

Guy Carpenter Briefing

CLIMATE CHANGE AND ESG

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ESG is a topic at the top of many insurance company agendas. ESG is a set of Environmental, Social and Governance (ESG) criteria and standards for a company’s operations, which measure the sustainability and societal impact. Increasingly, climate change is prominently, if not synonymously, the featured aspect of the Environmental aspect of ESG for the insurance industry. This briefing will provide questions clients should be addressing, alongside the capabilities Guy Carpenter and the Marsh McLennan group have to support clients. Finally, this briefing will address current areas of focus and an orientation to find material to support your internal and external conversations regarding climate change and ESG.

The Intersection of Climate Change & ESG

‘Socially conscious investors’ screen investments and determine the future risk and reward leveraging ESG criteria. Scores and metrics centered on ESG have been developed to compare investments across sectors. Although initially driven by investors, ESG is becoming a core part of good company stewardship. Rating Agencies and Regulators are also highlighting ESG as a benchmark for the industry. Let us briefly dig into the E, the S and the G as it pertains to the insurance industry.

Figure 1. Demystifying ESG for the Insurance Industry

A set of criteria and standards for company operations, measuring sustainability and social impact. ESG criteria are increasingly used by Rating Agencies and Regulators to assess company stewardship.



Environmental

- How a company performs as a steward of nature
- Measure corporate impact on waste management, emissions, and overall sustainability
- Climate change is part of the “E”



Social

- How a company manages relationships with employees, suppliers, customers, and communities.
- Includes aspects of diversity, human rights and customer protection



Governance

- Reflection on company leadership, management structure
- Measures aspects of employee and executive compensation, audits, compliance, internal controls and shareholder rights

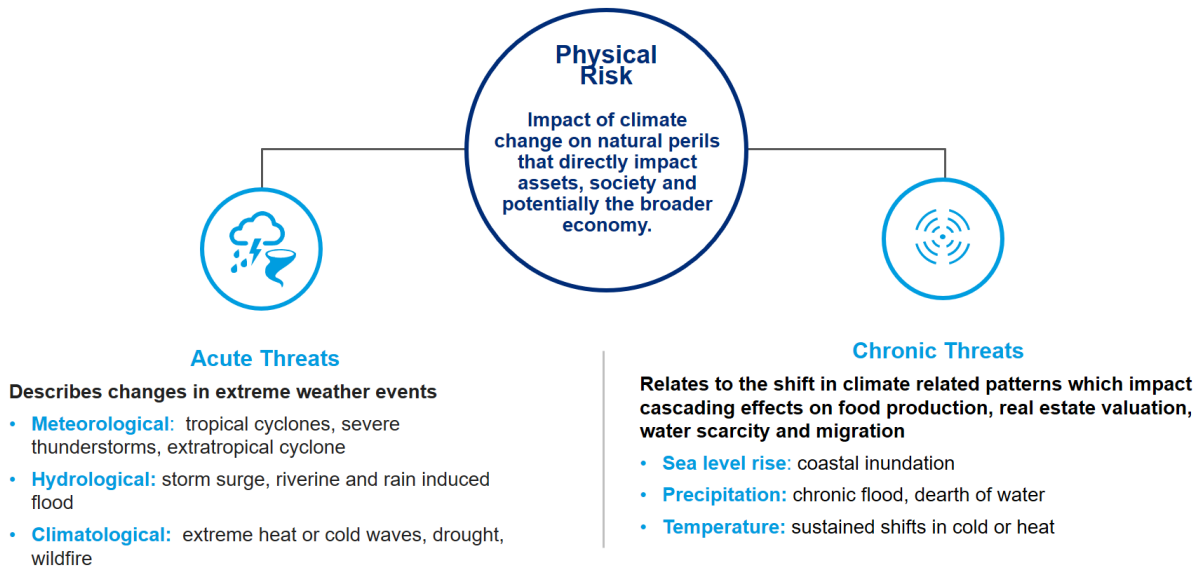
Property insurers have been assessing environmental factors for nearly as long as the industry has underwritten risk. ESG is far more encompassing than simple risk management of climate change or natural catastrophe peril risk.

Framing Climate Change

The terminology and vernacular of climate change risk is evolving into a framework categorised into several main areas: physical risk, transition risk and the resulting potential liability risk.

Physical Risk: Climate change increasingly influences the frequency and/or severity of natural catastrophe perils. The implications of the shifts influenced by climate change are binned into two categories: acute and chronic threats.

Figure 2. Physical climate risk can be categorized by perils either being acute or chronic threats



Transition Risk: This category analyses the impact from the policy, legal, technology and market changes occurring during a rapid transition to a less polluting lower-carbon economy. Some sectors of the economy will face shifts in asset values and/or higher costs of doing business, influencing investment returns.

There is an inverse correlation between transition and physical risk. The faster the world economy transitions, the more potential to reduce physical risk impacts. Conversely, the slower the transition, the lower the transition risk but the higher the physical risk in the future. Failure to manage the balance between physical and transition risk can lead to **liability risk**; businesses being held responsible for their causal contribution to climate change or the failure to mitigate or adapt to its impacts. Liability risk may lead to new claims on D&O and professional indemnity policies.

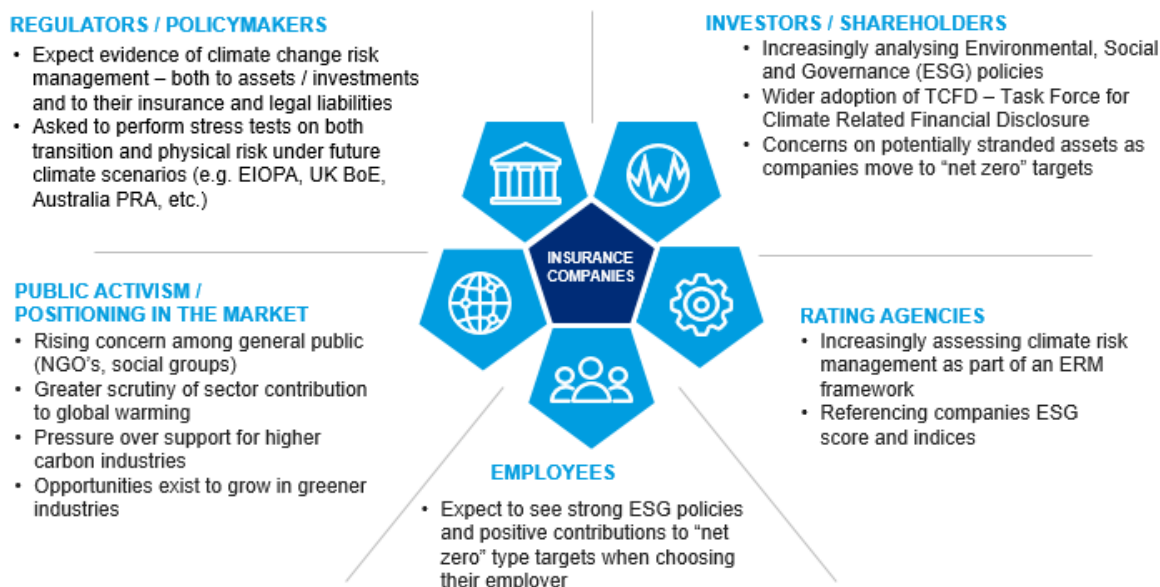
Figure 3. Summary of the three climate change risks and resulting impacts on the insurance industry



Challenges Faced by Insurance Companies

Our insurance clients are facing several challenges from a range of different stakeholders as they adapt to both climate change and the “E” of ESG.

Figure 4. Constituents pressuring insurance companies relative to climate change and ESG



Client Attitudes on Climate Change

Where does the insurance industry stand in terms of these collective set of challenges? Guy Carpenter conducted a client survey in the first quarter of 2021 to assess where the industry is positioned relative to governance, physical climate change risk quantification, disclosure and strategy. Nearly fifty responses were gathered with findings consolidating along four different themes.

1. Under the theme of strategy, 84% of respondents wanted to start or develop their climate change strategy citing primarily corporate responsibility and good governance as drivers. This shows there is appetite for clients to improve their understanding and action around this topic.
2. Regarding internal governance a majority of respondents said that climate change is a board level issue but only 20% are considering climate change holistically with a dedicated individual or team.
3. On the theme of transition risk, which is the economic and legal risk that results from a shift to a low-carbon economy, half of companies are exiting the underwriting of thermal coal or other fossil fuel projects whilst only 36% do not consider climate change in their investment risks.
4. Finally on the area of physical risk, which is the direct risk to property from increasing frequency or severity of nat cat events, and the area most relevant to Guy Carpenter, there were several insights. Our clients are moving from qualitative assessment to quantitative ones, with 70% of respondents answering that they were quantifying the risk using tools such as adjustments to cat models and stress tests. Rising severity with adverse capital implications, risk accumulations and the potential rising cost of reinsurance were amongst their key concerns when considering physical risk.

Survey results will be collected on an annual basis to track the evolution of insurance industry expectations around climate change and ESG.

Figure 5. Initial findings of the 2021 Guy Carpenter Climate Change Survey



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Questions clients should be asking

The client survey identifies that the challenges are broad and the industry is in the early phases of adapting to climate change risk. Across the businesses of Marsh McLennan, the company is able to offer clients a wide range of services, highlighted in Figure 6. The range of services available not only encompass the modelling of physical risk impacts on insurance company underwriting portfolios, but also advisory services covering governance and disclosure, transition strategies, responsible investment strategies, resilience measures, risk transfer options and the use of public-private partnerships and parametric triggers.

Guy Carpenter capabilities include client engagement in first order ESG and climate conversations, in a similar fashion to how clients are supported through Rating Agency ERM processes. These conversations may lead to a need for greater support, with wider Marsh McLennan group capabilities available to support clients across the full spectrum of needs.

Figure 6. The full spectrum of climate advisory and modeling services across Marsh McLennan

Risk governance & regulation

Oliver Wyman & Marsh Advisory TCFD reporting, Integration of climate into risk governance, ERM frameworks
Guy Carpenter Capital modelling and SCR calculations, regulatory compliance processes

Risk transfer

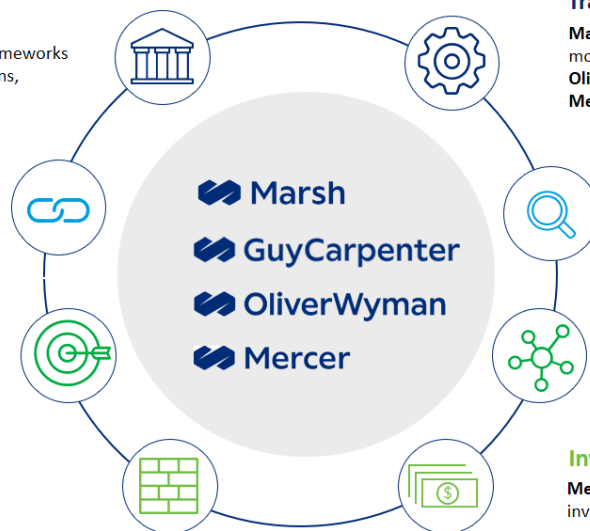
Marsh & Guy Carpenter Traditional risk transfer, Parametrics and CAT bonds

New institutional arrangements

Oliver Wyman & Guy Carpenter advice on public risk transfer solutions and public private partnerships

Climate resilient strategy

Oliver Wyman transition strategies, technology and investment strategies, commercial due diligence
Marsh Advisory asset-level resilience surveys and scoring, due diligence, climate adaptation plans & implementation support



Transition risk modelling

Marsh Advisory portfolio and per asset physical risk models & resilience adjustment
Oliver Wyman transition risk model
Mercer climate investment portfolio modelling

Physical risk modelling

Marsh Advisory & Guy Carpenter Natural hazard risk assessment and risk modelling, exposure data enhancement, adjustment of CAT models

Insurance solutions

Marsh, Guy Carpenter Risk underwriting for new technologies and infrastructure

Investments

Mercer ESG and Responsible investment advisory and delegated asset management

The external challenges have initiated action, with early adopter companies seeking to demonstrate a best-in-class response to these issues. As disclosure, regulation and third parties require more information from insurance companies, we see a range of questions being asked of Guy Carpenter. What questions should clients be asking and addressing? Who across Marsh McLennan is best equipped to help?

Figure 7. Key questions clients should be asking in association with ESG and climate change

How do I adopt an ESG strategy? How do I address our own criteria?

GSA colleagues can introduce ESG criteria and disclosure requirements under TCFD, as well from regional regulators. Where clients require more hands-on support, engagement with Oliver Wyman, who have developed a consultancy framework for the financial services sector, will be important.

How can we actively underwrite towards greener outcomes?

Many insurers in heavy industry, carbon based energy, automotive manufacturing, etc. are looking to manage their underwriting portfolio and support societal transition to a lower carbon economy. Public activism and pressure to adapt will increase.

What is my environmental footprint?

Companies should also be considering their own environmental impact, including their carbon footprint and their waste management policies. Oliver Wyman is able to offer broader advisory services.

Should I be concerned with liability risk stemming from physical and transition risk?

Developing a strategy to manage potential liability risk and enhance ESG scores will be important for those companies with large market share in the economic sectors contributing most to climate change. Conversely, insurers that look to grow greener technology sectors, alongside mitigation and adaptive businesses will reduce overall liability. We will monitor the potential for this liability risk to develop further and impact D&O and Professional Indemnity policies.

How do I manage transition risk within my investment portfolio?

Transition risk impacts on an insurance company investment strategy will be a key area of focus. Mercer is a market leader in integrated assessment models while providing advisory services on responsible investment strategies.

How can I quantify which perils and regions are most at risk due to climate change?

Guy Carpenter is uniquely positioned within Marsh McLennan to answer these questions. Adjusting catastrophe models (3rd party or proprietary) for different future time horizons and warming assumptions, geographic accumulations of risk and/or underwriting solutions are in development.



Portfolio Physical Risk Assessment

Guy Carpenter expertise lies in the assessment of physical risk changes due to climate change on their portfolio, building on our industry leading advisory capabilities in property reinsurance placement. Clients will be interested in the impacts on insurability, pricing, risk selection and underwriting. Ultimately, clients will need to quantify the impacts under future climate scenarios on the overall volatility and tail risk of their insured portfolio. This risk quantification will support regulatory stress test requirements as well as ensure their business and growth strategies are sustainable.

Figure 8. The 2021 Guy Carpenter climate change product roadmap



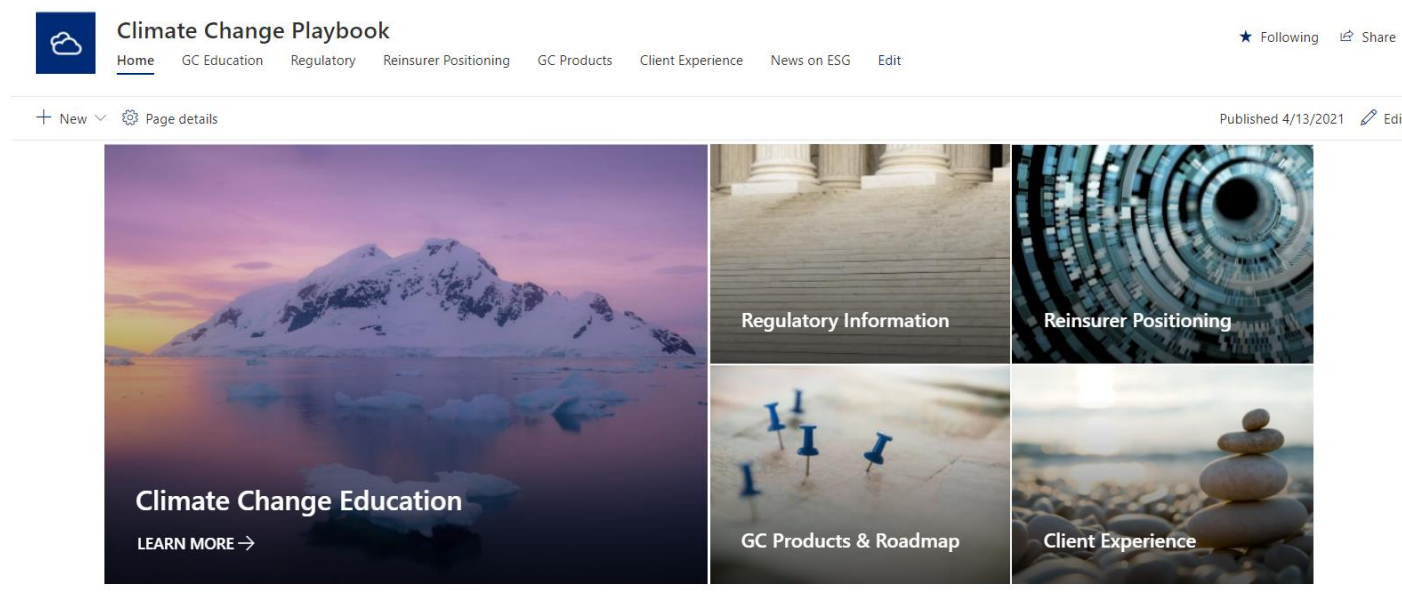
The Global Model Solutions & Advisory team is carrying out research to establish the materiality of perils most impacted and understanding the range of consensus across the scientific research community, highlighted in Figure 7. Our research, alongside active academic partnerships, affords a core competency to apply academic outcomes to external cat models we license, our own Guy Carpenter cat models, Advantage Point accumulation and underwriting solutions and/or ancillary products to quantify these physical risk impacts under different future scenarios. Most cat models already capture more extreme events than those that have occurred. Under future climate scenarios, peril extremes may become more frequent and adjusting the frequency of various types of events impacted by climate change to assess the resulting impact to losses is an active area of application to models.

Where to Find More and How Can Guy Carpenter Support Clients?

The central repository of information for Guy Carpenter colleagues is our [Climate Change SharePoint site](#). We encourage colleagues to visit the site and [view the tutorial video](#) on the front page to learn more about the capabilities and offerings of the site. In short, five different sections of the SharePoint site include:

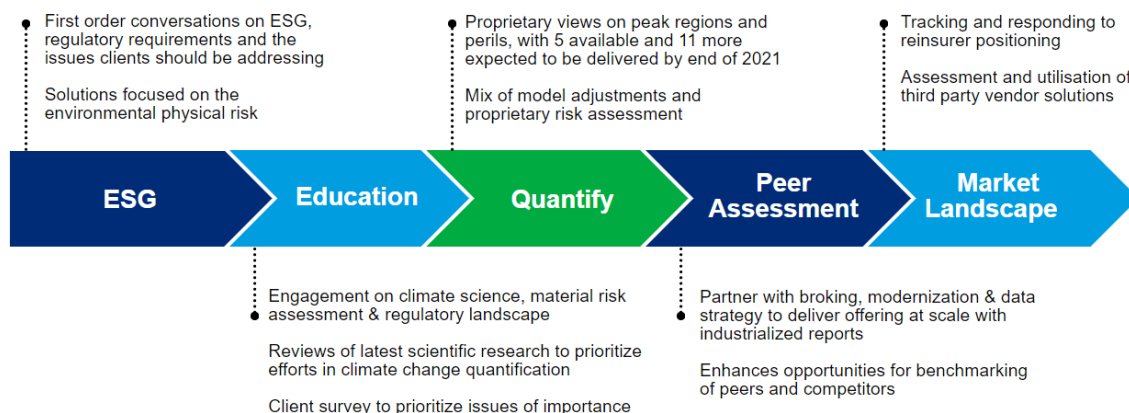
- [Educational material](#) for Guy Carpenter colleagues. This content underpins much of the educational role we offer clients around ESG, climate science and physical risk impacts and the market developments
- An overview of the [regulatory and rating agency actions](#) emerging across key geographies of the world.
- A range of materials that delve deeper into the [reinsurance industry implications](#) for climate change, including a survey of reinsurer attitudes relative to climate change, the results of our client survey, and case studies of specific reinsurers leveraging climate change during renewal activities.
- Detailed information on what we have developed in terms of quantification of [physical risk impacts from climate change, the roadmap for future efforts during the course of 2021](#) and key contacts for each offering.
- A [client experience](#) section housing externally focused materials that are client-ready (presentations, white papers, thought leadership).

Figure 9. The Guy Carpenter Climate Change Playbook SharePoint site



The summary of Guy Carpenter capabilities to support our clients, in conjunction with the team stewarding corporate efforts to drive the client experience on ESG and climate change, are highlighted below.

Figure 10. How Can Guy Carpenter Support Clients with ESG and Climate Change?



Scoping on how to package GC knowledge and model adjustments into easily consumable client data and products for underwriting and capital modelling purposes is actively underway.

Figure 11. Colleagues Stewarding Climate Change and ESG Offering



About Guy Carpenter

Guy Carpenter & Company, LLC is a leading global risk and reinsurance specialist with more than 3,100 professionals in over 60 offices around the world. Guy Carpenter delivers a powerful combination of broking expertise, trusted strategic advisory services and industry-leading analytics to help clients adapt to emerging opportunities and achieve profitable growth. Guy Carpenter is a business of Marsh McLennan (NYSE: MMC), the world’s leading professional services firm in the areas of risk, strategy and people. The company’s 76,000 colleagues advise clients in over 130 countries. With annual revenue of \$17 billion, Marsh McLennan helps clients navigate an increasingly dynamic and complex environment through four market-leading businesses including Marsh, Mercer and Oliver Wyman. For more information, visit www.guycarp.com and follow Guy Carpenter on LinkedIn and Twitter @GuyCarpenter.

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