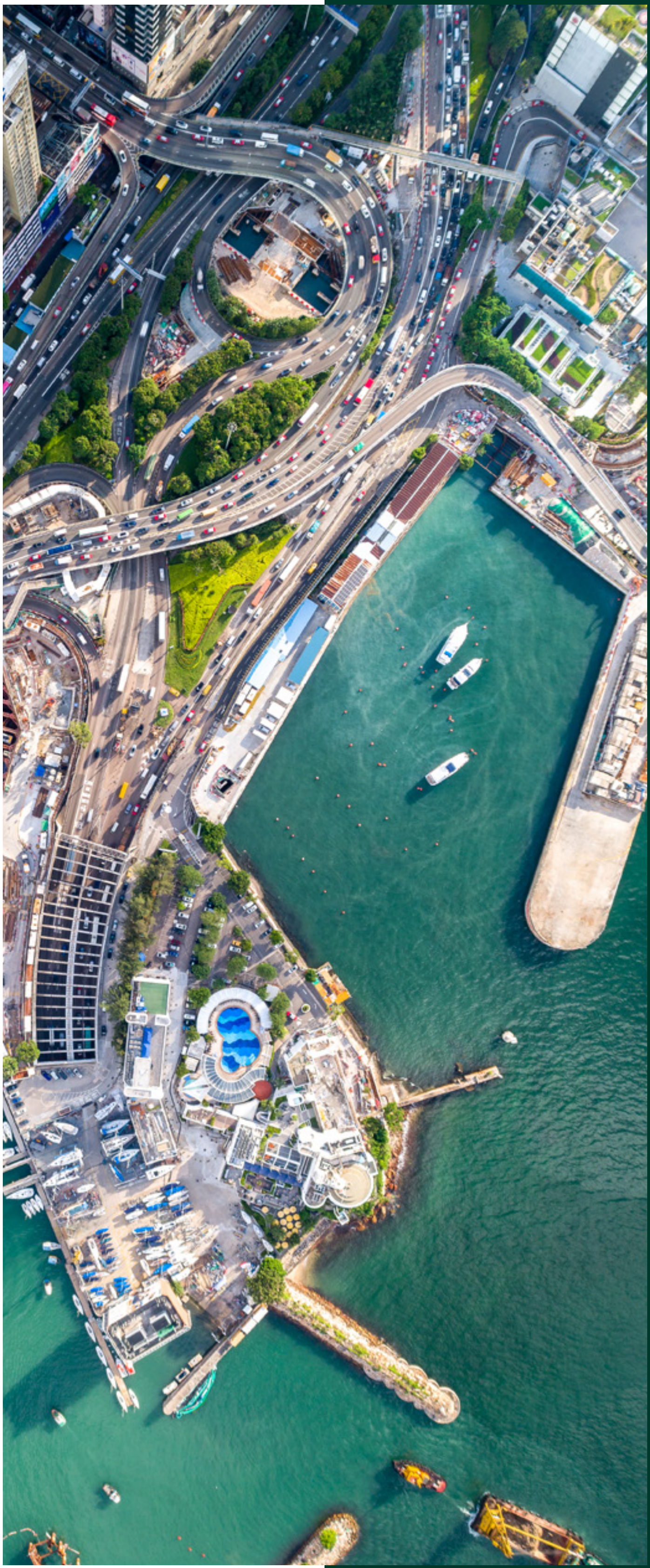
Without insurance, businesses will be unable to reach their net zero transition goals or become resilient in the face of the changing climate. The development of longer-term partnerships between businesses and insurers, along with cross-sector planning and collaboration, is now essential to ensure sufficient capacity and coverage will be available.

With this, insurance is moving out from the shadows of a peripheral, annual procurement exercise. Insurance and *insurability* have become clear and present strategic priorities. Astute companies, creditors, and investors are elevating insurance to boardroom discussions as the foundation of the capital stack and source of medium to long-term financial security.

To ensure that the right coverage is available when required, businesses should engage the insurance industry from an early stage in their climate transition journeys. This approach will enhance the bankability and insurability of their decarbonisation plans, while also helping businesses assess their exposure to physical risk and make informed decisions around investments and the implementation of climate resilience measures.

1 Global insurance coverage needed to deploy the cumulative investments committ-ed to the climate transition in Energy, Road Transport and Building sectors from 2023 to 2030.

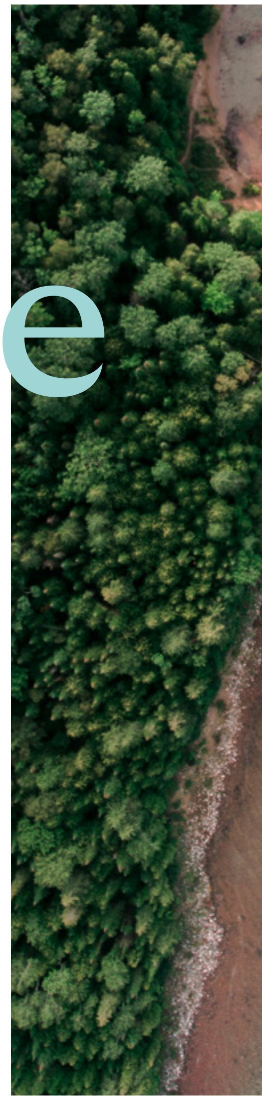
2 The estimates include global premiums for primary insurance and reinsurance within the Property line, covering economic losses to physical assets from climate-related events across Commercial and Personal lines in 2030.



Simultaneously, the insurance sector should work with businesses to design and prepare the coverage and the capacity required. This means not only developing appropriate options for coverage, but also providing risk consulting, risk engineering and analytics to support businesses' strategic planning and evaluation. Insurers should play a central role in the de-risking discussion within the financial community to ensure that insurance is fully utilised to reduce the cost of capital and enhance allocations to key sectors, geographies, and technologies.

The climate transition places unprecedented structural pressures on insurance systems across public, private, and mutual markets between now and 2030. To avoid widespread market disruption, it is essential that businesses and insurers build lasting long-term partnerships to deliver a resilient, net zero transition.

Back to the future



For centuries, insurance has been a constant of economic life.

Without it ships do not sail, infrastructure projects do not break ground, houses are not built, and the wheels of trade do not turn. Insurance is so fundamental, yet so deeply hidden in the foundations of the global economy, that we often take it for granted.

Insurance is rarely a top-line agenda item when companies engage in strategic planning. While businesses need insurance for any significant undertaking, the fact that it is almost always readily available means that it often fades into the background. When both need and availability are assumed, the only remaining relevant variables are price and conditions so this becomes the focal point for discussions.

Historically there has been convergence between the supply and demand sides of the insurance market around the purchasing and renewal process. In the non-life insurance market, the consensus view is that short-term horizons with regular opportunities for review provide the optimal framework for managing insurance needs.

This approach allows insurers to price risk within a comparatively predictable window, limiting their exposure to medium- and long-term changes. Buyers, meanwhile, are happy to embrace this model because it offers an efficient and flexible mechanism for securing competitive prices, allowing them to return to the market regularly in search of the best value.

The widespread acceptance of this relatively narrow pricing volatility and short-term horizon has defined insurance procurement for decades. However, this approach rests upon a view about the future that is rarely acknowledged or discussed. Two interlocking assumptions that underpin this consensus are i) that the insurance market will remain broadly stable, and ii) that if it does not, then any major change will be caused by events for which the timing cannot be predicted in advance and that market equilibrium is quickly restored.

Insurance is so fundamental, yet so deeply hidden in the foundations of the global economy, that we often take it for granted.

These assumptions are reasonable if we ground our decision making in history. In the past, significant upheavals in pricing have come as the result of market shocks in specific regions or sectors. But we are now entering an unprecedented era, because the insurance market stresses from the climate transition will be predictable, ubiquitous, growing and sustained over years and decades. As such, we can no longer rely on the repetition of past market trends as we move forward into the second half of the 2020s. Instead, we must look to the future, where we can see with unprecedented certainty the environmental and economic changes that are approaching.

The inevitable changes that the climate transition will bring will impact both the availability of insurance and the level of demand. Traditional approaches that fail to adjust to this new reality will leave buyers scrambling to adapt when change arrives. To avoid this outcome, businesses should start thinking strategically about how insurers can support them in this new world, and about how the insurance market must innovate and reform to make that possible.

The great enabler

To meet the climate challenge industries will need to adapt and evolve at unprecedented speed and scale.

The 2030 Breakthrough Agenda launched at COP 26 identifies breakthroughs in key industries that can help limit global temperature rises.[3] To these we need to add an Enabling Insurance Breakthrough that recognises the unique role the industry can play in accelerating the climate transition and supporting resilience and adaptation around the world.

This is not the first time that insurance has supported technological and industrial transitions that would otherwise have been slower, or would have stalled entirely, due to the risks involved. At key points in history, insurers have enabled world-changing advances by managing the cost of risk, formalising standards, and coordinating interested parties.

The first steps towards a global economy would never have taken place without the availability of maritime insurance to de-risk investments in trading ventures. The devastating city fires that were once a commonplace in all settled societies were only eradicated after insurers led the way in formulating and implementing new safety standards. And, in perhaps the closest parallel to the climate transition, insurance providers paved the way for revolutionary economic advances like steam power and electrification by creating the conditions under which these innovative but potentially risky new technologies could receive mainstream investment to be implemented at scale.

3 The Breakthrough Agenda: a master plan to accelerate decarbonization of five major sectors - Climate Champions (unfccc.int).

These outcomes were possible because the insurance industry plays two closely related and unique roles. On the one hand, insurance is an engine for collaboration. It is a sophisticated social structure and economic ecosystem that brings together disparate interests to release economic potential in a way that would simply be impossible if everyone acted alone. But more than this, the insurance industry serves as a crucial nexus for governing and managing risk, offering a foundational level of security for investors and broader society.

The insurance industry can once again serve in this vital enabling role as we confront the climate crisis, helping drive progress at another pivotal moment in human history. Many countries are now developing national plans to adapt to the unavoidable impacts of climate change, with an annual allocation of $63 billion in 2021/2022 to fund adaptation and to support social and economic resilience. [4] Businesses have also committed to invest trillions of dollars into the climate transition over the next five years. But the risks involved present unique challenges to financing. De-risking the climate transition and supporting resilience and adaptation more broadly will be essential to unlocking these funds.

4 Global Center on Adaptation, Climate Policy Initiative "State and Trends in Climate Adaptation Finance 2023", p. 3.

With their deep expertise in risk analysis and management, insurers have the tools to identify, address, and manage the risks that currently act as a drag on progress towards climate goals. But this is not something insurers can do alone. To achieve these goals, businesses must collaborate with the insurance industry to ensure that their needs are met in terms of both capacity and the types of products available.

Nothing gets financed ordinarily without insurance, but the financing of the largest capital expenditure of all time, the protection of nature-based solutions and expansion of new carbon and biodiversity credit markets, are being attempted largely without mobilising the power of insurance.

A question of capacity

Insurance has been readily available to large businesses throughout the modern era.

It is not surprising then that buyers have come to assume that this situation will not change. However, the reality is that insurance capacity can no longer be taken for granted. As investments supporting both the climate transition, resilience and adaptability grow, and as costs arising from climate change increase, businesses will need to recognise and confront a critical danger: where insurance has previously been treated as a given, a gap may now emerge between the demand for insurance products and the available supply.

De-risking the low carbon, net zero transition

The global demand for insurance to support the climate transition is set to increase dramatically. More than $19 trillion has already been committed to finance decarbonisation across clean energy, mobility, and the built environment by 2030.[5] To put this investment into perspective, it amounts to six times the UK's annual GDP or more than the combined GDP of the entire European Union. And not only is the scale of this transition unprecedented, but so is its scope, with new initiatives being implemented simultaneously everywhere across the globe. This enormous investment will require both traditional and new forms of insurance to support the speed and scale of change forecast.

5 $19 trillion is approximately half the amount needed for alignment with net zero goals in 2030. See BCG, 2023, 'Bridging the $18 Trillion Gap in Net Zero Capital'.

https://www.bcg.com/publications/2023/bridging-the-vast-gap-in-net-zero-capital

Businesses, investors, and governments are showing an increasing willingness to make these funds available, but these commitments are not enough by themselves. Investing in initiatives required to meet climate targets involves exposure to a range of risks.

- **Early-stage technology**
  These investments come with significant risk of loss from the potential failure of the technology, as well as from credit and political threats.

- **Design and construction**
  Projects in the design and construction phase face further risks from budget and schedule overruns and the possibility of supply chain disruption.

- **Operational risks**
  Once a project becomes operational, there is a risk that it may fail to deliver and/or that the environmental impact may be less significant than planned.

The result is that funds already available often cannot be used because the projects often exceed the risk tolerance of investors and creditors. Deploying the trillions of dollars that have been committed to transition existing facilities and to finance, build, and operate new projects is an enormous task.

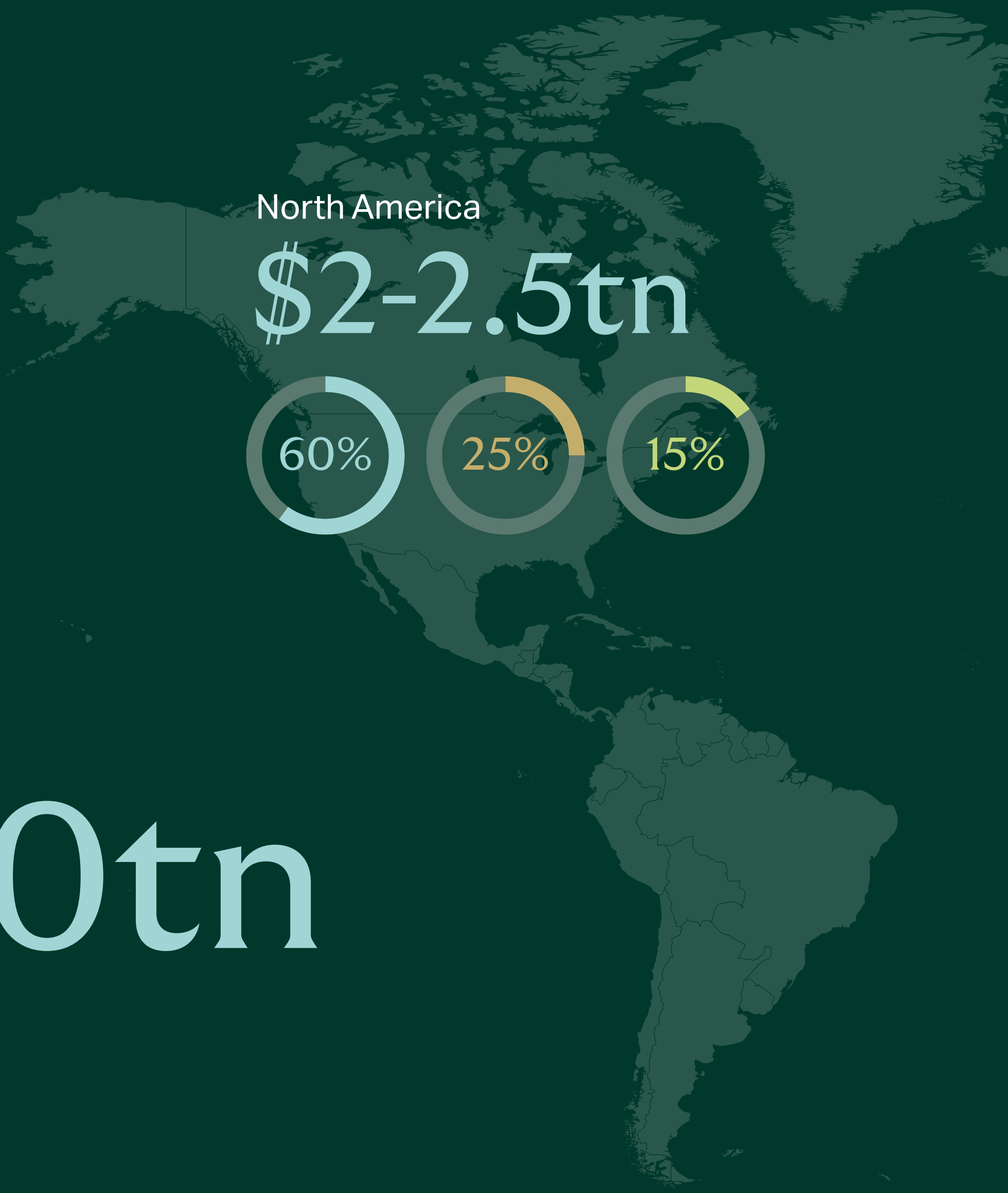
Insurance plays a critical role in unlocking these funds. However, the aggregate size of the global traditional energy sector is not expected to decline prior to 2030, so a significant expansion in net new capacity will be required. We estimate that deploying the funds committed to the climate transition in three key sectors – Energy, Road Transport, and Buildings, which together account for more than 90% of committed investment – will require insurance coverage for up to $10 trillion of investment globally by 2030. [6]

6 'Insurance coverage' here refers to the insured amount needed to deploy committed investments by 2030.

New technologies and industrial processes carry risks and uncertainties that can inhibit the affordability of insurance.

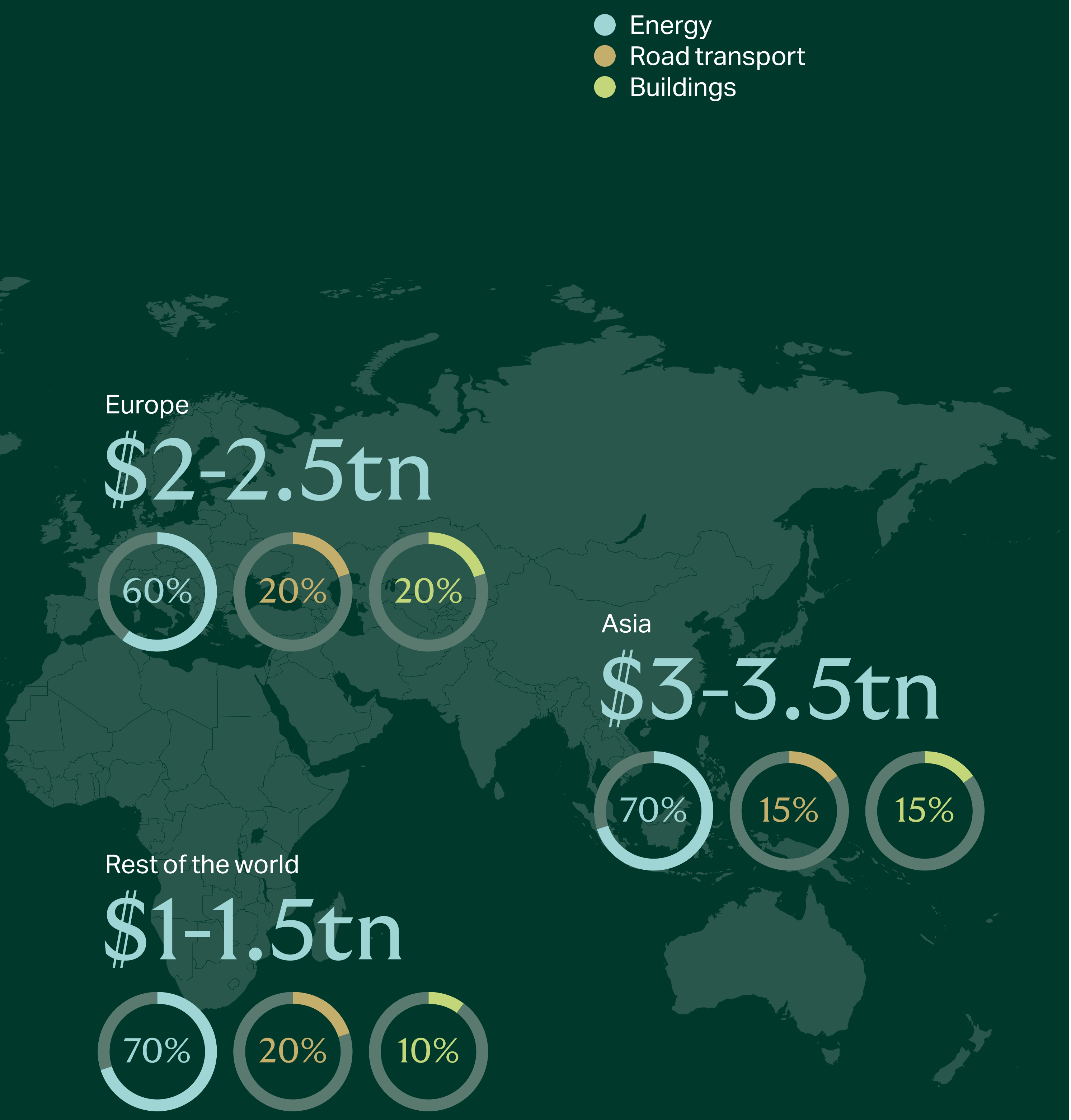
For example, while the efficiency of wind turbines increases significantly with the deployment of longer turbine blades, longer blades can also decrease reliability. Balancing these factors to accelerate and scale the deployment of available funds requires a new model of risk-informed investment. Businesses need to work with insurers from the earliest stages of development to ensure a match between the available insurance and the risk profile of new initiatives. Early conversations will support insurance-informed design and construction choices and will enable businesses to move forward to the construction and operation phases with greater confidence and security.

The global breakdown of insurance coverage needed to support committed investment in climate transition by 2030.



$8-10tn

insured amount by 2030


Energy
Road transport
Buildings
Europe
$2-2.5tn
60%
20%
20%
Asia
$3-3.5tn
70%
15%
15%
Rest of the world
$1-1.5tn
70%
20%
10%

Over the last five years, insurers have seen losses from natural catastrophes exceed $100 billion annually, the highest figures ever recorded and more than double the five-year average from two decades ago.

Insurers can make new projects bankable and can support those who are building and operating existing projects, by carrying the risk that investors and lenders cannot take on themselves. At the same time, insurance providers have the expertise to create tools that will help investors and lenders understand the risks involved in greater detail and with smaller margins of error.[7] But these capabilities can only be deployed if both buyers and providers of insurance collaborate in the long term, working together in strategic partnerships to ensure that capacity, products, and support are available where and when they are needed.

7 For a valuable recent discussion of these issues, see Golnaraghi, M. and Belanche, I., 2024. 'Report 1. Climate tech for industrial decarbonisation: What role for insurers?' and 'Report 2. Bringing climate tech to market: The powerful role of insurance'.

Insuring the resilient transition

Natural catastrophes are already occurring with increasing frequency, with an average of approximately 190 events per year over the last decade compared to 160 a year in the preceding ten years. This increase has contributed to the more than $2 trillion in damages to homes, livelihoods, and economic potential caused by natural catastrophes in the last decade. The insurance industry's lack of penetration into many of the most vulnerable markets means that less than half of these losses were insured.

Over the last five years, (re)insurers have seen average annual losses from natural catastrophes exceed $100 billion, the highest figures ever recorded and more than double the five-year average from two decades ago. While rare and highly destructive events such as massive wildfires and hurricanes have contributed to this increase, the main source of these losses in 2023 was relatively common medium- to low-impact events, such as severe convective storms and localised flooding events. These trends will continue in the future increasing pressure on the profitability of insurers while making coverage less affordable.[8]

8 Banerjee, C., Bevere, L., Garbers, H., Grollimund, B., Lechner, R., and Weigel, A. 2024. Swiss Re Institute - sigma No1/2024. Natural catastrophes in 2023: gearing up for today's and tomorrow's weather risks.

Insurance premiums associated with climate-related Natural Catastrophe events are expected to grow by 50% by 2030, reaching $200-250 billion. In addition to the direct losses caused by climate-related events, three further key factors will drive this increase in demand for physical risk protection:

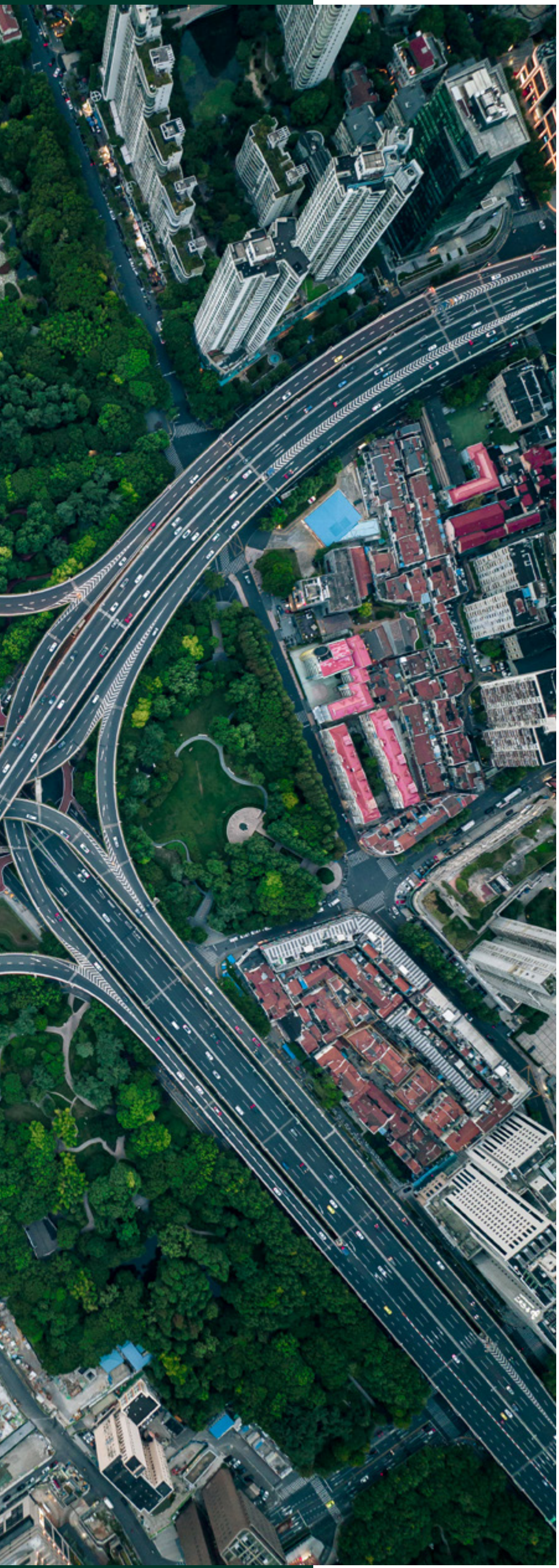
- **Accelerating growth in exposures**
  Increases in risk exposure, such as from population growth and increasing urbanisation in high-risk areas, will drive rises in capacity demand and cost with insurance needs varying significantly depending on location.

- **Climate risk disclosure**
  Rating agencies and financial institutions are increasingly assessing the impact of physical risks on the creditworthiness of companies. This combined with pressure from regulations that aim to increase transparency around climate risk means that businesses will have to disclose and manage additional risks. This will generate a significant resetting of the level of insurance protection required to maintain investor confidence and access to capital.

- **Governments transferring risk to private markets**
  Governments across emerging and developing economies are bearing growing costs from natural disasters. In response more countries are now passing legislation to make insurance protection compulsory for businesses, public entities, and communities in order to relieve the burden on the state and improve risk signalling.[9]

If insurance providers are to meet the expected increase in demand in a way that remains affordable for customers, then buyers and insurers will need to work together to push for change in several key areas. The more that businesses invest in resilience measures the greater the positive impact on premiums, but to support these initiatives insurers will need to improve their analytical tools and their collection of risk data to ensure that risk is priced as accurately as possible. Reinsurers will also need to be encouraged to increase coverage of local secondary perils.

9 For a recent example from Italian law, see Art. 1, commi 101-111 (Misure in materia di rischi catastrofali) of the "Legge di Bilancio 2024" (Law. n. 213 of 30 December 2023).



While private sector investment is the essential engine for change in these areas, government intervention at the local and national levels can provide valuable motivation and incentives to support the transition. However, it is important to get these collaborations right. In California, for example, government policy aimed at stabilising premiums initially led to some insurers removing products from the market rather than taking on responsibility for unaffordable risks.[10] More recent legislative initiatives developed in partnership with the industry have mitigated those dangers in a way that should increase the availability of insurance for homeowners.[11] Capacity and affordability will also be impacted by the speed at which capital is reallocated to drive vulnerability reduction measures and by the degree of public policy support for risk-sharing mechanisms.

Increases in demand are here to stay. As such, it is critical that we make use of the mechanisms available to us for increasing capacity. Resilience measures, in particular, have a central role to play here, but optimising their potential will require long-term partnerships between insurers, buyers, and state collaborators.

10 State Farm won't renew 72,000 insurance policies in California - Los Angeles Times (latimes.com)

11 California Insurance Crisis: Newsom Seeks Swifter Action - Bloomberg

What can be done?

To address the climate challenge, businesses need to transform the way they think about insurance and free themselves from models and expectations that no longer serve their evolving needs.

This begins with recognising that it is impossible to tackle climate risk effectively without making insurance a key part of their strategic approach.

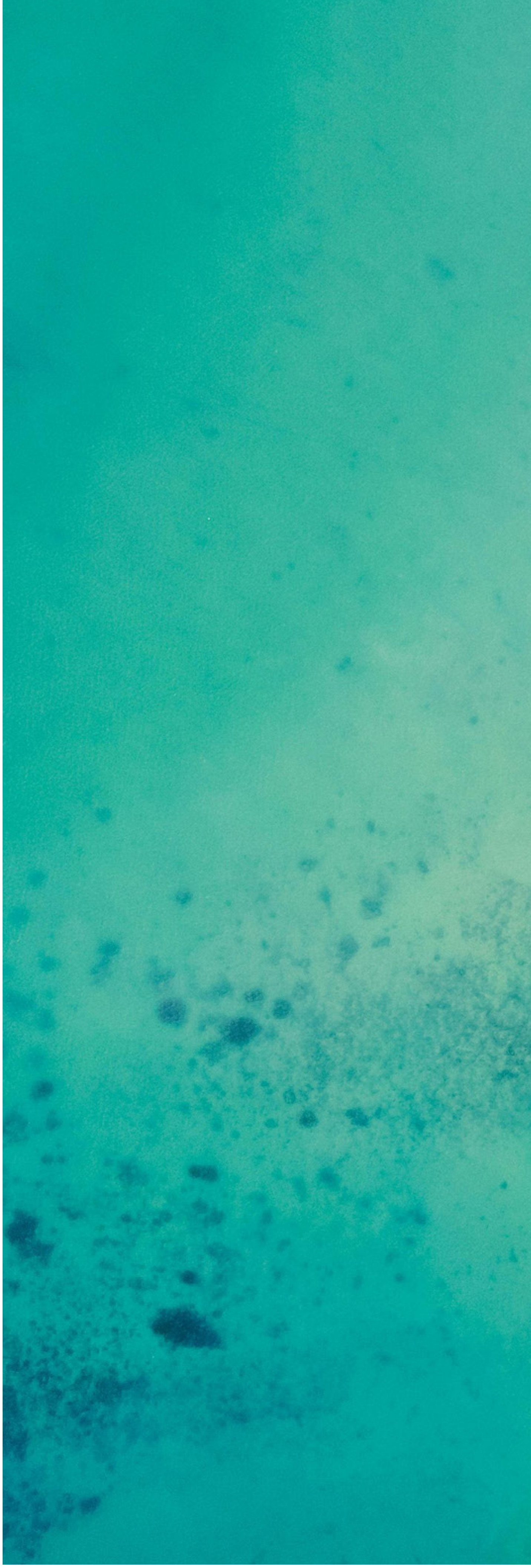
Business leaders should:

- recognise that insurance is an essential enabler of climate transition and adaptation strategies, and elevate decision-making around insurance to the boardroom level
- engage the insurance industry from an early stage to enhance the bankability and insurability of their business' climate transition journey
- assess their exposure to physical risk so that they can make fully informed decisions around investments and the implementation of resiliency measures

The insurance industry should:

- ensure that both the products and the capacity that businesses need will be available as the global economy adapts to meet the climate challenge
- provide risk consulting, risk engineering and analytics services aimed at increasing businesses' understanding of climate risk and integrating that understanding into long-term strategies
- take a central role in the de-risking discussion within the financial community to enhance the insurability and bankability of the response to climate change

We cannot respond effectively to climate change – the ultimate in long-term problems – with short-term thinking. By taking a longer view, and thus guaranteeing insurance availability and capacity over multi-year horizons, we can ensure that businesses have the strategic resources they need to thrive while delivering a resilient climate transition.



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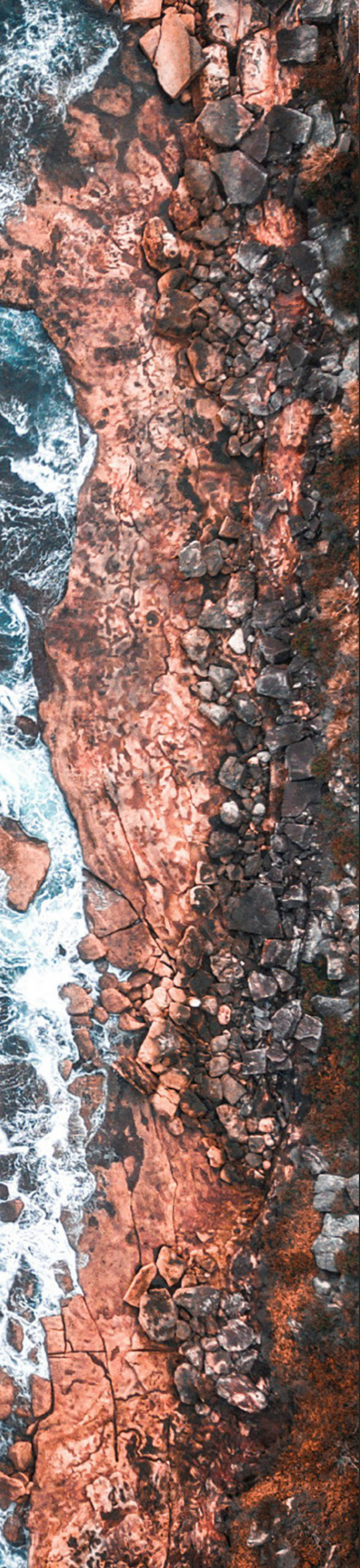

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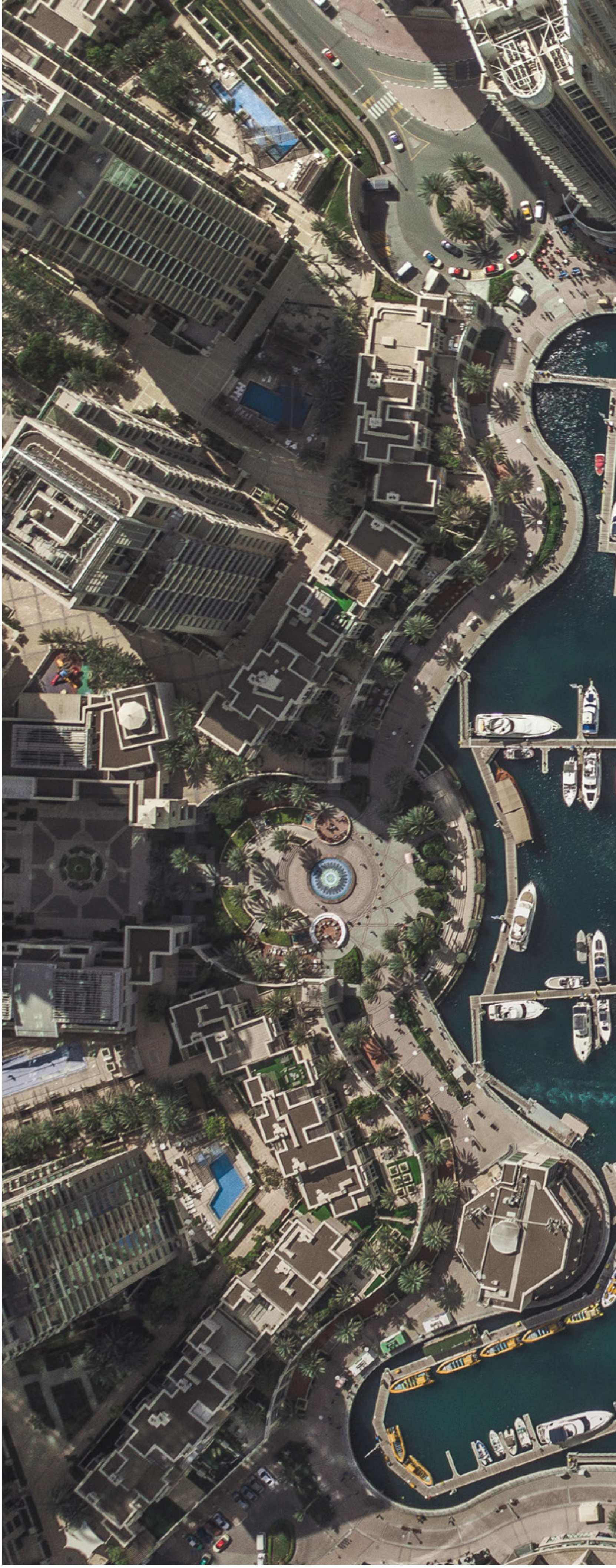

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