LLOYD'S

ClimateWise Annual Reporting 2019-2020

Our progress against the ClimateWise principles

Contents

ClimateWise reporting

Lloyd's is the world's leading insurance and reinsurance marketplace. Throughout our 332-year history, the Lloyd's market has innovated pioneering coverage for different risks, responding to the needs of its customers. From the first motor and satellite policies to today's cover for cyber and sharing economy risks, the Lloyd's market has always provided, and continues to provide, the confidence to help our customers thrive in a changing world.

With our trading rights and distribution network of international hubs, brokers, coverholders and service companies, the market underwrites risks from around the world through Lloyd's syndicates. Members (capital providers) put up their capital and share in the risks and rewards of the syndicates they support.

A Lloyd's syndicate is formed by one or more members joining together to provide capital and accept insurance risks. Most syndicates write a range of business lines across multiple areas of expertise. Each syndicate sets its own appetite for risk, develops a business plan, arranges its reinsurance protection and manages its exposures and claims.

A managing agent is a company set up to run one or more syndicates on behalf of the members. They have responsibility for employing underwriters, overseeing their underwriting and managing the infrastructure and day to day operations.

Lloyd's is a brokered market in which strong business relationships, backed by deep risk expertise, play a crucial part. Brokers facilitate the risk transfer process between customers and underwriters. Much of this business had involved face to face negotiation, increasingly supported by electronic placement.

Syndicates can also authorise third parties, known as coverholders to underwrite business on their behalf locally around the world. Service companies are wholly owned by a managing agent or a related group company and are authorised to write insurance for members of the associated syndicate.

The Lloyd's market is supported by the Society through its remit of performance management oversight and regulation, maintaining the licence network, promoting the brand globally, and providing common infrastructure and shared services.

Lloyd's strategy is underpinned by our purpose: Sharing risk to create a braver world. The purpose speaks to the impact and aspiration of the market and is as true today as it was when Edward Lloyd started what became Lloyd's in a coffee shop in 1688.

Lloyd's began with a few courageous entrepreneurs in a coffee shop. Three centuries later, we are continuing that proud tradition, sharing risk in order to protect, build resilience and inspire courage everywhere.

Today, Lloyd's offers customers a unique value proposition. We provide insurance and reinsurance in more than 200 countries and territories worldwide through our global licence network. Customers have access to unrivalled broking and underwriting expertise with a reputation for solving difficult risk transfer problems in one marketplace. The market is built on trusted relationships and mutual respect to best serve our customers.

Lloyd's insight, experience and judgment continue to inform decision-making across the industry. The market provides the leadership and insight to anticipate and understand risk, and the knowledge to develop relevant, new and innovative forms of insurance for customers globally.

We pay billions of pounds in claims each year, which gives customers confidence to place their business with us. All of this is supported by a flow of capital providers and large, multiplatform insurance carriers, that are attracted by specialist risk capabilities and opportunities in the Lloyd's market.

As a marketplace, Lloyd's provides consistent standards and shared services that improve performance and unlock new opportunities.

Lloyd's has a globally recognisable brand and is proud of its reputation for paying all valid claims in a timely and efficient manner. The Society is committed to being an inclusive global market that treats its people and customers with dignity and respect while promoting an entrepreneurial and innovative culture.

Business flow

Customers – transferring risk
- Global commercial organisations, such as FTSE 250 and Fortune 500 companies
- Small and medium-sized enterprises
- Individuals
- Other insurance groups

Distribution channels
- 335 brokers: distributing business
- 366 service company locations
- 3,950 coverholder locations: offering local access to Lloyd's

The market

54 managing agents – managing syndicates

80 syndicates – writing insurance and reinsurance directly

13 special purpose arrangements – set up solely to write a quota share of another syndicate

Gross written premiums:	
2019	£35.9bn
2018	£35.5bn
2017	£33.6bn

Capital and reserves:	
2019	£30.6bn
2018	£28.2bn
2017	£27.6bn

Capital flow

Members (capital providers)
- Trade capital: insurance companies from around the world
- Institutional capital: such as pension funds and private equity
- Private capital (via members' agents): such as small companies and individuals

The Society – supporting the market

The insurance needs of our customers are changing rapidly. Evolving threats from cyber, the increasing importance of intangible assets, more frequent and severe natural catastrophes, and the emerging impacts of COVID-19 all point to an increasing need for the insurance industry to better support customers.

Although there has been a high degree of turbulence in the financial markets caused by COVID-19, the exceptional strength of Lloyd's balance sheet gives us the confidence that we can meet the challenges we face, and particularly support our customers and business partners in their time of need.

Lloyd's 2019 result demonstrated encouraging progress with a significant return to profit, underpinned by strong performance across our investments, alongside sustained rate increases and improving underwriting discipline.

In 2019 Lloyd's achieved a 2019 profit before tax of £2.5bn, an improvement of £3.5bn on 2018, and a healthy return on capital of 8.8%. The combined ratio improved by 2.4 percentage points to 102.1%, down from 104.5% in 2018.

Gross written premiums for 2019 totalled £35.9bn, marginally up from £35.5bn in 2018. This equates to a reduction in GWP of 2.6% after eliminating positive foreign exchange rate movements and is underpinned by a risk adjusted rate increase of 5.4%. Furthermore, the 2019 underlying accident year ratio (exclusive of major claims) improved to 96.0% (2018: 96.8%). These encouraging developments show our performance agenda is beginning to drive better underwriting and pricing discipline in the Lloyd's market.

The 2019 operating expense ratio of 38.7% represented only a marginal improvement from 2018's 39.2% and remains a key area of focus in 2020.

Lloyd's net resources increased by 9% to £30.6bn, reflecting our exceptionally strong balance sheet and a central solvency ratio of 238%. Our financial strength prompted reaffirmations of our ratings by AM Best and Fitch, with Standard & Poor's revising their outlook from "negative" to "stable".

Understanding Lloyd’s reporting

For the purpose of this report, case studies evidencing activities carried out under the ClimateWise principles have been split into two groups to reflect the structure of Lloyd’s. For example:

– Lloyd’s / The Corporation of Lloyd's

  The Corporation oversees and supports the Lloyd’s market, ensuring it operates efficiently and retains its reputation as the market of choice for specialist insurance and reinsurance risk.

– Lloyd’s / The Lloyd's market / [market member name]

  The majority of business written at Lloyd’s is placed through brokers who facilitate the risk-transfer process between clients (policyholders) and underwriters.

Reporting is made publicly available online each year by the Corporation on behalf of the Lloyd’s members, with members also carrying out their own activities throughout the year. This also includes examples of Lloyd’s reporting in the annual review, where examples of best-practice activity are often highlighted.

The Corporation of Lloyd’s

As a founder member of ClimateWise, the Corporation of Lloyd’s continues to publicly recognise that climate change affects everyone, and recent natural disasters show the cost climate change could cause insurers in the future and the devastating impact it has on businesses and communities. Lloyd’s is therefore in regular dialogue with insurers, businesses and policymakers to address the challenges posed by climate change that affect our sector and society in general.

Sustainability

Business leaders have a responsibility to align their commercial interests with the challenges of climate change. Evidence suggests that more than two-thirds of economic losses from natural disasters remain uninsured. More needs to be done to close this protection gap and mitigate the wider damage caused by climate-related disasters.

Lloyd’s recognises the insurance sector enables business and individuals to manage risk including long-term threats such as climate change. The long-term stability of our economy hinges on an appropriate response to this threat. Lloyd’s continues to support action to tackle climate change through leading risks analysis, informing public policy making, suppoting climate awareness and reducing its own environmental impact.

The Corporation is proud to take a lead role in addressing wider social and environmental issues and has published its first United Nations Global Compact report. In so doing, the Corporation agrees to align strategy, culture and day to day operations with universal principles on human rights, labour, the environment and anti-corruption, and to take actions that advance societal goals.

The Lloyd’s membership continues to be an active member of the ClimateWise initiative, a collaborative endeavour by insurers to drive action on climate change.

The Lloyd’s market

There are ten managing agents that operate within the Lloyd’s market that have signed up to the ClimateWise principles and eight reporting as part of this report.

Case studies evidencing their compliance with the principles and actions against them are included to provide an overarching submission from Lloyd’s and provides a public account of progress year-on-year.

Each case study is written by the named market member, and reflects the group views, policies and practices of that entity only.

ClimateWise members in the market

AXA XL and Hiscox also report independently as an individual member. The ‘Hartford Group’ previously reported as ‘Navigators’.

1 Be accountable

1.1 Ensure that the organisation's Board is working to incorporate the Principles into business strategy and has oversight of climate risks and opportunities.

Board level commitment

Climate change is recognised as an issue at Council and ExCo level at the Corporation, and each market participant has a ClimateWise sponsor at equivalent senior level:

Company	Designated Board Member	Title
The Corporation of Lloyd's	David Sansom	Chief Risk Officer
Argo	Kathleen Nealon	Non-Executive Director
Beazley	Adrian Cox	Chief Underwriting Officer
Chubb	David Furby	CEO, Chubb European Group
MS Amlin	Martyn Rodden	Deputy CEO, MS Amlin Underwriting Limited
QBE	Nigel Terry	Chief Risk Officer – European Operations
Renaissance Re	Ian Branagan	EVP Group Chief Risk Officer
The Hartford	David Robinson	Executive Vice President and General Counsel
Tokio Marine Kiln	Vivek Syal	Chief Risk Officer

Evidence also applies to principle(s): All

Source: Lloyd's ClimateWise members

Lloyd's / The Corporation

The Corporation of Lloyd's is committed to being a responsible global corporate citizen by adopting ethical principles and practices, sharing knowledge and expertise, and by making a positive contribution to social and environmental issues. The Corporation operates in a way that meets fundamental responsibilities in the areas of human rights and labour, as well as environment and anti-corruption.

In 2018, we carried out research to understand better our employees' attitudes to responsible business, how the Corporation was performing as a responsible organisation, and what behaviours and actions were required to bring our responsible business strategy to life.

Through an employee survey, interviews and focus groups with employees from a cross-section of roles and departments, including the Executive Committee, participants were asked what responsible business meant for the Lloyd's market in general and the insurance sector. The findings identified four key areas for Lloyd's responsible business approach to address:

- Influencing and working with the market
- Core services, products and operations
- Workplace and culture
- Role in the community

As a major player in the global economy, it is important that Lloyd's acts responsibly. Lloyd's is already highly regarded for the responsible business activities undertaken in its local communities. As the market grows and diversifies, so does our community support.

This responsibility also applies to business practices. The Lloyd's market should aspire to the highest standards in business conduct and ensure its customers are fairly treated at all times. Lloyd's also wants to use its experience and expertise to help communities around the world build resilience against disasters, including the effects of climate change and extreme weather events.

Lloyd's is considered as the world's leading insurance and reinsurance marketplace, with nearly 60% of its business being written in reinsurance and property classes of business; as such it is exposed to both physical and transitional risks arsing through climate change.

Overall responsibility for the Corporation of Lloyd's strategy, and risks, sits with the Chief Executive Officer and the Council of Lloyd's. Further responsibilities and the governance structure around climate related risks are being discussed and we anticipate covering them in future reporting.

Governance structure

An Act of Parliament, the Lloyd's Act 1982, defines the governance structure and rules under which Lloyd's operates. Under the Act, the Council is responsible for the management and supervision of the market. Lloyd's is regulated by the Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA) under the Financial Services and Markets Act 2000.

The Council normally has three working, three external and nine nominated members. The working and external members are elected by Lloyd's members. The Chairman and Deputy Chairmen are elected annually by the Council from among its members.

On 7 November 2019 it was announced that the Board would merge into the Council, with effect from 1 June 2020.

The Council discharges some of its functions directly by making decisions and issuing resolutions, requirements, rules and byelaws. Other decisions are delegated to committees of the Council and the members of the Executive Committee, in accordance with their respective terms of reference.

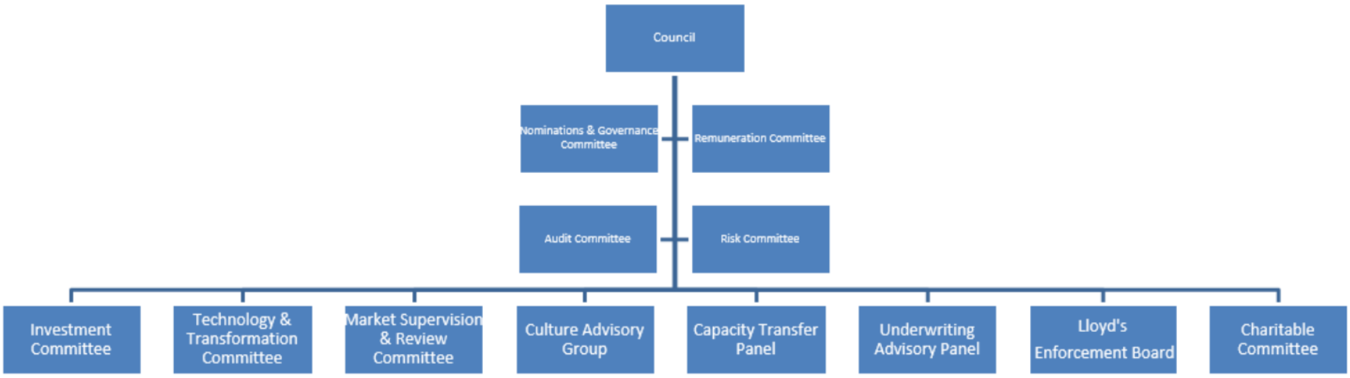
The principal committees of the Council are the Nominations and Governance Committee and the Remuneration Committee, the Audit Committee, and the Risk Committee.

Risk Committee

At Council level, the Risk Committee assists in the oversight of the identification and control of materials risks to the objectives of Lloyd's. On average the Risk Committee meets 6 times a year, and details of Council attendance are tracked and reported against in the Annual Report.

Evidence also applies to principle(s): All

Source: The Corporation of Lloyd's


Council
Nominations & Governance Committee
Remuneration Committee
Audit Committee
Risk Committee
Investment Committee
Technology & Transformation Committee
Market Supervision & Review Committee
Culture Advisory Group
Capacity Transfer Panel
Underwriting Advisory Panel
Lloyd's Enforcement Board
Charitable Committee

Lloyd's / The Market / ArgoGlobal /

Argo Group International Holdings, Ltd. (hereinafter "Argo Group" or the "Group") currently reports to ClimateWise through its Lloyd's operations, branded as ArgoGlobal and operating as Argo Managing Agency Ltd. Argo Group intends to transition in 2021 to reporting as the whole group against ClimateWise's principles. Therefore we are taking the opportunity in 2020 to report on both bases as a trial run.

The Argo Group Board is responsible for overseeing enterprise-wide risk management and actively monitoring the effects of uncertainties on how they affect our business. The Board-level Risk & Capital Committee (RCC) of Argo Group receives periodic updates on material risks, including sustainability-related threats and opportunities. Environment, Social, and Governance (ESG) indices have been raised to this 'top risk' register during 2019-2020.

The Argo Group RCC charter was updated to include, as published on the external website:

> "Oversee the Company's sustainability program and receive reports on progress with implementation of the Company's ESG strategy and plans addressing Environmental, Social, and Governance matters including Health & Safety and Human Rights."

The Argo Managing Agency (AMA) Board updated its Risk & Capital Committee (AMA RCC) charter in January 2019 to include overall responsibility for its Sustainability programme including all aspects of Climate Risk Management and ClimateWise reporting. In 2019, the ClimateWise Principles were extensively reviewed and brought forward to the Board to disclose the governance of ArgoGlobal's climate-related risks and opportunities. The AMA RCC charter was updated to include:

> "Climate change oversight: The Committee shall, on behalf of the AMA Board, oversee a programme of work related to AMA's membership of ClimateWise in order to demonstrate ongoing engagement and oversight of Climate change related-risks; including how this is being incorporated into AMA's business strategy and planning and subsequently monitored and reported."

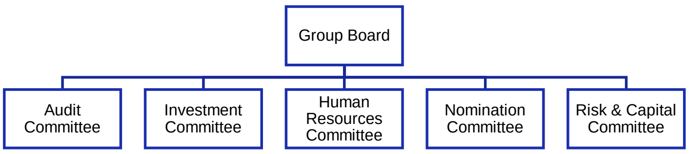
A concrete example is our approach towards the fossil fuel part of our business. This is further elaborated on in principle 2.2.

Tangible measures	Evidence
– Group Risk & Capital Committee: Continue receiving formal update papers from Sustainability Working Group every quarter as a standing agenda item.	Board Risk & Capital Committee papers
– AMA Risk & Capital Committee: Continue receiving formal update papers from Sustainability Working Group every quarter as a standing agenda item.	Board Risk & Capital Committee papers
– Emerging Risks: Studies of climate change risk are commissioned periodically and reported. The latest Emerging Risk Report was completed in May 2020 and has been reported to the Emerging Risk Review Group.	Chief Risk & Sustainability Officer has a copy of the report
– Risk Register: The Group and AMA Risk Registers are reviewed against the Board's risk appetite. This is analyzed, the risk exposures and key controls are put in place to mitigate working alongside the risk owners.	The evidence is the risk register
– Board Oversight: Risks that have been identified by the Board as critical to the organization are routinely analyzed and monitored.	This is further outlined below within the functions of the five Board-level committees.
– Stress Testing: Conducted and provide data on the impact of a range of stress tests on AMA business model to the Prudential Regulation Authority (PRA). The stress test included an exercise in relation to the effects of climate change. The set of climate scenarios applied to Syndicates 1200 and 1910 explored the impacts on our liabilities and investments stemming	The evidence would be the Argo Managing Agency (AMA) Annual ORSA reports for S1200 and S1910.

	from physical and transition risks. These were reported to the Board through Annual ORSA reports.	
–	Quarterly ORSA: Analyze all reasonably foreseeable and relevant material risks every quarter. The Own Risk and Solvency Assessment Model (ORSA) assessment looks at risks (i.e., underwriting, credit, market, operational, liquidity risks, etc.) and our continued ability to meet its policyholder obligations, including a specific report from the Sustainability Working Group.	Board Risk & Capital Committee papers

Group Board and Committee Structure

Consideration for society at large is an integral part of Argo Group's strategy and a necessity for long-term value creation. Climate change is a risk, and it is part of the Board's duty to identify and manage it in the same as any other strategic risk. Failing to identify, assess, deal with, or disclose material climate risks is a potential failure of corporate governance. The Board delegates certain of its risk management responsibilities to its committees as outlined in each of their charters. Each committee regularly receives and discusses materials from the other committee, and this allows for all of the committees to be aware of the various risks across the company and work collaboratively on climate-related issues and integrating awareness into the next levels of management within the company.



Audit Committee	The Committee's role includes discussing with Senior Management, Internal Audit, and the independent external auditors on the Company's processes to manage its business and financial risk, and processes for compliance with significant applicable legal and regulatory requirements, including climate change and meets at least four times a year.
Investment Committee	Support the Board with the risk-relevant aspects and with the Responsible Investment policy and meets at least four times a year.
Human Resources Committee	The Human Resources Committee of the Board is established to: 1. discharge the Board's responsibilities relating to compensation of the Company's executives (including the Chief Executive Officer) and directors; 2. review and discuss with the Company's Senior Management the Compensation Discussion and Analysis required by the SEC's rules and regulations; 3. produce an annual report on executive compensation transmitted to the shareholders in the Company's proxy statement; 4. advise the Board on the adoption of plans and policies that govern the Company's compensation programs; and 5. oversee such programs. The Committee has responsibility for establishing, implementing and monitoring adherence with Argo Group's compensation philosophy and the associated policies and procedures adopted by the full Board, and meets at least four times a year.
Nominations Committee	The purpose of the Board's Nominating and Corporate Governance Committee is to: 1. establish criteria for Board member selection and retention; 2. identify individuals qualified to become Board members; 3. recommend to the Board individuals to be nominated or re-nominated for election as directors; 4. recommend directors for appointment to one or more of the Board's Standing Committees; 5. establish the evaluation criteria and implement an evaluation process applied by the Board and each Committee in its self-evaluation process; and 6. develop and recommend to the Board a set of corporate governance guidelines applicable to the Company.

Risk & Capital Committee	Oversees the Company's exposure to enterprise-wide key risks and the guidelines, policies, and processes the Company uses to assess and manage its exposure to risk, including ESG factors. Risk appetites are regularly monitored to note changes over time, such as how climate change has become a prominent risk and is now part of our new normal. This committee meets four times a year.

In 2019, we implemented seven new Risk & Capital Committee approved corporate policies that further serve as guiding principles that set the direction for our organization. Our policies serve as the rules and guidelines for our various global offices on environmental and related matters.

Group Policies New in 2019

Environmental Management Policy	The two key Environmental Management objectives are to minimize the impact of Argo's business operations on the environment in terms of using the principles of reducing, reusing, and recycling of materials to mitigate as far as is reasonably practicable the depletion of natural resources. Secondly, to focus on improving energy efficiency in the buildings, we operate from using energy conservation best practices. Such measures reduce energy costs as well as supporting innovative technology solutions. Environmental impact risk exposures are recognized as an enterprise risk exposure with the Company's enterprise, risk management framework and appropriate controls are maintained in place to reduce this risk to acceptable levels. Failure to adequately manage these environmental exposures is recognized as potentially creating a material reputational risk exposure.
Human Rights Policy	We are committed to treating everyone with dignity and respect and striving to promote human rights according to the UN Guiding Principles on Business and Human Rights. We expect the third parties we work with do the same. We recognize that business has the responsibility to respect human rights and the ability to contribute to positive human rights impacts. The Company is committed to complying with all local legal and regulatory requirements as they apply to Human Rights, including wage, benefit, safety, and discrimination laws, and monitoring compliance with these requirements on an ongoing basis. The Company is committed to allowing for freedom of association and collective bargaining and providing a workplace free from discrimination and harassment, forced or child labor, and are committed to safe, healthy working conditions and the dignity of the individual.
Occupational Health & Safety Management Policy	Workplace safety risk exposures are recognized as an enterprise risk exposure with the Company's enterprise risk management framework, and appropriate controls are maintained to reduce this risk to acceptable level. Failure to adequately manage these Health & Safety exposures is recognized as potentially creating a material reputational risk exposure.
Responsible Investment Policy	As part of our investment management process, we consistently scan for threats and opportunities associated with our investments and apply our expertise to each decision. We seek to understand the ESG factors that could have a material impact on our investments and evolve our portfolio accordingly. Historically the Company has always considered ESG in their investment approach; we realize that formalizing our understanding and integrating these factors into our investment strategy is essential in creating value for our internal and external stakeholders. Continued communication with Argo's stakeholders is a constant source of insight into identifying risks and opportunities.
Diversity & Inclusion Policy	The Company believes that creating a positive work environment enables Argo to attract, retain and fully engage diverse talent leads to enhanced innovation and creativity in our products and services and a better understanding of our diverse client base. In a knowledge-based economy, diversity of thought - differences in how people perceive, analyze, and organize the same information is vital to creating new business solutions and solving complex challenges. The Company embraces and encourages our employees' differences in age (40 and over), ancestry, color, gender, gender expression, gender identity, genetic information (including testing and characteristics), marital status, national origin or citizenship (including language use restrictions), disability (mental and physical), race, religious creed (including religious dress and grooming practices), sex, pregnancy (including childbirth, breastfeeding, lactation, and medical

	conditions), sexual orientation, military or veteran status, or other status protected by federal, state and/or local laws and other characteristics that make our employees unique and will not tolerate harassment in any form as outlined in our Code of Conduct and Business Ethics.
Fossil Fuel Policy	Our Fossil Fuel Policy has been approved by the Executive Management team and is currently with the Board of Directors for final approval. Argo Group recognizes that climate change is a significant societal threat. We support the transition to more sustainable forms of energy, and we are proud of our robust Clean Energy business. We recognize the need to support our existing clients in responsibly transitioning their businesses to a low-carbon economy. We will honour our promise to help protect them as they move to a more sustainable future.
Group Vendor Management Policy	Argo relies on products, systems, and services provided by various vendors, including hardware and software vendors, marketing firms, technology and telecommunication services, support personnel, and consultants. Management ultimately has to ensure: – Each vendor relationship supports the overall business requirements and strategic plans. – The business or functional leader has sufficient expertise to oversee and manage the relationship. – The business or functional leader has evaluated prospective vendors based on the procured service and products' scope and criticality. – The risks associated with the use of the vendor are fully assessed and understood. – The appropriate oversight program is in place to monitor contractual performance and risk mitigation activities.

Source: ArgoGlobal

Lloyd’s / The Market / Beazley

Beazley’s corporate structure comprises of a Board of Directors, comprising of three executive directors and seven non-executive directors. This board has oversight for the business. Beneath this, is Beazley’s Executive Committee which is comprised of the three executive directors and senior management team and operates the company on a day to day basis. Beazley’s Executive Committee plays an active role in the oversight of climate related issues, with the regulatory responsibility split between executive committee members. Beazley’s Chief Underwriting Officer, Adrian Cox, is responsible for determining how the risk profile and business plan should change in the future as a consequence of climate change, whilst Chief Risk Officer Andrew Pryde holds the responsibility for climate change risks. He also has responsibility for reporting the financial consequences of climate change given the current risk profile. The board is supported by various roles and committees across the business.

The management team maintains regular oversight on the highlighting of Climate Change risks through a number of mechanisms, which include submission of business papers and reports from internal steering groups, monthly executive committee updates from the Corporate Development team, responses to regulatory requirements, or submissions from Beazley’s Responsible Business Committee, which is also sponsored and attended by a member of the executive committee. The level of detail and frequency of these mechanisms is very much determined by business need. Subsequent outputs from these risks and opportunities have included the allocation of additional resources to manage Sustainability matters on behalf of Beazley, requests for further research to be undertaken, or the allocation of time at Board Strategy away days to dedicate additional time to understand climate change risks and opportunities for the business.

As part of the annual business planning process, each department is required to set out their business plan for the following year. As part of this process, high level Climate Change risks and opportunities have been identified as important subject areas to tackle over the subsequent year. The business planning process also provides a mechanism by which to monitor how the business is performing against the goals it set. To date, much of strategic direction of the business from a climate change perspective has been driven by regulatory demands, such as the PRA requirement to undertake Climate Change modelling as part of the 2019 Insurance Stress Test.

In 2020, the board approved an enhancement to the underwriting process, such that a specific environmental assessment should be made as part of the underwriting process to ensure that Beazley is providing insurance to customers who are being thoughtful about their climate responsibilities.

In 2019, approved by the executive committee, Beazley began the process to recruit a dedicated Sustainability Specialist to lead on Sustainability Initiatives within, and on behalf of, the business. This role is an important part of the strategic direction of the business in respect to Climate Change. This position was filled in the summer of 2020, with the initial objectives of identifying Beazley's current standing from a sustainability / climate change perspective, before putting mechanisms in place by which to improve. Further to this, the Sustainability Officer will develop a long-term Sustainability Strategy for the business, which in time will be endorsed by the Executive Committee and latterly the Board through the quarterly CEO report. This strategy will particularly focus on the Marketplace Strand of Beazley's Responsible Business Strategy, ensuring that sustainability / climate change practices are embedded in Business As Usual (BAU) practices. Much of this process will centre on a project to clearly identify the climate change risks to Beazley and its clients. From this, the opportunities associated with the risks will be incorporated into Beazley's strategic thinking and will form part of future business planning processes on a more granular level than within current plans.

Evidence also applies to Principles 1.2 and 2.1

Source: Beazley

Lloyd's / The Market / Chubb / Climate Risk and Oppurtunities Governance

Chubb's Nominating and Governance Committee has responsibility at the board level for reviewing environmental, social and governance (ESG) issues, including climate change. Under the Chief Risk Officer, risks are evaluated at least annually at three governance levels, with the company's senior management actively engaged in each. The company's Risk and Underwriting Committee, product boards, and risk-related committees meet monthly to evaluate specific risks and risk accumulations in Chubb's business activities and investments, while the Board of Directors' Risk and Finance Committee meets regularly with company management. Various risk-related reports are provided at least quarterly to business division management, product boards and other risk-related committees, senior management, the Risk and Underwriting Committee, the Risk and Finance Committee as well as the full Board.

Chubb has a comprehensive, coordinated global environmental program that touches all areas of the organization. The company's Chief Communications Officer (CCO) is the senior executive responsible for overseeing this program. The goals and objectives of the environmental program are approved by the CEO and the CCO provides regular updates to the CEO and modifies the program as necessary.

Source: Chubb

Lloyd's / The Market / MS Amlin

As part of the MS&AD Group, MS Amlin has committed to the high-level Corporate Philosophy (Mission) "to contribute to the development of a vibrant society and help secure a sound future for the planet, by enabling safety and peace of mind through the global insurance and financial services business."

The MS Amlin Underwriting Limited (MSAUL) Board has overall responsibility for strategy, performance and risk management. Therefore, only through careful management in each of these critical aspects of our business can MS Amlin achieve its objectives and manage the risks and opportunities arising from climate change.

Given the central role of the MSAUL Board in setting our strategy, performance targets and risk appetite in relation to climate risks, a Directors' training programme (see *Directors Training 2019*) was introduced, providing an introduction to climate change, regulation, science, business impacts and opportunities. The objective was for this training was to increase awareness and educate board members, allowing them to make informed decisions to identify, measure, manage, monitor and report climate change risks and opportunities. This training will shortly be rolled out through the company's online training platform as a module available for all staff globally.

The MSAUL Board also appointed Deputy Chief Executive Officer, Martyn Rodden, as the board member responsible for climate change. He represents MS Amlin on the ClimateWise Insurance Advisory Council, is Chairman of the newly formed Climate Change and Resilience Policy Group and is the named executive with regulatory responsibility for climate change.

In addition, the Board has sought to develop plans to review:

- How MS Amlin's governance mechanisms and strategy meets the changing demands of climate change risks on its business and stakeholders;
- How MS Amlin continues to offer sustainable development by providing insurance products that reduce damage and loss incurred in corporate and other activities due to abnormal weather impacted by climate change, and to consider the development of products/services that will help advance the transition to a decarbonized society;

– How the company's existing Risk Framework will operate in respect of climate change risks, including how well MS Amlin understand, monitor and report on these risks; and

– How the risk profile of MS Amlin will change in relation to climate change risk, as compared to its risk appetite; and

– Quantification of certain aspects of climate change risk through the deployment of stress and scenario testing run to assess the impact of plausible, but extreme, events.

In 2019, a "Climate Change and Resilience Policy Group" (CCRPG) was established to consider and evaluate the risks and opportunities for MS Amlin arising from climate change (see *Terms of Reference*).

Meeting quarterly, the group's purpose is to consider and initiate actions which will help MS Amlin comply responsibly with MS&AD expectations, regulatory requirements and the commitment to ClimateWise Principles, to share current industry news on climate change, and to investigate potential sponsorship and research opportunities with industry groups.

The group also considers what impact the effects of climate change may have on the risk profile of MS Amlin specifically under the topics of:

1. Regulatory and disclosure
2. Shareholder expectations
3. Risk Profile
4. Research and Analytics

Consideration is also given to areas of research that can be supported to enhance knowledge of the risks posed by climate change, as discussed in section three of this document

The CCRPG includes C-Suite Executive representation from all MS Amlin companies including: Martyn Rodden (Committee Chairman and Deputy CEO for MS Amlin Underwriting Limited), Chris Beazley (CEO MS Amlin AG), Ludovic Sénécaut (CEO MS Amlin AISE) and Iain Pearce (CEO Amlin Business Services).

Source: MS Amlin

Lloyd's / The Market / QBE / Board led incorporation of Principles into business strategy

Our climate governance framework clearly defines the roles and responsibilities for effective oversight and management of climate-related risks and opportunities at the Board and senior management levels.

Responsibilities for climate-related issues have been assigned to the Group Board due to the long-term strategic importance of this topic for QBE's investment and insurance businesses, and operations. Climate-related issues are a scheduled agenda item, with quarterly updates to the Board Risk and Capital Committee on environment, social and governance (ESG) issues, including climate change. In addition, divisional Board Risk & Capital Committees regularly receive and review reports on climate-related risks and opportunities affecting each division.

The Group Board oversees the work of all Board sub-committees. The Group Board sub-committees oversee the disclosure, risk management, investment and operational aspects of climate change, as shown in the graphic below.

The Risk and Capital Committee is responsible for climate-related risk management according to our strategy and business plans. The Audit Committee is responsible for climate-related financial reporting (including half-year and full-year reporting on ESG and climate-related information). The Investment Committee is responsible for climate-related investment risks and opportunities. Finally, the Operations and Technology Committee is responsible for climate-related operational risks and opportunities.

QBE is fully committed to applying a disciplined approach to risk management and ensuring that our practices and systems are robust, independent and aligned with global best practice. QBE's Enterprise Risk Management (ERM) framework is outlined in QBE's Risk Management Strategy (RMS) and is supported by frameworks for each risk class, including strategic, insurance, operational, credit, market and liquidity risks. Climate-related risks are assessed and classified as part of ESG risks – a sub-class of Strategic risk within our Board-approved RMS and are managed through this integrated framework.

The Group Board plays a significant role in the ERM framework. It is responsible for defining the risk appetite within which risk must be managed and for ensuring that an effective risk management strategy is implemented. All risk categories are managed through Board governance, an approved risk appetite set by the Group Board, scenario analysis and stress testing and robust capital management.

Evidence also applies to principle(s): All

Source: QBE Annual Report 2019 (p.32-39)

Lloyd's / The Market / The Hartford

At The Hartford, the full Board of Directors (the "Board") has oversight of sustainability matters, including climate-related issues and is briefed on these issues at least annually. The Nominating and Corporate Governance Committee of the Board (the "Nominating Committee") has oversight of the company's sustainability governance framework. Per its charter, the Nominating Committee is formally responsible for overseeing the establishment, management and processes related to the Company's environmental, social and governance activities and issues of significance to the Company, its host communities, shareholders and employees. This includes oversight of climate-related risks and opportunities, in line with the incorporation of the ClimateWise Principles into The Hartford's business strategy. This committee met five times in 2019.

In addition, the Board's Finance, Investment and Risk Management Committee, which is comprised of the full Board, routinely receives updates on risk management activities related to severe weather and climate change. This committee also met five times in 2019.

The governance structure starts at the Board and cascades to the Enterprise Risk and Capital Committee (ERCC) and then to individual risk committees across the Company. The Enterprise Risk Management organization is responsible for managing and underwriting to mitigate risks associated with climate change, such as severe weather events, which are discussed in the Company's 10-K, and described in the company's Statement on Climate Change.

In an effort to view Environmental, Social and Governance (ESG) topics holistically, and to coordinate efforts across the company, the company formed an ESG Sustainability Governance Committee in 2017. The Committee is comprised of senior management that sets and helps to drive execution of the company's sustainability strategy, reporting to the full Board of Directors at least annually. The first such report included a deep dive on climate change and severe weather in 2018, which, among other things, looked at how the company is (1) reducing its environmental impact; (2) helping customers reduce their environmental impact through products, services and investments; and (3) utilizing its Enterprise Risk Management function to monitor and manage climate related risks.

In 2019, building upon the prior update, the Sustainability Governance Committee shared the progress the company is making toward reaching the environmental goals first announced in the 2017 Sustainability Highlight Report. In addition, the Committee shared the company's new Coal and Tar Sands Investment Policy with the Board when it was announced in late December 2019.

We believe this governance framework builds on our early successes, helping to drive the coordination of the company's sustainability efforts and enables the full Board to oversee ESG risks and opportunities that contribute to the long-term sustainability of the company. In the end, the Board understands that long-term sustainability requires the delivery of value to shareholders, employees, customers, and society at large.

Source: The Hartford

Lloyd's / The Market / Tokio Marine Kiln / Accountability

Tokio Marine Kiln's (TMK's) Environmental, Social and Governance Committee (ESG Committee) has been set up in 2020 as a delegated Committee of the Board. It has been created to give direction and challenge to TMK's strategic approach to matters concerning the Environment, Sustainability, and Governance. Three groups report into the ESG Committee, representing each of its three defined pillars of Climate, Ethics and Inclusion (see *ESG Committee Terms of Reference*).

The Climate Group has set the purpose to embed sustainability in TMK's business activities and manage the risks and opportunities arising from climate change in delivering TMK's strategic goals. The framework structure has created reporting lines from the Climate Group up to the Board, with relevant reports such as this paper being reported to the ESG Committee.

Through the annual ORSA process, TMK's Board receives an insight into the effects of climate risks and opportunities on the business strategy. The 2020 Annual ORSA Report included narrative of the varied ways in which climate change is expected to affect risk areas throughout the business and qualitative ratings for those risks. Updates to Board-level Committees on climate risk and its opportunities will continue to be provided by the Risk Management Team on a quarterly basis, as they have been since Q4 2019.

The CEO of Tokio Marine Kiln is the main sponsor for CSR related activities. This includes the Charity Committee, which typically is allocated an annual budget for employees to participate in a broad range of Corporate Social Responsibility (CSR) related activities. Furthermore, the TMK facilities team, which reports to the Deputy CEO, has been focused on taking on environmentally friendly initiatives within the firm, as well as generating efficiencies.

TMK is an active participant of the ClimateWise Managing Committee and the ClimateWise Insurance Advisory Council. TMK's CRO, Vivek Syal, is a member of Insurance Advisory Council and Sufen Lim, Executive Director, is a participant of the ClimateWise Managing Committee where meetings are held quarterly. Sufen is also a member of the Policy

Engagement Task Force in 2020 where a thought leadership paper specifically focussed on Underwriting aspects is expected to be published this year. Furthermore, TMK participates in webinars organised by ClimateWise and ABI on climate risk related industry research.

Source: Tokio Marine Kiln; ESG Committee Terms of Reference, TMK Annual ORSA Report 2020

1.2 Describe management's (below board-level responsibility) role in assessing and managing climate-related issues.

Lloyd’s / The Corporation of Lloyd’s

The Corporation oversees the Lloyd’s market. It provides the market’s infrastructure, including services to support its efficient running, and protects and maintains its reputation. The Corporation’s role includes:

- Managing and protecting Lloyd’s network of international licences;
- Agreeing syndicates’ business plans and evaluating performance against those plans. Syndicates are required to underwrite only in accordance with their agreed business plans. If they fail to do so, Lloyd’s can take a range of actions including, as a last resort, stopping a syndicate underwriting;
- Monitoring syndicates’ compliance with Lloyd’s minimum standards; and
- Continuing to raise standards and improve performance across two main areas:
  - Overall risk and performance management of the market; and
  - Maintaining and developing the market’s attractiveness to capital providers, distributors and clients, while preserving its diversity.

Addressing climate change has been incorporated in different streams of work within the Corporation. Examples include: Innovation, Risk, Investments, Syndicate Oversight, Responsible Business, Procurement, Regulatory Affairs.

While other teams address Lloyd’s carbon footprint in a much more practical way. For example, by taking steps to reduce the energy consumption of Lloyd’s buildings. Lloyd’s is also responsible for a number of market members who rent office space from us, as well as engaging employees with practical steps they can take at work and at home. Examples are listed throughout the report under Corporation of Lloyd’s activities.

Risk Management processes

At Lloyd’s, the risk profile originates from both syndicates and at central level. Syndicates are the source of the majority of risks. They source all the insurance business; manage the bulk of the asset portfolios; hold the majority of the counterparty exposures; and conduct most of the day-to-day operational activity. The syndicate risks include: insurance risk (underwriting, reserving and catastrophe risk); market risk on syndicate assets (including credit risk on Premiums Trust Funds (PTF)); reinsurance and other credit risk; and syndicate operational risk. At the central level, additional risks arise from central operational risk, pension fund risk; market risk on central assets; and the risk of member default.

The Corporation’s risk management framework ensures that the risks which could have a significant impact on Lloyd’s business are identified and there are mitigating actions to reduce or eliminate the risk. While climate change has previously been categorised as an emerging risk, it is now considered a cross-cutting risk type that manifests through many of the Corporation’s established risk categories.

The Corporation is currently enhancing its risk management approach to climate-related risks to more explicitly recognise the impact of climate change on the its risk profile. In line with the requriements set out in PRA SS3/19[a], David Samson, Chief Risk Officer, is the Director responsible for ensuring climate risks are identifyed and adequately managed, and a Climate Risk Working Group has begun to consider the material climate risks to the Corporation. The ambition is to develop tailored ‘climate’ KRIs and stress tests that enable the risks to be effectively monitored and proactive action taken where required. These enhancements to the risk management framework are underway, and will be fully embedded in 2021, in line with PRA expectations.

The need to meet the requirements set out in PRA SS3/19 have also been included in the 2020 Lloyd’s Market Oversight Plan. The plan is designed to provide Managing Agents with Lloyd’s view of key risks and issues facing the market and gives transparency over the Corporation’s planned oversight activity to manage those risks.

Recognising that best practice on climate risk management is still evolving, the Corporation has been engaged with several industry wide working groups. For example, Lloyd’s is an active participant on the Climate Financial Risk Forum, an industry forum chaired by the PRA and FCA to build capacity and share best practice.

[a] See Supervisory Statement

Lloyd's has also begun to prepare for the PRA's 2021 climate focused Biennial Exploratory Scenario. The Corporation will be coordinating a market wide response and is working with the PRA to establish the most effective approach.

At a senior management level, the Executive Risk Committee (ERC) is responsible for overseeing the identification and control of key risks to the objectives of Lloyd's, including climate risk. Climate risk has been discussed by the ERC, as well as the Executive Committee, several times during 2019 and 2020. It is anticipated that these discussions will increase following enhancements to the risk management framework.

Key risk: Significant regulatory and tax changes

Lloyd's sees its competitive position weaken, suffers regulatory penalties or disadvantageous capital position in an era of heightened geopolitical risk and uncertainty.

Mitigation actions:

– Continue to lobby to influence the evolution of UK, European and global regulatory and tax frameworks to maintain the competitive position of the market
– Monitoring Solvency II compliance at Lloyd's
– Responding to regulatory consultations/regulatory liaison on topics such as climate change

Responsible business strategy

The Corporation of Lloyd's is committed to being a responsible global corporate citizen by adopting ethical principles and practices, sharing knowledge and expertise, and by making a positive contribution to social and environmental issues. The Corporation operates in a way that meets fundamental responsibilities in the areas of human rights and labour, as well as environment and anti-corruption.

In 2018, we carried out research to understand better our employees' attitudes to responsible business, how the Corporation was performing as a responsible organisation, and what behaviours and actions were required to bring our responsible business strategy to life.

Through an employee survey, interviews and focus groups with employees from a cross-section of roles and departments, including the Executive Committee, participants were asked what responsible business meant for the Lloyd's market in general and the insurance sector. The findings identified four key areas for Lloyd's responsible business approach to address:

– Influencing and working with the market

– Core services, products and operations

– Workplace and culture

– Role in the community

Responsible investment strategy

The Corporation of Lloyd's believe that we should use our shareholder power to influence the behaviour of the companies in which we invest – and persuade them to respond more effectively to the impact of climate change (principle 2.1, which also includes 2.2 and 2.3 activity).

The Corporation of Lloyd's Treasury & Investment Management (LTIM), led by Nicola Hartley, Head of LTIM, provides specialist fixed income investment management services to the Lloyd's market, on a discretionary basis to Managing Agents and acts as the manager of Lloyd's centralised trust fund assets and the Central Fund. LTIM manages approximately £9bn of assets; for some of the Central Fund investments the role of the investment manager has been outsourced to external firms. Further details of activities can be found in principle 2.

The Corporation has a responsible investment strategy that has been communicated publicly (principle 6.1). Details are available as part of the annual report, Responsible Business webpages, and in outputs throughout the year, such as regulatory responses and media requests.

The Corporation's investment philosophy focuses on generating long term, sustainable capital growth for Central Fund assets. The approach to responsible investment is built upon three core pillars;

– Protecting the Central Fund assets by considering environmental, social and governance risks;

– Promoting responsible business practices in companies through activities such as corporate engagement and shareholder action; and

– Providing capital to support a sustainable future, through investments in green and social impact bonds and by excluding investments in coal focused companies.

Oversight

The Class of Business (COB) team, led by Caroline Dunn, Head of Class of Business, continually monitors press activity and discusses with MAs all issues related to underwriting, including climate-related issues. This allows COB to feed in expert judgment to business planning decisions and the Lloyd's Internal Model (LIM) (principle 3.1 and 3.2).

A future looking view of climate-related risks are also monitored by the Risk Aggregation team, led by Dr Kirsten Mitchell-Wallace, who manages Lloyd's catastrophe risk at syndicate and market levels. Through the Risk Aggregation team, the Corporation of Lloyd's contributed to the PRA

"Framework for assessing physical climate change risk". Produced with contributions from a cross-industry working group, the report outlines a framework for practitioners in the general insurance sector to use to assess the financial impacts of physical climate change. This activity also contributes to principles 2 and 3.

Within the Solvency Capital Requirement (SCR) Review Process; managed by the Market Reserving and Capital Finance team, managing agents are expected to recognise any potential impacts on peril frequency and severity in their risk models. Whilst the impact is slow year on year, the possibility of an overall worsening of risk levels compared to historic experience is taken into consideration. The review looks for evidence that climate change has been considered and included in the managing agent's internal model where appropriate[b] (principle 3.1 and 3.2).

The Minimum Standards contain requirements which represent the minimum level of performance required of any organisation within the Lloyd's market to meet the Minimum Standards. These are updated on an annual basis, and Minimum Standard 4, Section 8 which deals with Governance is being refreshed around being a responsible business, but there are a number of standards around areas that include underwriting, governance, risk management. See principle 2.1 for further details.

Policy

The Corporation of Lloyd's Government Policy team, led by Cameron Murray, Head of Government Policy & Affairs, engages directly with UK, EU and international governments and regulators to discuss policy to facilitate resilience to, and mitigation of, climate change. For example, in January 2019 we provided a detailed response to the FCA's discussion paper on Climate Change and Green Finance. Further examples can be found in principle 5.1 and 5.2, featuring Corporation employees (principle 4.4 activities).

The Corporation plays an active role in ongoing discussions about climate change within insurance trade associations such as Insurance Europe, the Reinsurance Advisory Board and GFIA.

It is also a key objective for Lloyd's to minimise duplication with work undertaken by the PRA and the FCA, and for the regulators to take comfort from the oversight undertaken by Lloyd's itself. In support of this, the Corporation of Lloyd's submitted non-confidential responses to the Prudential Regulation Authority "CP23/18: Enhancing banks' and insurers' approaches to managing the financial risks from climate change", "DP18/08: Climate Change and Green Finance" from the Financial Conduct Authority, the Bank of England Discussion Paper, "The 2021 biennial exploratory scenario on the financial risks from climate change" and the Treasury Select Committee Inquiry into decarbonisation of the UK economy and green finance.

The Corporation of Lloyd's submitted responses to ensure that we understand and act in accordance with regulatory expectations of our role in relation to the market, so that we act in a co-ordinated manner in relation to Lloyd's managing agents. This may include ensuring that syndicates comply with new requirements as they come into effect. See principle 5.1 for further examples.

Innovation

The Innovation team provide materials and frameworks that help the market and policy holders think about their risks. Examples of past work include City Risk Index, Harvesting Opportunity, Stranded Assets, Climate Change and Opportunity, Food System Shock. The Innovation team also engage with the market and external stakeholders through work around disaster risk financing and responding to the protection gap.

Climate related risks are covered in all Innovation team presentations, regulator and government programmes, and public speaking slots from the London team and slide decks, speaking notes, and briefing packs provided to our country managers on request. Last year the Innovation team gave over 80 presentations, the majority of which mentioned the work commissioned in this space, as well as details on our ClimateWise membership and why the Corporation supports disclosure (principle 5.1).

The Innovation team holds positions on the Geneva Association "extreme events and climate risks" group, London Climate Change Partnership, and the Insurance Development Forum,(principle 5.1 and 5.2).

Evidence also applies to principle(s): 2.1, 3.1, 3.2, 4.4, 5.1, 5.2

Source: The Corporation of Lloyd's

Lloyd's / The Market / ArgoGlobal /

Risk Management Framework

Our risk management and internal controls framework is designed to enable us to achieve an accurate and timely understanding of (1) the nature, caliber and sensitivity of the material foreseeable risks to which we are exposed, (2) our ability to mitigate or avoid such risks and (3) to the extent that an identified risk falls outside of our Risk Appetite, what

[b] See Bulletin Y5189, p4

course of action is necessary to address such risk consistent with our business plans and risk tolerances.

Key elements of our risk-management framework are summarized below:

1. Our risk management framework consists of three lines of defense that begin at the functional level. Risk Owners within each business function are charged with identifying, assessing, measuring, monitoring, reporting, and mitigating risks associated with a department's respective functions and responsibilities. The Chief Risk & Sustainability Officer (CR&SO), who reports on issues of risk management to the Risk & Capital Committee of the Board and leads the second line of defense, plays a crucial role in risk management by coordinating, facilitating and overseeing the effectiveness and integrity of our risk management activities. The reporting process between the CR&SO and the Risk & Capital Committee is illustrated in the supporting documents, in particular the Board Risk & Capital Committee paper (List of Supporting Documents: 14 to 16). The Risk Management Function (RMF) is also charged with establishing, maintaining, and enhancing the methodology and tools used to identify and evaluate risks and, where risks are outside our risk appetite, ensuring that there is an appropriate response applied by the respective risk owner.

2. The Internal Audit department provides the third line of defense by assessing the effectiveness of our risk management processes, practices, and internal controls and providing timely feedback and assurance to the Board on the adherence to our risk management framework. The Head of Internal Audit reports to the Audit Committee of the Board on the internal control framework issues.

3. We have established policies to identify and address existing as well as evolving and emerging risks that have the potential to materially impact the adequacy of our financial resources, the volatility of our results, expected shareholder returns, or our ability to meet our commercial, legal and regulatory obligations.

- https://www.argolimited.com/enterprise-risk-management-at-argo/

Sustainability Working Group

During 2019, Argo Group maintained the operation of its regular Sustainability Working Group (SWG). The SWG coordinates Argo Group's approach and maintains a Sustainability threat and opportunity assessment. The SWG reports quarterly to the Enterprise Risk Management Steering Committee, which summarizes the status of the corporate sustainability action plan, including the identification of external trends that may become meaningful.

More information on our SWG is provided in the supporting documentation and on our website:

- https://www.argolimited.com/about/sustainability-management-at-argo/

This group is charged with overseeing the organization's internal sustainability policy, which is intended to apply to corporate risk management and investment practices. Argo Group's approach to sustainability includes building upon the following three pillars:

- We have a responsibility as stewards of the environment;
- We have a responsibility to advance our societal impact; and
- We have a responsibility to hold ourselves to high corporate governance standards that promote investor confidence.

In 2020 this was the first year that we published our Environmental, Social, and Governance Report along with disclosing our greenhouse gas emissions data on our purchased electricity (scope 2) and a fleet of company cars (scope 1).

- https://www.argolimited.com/reports/2020-esg-report/

The Group Chief Risk & Sustainability Officer (CR&SO) is responsible for coordinating sustainability initiatives, including periodic internal reporting. This has been recognised with a revised and expanded job title in June 2020. The SWG, which meets every six weeks, supports the CR&SO by discussing climate change issues and coordinating the corporate activities associated with the Argo Group's sustainability plan. A newly created role, Sustainability Analyst, was implemented full-time on 1st January 2020. The Sustainability Analyst is responsible for external voluntary reporting, studying, owning and tracking the Environmental, Social, and Governance (ESG) indices with the rating agencies, and creating and implementing policies to address the deficiencies. In our Emerging Risk Management report, the Sustainability Working Group page is a dedicated summary of what the Sustainability Analyst is working on with the CR&SO. These quarterly summaries are communicated to the Board Risk & Capital Committee. Our greenhouse gas emissions collection is an example of how we have demonstrated the progress of collecting the required data to externally publish the results, which most recently has resulted in decisions around setting new target reductions on corporate travel.

The SWG receives reports on a range of internal and external developments related to ESG matters, including climate change. Our ORSA report and risk register are examples where climate change effects have been stress-tested against our portfolio and plotted on a heat map to further understand the effects it could have on our business. Both of these examples are included in the supplementary material in this submission. The SWG noted the UK regulatory Consultation launched by the Prudential Regulatory Authority (PRA) for a Supervisory Statement on the financial service industry to enhance their approach to managing the financial risks from climate change.

The SWG continued to expand its membership this year and maintained the use of an internal Yammer communication site and 'Degreed' e-learning information exchange to enhance communication on ESG matters within the Group. This allows staff to broaden the understanding of developing issues around climate change.

Enterprise Risk Management

Argo Group's Enterprise Risk Management (ERM) framework, processes, and principles are in accordance with the (International Organization Standardization) ISO 31000:2018. Climate change is a risk within the overall components. Sustainability planning, of which climate change is a significant aspect, is part of the Argo Group ERM Steering Committee's remit. The ERM Steering Committee receives a quarterly report from the CRO summarizing the activities of the SWG and outlining progress made with the sustainability action plan, including external trends that may become meaningful. Argo Group has classified climate change as one of its emerging risks. The corporate risk management function regularly monitors climate change for the primary purpose of assessing the potential impact of climate change on Argo Group's business operations, insurance products, and clients. This contributes to principle 2.1 activities.

In February 2020, the ERM team was recognized from InsuranceERM for two awards, 'Risk Team of the Year' and 'Risk Innovation of the Year'. Risk Team of the Year made a compelling case on the benefits of repositioning our capital model and risk team from a compliance-focused function to a strategic business unit. The Risk Innovation of the Year prize was awarded on the idea and implementation of using technology as a disruptor to changing the process of reviewing the risks in a product portfolio. Both of these initiatives of building risk into the business while using technology gives better insight into the effects of climate change in each function.

- https://www.insuranceerm.com/analysis/winners-revealed-in-insuranceerm-awards-2020.html

Research and Development

The Research and Development (R&D) team is a dedicated resource to capturing current risk from natural hazards, which is the main pillar of the business. The R&D team comprises industry scientists and engineers who have expertise in seismology, meteorology, hydrology, and building design. We have developed our own view of risk, which is used to make underwriting and management decisions. It is based on a combination of third-party vendor models, plus our proprietary adjustments.

The Argo View of Risk (AVR) to keep current through the development of our own proprietary models and calibrated with validated models from third-party vendors. We continually review and analyze risk through this lens to develop new services, tools, and products, and improve existing ones.

Since the AVR informs our team's work, it must stay current. Doing that requires continual work by a dedicated team of innovative peril scientists armed with extensive insurance experience. They provide tools to Argo Group's underwriting divisions that allow them to outsmart the competition in risk selection and return on equity while minimizing capital requirements.

The Argo Group Perils Steering Committee (PSC) governs potential changes to the AVR. Its recommendations are communicated to the Group Internal Model Steering Committee, Group Property Steering Committees, and the Executive Group. Any changes are reviewed and challenged by key stakeholders in the appropriate business. Once ready, they are submitted for approval to the PSC.

- https://www.argolimited.com/catastrophe-modeling/
- https://www.argolimited.com/about/research-development/

Investment Managers

Argo Group has outsourced its investment management functions to a variety of investment management firms, who are expected to manage Argo Group's investment portfolio per Argo Group's investment management guidelines. This includes an expectation that consideration will be given to the impact of environmental issues when investment strategies are developed and applied. We surveyed our investment managers on the approach they take and which risk assessment tools they use to on their responsible investment approach and embedding ESG factors in their investment analysis. In 2019, we became a signatory with the Principles of Responsible Investment (PRI) and published a Responsible Investment Policy.

- *https://www.unpri.org/signatory-directory/argo-group-international-holdings-ltd/5140.article*

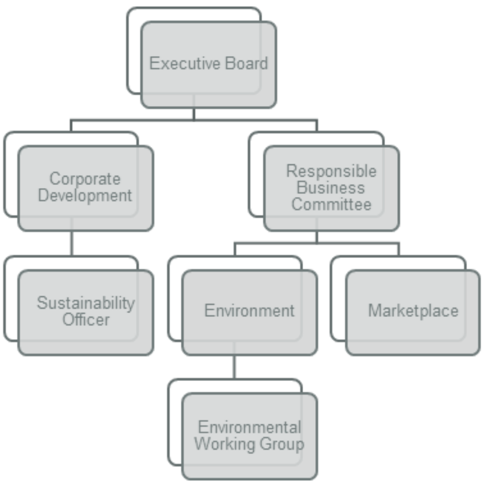
Evidence also applies to principle(s): 2.1

Source: ArgoGlobal

Lloyd's / The Market / Beazley

At Beazley, assessing and managing climate related issues are not defined as being solely the responsibility of one person or team, with different parts of the business using their knowledge and skill set to contribute to the identification of and finding solutions for, sustainability / climate change issues. From an underwriting perspective, the risk management framework is essential to determining the risks associated with issues such as climate change (detailed below in 2.1).

Alongside the Underwriting teams, there are a number of key roles and working groups which play an important role in the assessment and management of climate related issues, these specific roles and reporting pathways are outlined in the below diagram.



Beazley's Responsible Business Strategy is formed of four strands; Charities, Community, Environment and Marketplace. The strategy is led by the Responsible Business Committee (RBC) who oversee the delivery of the annual objectives for each of the four strands. Both the Environment and Marketplace strands have a particular focus on issues which contribute to Climate Change, with the purpose of the strands to drive internal and external engagement on these issues respectively. The committee and those who form part of the working groups are all volunteers and deliver the work alongside their business roles. The RBC is sponsored by an executive committee member, who provides regular updates, and reports directly into the executive committee on an annual basis. The RBC meets on a monthly basis to ensure the actions and targets set by each of the working groups maintain on track to be delivered in the timeframes indicated.

The Environment Strand of our Responsible Business Committee is supported by an Environment Working Group. This group focuses on the internal actions Beazley's employees can deliver to manage climate related issues such as GHG emissions from travel, recycling performance and responsible procurement. This network is spread across all Beazley's offices worldwide, enabling initiatives to be tailored to each office, whilst contributing to the overall business goals.

The Marketplace aspect of the strategy is led by Beazley's Sustainability Officer. This dedicated role was created in 2020 to enable Beazley to further co-ordinate its response to assessing and managing climate related issues. The Sustainability Officer's remit is broad and covers everything from working with the Environmental Working Group to improve Beazley's internal environmental performance, whilst leading on external issues such as the development of the TCFD risk and opportunities analysis.

The Sustainability Officer is part of the Corporate Development team, therefore, updates and progress against strategic plans are reported to the Executive committee via the Business Development executive report, and then further up to the Board through the quarterly CEO report. Alongside this, constant dialogue with senior management on all items relevant to ESG matters is undertaken. The Sustainability Officer has developed a sustainability roadmap, which is the first set to developing an overall Sustainability Strategy for Beazley. This roadmap identifies the mechanisms which are required to embed the management of climate related issues in business as usual (BAU) practices. This approach builds on the work being undertaken to date and will ensure Beazley can deliver against long term goals. The management of deliverables and oversight will be the responsibility of the Sustainability Officer, with support from the Board.

From an Investment perspective, the Investment team is responsible for assessing climate risks as part of their wider Environment, Social and Governance (ESG) due diligence. Decisions relating to how investment practices change to reflect climate change issues are proposed to the Investment Steering Group, before being submitted to the Executive, where necessary.

The exposure management team has the responsibility for developing approaches to monitor the aggregation of exposure to natural catastrophes. Part of this work involves assessing the latest views on climate change and reporting to the business on the impacts this could have to the insurance portfolios.

Evidence also applies to Principle 2.1

Source: Beazley

Lloyd’s / The Market / Chubb / Chubb Global Markets Leadership

Chubb’s General Counsel has management oversight of the company’s environmental, social and governance initiatives, including climate.

Under the auspices of the Global Head of Operation, GHG measurement and reduction activities are managed in Chubb’s network of more than 500 offices.

Climate-related opportunities in Chubb’s global insurance operations are led by the company’s senior business unit managers including Chubb’s environmental risk insurance practice.

The Division President of Chubb Global Markets is a board member and director and is Chief Executive Officer & Chief Underwriting Officer for Chubb Underwriting Agencies Limited. His overall responsibilities as a senior manager include oversight and management of the organisation’s consideration of climate change and environmental impact.

Evidence also applies to principle(s): 1.1

Source: Chubb

Lloyd’s / The Market / MS Amlin

Other CCRPG members include senior level representatives who have authority and influence to prioritise climate change on MS Amlin’s strategic agenda. These include Head of Catastrophe Modelling, Modelling Research Manager, Head of Exposure & Portfolio Management, Head of Natural Resources Underwriting, Chief Investment Officer, Assistant Investment Manager, Head of Property Services, and Head of Procurement.

These managers work actively in their business-as-usual roles to respond to regulatory requirements, to take account of stakeholder interests and concerns, to be familiar with the latest relevant scientific research and modelling techniques, to be aware of industry developments, and in particular are tasked with developing components of the Company’s Plan, Mission Statement, and Risk Framework relating to climate change. They are also supported at the CCRPG by the Head of Internal Comms and the Marketing team, to ensure that effective internal and external engagement for climate change issues is coordinated with the strategic and development initiatives

Management is well briefed by the Climate Change and Resilience Policy Group which provides details of climate related activities, issues and research. This report has been written by members of the CCRPG, and each question has been answered both with reference to their specific management role and with reference to their CCRPG strategic participation.

Source: MS Amlin

Lloyd’s / The Market / QBE / Management’s role in assessing and manging climate related issues

QBE’s Group Executive Committee (GEC) is our most senior management committee and has the highest level of management oversight of climate-related issues. The GEC is accountable for implementation of QBE's Climate Change Action Plan and Our Approach to Climate Change and receives and reviews climate change strategy progress updates quarterly. The CEO is Chair of the GEC and a member of the Executive Non-Financial Risk Committee (ENFRC). Responsibilities for climate-related issues have been assigned to our GEC as the Board has identified climate change as a significant risk for the business and relevant to the roles of all QBE senior executives.

In 2019, within the GEC, the Group Chief Risk Officer (GCRO) and Group Chief Financial Officer (GCFO) had the highest level of day-to-day oversight and responsibility for climate-related issues. Our climate governance framework, which is illustrated on page 5, also references the roles of our Group Executive, Corporate Affairs and Sustainability and Group Chief Underwriting Officer.

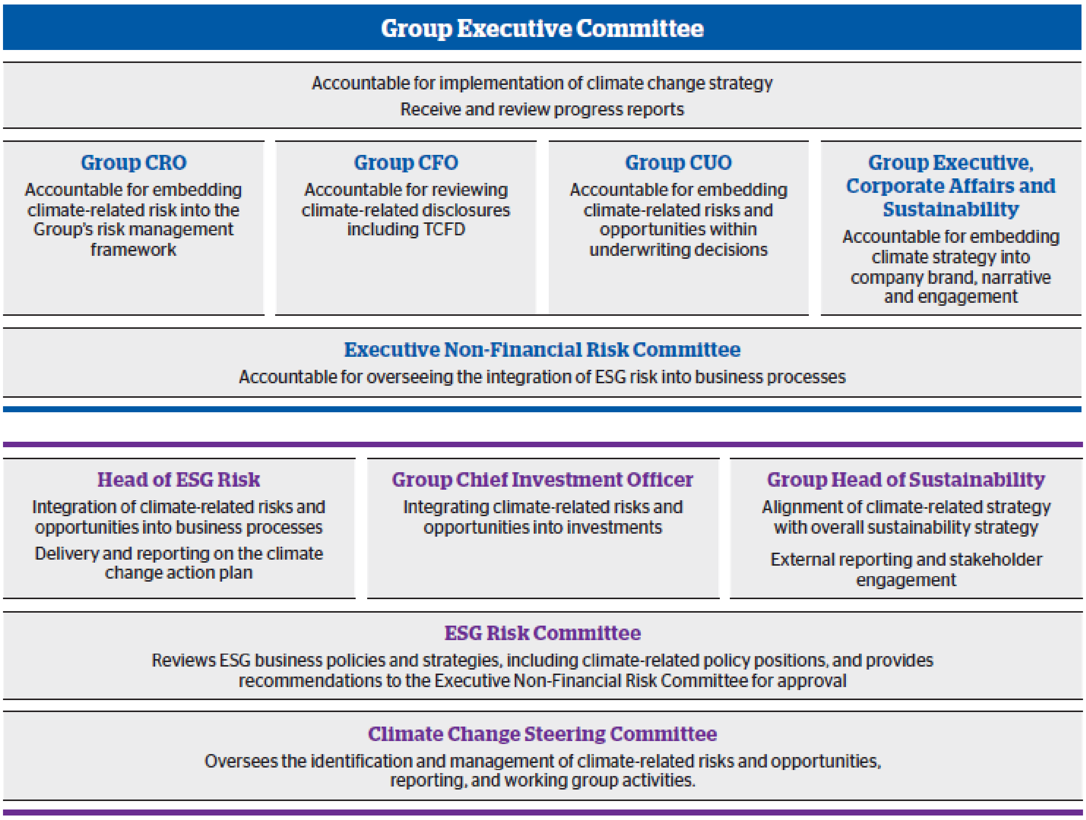
The GEC is supported by two cross-functional Committees, the ESG Risk Committee chaired by the GCRO and the Climate Change Steering Committee (CCSC) which is co-chaired by the GCRO and our Group Financial Controller (as a delegate of our Group CFO). Both committees consist of senior representatives from our Underwriting, Investments, Finance, Risk, Legal, Corporate Affairs & Sustainability and Operations teams.

The CCSC provides quarterly updates to the ESG Risk Committee and is responsible for the delivery of the QBE Climate Change Action Plan. This action plan was developed in 2018 after QBE signed the public Statement of Support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations. Our Climate Change Action Plan report describes our progress in meeting our commitments relating to climate-related risk management. The CCSC also plays a key assessment and aggregation role over the detailed analysis undertaken by the climate-related physical, liability and transition risk working groups.

In 2019, we established three working groups under the Climate Change Steering Committee to focus our work in the key areas of physical, transition and liability risk. These cross-functional groups comprise representatives from our underwriting, finance, investment, risk, sustainability, strategy, reinsurance and product development teams and include representatives from all of QBE’s divisions.

The Climate Change Working Groups (liability, physical, transition) provide an integrated view of the risks and opportunities associated with climate change and supports the CCSC. The Group Executive Committee is also supported by several other governance forums responsible for managing our wider sustainability activities. One of these is the Group Sustainability Committee, which is responsible for delivering the Group's overall sustainability strategy, initiatives and reporting requirements. The Group Sustainability Committee is chaired by the Group Executive Corporate Affairs and Sustainability and supported by the Group Sustainability team.

The Group ESG Risk Committee, which is supported by a dedicated ESG Risk team and reports to the Group CRO, considers and recommends policy positions on ESG risks that impact underwriting, investment and/or operations across the Group to the Executive Non-Financial Risk & Capital Committee (ENFRCC). The graphic below demonstrates how the GEC (of which the Group Chief Risk Officer, the Group Chief Financial Officer, the Group Chief Underwriting Officer, the Group Executive, Corporate Affairs and Sustainability are members) is supported bythe ENFRC, the ESG Risk Committee and the Climate Change Steering Committee



In QBE's European Operations, the Chief Underwriting Officer – Insurance and the Chief Risk Officer were approved jointly by the PRA in 2019 as accountable senior executives under the Senior Managers Regime[c]. In addition, a Roadmap for meeting the requirements of the PRA's SS 3/19 Supervisory Statement was approved by the Board and submitted to the PRA. A local EO Climate Risk Working Group was also set up in 2019 to support the CUO and the CRO with their new accountabilities. Reporting to the EO Risk and Capital Committee on progress with implementing the Roadmap takes place on a quarterly basis via the ORSA report submitted by the CRO.

QBE management are informed about and manage climate-related issues through several processes which are integrated into our business strategy and guide our decision-making, including but not limited to:

- **Our Group Environmental Policy**, which sets out our commitment to minimising our impact on the environment (including our climate-related impact) as this relates to our operations and supply chain, investment and underwriting activities, as well as employee engagement, governance and reporting.

[c] In July 2020 the EO CRO became the sole accountable executive for Climate change under SS 3/19.

- **Our Group Energy Policy**, which sets out our intention to phase out all direct insurance services for thermal coal customers by 2030, at the latest. We committed to and achieved zero direct investments in the thermal coal industry by 1 July 2019, while maintaining a margin of up to 0.5% of total funds under management.
- **Our Environmental Sustainability Plan** sets out our program of work to reduce our direct climate-related impact, including through application of best practice design standards, energy efficiency, behaviour change initiatives and transitioning to 100% renewable electricity for our operations.

Evidence also applies to principle(s): All

Source: QBE Annual Report 2019 (p.32-39); Group Environmental Policy; Group Energy Policy (policies available here: https://www.qbe.com/about-qbe/sustainability/climate-change).

Lloyd's / The Market / RenaissanceRe Syndicate Management Ltd / Management engagement

RenaissanceRe have nominated Stephen Weinstein, EVP Group General Counsel, to participate on the ClimateWise Insurance Advisory Council. Stephen's participation as a representative for RenaissanceRe on the ClimateWise Insurance Advisory Council involves attendance at formal meetings, plus additional engagement on an ad hoc basis when necessary or relevant.

Stephen also currently serves as Chairman of RenaissanceRe's Risk Sciences Foundation, which was created to support advanced scientific research in natural catastrophes, the development of risk mitigation and adaptive techniques to safeguard communities, efforts that reduce the economic turmoil following disasters, and organisations that preserve coastal and other risk-exposed habitats. Stephen is also a Trustee for the Bermuda Institute of Ocean Sciences, which is a non-profit organisation considered a thought leader in the field of climate research.

During 2019/20, the RenaissanceRe leadership team have been focused on the continued evolution and implementation of the Company's strategy within the Environmental, Social and Governance (ESG) arena, and have invested in a dedicated resource to support this project. Given that RenaissanceRe assume the risk for extreme weather, they are considered an early industry leader in understanding and evaluating the impact of human-driven climate change and incorporating it into their risk management models. Correspondingly, climate awareness and resilience have been identified by RenaissanceRe as one of their key ESG strategic priorities, to which they have already committed significant time and resources over many years.

Evidence also applies to principles: 6.1 & 6.2

Source: RenaissanceRe Syndicate Management Ltd

Internal reporting

The consideration of the physical impacts of climate change is integral to RenaissanceRe's ERM process. They integrate the anticipated impact of climate change holistically into their enterprise risk management process and catastrophe models, and regular reports by management to their Board and its committees on these issues are central to their governance processes.

The RenaissanceRe Holdings Ltd. 2020 Proxy Statement (page 26) outlines how RenaissanceRe's Board have oversight of strategic planning and enterprise-wide risk management, including environmental sustainability and climate change matters. At least annually, RenaissanceRe's Chief Risk Officer presents a comprehensive risk management overview to the Board to demonstrate management coverage and Board oversight of significant identified risks. This overview outlines RenaissanceRe's procedures for the identification and measurement of, response to and reporting of risks.

Source: RenaissanceRe Syndicate Management Ltd

Lloyd's / The Market / The Hartford

At the management level, The Hartford has an ESG Sustainability Governance Committee (the "Sustainability Governance Committee"), which sets and helps drive execution of The Hartford's sustainability strategy. The Committee comprises senior representatives across the enterprise including Marketing and Communications, Law, Strategic Sourcing and Real Estate, Human Resources, Enterprise Risk Management, Hartford Investment Management Company, Strategy and Underwriting. The Committee meets at least quarterly and serves as the senior management forum within the company for the oversight of sustainability activities including the assessment and management of climate-related issues. In addition, the committee serves as the mechanism that facilitates the Board and management's comprehensive understanding of The Hartford's collective sustainability efforts that address material environmental, social and governance (ESG) factors, risks and opportunities.

Among the Sustainability Governance Committee's specific responsibilities and authority are the following:

- Determining strategic focus for sustainability efforts by identifying and prioritizing areas that The Hartford will consciously address, including: (a) defining scope of sustainability initiatives; (b) establishing goals or defining measures of success; and (c) reviewing materials to be shared with the Board and a selection of those to be published externally.

- Overseeing the work of any sub-committees and work efforts addressing ESG issues.
- Reporting to the enterprise leadership team and Board periodically on progress towards key goals and initiatives.
- Contributing to and reviewing the company's annual sustainability report.
- Sponsoring company sustainability initiatives, including those that engage employees of The Hartford.

In addition to - and represented on - the Sustainability Governance Committee, The Hartford has an Environment Committee, which was created in 2007 as part of The Hartford's public commitments on climate change. The Environment Committee is composed of executives from across the enterprise with a wide range of responsibilities and perspectives including enterprise risk management, applied research & product development, actuarial and underwriting, corporate finance, workplace resources, law and government affairs.

The Environment Committee is responsible for:

- Serving as a senior forum to coordinate and promote environmental activities within the company that reduce The Hartford's impact on the environment.
- Ensuring that the annual response to the CDP is accurate.
- Offering advice and direction on all company environmental efforts.
- Ensuring that all meaningful opportunities to improve the environment and engage our employees are discussed within the Committee and shared with the Sustainability Governance Committee such that the Sustainability Governance Committee will report these actions to the enterprise leadership team and the Board of Directors.

In addition, The Hartford's Environmental Action Team ("HEAT") was established in 2011 and as of 12/31/19 has since grown to 950 employee members. HEAT leadership meets at least monthly and maintains an internal website to inform employees about the company's environmental stewardship and employee volunteer opportunities. HEAT has a representative on the Environmental Committee and its leaders set an annual operating plan and meet with the General Counsel to report on and seek guidance on its activities.

Source: The Hartford

Lloyd's / The Market / Tokio Marine Kiln / Accountability

The TMK CRO has been confirmed as the responsible function for the management of climate risk at TMK. The CRO Chairs the ESG Committee, giving him oversight of all climate-related activities at TMK.

The Climate Group (which sits as a sub-Group within the ESG Committee) has defined its purpose as: To embed sustainability in our business activities, manage the risks and opportunities arising from climate change in delivering our strategic goals and supporting transition to a low carbon economy. It is doing so by looking at a variety of internal and external impact areas, including:

- The reduction of GHG emissions across our business activities;
- Charitable activities and employee engagement in climate related matters;
- Social and responsible investing;
- The impact on our underwriting and opportunities for new "green" underwriting products.

The Group is developing a series of metrics with which it will measure progress against these climate-related issues.

The Group meets at least quarterly and reports to the ESG Committee each quarter, with the Chair of the Climate Group also a member the ESG Committee. The ESG Committee then reports up to the Board on a similar quarterly basis.

Through the annual ORSA process, the Risk Management Team (RMT) is responsible for the embedding of TMK's ERM Framework, which includes the identification, assessment, management, and monitoring of risks. As part of this role, the Risk Management Team is tasked with identifying, assessing, and evaluating climate risks, as well as monitoring the management of those risks throughout the business.

The TMK facilities team has been focused on environmentally friendly initiatives within the firm. Some of these include active recycling and monitoring of waste and energy consumption. They engaged external environment consultants who help to quantify improvement each year and provide recommendations for areas of improvement.

Source: Tokio Marine Kiln; Draft Framework for the Climate Group; TMK ERM Framework

2. Incorporate climate-related issues into our strategies and investments

2.1 Evaluate the implications of climate change for business performance (including investments) and key stakeholders.

Lloyd's / The Corporation of Lloyd's

Corporation facing

The Corporation of Lloyd's is developing a responsible business strategy and report that will provide a framework to monitor, measure and report on performance. The strategy will be based on the United Nations Global Compact and Sustainable Development Goals.

Areas of current focus include community involvement, diversity and inclusion, and the environment. Details of these activities are shared publicly in the annual report, and through a dedicated website area to communicate information to our market and all other stakeholders.

Goals within the environment component, include seven areas of commitment:

1. Our commitment to reducing greenhouse gases
2. Our commitment to climate change
3. Our commitment to supporting communities
4. Our commitment to renewable energy in the UK
5. Our commitment to waste management
6. Our commitment to sustainable buildings
7. Our colleagues are also committed

1. Our commitment to reducing greenhouse gases
The Corporation of Lloyd's has been working with Avieco, our environmental consultants, to track greenhouse gas emissions (GHG) from our global operations. These are published each year in our annual report.

A full inventory, including Avieco's public opinion statement, can be found in our public statement and Greenhouse Gases report 2019. See principle 4.2 and 4.3 for further details.

Metrics and targets

Reduce energy consumption by 1% based on previous year's figures.

2. Our commitment to climate change
The Corporation of Lloyd's is a committed member of ClimateWise; a community of leaders supporting the insurance industry response to the risks and opportunities of climate change. During the reporting period, Michaele Hawkins, Head of Responsible Business, held a position on the ClimateWise Managing Committee (principle 2.1).

3. Our commitment to supporting communities
The Corporation of Lloyd's offsets all emissions from business travel by buying carbon credits for carbon offset projects through Natural Capital Partners (principle 4.3).

We are currently supporting two Gold Standard certified offsetting projects;

- An improved cook stoves project in India. Due to traditional stove cooking practices, over 900 million people are exposed to indoor pollution on a daily basis. The new cook stoves we are supporting are designed to be 60% more fuel efficient and durable. This project has distributed 490,000 stoves since 2008, ensuring that the health and financial benefits from the reduced pollution and fuel costs can be seen across India.

- A solar water heating project in sub-Saharan Africa. Solar water heaters (SWH) provide households, small and medium sized enterprises (SMEs) and institutions with an in-house hot water supply fueled by renewable energy rather than carbon intensive grid electricity. This project delivers approximately 120,000 tonnes of emissions reductions annually as well as offering a number of social co-benefits aligned with the Sustainable Development Goals such as Affordable and Clean Energy and Decent Work and Economic Growth.

4. Implementation of ISO 14001 (International Environmental Management Standard)

During 2019 a strategic decision was taken by Lloyd's to implement ISO 14001 (International Environmental Management Standard) and to develop an integrated management system with migration to ISO 45001 (International Occupational Health and Safety Management Standard). Over the past 12 months the following has been achieved specifically relating to ISO 14001.

- Environmental Policy – revised and signed off by the CEO and approved by the Board.
- Merger of the Environmental Working Group with the Health and Safety Coordination Group to create the Health, Safety, Environmental Coordination Group (HSECG). This group is responsible for steering the strategic direction for health, safety and the environment for Lloyd's.
- Development of specific environmental objectives.
- Development of an environmental aspects and impacts register.
- Development of an OH&S and Environmental legal register.
- Development of internal (compliance) audits focusing on environmental issues.
- In June Lloyd's successfully achieved compliance with a Stage 1 assessment for ISO 1400; this was carried out by BSi. Our Stage 2 assessment is scheduled in late September.

5. Our commitment to waste management

The Corporation of Lloyd's is supportive of the landfill tax (£82.6/tonne of waste disposal to landfill) and we are proud to have a "zero to landfill" policy. 82% of the waste from UK offices is recycled and the remaining general waste is used as fuel for power generation. See principle 4.3 for further details.

The Corporation's catering team in the UK is working hard to reduce our carbon foodprint and has eliminated single use plastics from our restaurants by changing our disposable products. See principle 4.1 for further details.

We are proud that the Corporation of Lloyd's commitment to waste management was recognised in 2018 when we were given a Platinum Award in the City of London's annual Clean City Awards.

6. Our commitment to sustainable buildings

The Corporation of Lloyd's puts the environment at the centre of its office planning. LEED (Leadership in Energy and Environmental Design) is the most widely used green building rating system in the world, providing a framework to create healthy, highly efficient and cost-saving green buildings. LEED certification is a globally recognised symbol of sustainability achievement.

Four of Lloyd's offices have been given LEED status and two more have local accreditation. See principle 4 for further details.

7. Our colleagues are also committed

The Corporation of Lloyd's has a cross-directorate Environmental Working Group that drives forward our environmental agenda through an annual action plan. This working group was merged with the Health and Saftey Coordination Group to form the Health, Saftey, Environmental Coordination Group (HSECG).

The Lloyd's Responsible Business team also work with global sustainability champions to encourage them to take practical action to make their offices more sustainable as well as encouraging personal action outside of work. This culminates with World Environment Week in June each year. See principle 4.4 for further details.

The Corporation's policies

– The Environmental and Energy policy requires the co-operation and support of all managers, employees, tenants, contractors and visitors in its implementation. The Chief Executive Officer, takes overall responsibility for environment and energy usage including the formulation, development and implementation of the policy.

– Lloyd's puts the environment at the centre of its office planning. LEED (Leadership in Energy and Environmental Design) is the most widely used green building rating system in the world, providing a framework to create healthy, highly efficient and cost-saving green buildings. LEED certification is a globally recognised symbol of sustainability achievement. Four of Lloyds offices have been given LEED status and two more have local accreditation.

- Lloyd's mission is to deliver an effective and sustainable approach to all third-party sourcing and supplier management, with a clear purpose to support our Protect, Promote and Provide principles while achieving maximum value, minimising risk and driving efficiencies to invest in the future.

  Please see our vision and our expectations from our suppliers in our Sustainable Procurement Statement and our Supplier Code of Conduct. Further information can be found in principle 4. 1.

Capital structure

Lloyd's capital structure, often referred to as the chain of security, gives excellent financial security to policyholders and capital efficiency for members. Our capital structure provides the financial strength that backs all insurance policies written at Lloyd's and the common security that underpins the market's strong ratings and global licence network.

Lloyd's central assets, which include the Central Fund, are available, at the discretion of the Council, to meet any policyholder's valid claim that cannot be met from the resources of any member. The chain of security is designed to ensure the Lloyd's market remains well capitalised even after losses caused by extreme events.

Lloyd's capital structure has three elements:

- Syndicate level assets: All premiums received by syndicates are held in trust by the managing agents as the first resource for paying policyholders' claims and to fund regulatory deposits. Until all liabilities have been provided for, no profits can be released. Every year, each syndicate's reserves for future liabilities are independently audited and receive an actuarial review.
- Members' funds at Lloyd's: Each member, whether corporate or individual, must provide sufficient capital to support their underwriting at Lloyd's. Managing agents are required to assess the Solvency Capital Requirement (SCR) for each syndicate that they manage. This sets out how much capital the syndicate requires to cover its underlying business risks at a 99.5% confidence level. In light of Lloyd's mix of business, it is important that this assessment goes beyond the 12-month horizon required by Solvency II and must cover the risk of such extreme losses until all liabilities are paid and extend to an ultimate basis.
- The Corporation reviews each syndicate's SCR to assess the adequacy of the proposed capital level. When agreed, each SCR is then 'uplifted' to ensure there is sufficient capital to support Lloyd's ratings and financial strength. The uplift applied for 2019 was 35%. This uplifted SCR is known as the syndicate's Economic Capital Assessment and drives members' capital levels across all of the syndicates in which they participate in proportion to their share of those syndicates. Each member's capital is held in trust by the Corporation for the benefit of policyholders but is not available for the liabilities of other members.
- Central assets: The central assets, which include the Central Fund, are available, at the discretion of the Council of Lloyd's, to meet any valid claim that cannot be met from the resources of any member. Should syndicates need additional assets to meet their liabilities, the funds at Lloyd's ensure that members have additional resources available. In the rare event that a member's capital is insufficient, and that member is not able to provide further assets to the relevant syndicates, Lloyd's central capital provides further financial support to ensure valid claims are paid.
- The Corporation calculates the central Solvency Capital Requirement, which is independently validated and overseen by the PRA. The Council of Lloyd's sets the level of economic capital needed above the regulatory minimum to meet its risk appetite and support the market's ratings and global licence network.

Lloyd's chain of security

Several assets		
First Link	Syndicate level assets £52,849m	
Second Link	Members' funds at Lloyd's £27,595m	
Mutual assets		
Third Link	Central Fund £2,483m	Callable layer £977m
	Corporation £118m	
	Subordinated debt/securities £794m	

This distinction is important to remember for the Corporation's responsible investment strategy.

Investment

The Corporation of Lloyd's believe that we should use our shareholder power to influence the behaviour of the companies in which we invest – and persuade them to respond more effectively to the impact of climate change (principle 2.2).

The Corporation of Lloyd's Treasury & Investment Management (LTIM) provide specialist fixed income investment management services to the Lloyd's market, on a discretionary basis to Managing Agents and acts as the manager of Lloyd's centralised trust fund assets and the Central Fund. LTIM manages approximately £9bn of assets; for some of the Central Fund investments the role of the investment manager has been outsourced to external firms.

Responsible Investment Strategy

The Corporation's investment philosophy focuses on generating long term, sustainable capital growth for Central Fund assets. The approach to responsible investment is built upon three core pillars (principle 3.1);

- Protecting the Central Fund assets by considering environmental, social and governance risks;
- Promoting responsible business practices in companies through activities such as corporate engagement and shareholder action; and
- Providing capital to support a sustainable future, through investments in green and social impact bonds and by excluding investments in coal focused companies.
- Further information on the Corporation of Lloyd's Responsible Investment strategy can be found in principle 1.2.

Voting and Engagement

- LTIM continues to employ the services of an overlay manager, BMO Global Asset Management (BMOGAM), to engage with companies in which Lloyd's Central Fund invests as a shareholder and to exercise the Central Fund's voting rights in pursuit of Environmental, Social and Governance (ESG) goals.
- In 2019, BMO conducted in-depth engagement with 87 companies, in 19 countries, on a wide range of issues. BMO recorded 57 milestones where engagement had direct impact on companies taking action to either protect or enhance long-term shareholder value. BMO is also involved in thematic engagement projects, involving multiple companies, on a range of topics spanning labour standards, human rights, climate change and corporate governance.

Risk Management

Last year, the Corporation reported on a risk framework developed by LTIM to better capture and illustrate the ongoing assessment of individual external investment managers. This oversight framework considers a manager's current commitment and approach to Responsible Investment as one of six key areas of risk.

Another key area is Thematic Risk which includes a measure of the exposure to stranded assets of those Central Fund assets the manager is responsible for, according to the methodology set out in last year's ClimateWise submission. Each manager's profile across the six key risk areas is considered on a quarterly basis to produce an overall RAG (Red/Amber/Green) rating for the manager. If the rating is not green, then a more in-depth review of the manager will be scheduled. In-depth reviews can result in a manager being retained or replaced (principle 3.1).

Market facing

The Corporation of Lloyd's has a market oversight role with regards to climate related risks. It does this in a number of ways, examples are outlined in this section.

Market oversight

Market oversight remains a strategic priority for the Society. In 2019 we focused on our journey to return the market to a position of sustainable, profitable performance including consideration of Lloyd's solvency; operational risk; and our brand and reputation. The Society adopts a risk-based approach to managing the market, which means our oversight is balanced and is proportionate to risks faced.

The Society aims to minimise any duplication of work undertaken by the Prudential Regulation Authority and the Financial Conduct Authority, and for the regulators to take comfort from the oversight undertaken at Lloyd's. The Society also considers managing agents' own group oversight activities, with a view to ensuring the right risks are receiving attention from the right people.

Strong oversight is about establishing a framework that enhances the ability of syndicates to do business, while ensuring good customer outcomes. We continue to evolve our risk-based approach, focusing efforts on matters of greatest concern and where our intervention can really make a difference.

By adopting this approach, the Society recognises the diversity and complexity of the many different practitioners in the Lloyd's market. Our account management structure also ensures that engagement with managing agents is structured, cohesive and commercially effective.

Minimum standards

The Minimum Standards contain requirements which represent the minimum level of performance required of any organisation within the Lloyd's market to meet the Minimum Standards.

Within these documents the standards and supporting requirements are set out in the blue box at the beginning of each section:

GOV 8.1 Responsible Business

The managing agent recognises the impacts of their business on wider society and acts in a way that is responsible.

Managing agents shall demonstrate that:

- The Board and senior leaders establish and oversee the responsible business culture and ethos of their organisation, which includes guidance on ethical values and behaviours
- There is guidance and a process in place for employees to raise concerns and report misconduct
- Their governance and management structures acknowledge the importance of, and have processes in place, to address the social, environmental and ethical impacts of their operations
- They comply with all relevant legislation

The remainder of each section consists of guidance notes that explains the standards and requirements in more detail and gives examples of approaches that managing agents may adopt to meet them. For example, ClimateWise is included as an external framework that businesses can sign up to in order to benchmark their business practices, and we have also included the Taskforce for Climate Financial Disclosure (TCFD) as a further example of how managing agents might achieve this.

The guidance notes are intended to provide reassurance to managing agents as to approaches which would certainly meet the Minimum Standards and comply with the requirements. However, it is appreciated that there are other options which could deliver performance at or above the minimum level and it is acceptable for managing agents to adopt alternative procedures provided they can demonstrate the requirements to meet the Minimum Standards. In an area like climate related risks this is especially important as there are no set frameworks or processes available, and every managing agents risk appetite and exposure will be different.

Solvency Capital Requirement (SCR) process

In order to meet Lloyd's requirements, each syndicate is required to calculate its Solvency Capital Requirement (SCR) for the prospective underwriting year. This amount must be sufficient to cover a 1 in 200 year loss, reflecting uncertainty in the ultimate run-off of underwriting liabilities (SCR "to ultimate"). The SCRs of each syndicate are subject to review by the Society and approval by the Lloyd's Capital and Planning Group.

The 2019 Syndicate SCR Review Process looked for evidence that climate change has been considered and included in the managing agent's internal model where appropriate (principle 1.2 and 3.1).

Climate change poses a range of risks to syndicates and will continue to do so over the coming decades. Although climate change is a long-term risk, it is having an impact now.

Lloyd's considers there to be three types of climate risks for syndicates:

- Physical risks: these risks relate to specific weather events (e.g. floods, wildfires, hurricanes) and the longer-term impacts of climate change (e.g. on sea levels, increased average temperatures)
- Transition risks: these cover the impact to syndicates of the move towards a low-carbon economy, via changes to policy/regulation, changes to society, or emergence of new technologies and business models. For example:
    - As electric vehicles are further developed and desired, financial assets in the automotive sector may lose value.
    - As governments promote sustainable energy, fossil fuel extractors and associated power generators will suffer financially (if they fail to adapt).
- Liability risks: parties who have suffered loss or damage from physical or transition risk factors may seek to recover losses from those they hold responsible; potentially affecting classes such as Directors & Officers, and Professional Indemnity.

Although climate risks inherently feature wide-ranging impacts with uncertain time horizons, they are foreseeable, and the impact that they will have on syndicates depends on actions taken in the short term.

Lloyd's expects syndicates, and their Boards, to understand and monitor the financial risks from climate change that they are exposed to. Lloyd's expects these risks to be included in syndicates' internal models. Lloyd's expects all syndicates to be performing internal model stress-tests to ascertain the potential impact of climate change in the future, over short- and long-term horizons.

Lloyd's expects all syndicates' views of Catastrophe Risk (as represented within capital models) to be appropriate for the current climate, and to reflect changes in climate which have already occurred and may be influencing hazard now and over the timeframe covered by policies underwritten. However, Lloyd's does not expect syndicates to adjust their current view of risk (or level of capitalisation) to reflect future changes in climate.

Lloyd's also expects all syndicates to be considering how their business model and/or portfolio management strategies may need to change in the future as a result of climate change.

Further information can be found in the PRA's Supervisory Statement SS3/19.

Evidence also applies to principle(s): 1.1, 1.2, 2.1, 2.2, 3.1, 4.2, 4.3,

Source: The Corporation of Lloyd's

Lloyd's / The Market / ArgoGlobal /

Underwriting and Management Governance

The Argo Group risk management function has fully embedded climate-related risks into our overall governance and risk management frameworks. The risk management team is consulted if an environmental issue may have a potential impact on Argo's business operations and/or insurance products. We are aware of the influence NGOs have and the value of their environment message of the effect when companies continue to engage in doing business with fossil fuel companies. We feel we have a responsibility to make a mindful business decision on this issue and not wait until external regulators imposes a mandatory requirement. We have taken a proactive approach to this by drafting a policy for senior management to discuss and approve. Similarly, in 2018, in the excess casualty coverage line of insurance, we made a decision to no longer continue insuring utility companies.

The Group Underwriting Committee sets policy on Argo Group's stance concerning key underwriting factors such as risk appetite. Determining whether the business is prepared to underwrite certain types of business and what restrictions to place on this is coordinated by the Group Chief Underwriting Officer (CUO).

The Underwriting Committee has delegated the tactical response to specific issues with a potential for reputational risk, such as where Non-Governmental Organisations (NGOs) or pressure groups may be looking for a specific response from Argo to a sub-committee consisting of the CUO, CR&CO, and Head of Producer Management to agree on an appropriate short-term response and report back to the Committee in due course.

The intended purpose of such consultation is to identify and discuss possible options for the mitigation, reduction, and/or avoidance of risk resulting from an environmental issue.

Board Governance and Reporting

A non-executive director has been appointed at the board level for both Argo Group and Argo Managing Agency to oversee our approach to addressing the financial impact of climate change, including corporate sustainability.

If a potential environmental climate change issue is identified by Argo Group, a cross-functional working group of subject matter experts is convened, supporting the Argo Group risk management function. Discussions take place to assess and determine if potential environmental climate change risk could present a material threat to Argo Group and what actions may be taken by Argo Group in response to such a threat.

Argo Group's Exposure Management Committee has also been tasked with the responsibility for the consideration of the influence of any climate change-related modeling on its property insurance portfolio.

Digital and Modeling

Argo Group continues to invest in digital and artificial intelligence capabilities to access greater amounts of data to apply risk-management expertise in innovative ways. This allows us to consider opportunities for introducing new climate risk products as they are developed, in line with its strategic plans and appetite.

Climate risk is implicitly included in Argo Group's catastrophe reinsurance considerations through the use of catastrophe modeling. Allowance for uncertainty in climate change risk is provided through the use of Argo Group's Stress & Scenario Testing Framework (SSTF) and economic capital modeling processes. These stress tests, together with our approach to non-modeled risk (NMR) and emerging risk processes, provide the ability to consider the broader economic capital implications for Argo Group's solvency in respect of climate change-related risks. By sharpening our quantitative risk modeling (including scenario analysis) around perils impacted by climate change, it provides a helpful roadmap in spanning governance, strategy, risk management, as well as metrics and targets.

The Argo Group emerging risk monitoring process includes scanning available resources for information regarding climate change. Climate change related matters, current events, litigation, regulation, legislation, the political environment, and industry groups' actions that may have an impact on the Argo Group Climate Change Policy and/or strategy. 'Stranded assets' have been specifically identified as a potential material risk factor. We are continually assessing our state of readiness concerning financial risks from climate change as well as forward-looking plans.

Argo Group has embedded consideration of the impact of climate change on its business's commercial viability in several areas. The most tangible example is the review conducted in early 2018 of the Excess Casualty portfolio, which resulted in a decision to exit all Californian Utility business, forfeiting over $14M of gross written premium. The decision was referred to the Group Underwriting Committee for Executive sign-off. It was supported because the analysis suggested that despite very significant rate increases, the risk was considered no longer insurable due to a combination of the increased wildfire activity and worsening state legal environment. The analysis was supported by using an in-house developed wildfire model and experience from the 2017 wildfire season. This decision's benefits became clear through 2019 when it became evident that Argo Group had avoided a potential PML (probable maximum loss) on the accounts that were non-renewed of over $80M.

Economic Scenario Generator

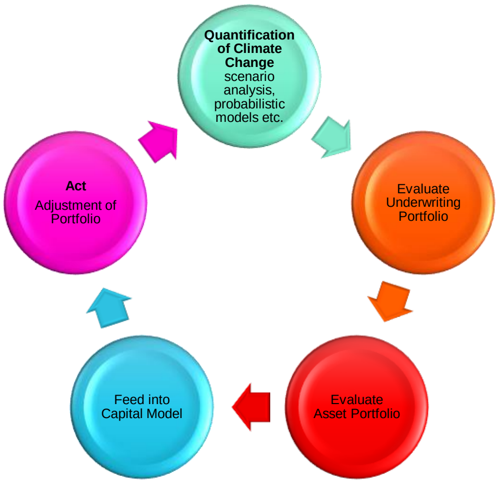
Argo Group uses Moody's Economic Scenario Generator (ESG) to support the operation of the Internal Capital Model. It is an actuarial asset model that calibrates macro-economic factors to support realistic projections of asset returns and risk-factor distributions. The ESG allows the model to undertake a wide range of risk management and asset-liability modeling (ALM) activities.

ArgoGlobal has piloted the development of stress and scenario analysis related to climate change in line with Prudential Regulatory Authority (PRA) expectations under their Policy Statement PS11/19. The scenario analysis was based on a short-term view of financial risks within the current business planning horizon and a long-term view taking into consideration scenarios where average global temperatures continue to rise consistent with a 2˚C overall rise and/or scenarios where a transition to a low-carbon occurs in either an orderly or disorderly manner.

Moody's Economic Scenario Generator has enabled our capital modeling team to break our assets down to a more granular level and perform sensitivity tests in line with our portfolio's materiality. As outlined in the diagram below, this incremental process will develop and improve over time. ArgoGlobal has committed to improvement and will continue to invest effort in enhancements as tools and techniques develop.

The scenario results will be submitted to Lloyd's as part of the Internal Model Validation Report for 2020.

Climate Change Scenario Development



Research and Development

The Research and Development team is a dedicated resource of industry scientists, and engineers have expertise in seismology, meteorology, hydrology, and building design. Various team members have participated in industry event seminars along with published scientific research. These industry events that call upon experts to discuss climate change and the impact on the insurance industry solidifies to the importance of climate disclosures from a scientific perspective. The links below to lectures and papers elaborate in greater detail on how we need to manage this risk is to develop robust methodologies for parameterizing it.

One such example is our scientific modelling, and the comparison process Federico Waisman created, the exposure data set was pulled from public databases. This was presented at the Hurricane Model Showcase. A summary of four vendor model results were presented from an objective point of view to elaborate further on the differences between the metrics. The determination is that modellers have to understand all the assumptions before making decisions. This reemphasizes the importance of collectively as an industry where disclosures will add robust value to creating more precision on climate modelling.

RMS Exceedence 2020
Rising to the Climate Change Challenge: Managing Regulatory Certainty for an Uncertain Risk
Dr. Federico Waisman
May 2020

- https://www.argolimited.com/about/research-development/

CAT Risk Management & Modelling Conference
Model Review: Flood from US Hurricane – Dr. Federico Waisman, Elizabeth Harris and Marco Carenzo
March 2020

- https://www.argolimited.com/about/research-development/

CAT Risk Management & Modelling Conference
Climate Change: Science, Modelling, Regulation and Initiatives – Dr. Federico Waisman and Elizabeth Harris
March 2020

- https://www.argolimited.com/about/research-development/

Drivers of Multi-decadal North Atlantic Warming in Relation to Hurricane Frequency
Warm Water Volume and Hurricane Activity – Elizabeth Harris
February 2020

Source: ArgoGlobal

Lloyd's / The Market / Beazley

At Beazley, the warming of the global climate is recognised as an important emerging risk due to its widespread potential impact on the global population, built and natural environments and economy. The implications of climate change for Beazley's business performance can be divided into three categories: Underwriting risks; Investments; and the Performance of Beazley internally.

In 2018, Beazley's risk management department completed a high level risk profile covering the potential risks posed to our group from climate change. This risk profile is still current and has formed the basis for subsequent risk analysis work. A key aspect of Beazley's business model is to support our clients who have been affected by natural catastrophes, helping them return to pre-catastrophe conditions as soon as possible. As a specialist insurer, various classes of business we underwrite are subject to the effect climate change presents to the risk environment. As part of the underwriting process, we work with our insureds to understand the risks facing their organisation, including applicable climate related risks, to tailor insurance coverages to mitigate the associated financial risks. We acknowledge and accept that over time climate change could impact the risks facing our insureds and this is reflected in our risk management framework and outlined in our 2019 Responsible Business Report.

Beazley's investment team uses ESG ratings to actively assess the climate related risks and inform investment decisions. As part of Beazley's Investment policy, it will not invest in companies considered within the bottom 10% of ESG rating indices. In 2019, as part of the General Insurance Stress Test submission to the PRA during 2019, 91% of portfolio assets were assessed, with 9% consisting of Hedge Funds and Absolute Return Funds excluded due to the nature of the underlying exposures. Investments in sectors potentially exposed to climate change were isolated using NACE codes. A number of stress scenarios were applied to the market value of these assets. These varied according to the type of investment (i.e. equity, fixed income) the underlying exposure (i.e. material exposure to the transport sector or coal extraction) and the resulting impact on the market value of the assets under each scenario was calculated. We built on the data and information provided by our ESG provider to help inform future investment strategy and decisions. Further to this, we also require that external managers incorporate a consideration of ESG risks in their decision-making process. We are currently reviewing our approach to ESG with a view to formalising and strengthening the requirements of third-party managers, to meet the challenges of climate related risks.

Internally, although limited in the opportunities available, Beazley focuses on reducing the impact of its operations. To date it hasn't set targets given reliability issues surrounding data, particularly in locations where Beazley is a tenant. Instead Beazley, led by the Environmental Working Group, has focused on reducing waste in our offices, encouraging suppliers to alter their products to reduce their impact on the environment, and incorporating ESG related decision making into the selection of new offices. Our overall Carbon Emissions are reported on an annual basis in our annual report.

As part of the continuous improvement, Beazley is developing its business and investment strategies to incorporate climate change issues. This includes a high-level identification of climate related risks and opportunities within the annual business plan, for development over the subsequent year. The development of a sustainability strategy is also important to this process and is currently being formulated by the Sustainability Officer. The sustainability strategy will help set out long term plans for the business, ensuring Climate Change opportunities form part of future products, as well as reducing the impact of Beazley's operations. To ensure this work adds value to the business, strong collaboration across the business is essential. This collaboration is already well established within Beazley, through the work of the Responsible Business Committee, pulling on people from all areas of the business. The RBC is sponsored by a member of the Executive Committee, enabling strong leadership to demonstrate this. The new role to the business of Sustainability Officer helps this cross business response, enabling better disclosure to a number of ESG indices and the tailoring of future research to support the business.

Evidence also applies to principle(s): 3.1

Source: Beazley

Lloyd's / The Market / Chubb / Catastrophe Modelling

Chubb uses internal and external data together with sophisticated analytical, catastrophe loss and risk modeling techniques to ensure an appropriate understanding of risk, including diversification and correlation effects, across different product lines and territories. We recognize that climate changes and weather patterns are integral to our underwriting process and we continually adjust our processes to address them. This approach is intended to help ensure that losses are contained within our risk tolerance and appetite for individual product lines, businesses and Chubb as a whole. Climate-related risks like flood and wildfire are continually monitored where exposure exists.

Flood is the most frequent natural disaster. However, the market is mostly untapped on both the residential and commercial sides. In our opinion, while flood insurance is not always mandatory, it is always needed. To that end Chubb launched a new flood center of excellence and offers greater flood protection to both businesses and consumers. The flood center of excellence continues to collaborate with Chubb's

CAT modeling team in order to offer more advanced asset valuation and sophisticated risk modeling, which we assess on a portfolio-level basis.

Insurance underwriting is Chubb's core business and source of revenue. However, we also monitor our investment portfolio's exposure to coal investments to ensure compliance with our coal policy (see section 2.3 below).

Source: Chubb

Lloyd's / The Market / MS Amlin

Underwriting

MS Amlin has a well-established exposure management framework, used to measure and manage catastrophe loss probability, which contributes the single largest item of underwriting risk to the company's capital requirement under the Solvency II regulatory regime. This framework includes a rigorous process of exposure data capture and governance related to insurance policies issued by MS Amlin, including controls for any missing data and data quality. The portfolio of exposed policies is then modelled by country and peril, to estimate loss probabilities from events such as cyclones, windstorms, severe convective storms, earthquakes, floods, bushfire, and other hazards. The contribution of individual policies in key exposure classes is modelled prior to underwriter acceptance of risk. The whole portfolio is reassessed on a quarterly basis.

The climate-related risks monitored in this way are windstorm, severe convective storm, flood, storm surge, tropical cyclone and related hazards. The modelling assesses historic events, and models probabilistically extremes of events across relevant geographic regions. Climate signals are intrinsic to the parameterisation of the models used.

The models are tested for sensitivity, and stress tested against MS Amlin's historic claims experience. The models are licensed commercial from firms staffed by scientific experts, and represent the sum of hundreds of years of research and development on the climate-related hazards.

The key metric used is the 1 in 200 annual exceedance probability tail value at risk, along with 11 other stochastic and deterministic metrics. These are tracked quarterly by class, business unit, and at group level, and monitored against capital tolerances used to manage the level of risk authorised by the MS Amlin boards.

This framework is also used to support business planning, an annual exercise to look at income growth for the next calendar year and assess likely loss impact from the growth plan.

Investments

Within the three legal entities of MS Amlin's insurance and reinsurance core business, MS Amlin has an investment portfolio in excess of £6billion, consisting of Fixed Income (Bonds Duration and Absolute Return Funds), Equity, Real Assets and Cash. MS Amlin manages investments on a multi-asset, multi-manager basis, appointing external managers to implement security selection.

As long term investors focusing on asset allocation, MS Amlin is aware of the importance of stewardship and sustainability alongside integrating ESG into our governance structure, which involves the inclusion of Environmental, Social and Governance factors into investment analysis.

Whilst MS Amlin has a holistic approach to investing, it actively engages with external managers encouraging disclosures detailing their ESG activities and assessments of climate risks when choosing their investment strategy, which is monitored on a regular basis via annual and investment stewardship reports. There has been increasingly more information provided by MS Amlin's external managers, compared to previous years, on the extent to which ESG factors (and specifically climate risk) are integrated into their investment strategies. This is an area we continue to promote.

MS Amlin believes that climate risk is an extremely vital component within the wider ESG discussion. There is an initiative within MS Amlin Investments to acquire more detailed data and research in this area, with the view to integrating it into the front office portfolio monitoring architecture (leveraging our in-house expertise). The aim is to incorporate the analysis into the investment decision making process and improving communication on this important topic to MS Amlin's legal entity boards. The aim is to cement both climate risk and ESG factors into MS Amlin's governance structure and risk culture. This work builds on other regulatory submissions MS Amlin has made (i.e. PRA GIST).

Our observations lead us to define:

- Short term as 0-5yrs, where our immediate focus is on listed securities (equity and credit), where total returns will be reflective of immediate risks or opportunities from climate related factors (emissions, coal, low-carbon technology)
- Medium term – defined as 5-20yrs. Here, MS Amlin focuses on allocation to real assets which include Property, Farmland and Infrastructure investments (renewable energy)
- Long term – defined as 20yrs+. MS Amlin focus efforts on identifying long term shifts and trends, more likely characterised through broader government securities and associated yield movements (carbon neutral targets, green bonds)

The majority of MS Amlin's external managers are signatories to the UN Principles of Responsible Investment (PRI) which encourages managers to incorporate ESG issues, including climate change, into their investment selection process. MS Amlin's external managers believe that sustainable investing is synonymous with good fund management practice and that strategies incorporate changes in consumer views, investors' expectations and economic trends which all tend towards a more climate- aware and sustainable world (i.e. renewable energy, zero-carbon economy).

MS Amlin believes that the identification of these trends is crucial when considering its stance as long term investor. There is a focus on data acquisition alongside investment impacts with regards to short/medium-term effects from distinct meteorological events (such as hurricanes). These events are also thought of in the context of medium/longer term increased frequency and intensity as much as their immediate impacts.

MS Amlin is currently liaising with the MS&AD Group, our parent company, to form a firm wide Climate Change/ESG Investment Policy which will be available later in 2020 (delayed due to the pandemic). Our expectation is that this will lead to direct improvements and create a market leading governance framework both internally and with our external managers (via investment guidelines).

Paul Amer, MS Amlin's Chief Investment Officer and member of CCRPG, is leading and promoting further use of climate risk and ESG factors into the investment process.

Source: MS Amlin

Lloyd's / The Market / QBE / Implications of climate change for business performance

In 2019, we continued to progress our Climate Change Action Plan, with a focus on identifying risks and opportunities and developing our strategic responses across both underwriting and investment management.

Underwriting

We have continued to focus on identifying climate-related risks and opportunities across some of our key underwriting portfolios. This work has been driven by our physical, transition and liability working groups.

For the purpose of assessing risk time horizons and considering the average policy duration allowing for renewals, as well as the average term of its investments, QBE uses the following classifications – short term impacts: 0-3 years; medium-term: 3-8 years; and long-term: 8+ years.

Physical risks

In 2019, in partnership with catastrophe modelling firm Risk Management Solutions ('RMS'), we assessed probabilistically the impact of hurricanes in North America and tropical cyclones in Australia, which represent some of our largest exposures to weather-related events. We considered impacts on our existing portfolio up to 2100, under scenarios consistent with a 2–3˚C global mean temperature rise. This initial analysis did not show material increases in our expected claims costs before 2050. During 2020, we have continued to assess these impacts, allowing for alternative emissions scenarios. We have also extended the analysis in partnership with RMS to other weather-related exposures in our portfolio, for example European Windstorm.

Transition risks

QBE has integrated climate-related issues into our business strategy by performing analysis to understand portfolio exposure to climate risks and opportunities. In 2019 this included coal exposure analysis and transition risk portfolio analysis. Transition risk may arise in our investments where companies within our portfolio are not aligned to the Paris Agreement targets, and so expose QBE to sudden drops in asset values or increased credit risk. Predominantly, transition risk is associated with carbon intensive industries.

In 2019, we undertook scenario analysis to identify the risks and opportunities associated with the transition to a low carbon economy. We focused on three industries which will require significant changes if the world is to meet the goals of the Paris Agreement – energy, transport and heavy industry. We developed two qualitative scenarios consistent with meeting the objective of the Paris Agreement. The first scenario is early and coordinated transition driven by political ambition, regulatory and policy support. The second scenario presented a delayed and uncoordinated transition, with ambitious action around 2025–30. We then held deep dive workshops to identify the risks and opportunities associated with each of the three industries.

We also assessed our corporate credit portfolio by applying the 2 Degrees Investing Initiative (2Di) Paris Agreement Capital Transition Assessment Tool (PACTA) to confirm that our credit portfolio, which represents 50-60% of the portfolio, is aligned to the Paris Agreement, both now and in five years' time. We performed an internal analysis to assess coal-specific transition risks in the total investment portfolio and coal-related assets. The analysis confirmed that we have less than 1% of our investment portfolio in coal related assets. The analysis affirms our investment philosophy and our focus on contributing to a low-carbon economy. The work on carbon footprinting has also extended to a retrospective analysis which considered the carbon intensity of the corporate credit portfolio for the past five years.

This baseline has identified that the corporate credit portfolio's exposure to carbon risk is low and so is well positioned for the transition to a low-carbon economy relative to the broader corporate bond market. We also established processes for the ongoing monitoring of our portfolio and we continue to engage with issuers identified as the highest emitters in our corporate credit portfolio.

Premiums4Good

Launched at Lloyd's of London in March 2015, Premiums4Good is a unique initiative developed by QBE that enables targeted customers to invest a portion of their premium in securities with an additional environmental or social objective, such as green bonds and investments in infrastructure projects with environmental benefits. The initiative is free and there are no risks involved for the customer. This initiative has stimulated the development of new investment products that offer risk-adjusted returns, as well as supporting beneficial social outcomes. As a result of the initiative, QBE has made impact investments across the globe.

Our Premiums4Good offering continued to grow in 2019, with the number of investments increasing from 32 to 48, representing an investment of $US663 million in qualifying securities. Investments range across asset classes and geographies, including green bonds, social bonds, infrastructure and SIBs. We have an ambition to grow our impact investing allocation to $2 billion by 2025.

United Nations Environment Programme ('UNEP') Finance Initiative ('FI') TCFD Pilot Project

QBE is participating in the UNEP FI Principles for Sustainable Insurance ('PSI') Task-force for Climate-related Financial Disclosures ('TCFD') Pilot Group. This has the objective of building scenarios and approaches for insurers and reinsurers to assess climate-related risks and opportunities. The Pilot has progressed more slowly than we anticipated in our Climate Change Action Plan and we expect it to be completed by the end of 2020. The work undertaken as part of the Pilot will help to inform our scenario analysis and strategic responses in 2020.

Evidence also applies to principle(s): 1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 4.2, 4.3,

Source: QBE Annual Report 2019 (p.32-39); Premiums4Good Investment Impact Report (available here: https://www.qbe.com/premiums4good) *Group Environmental Policy; Group Energy Policy (policies available here:* https://www.qbe.com/about-qbe/sustainability/climate-change*).*

Lloyd's / The Market / The Hartford

The Hartford recognizes that climate change is real and presents both risks and opportunities for our company, our customers, and the overall economy.

Insurance Operations

Climate Change Risks:

As an insurer, we are at the forefront of understanding, managing and mitigating climate-related risks.

Our insurance operations expose us to claims arising out of catastrophes caused by various unpredictable natural events frequently attributed to climate change including, among others, earthquakes, hurricanes, hailstorms, severe winter weather, wind storms, fires, and tornadoes. The geographic distribution of our business subjects us to catastrophe exposure for events occurring in a number of areas. Any increases in the values and concentrations of insureds and property in these areas would increase the severity of catastrophic events in the future.

In addition, changes in climate and/or weather patterns may increase the frequency and/or intensity of severe weather and natural catastrophe events potentially leading to increased insured losses. Potential examples include, but are not limited to: an increase in the frequency or severity of wind and thunderstorm and tornado/hailstorm events due to increased convection in the atmosphere, more frequent and larger wildfires in certain geographies, higher incidence of deluge flooding, and the potential for an increase in frequency and severity of largest hurricane events.

In the event of one or more catastrophes, policyholders may be unable to meet their obligations to pay premiums on our insurance policies. Further, our liquidity could be constrained by a catastrophe, or multiple catastrophes, which could result in extraordinary losses. In addition, in part because accounting rules do not permit insurers to reserve for such catastrophic events until they occur, claims from catastrophic events could have a material adverse effect on our business, financial condition, results of operations or liquidity.

The amount we charge for catastrophe exposure may be inadequate if the frequency or severity of catastrophe losses changes over time or if the models we use to estimate the exposure prove inadequate. In addition, regulators or legislators could limit our ability to charge adequate pricing for catastrophe exposures or shift more responsibility for covering risk.

Climate Change Opportunities:

Climate change also presents opportunities for our business. As changes in weather patterns emerge, The Hartford has the opportunity to better position our products in order to offer further protection to our customers. The Hartford already offers a full range of insurance products that help customers who want protection from weather events and their consequences, including protection from damage that could occur from fires brought on by drought, snow and ice, severe heat, changing weather patterns, wind and numerous other perils. Offering such protection, and then managing that risk, is at the heart of what insurers do.

To the extent that new regulations related to climate change drive insureds to more environmentally friendly products, The Hartford could experience an increased uptake in its offerings of insurance products that service this area. For example, the company's renewable energy practice offers end-to-end coverage for the wind, solar and biomass industries, from research and development through construction, to production. If future regulation encourages renewable energy use, this could present opportunities from which The Hartford could benefit.

Similarly, if regulation encourages commercial vehicle owners and individuals to drive hybrid or electric vehicles, The Hartford could benefit through its current product offerings in these areas. As the first insurer to offer coverage of garage EV charging stations in its homeowners policies, this is also an area where regulation may assist.

To the extent that commercial entities are required or encouraged to build green buildings or replace equipment with more energy efficient equipment in order to limit contributions to climate change, The Hartford’s products that offer these coverages could benefit. Likewise, any regulations that encourage individuals to build greener houses or use hybrids or EVs could drive further uptake for the products that The Hartford offers.

Similarly, opportunities exist for The Hartford as public and private entities enter into construction projects to address changes in physical climate. Projects addressing these changes include, but are not limited to: infrastructure adaptability and improvements, flood control, shoring and erosion control, waterproofing, and green building. Insurance buyers looking to adequately transfer risks associated with these projects create business opportunities for The Hartford. Opportunities also exist for The Hartford as more construction projects implement Green Performance Contracting (GPC) standards. GPC changes the traditional construction approach with respect to materials, equipment, design, methodology, and energy efficiency. Underwriting GPC and developing insurance products to address its use is an inherent opportunity for The Hartford which has resulted from changes in physical climate.

Opportunities can also arise as carbon taxes are imposed. To the extent that carbon taxes result in growth for the wind, solar, fuel cell or other renewable energy sectors, The Hartford's Renewable Energy Insurance Practice could experience considerable growth. Also, to the extent that such taxes affect the behavior of small and medium-sized businesses and individuals regarding their purchasing decisions on hybrid or electric vehicles, The Hartford's current product line in these areas could experience increased growth. As The Hartford leverages its electric vehicle charging station infrastructure, we could benefit to the degree that carbon taxes lead to growth of the electric vehicle industry.

Catastrophe modeling and other analytical tools incorporating climatic assumptions are significant inputs into pricing and underwriting that are part of our financial projections (1 to 3 year horizon). However, the analytical tools and catastrophe models which are significant inputs into pricing and underwriting are calibrated over a longer period of time (e.g. 5 to 10 years) recognizing historical experience over a longer period, as well as expectations regarding the impacts of climate change on future projections. In recent years, The Hartford has worked with catastrophe vendor modeling firms to reflect changing intensity and frequency of storms, including the inherent volatility of weather or climate pattern changes.

For a comprehensive overview of The Hartford’s climate-related risks and opportunities including the time horizon and estimated financial impact for each, please see Section 2 of the company’s CDP submission.

Investments

During the past few years, The Hartford Investment Management Company (“HIMCO”) has taken steps to develop a framework for assessing The Hartford’s investment portfolios and the implications of climate change on its holdings. First, The Hartford and HIMCO developed the ESG Investment Policy Statement in 2018 as a guideline when making investment decisions. The Policies were posted on both The Hartford’s and HIMCO’s websites. Following, in 2019, HIMCO conducted a series of training sessions to provide portfolio managers and analytical staff with guidance around assessing climate change and other ESG related issues. Further, in 2019 HIMCO enhanced its proprietary credit research platform to include fields where analysts provide mandatory scoring and commentary as applicable, for each active portfolio holding with respect to ESG attributes. This enhancement requires analysts to consider the possible climate risks or benefits of each holding to the extent applicable. The enhancement also allows reports to be generated that can quantify exposures in any of the climate risk/benefit categories. Finally, in late 2019, The Hartford announced its Policy on Insuring, Investing in Coal, Tar Sands. The policy provides further and more specific guidance with respect to investments involving coal or tar sands.

Source: The Hartford

Support Links:

- ESG Investment Policy Statement
- Policy on Insuring, Investing in Coal, Tar Sands

Lloyd's / The Market / Tokio Marine Kiln / Implications of climate change for investment performance and shareholder value

TMK's Risk Management Team (RMT) has produced evaluations of climate risk for Board review in the 2020 Annual ORSA Report. This evaluation has focused on varying time horizons, depending on the risk area that is being considered. For example, Strategic Risk was considered partly a longer-term time horizon (seen as greater than 10 years' time), given the strategic implications of a warming world. Of long-term concern is the sustainability of a natural catastrophe focused strategy, and the capital that that strategy will require going forward. Other aspects of Strategic Risk have been identified as relevant to the short term (current business planning period), particularly around opportunities of developing new products related to the Green Economy, and in supporting our existing customers in transitioning to a low-carbon economy.

Physical risks of increasing windstorm damage factors have been identified, and these are arising to affect the business in the short to medium term (next 3-10 years), with early indications of the business already being affected by storms such as Hurricane Harvey in 2017.

In terms of Reputational Risk, the time frame considered is the short term (current business planning), with the risk considered 'more immediate' to TMK's business than any other climate-related risk. The risk was considered in the context of key stakeholders to TMK's business, including our customers, current employees, and the wider society that we are engaged in. The risk has been identified as requiring specific consideration in the Climate Group's work, given the varied stakeholder interests and the difficulty in quantifying such a risk.

TMK have highlighted both the Physical and Transition risks that are likely to affect our Investment portfolio. TMK use two main asset managers, BlackRock and New England Asset Management "NEAM" to manage the investment portfolios of TMK, subject to certain restrictions expressed in investment guidelines. The portfolios predominantly consist of short dated, investment grade, government and corporate bonds, absolute return fixed income bond funds and no equities. The implications of climate change to these short dated, investment grade investments, where the average duration is around 2 years, is likely to be minimal.

Source : TMK 2020 Annual ORSA Report

2.2 Measure and disclose the implications of climate-related issues for business performance (including investments) and key stakeholders

Lloyd's / The Market / ArgoGlobal

Risk Matrix

The Sustainability Working Group (SWG) maintains a specific ESG/Sustainability threat and opportunity register, which is reviewed at least twice per year. Our semi-quantitative approach to risk analysis tracks current and future business uncertainties and evaluates the likelihood and potential impacts are identified. With the use of a heat map, this allows us to a way of representing the resulting qualitative and quantitative evaluations and the probability of risk occurrence and the impact on our organisation. The risk register captures current mitigation/ realisation plans and recommended actions with due dates, priorities, and action owners.

The risk register is refreshed on a six-month basis. It is a tool to identify uncertainties within the entire organization based on six overall categories where it can have an influence: business environment, financial & commericial, organizational/leadership, operational, people, and information. Once a potential event or scenario is identified, it is given a description of its effects, assigned as a threat or opportunity, or sometimes as both and then classified on where it falls within the impact on all of our stakeholders. The threats and opportunities are plotted on a risk profiler on the likelihood and impact it would have. The risk profiler is a snapshot of the threats and opportunities and an indicator to management where the focus and decision making need to shift.

The SWG reviews the risk assessment and a summary of the Enterprise Risk Management Steering Committee for discussion. A headline report is provided to the Group Board Risk & Capital Committee and the AMA Risk & Capital Committee.

A Product Disruption Matrix exercise is completed annually in conjunction with Group Underwriting. This looks at a number of disruption and change drivers and their potential impacts on products and lines of business across Argo Group, including ArgoGlobal. Climate Change risk is one of the change drivers included. This is reported to the Emerging Risk Review Group (ERRG) and each Line of Business (LOB) Underwriting Committee.

Investment Managers

Argo Group operates its investment management function through a series of outsourced arrangements using a variety of investment managers. The investment management firms we have partnered with are expected to manage Argo Group's investment portfolio in accordance with our investment management guidelines. There is an expectation that impact investment will take priority.

Investment in coal extractive industries currently remains at less than $5M out of a $5B portfolio for the Argo Group investment portfolio, a level that will not increase in the future. The Group has been developing its position on Fossil Fuels, it has been agreed upon with the Executive Management team and is now with the Board for final approval, and it is anticipated that a Fossil Fuel Statement will be issued by year-end 2020. Opportunities to invest in clean energy technology are evaluated on an ongoing basis. A waste-to-heat power plan and a wind turbine manufacturer have been assessed but not progressed due to contractual or competitive concerns.

Conning - Climate Dashboard

ArgoGlobal has partnered with Conning Holdings Limited, the investment firm that manages the Managing Agency's assets. They are at the initial stage of developing a dashboard that provides Climate Risk analysis of corporate portfolios. We have been working with them to analyze the risks in our investment portfolio from a physical, transitional, and liability risk when shifting to a low carbon economy. This provides a comparison of our portfolio to peer benchmarks from using proprietary and MSCI data that gives an indicative view of the ESG rating of our assets. This will allow us to identify and review those assets with a weak ESG rating, which may be at increased transition risk. We will continue to work with Conning to design dashboard reporting to gain improved insights.

Source: ArgoGlobal

Lloyd's / The Market / Beazley

Beazley considers the impact of climate change on its asset portfolio by seeking to incorporate an assessment of environmental risks in the investment process. We subscribe to the research services of a specialist company in the field of environmental, social and governance research and has integrated their proprietary ratings into the credit process applied to investments in corporate debt securities. A minimum standard for ESG performance is defined and companies not meeting the required standard will be excluded from the approved list of issuers. The analysis also includes a consideration of the sustainability of each company with regard to the potential decline in demand in specific sectors.

The Executive Committee sets an annual risk appetite for natural catastrophe risk, which takes into account a number of factors including the current rating environment, the expected profitability of the group, the amount of capital and the amount of risk from natural disasters. Realistic Disaster Scenarios are also used to calculate losses from natural disasters with the current suite of scenarios including a wide range of perils and regions including windstorms in the Gulf of Mexico, Florida, Europe, Earthquakes in the USA and Japan and Flood in the UK. The annual business planning process and the Incubation and Product Development team help identify opportunities, new products and potential gaps in the market. Metrics are maintained to measure the number of new products and new ideas developed over the course of the year.

Monitoring of the natural catastrophe risk appetite is performed on a monthly basis by the Exposure Management Group (EMG) and reported to the Underwriting Committee, Underwriting Governance Committee and Executive Committee monthly and to the Board quarterly. Reporting is performed at an overall group level as well as by, legal entity, division and by peril to enable trends and performance to be identified and monitored. Natural catastrophe models are used to facilitate the estimation of losses from natural disasters, such as hurricanes and earthquakes. The models produce losses by calculating the hazard (by using factors such as wind speeds, the forward moving speed of the hurricane and storm surge), the assets insured (building type and use, the value of the assets), calculating the damage to buildings, contents and business interruption and estimating losses to insurers by applying the financial terms of the insurance contracts.

Source: Beazley

Lloyd’s / The Market / Chubb / Risk Management

Chubb incorporates risk mitigation services through its risk management and site surveys, specification of terms and conditions in policies and the development of sound underwriting guidelines into catastrophe-exposed products (e.g. property, energy, marine or crop coverage). Chubb’s modeling and underwriting approach allows for this risk – hence price – differentiation across our client base. Chubb also makes use of terms and conditions such as sub-limits, coverage restrictions and deductibles to ensure appropriate risk selection and to potentially reward certain policyholder behavior. Because managing risk is core to Chubb's business, we do not view assessing climate-related risk as an additional cost of management. However, we identify and approximate the financial implications of climate-related issues in our annual CDP response.

Evidence also applies to principle(s): 7

Source: Chubb

Lloyd’s / The Market / MS Amlin

MS Amlin Investments have used the climate change impacts, supplied for the climate risk section of the 2019 PRA General Insurance Stress test (GIST), to form the basis for the development of a climate risk module that is being integrated into existing investment architecture and reporting.

The infrastructure includes a database as well as several proprietary in-house tools and dashboards that provide an overview at a legal entity level, asset class risk allocations alongside additional analysis. It is an area under continual development and more metrics will be available in the coming year. More recently MS Amlin Investments have expanded the analysis to illustrate climate risk on a country and sector allocation basis, which can now isolate individual holdings. The analysis also encompasses monthly historical trend analysis for the past two years.

The PRA GIST 2019 “Physical Risk Scenario C” value is highlighted as a key climate risk metric to be monitored within our proprietary dashboards. This conservative “BAU” scenario reflects a failure to drive any worldwide improvements in climate policy, with the modelled result being a temperature increase in excess of 4°C (relative to pre-industrial levels) by 2100.

The results of applying the other Physical and Transition risk scenarios from the PRA GIST to our portfolios are also included in the dashboards along with further supporting climate metrics based on publicly available climate risk data and research from various sources. These additional metrics are typically given as exposure weighted absolute values.

The additional metrics include:

- **Country by country climate risk vulnerability analysis** based on the “Fragile Planet” climate research performed by HSBC. As well as a broad climate vulnerability score each country is assessed according to their likelihood to experience physical risk from climate change and their readiness to cope with it.
- **Water stress metric** calculated using data obtained from the World Resources Institute. They publish yearly water usage figures as a percentage of the amount introduced into an individual countries water cycle. This is useful as a proxy measure of the ability of a country to deal with sudden drought conditions.
- **Coastal flood risk metric** calculated using data obtained from Climate Central (a non-profit organisation bridging the scientific community and the public). They provide an average displacement figure for each country per year in

thousands of people. This provides a useful measure for the effects of rising sea levels.

- **River flood risk analysed** using data from the Deltares Aqueduct river flood model. This is also provided as a population affected figure for each country.
- **Wildfire risk** monitored using damage per country (in $m) data obtained from the Centre for Research on Epidemiology of Disasters (CRED) "EM-DAT" database.

Research continues not only into further supporting climate risk metrics suitable for inclusion into existing architecture, but also into how the existing data can be blended with additional economic and policy measures. This will allow our investment tools to reflect the climate risks facing companies and countries in our portfolios and their strategy in tackling them.

At present climate-related metrics are not explicitly incorporated into the remuneration policies of the external managers that we invest in, and are not a factor in major allocation/de-allocation decisions. Significant improvements in the coverage and consistency of data would be required before such policies could appropriately be introduced.

With the data analysis and policy formation still in its infancy, MS Amlin are not yet ready to describe associated performance and targets. Whilst it may be acceptable to set very high targets, they must not only be achievable, but also realistic. Once the data has been gathered and fully analysed, MS Amlin will be much better placed to respond.

Source: MS Amlin

Lloyd's / The Market / QBE / Implications of climate change issues for business performance and key stakeholders

Group Energy Policy

In early 2019 we developed our Group Energy Policy, which focuses on support for our customers in the transition to a low carbon economy, consistent with the objectives of the Paris Agreement. We do this by providing insurance services and investing in renewable energy and other technologies that support the transition to a low carbon economy. This policy will also minimise our exposure to transition risk arising from the phasing out of thermal coal.

Our commitments include:

- zero direct investment in the thermal coal industry from 1 July 2019 (we will maintain a margin of up to 0.5% of total funds under management in order to allow for inadvertent exposures via our indirectly managed investments, such as through equity index funds);
- no new direct insurance services for new construction projects for thermal coal mines or power stations or thermal coal transport infrastructure, except for statutory or compulsory insurance; and
- phasing out all direct insurance services for thermal coal customers by 1 January 2030, except for statutory or compulsory insurance.

We will continue to review our investment and insurance policies to ensure our approach is in line with our strategy.

In 2019, QBE set new climate-related operational performance targets. In 2020, QBE will identify metrics and targets to measure and monitor climate-related risks and opportunities relating to our investments and underwriting activities.

In 2019 we reported on the following our performance against the following strategic targets:

Target	2019 performance
Investment in thermal coal industry - zero direct investment by 1 July 2019	Direct investment in thermal coal is zero
Impact investing ambition - US$2 billion by 2025	US$663 million

We also include our operational targets in QBE's Annual Report and Sustainability Report, as shown in the extract below.

Metrics and targets

This year, QBE set new climate-related operational performance targets. In 2020, QBE will identify metrics to measure and monitor climate-related risks and opportunities relating to our investments and underwriting activities.

In 2019, QBE also became the first Australian-headquartered insurer to join the RE100 initiative, committing to source 100% of our electricity requirements from renewable sources by 2025.

Progress towards our climate-related targets is presented below.

MEASURE	TARGET	2019 PROGRESS	STATUS
Energy use (GJ)	15% reduction by 2021 (from 2018 levels)	153,296 (-14%)	On track
Net scope 1 & 2 emissions (1.5°C trajectory aligned science-based target) (tCO_2-e)	30% reduction by 2025 (from 2018 levels)	12,772 (-57%)	Achieved
Renewable electricity use (MWh)	100% by 2025	18,876 (63%)	On track
Air travel (tCO_2-e)	Reduce air travel by 20% by 2021 (from 2017 levels)	12,160 (-31%)	Achieved
Investment in thermal coal industry	Zero direct investment by 1 July 2019	Direct investment in thermal coal is zero	Achieved
Impact investing ambition	$2 billion by 2025	$663 million	On track

More detail on QBE's Sustainability Framework and our performance and progress is available in QBE's 2019 Sustainability Report.

As noted above, in 2019 QBE also became the first Australian-headquartered insurer to join the RE100 initiative, committing to source 100% of our electricity requirements from renewable sources by 2025.

A component of our Group Executive Committee's (GEC) short-term incentive (STI) outcome is determined with reference to the achievement against strategic priorities. 75% of our Group Chief Risk Officer's STI outcome, and 35% of the outcome for all other members of the GEC, is determined in this manner. QBE's 2019 strategic priorities include managing risk (including implementation of our Climate Change Action Plan) and operating sustainably (including the effective management of climate-related risks and opportunities). Specific roles within QBE that are responsible for integrating the identification and management of climate-related risks into business processes and developing, managing and implementing the strategy to address the environmental impacts of our operations include QBE's Head of ESG Risk and QBE's Head of Environment respectively. The performance objectives for these roles, and their achievement of those objectives, is a key reference when determining incentive outcomes.

Evidence also applies to principle(s): 1.1, 2.3, 3.1

Source: 'Our approach to climate change' presentation (available here: https://www.qbe.com/about-qbe/sustainability/climate-change*); QBE Annual Report 2019; Group Energy Policy (available at above web address).*

Lloyd's / The Market / The Hartford

In addition to the climate-related risks described above, The Hartford also identifies, measures, and discloses the potential implications of climate-related issues on the enterprise and key stakeholders, as outlined in the Company's Statement on Climate Change.

The Company closely monitors the scientific literature on climate change, such as the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) to help identify climate change risks with direct business implications as well as those with downstream effects by impacting public policy.

Insurance Operations

Climate models indicate that rising temperatures will likely result in rising sea levels over the decades to come. On a regional level, the projected effects of climate change are also concerning and The Hartford takes particular note of anticipated forecast changes in North America. As research indicates:

- Over the next several decades, most of North America will experience an increase in the number of extreme hot days and a reduction in the number of extreme cold days.[d] Extreme weather events such as abnormally high temperatures have many impacts on the insurance industry. While warming may mitigate winter storm and winter freeze losses in some regions, warmer temperatures will allow for melting and re-freezing in other regions which leads to ice damage.

- It is very likely that future heat waves' duration, frequency, and intensity will increase over most land areas, especially the western and southern U.S., as the climate continues to warm.[e] Although property losses from heat wave events tend to be minor, business interruption losses and health/life loss would be of concern.

- Precipitation patterns across the U.S. are projected to change. While northern states are expected to experience more precipitation, the southern states, particularly the southwest, are expected to become drier.[f] Additionally, residual moisture left from land-falling hurricanes is expected to increase the amount of winter precipitation over the U.S. coastline.[g] Some regions may see a shift from snow to rain as the earth warms, while other regions may see an increase in snow resulting from more water vapor in the atmosphere.[h] If realized, the natural implications of these trends include an increase in flash flood risk

[d] IPCC, 2013: Climate Change 2013: The Physical Science Basis, page 211. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, in press

[e] Schellnhuber, Hans Joachim, William Hare, Olivia Serdeczny, Sophie Adams, Dim Coumou, Katja Frieler, Maria Martin, Ilona M. Otto, Mahé Perrette, Alexander Robinson, Marcia Rocha, Michiel Schaeffer, Jacob Schewe, Xiaoxi Wang, and Lila Warszawski. "Turn Down the Heat: Why a 4°C Warmer World Must Be Avoided." Editorial. The World Bank, 2012. Web. 3 Dec. 2013

[f] Monitoring and Understanding Changes in Heat Waves, Cold Waves, Floods, and Droughts in the United States: State of Knowledge. Thomas C. Peterson, Richard R. Heim Jr., Robert Hirsch, Dale P. Kaiser, Harold Brooks, Noah S. Diffenbaugh, Randall M. Dole, Jason P. Giovannettone, Kristen Guirguis, Thomas R. Karl, Richard W. Katz, Kenneth Kunkel, Dennis Lettenmaier, Gregory J. McCabe, Christopher J. Paciorek, Karen R. Ryberg, Siegfried Schubert, Viviane B. S. Silva, Brooke C. Stewart, Aldo V. Vecchia, Gabriele Villarini, Russell S. Vose, John Walsh, Michael Wehner, David Wolock, Klaus Wolter, Connie A. Woodhouse, and Donald Wuebbles. Bulletin of the American Meteorological Society

[g] IPCC, 2013: Climate Change 2013: The Physical Science Basis, page 1233. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, in press

[h] Ibid., pages 201-207

across the United States, an increase in forest fire risk in the southwest and southeast United States, and the potential for population migration away from increasingly arid regions in the southwest to escape severe drought conditions.

- The frequency of tropical cyclones in the North Atlantic Basin have not increased over the past century. However, there is high confidence that the frequency of the strongest tropical cyclones (category 4 and 5 hurricanes) have increased since 1970. Additionally, as the ocean warms, there is potential for a longer tropical cyclone season that will start earlier and end later.[i] While the impact of global warming on the frequency and severity of tropical cyclones is a hotly debated and largely unresolved issue, the prospect of increasingly intense cyclone activity is of great concern.

- Extra-tropical storm tracks are projected to move poleward, with consequent changes in wind, precipitation, and temperature patterns - continuing a trend observed over the past half century.

- Scientists project that sea levels will rise anywhere from 0.26 – 0.81 m (10 – 32 in) by the end of the century.[j] Higher sea levels are associated with increased coastal flood frequency and severity from tropical cyclones/hurricanes and tsunami events.[k] Storm losses, particularly in areas with growing coastal populations, are a great concern.

Review of the developing science of climate change also points to several key implications from a public policy perspective with the potential to impact The Hartford:

- Flood Insurance: The risk of flooding, both flash floods from heavy precipitation events and storm surge from tropical cyclones, will continue to be a difficult risk to understand and insure - placing even more emphasis on federal flood insurance policy and programs and a constructive partnership between the federal government and the private sector.

- Coastal Land Use Planning and Building Standards: The Hartford is concerned with the trends in hurricane activity, as discussed above. The Hartford is equally concerned, however, with non-storm factors that may determine the actual losses from hurricane events. Research has consistently demonstrated that the principal factor underlying the rapid increase in economic and insurance losses from hurricanes continues to be the build-up of population and property values in hurricane exposed areas of the country. Consequently, land use planning, building code standards and building code enforcement will be of critical importance to protect life and property from cyclones.

- Land Use Planning & Forest Management: Forest management and land use planning may take on new significance with respect to fire risks if the risk of wild fires continues to increase in the Southwest and Southeast.

- Price Flexibility: To ensure that individual decision-making properly reflects risks to the policyholder and to society, it will become increasingly important that regulators recognize the insurance industry's need to set prices on the basis of (i) the actuarial costs of the insurance, (ii) the risk associated with coverage provided, and (iii) the uncertainty surrounding an insurance company's knowledge of the underlying risk. Absent this fair-market pricing, the uncertainty created by climate change may lead to a contraction in coverage.

- Support for Climate Change Science: Finally, there is a continued need for scientific research to support informed decision-making on all issues related to climate change.

While the forecasts and public policy impacts considered above serve as powerful illustrations of the range of potential consequences of climate change, it is important to keep in mind the uncertainty underlying the forecasts. In light of such uncertainty, the findings must be considered as indicative findings, not matters of fact. Because effective insurance pooling requires that the underlying risks are finite and well understood, however, such uncertainty is itself of great significance to the insurance industry.

The Hartford proactively invests in data and analytical capabilities to forecast loss probabilities, helping to manage and mitigate the potential implications of climate-change described above. Various stress tests are analyzed (e.g. 1 in 100 return period, 1 in 250 return period) for various natural catastrophe perils (e.g. hurricane, earthquake, wildfire, tornado, hail, winter storm, flood). The Company uses third-party models to estimate the potential loss to insured exposure resulting from various catastrophe events and the potential financial impact those events would have on the

[i] Ibid., pages 216-217

[j] Ibid., page 1191

[k] Reichenmille, Patrick, Andreas Spiegel, David Bresch, and Reto Schnarwiler. "Weathering Climate Change: Insurance Solutions for More Resilient Communities." Ed. Esther Baur. Swiss Re Media Production Zurich (2013): n. pag. 2013. Web. 3 Dec. 2013

Company's financial position and results of operations across its businesses.

The Company generally limits its estimated pre-tax loss as a result of natural catastrophes for property & casualty exposures from a single 250-year event to less than 30% of the projected total available capital at year end of the property and casualty insurance subsidiaries prior to reinsurance and to less than 15% of the projected total available capital at year end of the property and casualty insurance subsidiaries after reinsurance. As reported in The Hartford's 2019 10-K filing, the estimated 250 year pre-tax probable maximum enterprise loss from earthquake events is estimated to be $1.1 billion before reinsurance and $408 million net of reinsurance. The estimated 250 year pre-tax probable maximum enterprise losses from hurricane events are estimated to be $1.8 billion before reinsurance and $906 net of reinsurance.

Additionally, the Company generally limits its estimated pre-tax loss as result of natural catastrophes for property & casualty exposures from an annual aggregate 100-year events to less than 18% of the projected total available capital at year-end of the property and casualty insurance subsidiaries after reinsurance. The estimated 100 year pre-tax probable maximum loss to an annual aggregate 100-year event is $1.1 billion.

Investments

As a diversified financial services company, The Hartford is also exposed to climate change-related risks in its capacity as an investor. The Hartford's general account investment portfolio holds predominantly fixed-income assets. Therefore, its primary risks are credit-related: corporate and sovereign debt obligations, commercial real estate mortgage loans, and a variety of other fixed-income securities. Nonetheless, the global and regional consequences of climate change play a role in our evaluation of the creditworthiness of specific issuers and industries.

Risk (and opportunity) factors include the following:

- Changes in regulatory regimes (e.g., emissions controls, technology mandates);
- Changes in supply/demand characteristics for fuel (e.g., coal, oil, natural gas);
- Advances in low-carbon technology and renewable energy development; and
- Effects of extreme weather events on the physical and operational exposure of industries and issuers.

Such risk factors may influence investment strategies and decisions in a variety of ways:

- Government regulation may have negative or positive consequences for certain industries. For example, increasingly stringent regulation on stack emissions of coal-fired technologies will increase the costs of existing technologies and affect coal economics. More generally, government legislation directed at polluting industries must be scrutinized for the impact on each industry's economics. As polluting industries become more expensive to finance, other low-carbon and renewable energy sources are expected to benefit from increased demand and potential government subsidies.
- Climate change may have a direct impact on certain investments. For example, commercial real estate in certain locations may become less desirable due to climate change effects (e.g., rising sea levels, increased hurricane severity), negatively affecting a property's value as collateral for a commercial mortgage loan. Similarly, climate changes of a regional nature can influence the inflation outlook and/or creditworthiness of specific emerging market issuers (e.g., reduction in rainfall can cause food prices to rise, increasing inflation).
- The Hartford recognizes that the combination of consumer demand, legislative and regulatory activity and technological advancement may create substantial opportunities to promote environmentally responsible activity while at the same time enhancing value for The Hartford's shareholders.

In addition to the implications of climate-related risks outlined above, HIMCO is also currently in the process of conducting a Scope 3 analysis of The Hartford's portfolio holdings. With over 12,000 CUSIPs held in the Company's portfolios, the exercise is a significant one. It is clear that certain asset classes and types of investments will not be covered by this Scope 3 process, either because there is no climate-change implication or there is no information with respect to a particular issuer. Once the Scope 3 process is complete, it will provide further insight into the climate-change implications of The Hartford's portfolios.

Source: The Hartford

Support Links:

- Statement on Climate Change
- The Hartford's 2019 10-K

Lloyd’s / The Market / Tokio Marine Kiln / Implications

TMK’s asset managers integrate “ESG” factors into their decision-making process when selecting investments. They have recently increased their efforts in this regard. BlackRock are developing a proprietary system for scoring and measuring ESG factors and NEAM have recently contracted Sustainanalytics to provide extensive research and ratings on corporations.

Metrics are being designed at the ESG sub-Group level, including for the Climate Group. These are not yet embedded but will form a key part of measuring TMK’s position against climate-related issues in the near future. The metrics are being designed with consideration of risk preferences at the Climate Group level. They include such measures as: A percentage reduction in CO2 emissions across our business; and Progress toward a target of net carbon offset in our underwriting portfolio and our investment portfolio.

Following the finalising of these metrics, the ESG Committee will identify higher level risk appetites and metrics in relation to climate change. These metrics will be reported to the Board quarterly.

At TMK, all CSR related activities are shared on the company’s intranet to ensure employees are fully engaged. Furthermore, an external environmental consultant is brought in annually to measure the Co2 emissions, water usage, energy usage of the company in the various operating locations and to provide recommendation on areas of improvement.

2.3 Incorporate the material outcomes of climate risk scenarios into business (and investment) decision making

Lloyd's / The Market / ArgoGlobal

Argo Group has identified 'Stranded Assets' as a strategic risk factor with potential material impacts over the longer-term horizon. Argo Group has reviewed its investment strategy as a part of its sustainability plan to identify high-carbon industry holdings. Using the Lloyd's of London report entitled "Stranded Assets: the transition to a low carbon economy - Overview for the insurance industry', Argo Group has performed stress test scenarios that consider the potential impact of high-carbon assets within its investment portfolio on its capital adequacy. These stress test scenarios results were combined with other scenarios within the Stress & Scenario Testing Framework (SSTF) and the outcomes have been reported to the ERM Steering Committee and Risk & Capital Committee of the Argo Group Board, as a part of the ArgoGlobal Own Risk & Solvency (ORSA) Assessment process for Syndicates 1200 and 1910.

There are three types of climate risks scenarios to be considered and how each situation may impact the value of financial portfolios:

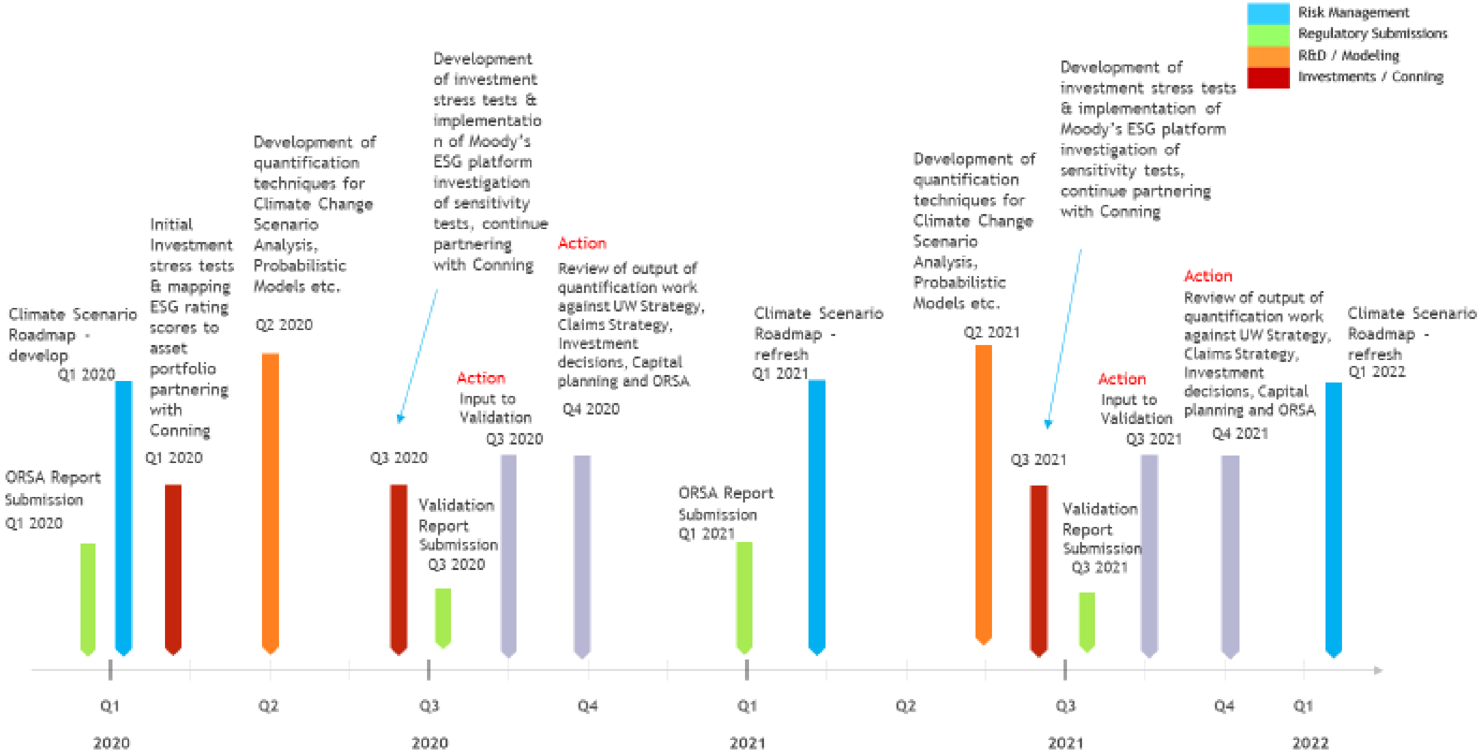
- Physical risks: from extreme climate events, which include storms, heavy rain, flooding, drought, and associated wildfires, and heatwaves.
- Transition risks: the uncertainties around how the world will evolve towards a low carbon economy in terms of public policy, regulation, actual temperature change, social expectations, and technological developments.
- Liability risks: Climate change related class-action lawsuits filed where companies knowingly contributed to climate change and failed to warn citizens about the risks posed by their products.

It is not inconceivable that we could incur a threefold loss. The Group Research & Development team have defined how they will address the impact of the science of climate change on strategic business and development policy and asset portfolio planning.

The Bermuda Monetary Authority is the Group Supervisor of the Group Solvency Self-Assessment (GSSA) report on a group basis. Our annual GSSA report for the financial year 2019 included information on our approach to climate risk. Our Emerging Risk process identified 'Emerging/Extreme Weather Events & Climate Change,' and this has been monitored and reported on as part of this framework. This covers the increased frequency and severity of extreme weather events caused by climate change and weather patterns and cycles. It also captured the risk associated with new regulatory developments. Increased litigation activity and subsequent liability issues associated with climate change and greenhouse gas emissions may lead to large losses under environmental liability, product liability, and professional liability.

The risk function has created a Climate Change Scenario Development Roadmap to show critical activities and how these will feed into regulatory reporting through ArgoGlobal ORSA and Capital Model Validation submissions. The concept is to incrementally develop the analysis using the natural cycle of ORSA report (March filing date) and the Validation report (September filing date) to drive step-wise improvements.

Climate Change Scenario Development Roadmap



Source: ArgoGlobal

Lloyd's / The Market / Beazley

Catastrophe model vendors have incorporated different versions of their models to reflect natural climate variabilities, such as near term hurricane frequency rates. These different views of risk are analysed to understand the impact on our underwriting portfolio and risk appetite. To date, climate risk scenarios have been limited to stress tests being performed to understand the impact of an increase in the number and the financial impact of natural disasters on our overall portfolio, the performance and adequacy of Reinsurance purchased and solvency of the business. Beazley participated in the 2019 General Insurance Stress Tests (GIST) issued by the PRA, which included three climate change scenarios. The outcomes of these tests were reported to Beazley's Risk and Regulatory Committee and the board within the Own Risk and Solvency Assessment (ORSA) report and also included in the 2019 report and accounts.

Beazley also partnered with a third party consultancy to help understand climate change modelling scenarios on our Business. The purpose of this partnership was twofold, firstly to aid our partner to develop their modelling software in order to bring it to market, secondly it was for Beazley to understand the risks associated from Climate Change. 50 sites were assessed across the USA to enable physical damage to be determined under varying climate change models. The information gained from this model has enabled a better understanding of how to approach detailed scenario modelling, as well as increasing awareness of Climate Change issues within the business.

Beazley intends to develop scenario risk analysis over the few years, using the outputs to provide value to business and investment decision making. It is intended that over the next year Beazley will engage in further work to incorporate the material outcomes of climate risk scenarios into business and investment decisions. Our approach will be directed to ensuring the scenario analysis provides best value for the business. This will be achieved by delivering a phased approach, with initial scoping and ranking of risks being undertaken, prior to more detailed work being undertaken for the high-risk insurance products first.

Source: Beazley

Lloyd's / The Market / Chubb / Coal Underwriting and Investment Policy

Chubb announced in July 2019 that it is has adopted a new policy concerning coal-related underwriting and investment. With the new policy, the company will no longer underwrite the construction and operation of new coal-fired plants or new risks for companies that generate more than 30% of their revenues from coal mining or energy production from coal. Insurance coverage for existing coal-plant risks that exceed this threshold will be phased out by 2022, and for utilities beginning in 2022. In addition, Chubb will not make new debt or equity investments in companies that generate more than 30% of revenues from thermal coal mining or energy production from coal.

"Chubb recognizes the reality of climate change and the substantial impact of human activity on our planet," said Evan G. Greenberg, Chairman and CEO of Chubb. "Making the transition to a low-carbon economy involves planning and action by policymakers, investors, businesses and citizens alike. The policy we are implementing today reflects Chubb's commitment to do our part as a steward of the Earth."

For more information, see the full press release *here*.

Evidence also applies to principle(s): 1.1, 1.2, 6.1

Source: Chubb

Lloyd's / The Market / MS Amlin

Investments

MS Amlin Investments has developed a series of climate change scenarios in-line with the 2019 PRA General Insurance Stress test. These scenarios were used to quantify the potential impacts of climate change on portfolios from both a transition risk and physical risk perspective. The three scenarios reflect varying response to the Paris agreement targets;

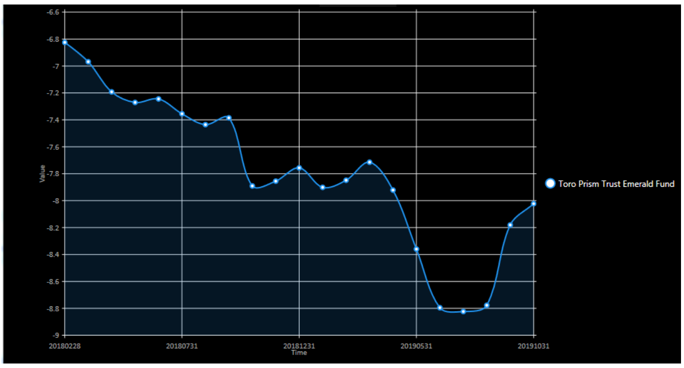
- Scenario A: Sudden disorderly transition. Temperature increase below 2 degrees Celsius.
- Scenario B: Long-term orderly transition. Temperature increase below 2 degrees Celsius.
- Scenario C: Failed future improvements in climate policy. Temperature increase in excess of 4°C.

The scenarios have been used as the basis for the development of a climate risk framework that has being integrated into existing infrastructure.

The physical risk figure from Scenario C is the main climate stress figure that has been incorporated (being potentially the highest risk outcome) and which is intended for inclusion into entity board reporting. It is understood that this metric is the most straightforward and conservative figure to use to communicate with boards.

The first screenshot below shows the climate risk module in one of our investment management tools, which illustrates the climate stress figures from the PRA GIST (and other supporting climate risk metrics) applied to our equity fund:

The second screenshot from the management tool presents a time series showing the changing impact of the Physical Risk Scenario C:



Source: MS Amlin

Lloyd's / The Market / QBE / Climate risk scenario analysis

In 2019, in partnership with catastrophe modelling firm RMS, we assessed probabilistically the impact of hurricanes in North America and tropical cyclones in Australia, which represent some of our largest exposures to weather-related events. We considered impacts on our existing portfolio up to 2100 under scenarios consistent with a 2–3˚C global mean temperature rise. This initial analysis did not show material increases in our expected claims costs before 2050. During 2020, we continued to assess the impact, allowing for alternative emissions scenarios. We have also extended the analysis in partnership with RMS to other weather-related exposures in our portfolio, for example European Windstorm, and have assessed initially a liability scenario that looks at the consequences of climate change litigation on the Energy sector.

Our initial work supports the strong likelihood of a material increase in tropical cyclone-related claims under all scenarios. Annual claims cost related to hurricanes and tropical cyclones could go up by more than 50% in the second half of the century, with a wide variation in local impacts, and a rate of change that will depend on how the global community addresses this critical challenge. However, in the short to medium-term, the impact on tropical cyclone claims will be difficult to assess due to the inherent volatility of cyclones, which have a relatively low frequency and large variability in cost driven by whether or not they make landfall and impact on population centres.

The output of the analysis was a report on the potential impacts to QBE from these perils for North America and Australia. We have started to adjust our catastrophe models to factor in the expected impacts of climate change until 2100. While we already have a robust quantification of QBEs exposure to weather events, this refinement of our models can provide insights into the magnitude and timing of the impact that climate change will have on our business. In the short-term, QBE will manage the high volatility of natural catastrophe claims by considering a wide range of event frequency and severity in our capital planning, and by deploying a comprehensive Group catastrophe reinsurance program.

Over the long-term we anticipate that the physical impacts of climate change – even under scenarios consistent with the achievement of the Paris Agreement – will result in our customers seeking increased insurance for the protection of their assets and the services they provide. We also recognise that over the longer-term, climate change will impact our customers and the communities that we serve. This may cause insurance premiums to become unaffordable, especially for customers in areas more exposed to weather-related events, potentially resulting in a loss of revenue. In order to address this risk, QBE is engaging with external stakeholders, including national and local governments, to encourage adaptation and resilience measures against weather-related events.

During 2020, we continued to adjust our catastrophe models for a broader range of weather phenomena and geographies, and participate in the development of scenario analysis as part of the UNEP FI PSI TCFD Pilot project.

General Insurer Stress Tests ('GIST')

The PRA's General Insurance Stress Test (GIST) is an exercise used to assess the market-wide impacts of specific scenarios, illustrating how losses would be borne by different firms, and explore individual firms' and market wide vulnerabilities. In 2019 QBE European Operations undertook assessments of asset and liability impacts for three scenarios. The three climate change scenarios considered were:

> *Sudden transition (assumed to happen in 2022):* "…A transition, ensuing from rapid global action and policies, and materialising over the medium-term business planning horizon that results in achieving a temperature increase being kept below 2°C (relative to pre-industrial levels) but

only following a disorderly transition. In this scenario, transition risk is maximised. The scenario is based on the type of disorderly transitions highlighted the IPCC Fifth Assessment Report (2014)"

Long term orderly transition (assumed to happen in 2050): "…A scenario that is broadly in line with the Paris Agreement. This involves a maximum temperature increase being kept well below 2°C (relative to pre-industrial levels) with the economy transitioning in the next three decades to achieve carbon neutrality by 2050 and greenhouse-gas neutrality in the decades thereafter. The underlying assumptions for this Scenario are based on the scenarios assessed in the IPCC Special Report on Global Warming of 1.5°C (2018)"

Failed future improvements in climate policy (assumed to happen in 2100): "…A scenario reaching a temperature increase in excess of 4°C (relative to pre-industrial levels) by 2100 assuming no transition and a continuation of current policy trends. Physical climate change is high under this scenario, with climate impacts for these emissions reflecting the riskier (high) end of current estimates"

The assessments were exploratory in nature and helped inform QBE's methodological approach to quantifying Climate financial risks. Further work on climate change has taken place in 2020 in agreement with EO's Risk and Capital Committee.

Evidence also applies to principle(s): 1.1, 1.3, 1.4, 3.1

Source: QBE Annual Report 2019 (pg 35).

Lloyd's / The Market / The Hartford

Insurance Operations

Climate-related scenarios are incorporated in our catastrophe risk models, which are significant inputs into pricing and underwriting. We utilize vendor catastrophe models to model natural catastrophe perils including hurricane, earthquake, wildfire, tornado, hail, winter storm, and flood, which incorporate climatic assumptions and probabilistic events sets into the loss modeling to produce loss distributions by peril, region, and product coverage. Furthermore, we monitor our historical loss experience, such as frequencies of hurricane, wildfire, tornado and hail catastrophe events. We apply the results of our research and work with the vendors in calibrating the output from hurricane, tornado and hail models to industry experience. We consider the average annual loss for pricing purpose, but we use multiple return periods (50-year, 100-year, and 250-year) to assess loss distribution for capital allocation. Pricing is a key factor in our financial performance, while capital allocation is important for meeting rating agency and regulatory requirements for capital and required return on capital hurdles. Actual exposure and concentration by natural catastrophe peril and region are monitored relative to a defined hazard zone for each specified region and peril to ensure the company manages exposure within a defined risk appetite. The analysis is performed by our Insurance Risk Management unit, in consultation and collaboration with product and underwriting leaders and experts across the company in defining the company's risk appetite specific to both catastrophe perils and geographic areas. Analysis results indicate a distribution of loss results (expected average loss, multiple return periods) by peril (hurricane, earthquake, tornado, hail, winter storm) by geographic region and product line. The modeled catastrophe losses and volatility impact pricing and capital requirements. The results are important factors and considerations for our strategies in pricing (in terms of pricing and capital allocation), underwriting management (in terms of concentration, building code, and terms and conditions), and risk management (in terms of reinsurance). An example for how we use the analysis to ensure we manage our book of business responsibly is our continuous monitoring of our exposure to hurricane, earthquake, tornado, hail, and wildfire in various zones across the United States and a review of global exposures. This helps limit our exposure to catastrophe events and assures our ability to handle and pay claims as well as to ensure exposure is within the company's risk appetite. The potential loss is used in setting pricing and capital targets for each geographic area and line of business.

Investments

HIMCO currently utilizes environmental assessments as part of the assessment of current value for each investment and in consideration for expectations around how securities are likely to perform in the future. The enhancements made in 2019 to HIMCO's proprietary credit platform have led portfolio managers and analysts to focus more particularly on environmental, social and governance attributes of each holding, where applicable. In addition, the ability to run reports about the portfolio as a result of analysts' ESG categorizations, provides HIMCO with tools to more fully understand the ESG attributes of portfolios. Further, the publication of Policy on Insuring, Investing in Coal, Tar Sands (the "Policy") in late 2019 indicates The Hartford's acknowledgement of the climate risks associated with usage of coal and tar sands products. The policy provides specific guidelines around investment activity in coal and tar sand related activities, including specific restrictions for new investments and required divestitures.

Source: The Hartford
Support Links:

- Policy on Insuring, Investing in Coal, Tar Sands

Lloyd’s / The Market / Tokio Marine Kiln

TMK undertook the PRA’s IST 2019 with results reported internally in December 2019. The scenario testing included different climate-related scenarios and helped TMK consider how different plausible futures could impact our business model in the medium to longer term. The scenarios ranged from a sudden disorderly transition, to an orderly transition, broadly in line with the Paris Agreement, and a scenario involving failed future improvements in climate policy. Each scenario considered the impact on current assets and liabilities at three-different time horizons (2022, 2050 and 2100). The frequency and severity parameters were stressed in our natural catastrophe models to assess the impact on our insurance liabilities. Our investments were stressed by applying loss factors to different asset types by underlying industry/exposure.

The scenario analysis highlighted the potential impact of climate change through physical and transition risks to our balance sheet and capital requirements. The findings were reported to the PRA and to TMK’s Risk, Capital and Compliance Committee (a delegated Committee of the Board). The exercise was a key driver behind the decision to establish TMK’s Environment, Sustainability, and Governance (ESG) Committee. Through the ESG Committee, scenario analysis will play a part in TMK plans to raise awareness and embed climate-related considerations into business strategy and decision-making.

TMK found that it is likely to have a significant growth of US Hurricane tail risk in an Orderly Transition scenario, or (even more so) with more than four degrees warming. The business is not exposed to UK weather risk, and so further exploratory scenario work in 2020 beyond is likely to be focused on TMK’s US Hurricane exposure.

In terms of exposure to our Investments from Physical and Transition risk under a range of scenarios, the deterioration in asset values was found to be very low. There are uncertainties associated with the assessments given they are the first iteration, so implications will be explored further in future quantitative scenario analysis.

TMK’s market risk system, Aladdin, contains stress scenarios for the effect that new carbon taxes would have on the investment portfolio returns. Due to the short term and high quality nature of the assets, the impact on the investment performance is minimal.

Source: PRA’s Insurance Stress Test 2019; IST 2019 and its Climate Risk Implications

3. Lead in the identification, understanding and management of climate risk

3.1 Ensure processes for identifying, assessing and managing climate-related risks and opportunities are integrated within the organisation (including investments).

Lloyd’s / The Corporation of Lloyd’s

At Lloyd’s, the risk profile originates from both syndicates and at central level.

Syndicates are the source of the majority of risks. They source all the insurance business; manage the bulk of the asset portfolios; hold the majority of the counterparty exposures; and conduct most of the day-to-day operational activity. The syndicate risks include: insurance risk (underwriting, reserving and catastrophe risk); market risk on syndicate assets (including credit risk on Premiums Trust Funds (PTF)); reinsurance and other credit risk; and syndicate operational risk.

At the central level, additional risks arise from central operational risk, pension fund risk; market risk on central assets; and the risk of member default.

An Act of Parliament, the Lloyd’s Act 1982, defines the governance structure and rules under which Lloyd’s operates. Under the Act, the Council is responsible for the management and supervision of the market. Lloyd’s is regulated by the Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA) under the Financial Services and Markets Act 2000.

The Council normally has three working, three external and nine nominated members. The working and external members are elected by Lloyd's members. The Chairman and Deputy Chairmen are elected annually by the Council from among its members.

On 7 November 2019 it was announced that the Board would merge into the Council, with effect from 1 June 2020.

The Council discharges some of its functions directly by making decisions and issuing resolutions, requirements, rules and byelaws. Other decisions are delegated to committees of the Council and the members of the Executive Committee, in accordance with their respective terms of reference.

The principal committees of the Council are the Nominations and Governance Committee and the Remuneration Committee, the Audit Committee, and the Risk Committee.

Risk Management processes

Each year the Corporation identifies the key risks which could have a significant impact on Lloyd’s business, and the mitigating actions required to reduce or eliminate the risk. See principle 1.1 and 1.2 for further information on Corporation risk management activities.

Investment

The Corporation of Lloyd’s believes that environmental, social and corporate governance (ESG) factors can have a material impact on long-term investment returns. We are therefore actively engaging with our existing external investment managers to understand how they assess these risk factors and to encourage better integration of these factors within their investment process where there is room for improvement.

We consider various metrics relating to Responsible Investment as part of our framework for assessing the overall risk of existing managers on an ongoing basis. Likewise, when selecting a new investment manager, we consider any potential manager’s approach to Responsible Investment and this feeds into our final selection decision (principle 2.1). We track overall Central Fund exposure to sectors that we perceive as high risk, for example those most at risk from assets becoming stranded. We monitor individual holdings within high risk sectors and ensure we understand managers’ rationales for investing in these areas. LTIM has since allocated approximately US$40mil to a dedicated responsible investment fund that limits exposure to areas deemed high risk from an ESG perspective (principal 2.1).

Risk integration for in-house investments
The Corporation of Lloyd's Treasury and Investment Management (LTIM) have been working to better integrate Environmental, Social and Governance (ESG) risk factors into the investment process for the fixed interest assets managed in-house. ESG risk integration continues to be implemented for the fixed interest assets managed in-house by LTIM (principle 2.2).

As well as reviewing the ESG scores and controversies of new potential holdings, LTIM also monitors the stability of ESG scores on existing holdings and the overall ESG score of portfolios versus their respective benchmarks.

Prior to any purchase of a corporate bond, the ESG score of the issuer and other qualitative ESG information is considered together with the CDS spread and the spread of the bond itself, and also relative to other issuers in the peer group and this informs the decision over whether to buy at the prevailing price (principle 2.2).

Green Bonds
LTIM directly manages the Central Fund's investment grade fixed income portfolio and took the initiative to invest in Green Bonds for the Central Fund at the end of 2015. LTIM has since added Social Bonds to the portfolio and recorded a total exposure to Green and Social Impact Bonds of approximately £50m (principle 2.1).

Exclusion policy
Coal combustion is believed to be the largest single cause of global greenhouse gas emissions[1]. We implemented a coal exclusion policy in April 2018 as part of our Responsible Investment Strategy for the Central Fund, and this policy continues to be implemented. Lloyd's investment philosophy focuses on generating long-term, sustainable capital growth for Central Fund assets. Our approach to responsible investment is detailed in our strategy for the Lloyd's Central Fund and is built upon three core pillars; Protecting, Providing and Promoting (principle 2.1 and 2.2).

The policy applies to Central Fund assets held in segregated portfolios and commits to excluding any companies that meet at least one of the following criteria:

- Generate more than 30% of their revenue from producing coal.
- Produce more than 20 million tons of coal per year.
- Generate more than 30% of their electricity from burning coal.
- Operate at least 10GW of coal-fired power stations.

Evidence also applies to principle(s): 1.1, 1.2, 2.1, 2.2

Source: The Corporation of Lloyd's

Lloyd's / The Market / ArgoGlobal

Argo Group is committed to continually building, improving, and strengthening its risk culture by assessing new data to study and apply to models to evaluate the current and future risks that climate change will have on our lines of business.

Environmental Management Policy

In our environmental management policy, climate risk has been classified by Argo Group as one of its material emerging risks. As such, it is regularly monitored by the risk management function for the primary purpose of assessing the potential impact of climate change on the Company's business operations, insurance products, and clients.

Environmental impact risk exposures are recognized as an enterprise risk exposure with the Company's enterprise, risk management framework, and appropriate controls are maintained in place to reduce this risk to acceptable levels. Failure to adequately manage these environmental exposures is recognized as potentially creating a material reputational risk exposure.

The Argo Group emerging risk monitoring process includes scanning available resources for information regarding climate change related to current events, litigation, regulation, legislation, the political environment, and industry groups' actions that may impact the Company's strategy.

Sustainability Working Group and Risk Matrix

The reporting processes of the Sustainability Working Group (SWG) are carried out quarterly to the Enterprise Risk Management Steering Committee and the AMA Risk & Capital Committee. This workflow process brings awareness of the uncertainties within the strategic landscape, as identified on the risk matrix. A specific ESG/Sustainability threat and opportunity register which is reviewed at least twice per year. Investments in green bonds and high carbon assets are both potential scenarios that have been identified on the risk register as having an effect on our business. This has led to a review of our investment strategy with the investment team.

[1] Ecofys press release

Financial Impact of Climate Change

ArgoGlobal piloted the development of stress and scenario analysis related to climate change in line with Prudential Regulation Authority (PRA) expectations under their Policy Statement PS11/19. In October 2019 we completed the PRA's underlying expectations on how we:

- Embed the considerations of the financial risks from climate change into governance;
- Incorporate the financial risks of climate change into existing financial risk management practices.
- Apply scenario analysis to create a strategy, risk assessment, and identification; and
- Develop an approach around the disclosure on the financial risks from climate change.

Three scenario analysis stress tests relating to climate change were carried out, and from that, a blueprint was created. In October 2019, the results were presented to the Argo Managing Agency Risk Working Group and the Argo Managing Agency Risk & Capital Committee. It outlined Argo's state of readiness against the PRA's expectations set out in the PS11/19 concerning the financial risks from climate change and devising a forward-looking plan which is now being tracked quarterly and forms the basis of Climate Change Scenario Development Roadmap outlined under Principle 2.2.

Evidence also applies to principle(s): 2.2

Source: ArgoGlobal

Lloyd's / The Market / Beazley

As described in 2.1, Beazley's risk management department completed a risk profile covering the potential risks posed to our group by climate change. We acknowledge and accept that over time climate change could impact the risks facing our insureds and we aim to manage the resulting risk to Beazley. We have set out the following as part of Beazley's overall risk management framework, as described below:

- Pricing risk: This is the risk that current pricing levels do not adequately consider the prospective impact of climate change resulting in systemic under-pricing of climate exposed risks. The group's business planning process establishes how much exposure in certain classes of business or geographic area we wish to accept. We benefit from a feedback loop between our claims and underwriting teams to ensure that emerging claims trends and themes can be contemplated in the business planning process, the rating tools and the underwriter's risk by risk transactional level considerations. Our underwriters are empowered to think about climate risk during their underwriting process in order to determine the implication on each risk.
- Catastrophe risk: This is the risk that current models do not adequately capture the impact of climate change on the frequency, severity or nature of natural catastrophes or other extreme weather events that could drive higher-than-expected insured losses. The group utilises commercial catastrophe models to facilitate the estimation of aggregate exposures based on the group's underwriting portfolio. These catastrophe models are updated to reflect the latest scientific perspectives. Catastrophe models are evolving to include new or secondary perils which may be related to climate change. In addition, the group runs a series of Natural Catastrophe Realistic Disaster Scenarios (RDS's) on a monthly basis which monitors the group's exposure to certain scenarios that could occur. These RDS's include hurricanes in the US, typhoons in Japan, European windstorms and floods in the UK.
- Reserve risk: This is the risk that established reserves are not sufficient to reflect the ultimate impact climate change may have on paid losses. This includes liability risk unanticipated losses arising from our clients facing litigation if they are held to be responsible for contributing to climate change, or for failing to act properly to respond to the various impacts of climate change. With support from our group actuarial team, claims teams and other members of management the group establishes financial provisions for our ultimate claims liabilities. The group maintains a consistent approach to

reserving to help mitigate the uncertainty within the reserves estimation process.

- Asset risk: This is the risk that climate change has a significant impact across a number of industries which may negatively impact the value of investments in those companies. The group considers the impact of climate change on its asset portfolio by seeking to incorporate an assessment of environmental risks in the investment process. We subscribe to the research services of a specialist company in the field of environmental, social and governance research and have integrated their proprietary ratings into the internal credit process applied to investments in corporate debt securities. A minimum standard for the economic scenario generator performance is defined and companies not meeting the required standard will be excluded from the approved list of issuers. The analysis also includes a consideration of the sustainability of each company with regard to the potential decline in demand in specific sectors.
- External event risk: This is the risk that the physical impact of climate related events has a material impact on our own people, processes and systems leading to increased operating costs or the inability to deliver uninterrupted client service. The group has business continuity plans in place to minimise the risk of an interrupted client service in the event of a disaster.
- Commercial management risk: The group aims to minimise where possible the environmental impact of our business activities and those that arise from the occupation of our office spaces. As we operate in leased office spaces our ability to direct environmental impacts is limited. However, we do choose office space and engage with our employees, vendors and customers in an effort to reduce overall waste and our environmental footprint.
- Credit risk: As a result of material natural catastrophe events, there is a risk that our reinsurance counterparties are unable to pay reinsurance balances due to Beazley. If the frequency or severity of these events is increased due to climate change this could have a corresponding increase on credit risk. An important consideration when placing our reinsurance programme is evaluation of our counterparty risk. Every potential reinsurer is evaluated through a detailed benchmarking which considers: financial strength ratings, capital metrics, performance metrics as well as other considerations.
- Regulatory and legal risk: Regulators, investors and other stakeholders are becoming increasingly interested in companies' response to climate change. Failure to appropriately engage with these stakeholders and provide transparent information may result in the risk of reputational damage or increased scrutiny. The group regularly monitors the regulatory landscape to ensure that we can adhere to any changes in relevant laws and regulations. This includes making any necessary regulatory or statutory filings with regard to climate risk.
- Liquidity risk: Linked to the underwriting and credit risks noted above, there is a risk that losses resulting from unprecedented natural disasters or extreme weather could erode our ability to pay claims and remain solvent. The group establishes capital at a 1:200 level based on the prevailing business plan.
- Strategic risk: This is the risk that our strategy fails to effectively consider climate change resulting in our business planning not adapting fast enough to respond to changes in wider claims trends. This creates a transition risk that our underwriting portfolio might not keep pace with the changes, being heavily exposed to declining industries and failing to capitalise on the opportunities. Our Emerging Risks analysis and business planning process seeks to mitigate this risk through horizon scanning for our longer-tail book, while we are able to be more flexible in responding to events impacting our short tail exposures.

Beazley's process for reviewing climate change related risk is still in its infancy and will be developed over the coming year. Currently, climate related risks and opportunities are reviewed at a high level, when developing the business plan for the subsequent year. It will be the responsibility of the Sustainability Officer to take the high-level appraisal and work across the business to develop the detail. This process will ensure that detailed climate risks and opportunities can then be incorporated into the business planning process in subsequent years, as well as embedding climate change analysis in BAU processes.

Compliance with risk and opportunities from a climate change and environmental perspective is conducted via legal register, developed by an independent consultant. This details the relevant legal compliance requirements we need to adhere to. A review is conducted on an annual basis to ensure compliance, as well as flag any forthcoming legislation of relevance to the business. This register sits alongside the Environmental Policy Objectives, which demonstrates how we are adhering to the items requiring compliance. From a financial authority perspective, compliance is manged by Beazley's Compliance department. This function is supported by Beazley's Internal Audit process.

Evidence also applies to 2.1

Source: Beazley

Lloyd's / The Market / Chubb / Chubb Risk Management Process

As the world's largest publicly traded property and casualty insurance company, Chubb has a responsibility not only to provide solutions that help clients manage environmental and climate change risks, but also to control our own ecological impact and contribute to environmental causes. Chubb also believe that the well-being of society depends on a healthy environment and that a proper ethic strives for a sustainable balance between development and preservation.

As a global insurance company, assessing risk is a core competency for Chubb.

Our approach to risk management is to identify all known and emerging risks that could have an impact on overall capital levels and financial results. Regarding the potential effects of catastrophe losses, we closely monitor our catastrophe risk accumulations around the world.

Because the potential physical effects of climate change present a significant risk to the company, they have been integrated into Chubb's overall risk management process. In addition, Chubb continually assesses the potential business impact of the changing climate and, if appropriate, develops new procedures, products and/or services. New offerings could be in the form of products, entry into industry segments, risk engineering services or claims services.

Modeling

Chubb uses internal and external data together with sophisticated analytical, catastrophe loss and risk modeling techniques to ensure an appropriate understanding of risk, including diversification and correlation effects, across different product lines and territories. We recognize that climate changes and weather patterns are integral to our underwriting process and we continually adjust our processes to address them. This approach is intended to help ensure that losses are contained within our risk tolerance and appetite for individual product lines, businesses and Chubb as a whole. Climate-related risks like flood and wildfire are continually monitored where exposure exists. Work has also been done to understand the impact of "sunny day flooding" on our insurance portfolio, which is coastal flooding not associated with a specific weather event. These events have become more frequent and severe as sea levels rise due to climate change.

Flood is the most frequent natural disaster. However, the market is mostly untapped on both the residential and commercial sides. In our opinion, while flood insurance is not always mandatory, it is always needed. To that end, in 2018, Chubb launched a new flood center of excellence and is beginning to offer greater flood protection to businesses and consumers. The flood center of excellence continues to collaborate with Chubb's CAT modeling team in order to offer more advanced asset valuation and sophisticated risk modeling, which we assess on a portfolio-level basis.

Extensive work has been done to understand the potential climate impacts to our view of risk as determined by the catastrophe models we use. For example, we have stress tested our US hurricane model using IPCC scenarios. Chubb invests continually to upgrade and refine its risk management tools for catastrophes such as floods and hurricanes. Through the use of catastrophe models, Chubb manages severe weather risk to indirect client exposures throughout the world. Special emphasis is given to areas where Chubb has significant exposures and the inherent risk from extreme weather events — such as tropical cyclone and other windstorms — is deemed to be high, such as the coastal United States, Southeast Asia and U.K./Europe.

To aid in prioritizing management focus on extreme weather events, each peril region is classified as either Tier 1, 2 or 3 according to the exposures and risk combination present. Tier 1 regions are the highest priority areas for the company as they present the greatest risk profile and are the most carefully managed. Tier 2 and 3 regions are also closely managed at the regional and business unit level.

In addition to modeled peril regions, we focus on non-modeled perils, such as flood and wildfire, which present a risk in many of the developing areas of the Chubb insurance portfolio. Several major natural catastrophes in recent years, such as Hurricane Harvey in Texas, the Kumamoto earthquake in Japan, flooding in Europe and wildfires in California, were non-modeled events or involved difficult-to-model coverages (e.g., business interruption). These types of losses have not typically been considered in the risk and pricing model framework used by the insurance industry to project natural catastrophe losses and this has led to an overall rise in the industry's perception of risk.

In 2017, natural catastrophe losses exceeded $135 billion and were again elevated in 2018. According to Swiss Re research, losses from disaster events in 2019 were lower than in each of the previous two years, due to the absence of severe hurricanes in the U.S. Insurance covered $60 billion of the losses, below the annual average of $75 billion of the previous 10 years. Of last year's insured losses, $52 billion were due to natural catastrophes. Typhoons Hagibis and Faxai in Japan were the biggest individual loss events of 2019 anywhere in the world. Other significant events included hurricane Dorian that struck the Bahamas; cyclone Idai that struck Mozambique; and bushfires in Australia.

Catastrophe losses in recent years highlight the increasing vulnerability of the ever-growing concentration of humans and property values on coastlines and in the urban-wildfire interface. The very presence of human and property assets in areas such as these means extreme weather conditions can quickly turn into catastrophe events in terms of losses inflicted.

The lessons learned from such events — new assessments of building performance and improved understanding of how a convergence of conditions can increase losses in a severe catastrophe — enable us to incorporate the latest knowledge in our modeled loss estimates.

As we do with all other risks, Chubb can only assume climate-related risks to the extent of our balance sheet wherewithal. We look at direct risk in our risk appetite and composition of our portfolio. Our insurance contracts are typically limited to a single year, and we can quickly respond to changes we see in the risk environment by adjusting our pricing or by restricting our exposure (e.g., limiting our property risk exposure in coastal regions). As modeling and data around specific perils, i.e., flood and wildfire, get better, we have the ability to take more risk, particularly for clients that adapt to changing conditions by mitigating their risk. For example, Chubb's CAT modeling group is working to enhance our knowledge of wildfire risk, particularly as the risk changes in time with climate change. Chubb is currently pursuing a project with the Bren School of Environmental Science & Management at the University of California Santa Barbara to better map and understand future potential wildfire risk in regions of critical interest to Chubb.

Per Evan Greenberg, CEO and Chairman of the Board, "as an insurer, our first responsibility is to use our expertise in risk management to provide products and services that protect individuals, businesses and communities against the effects of climate change. We manage risk – that's our business. We employ sophisticated modeling and have considerable data that identify the physical and economic impact of climate-related risk on individuals, businesses and communities, and this is reflected in the prices we charge for insurance protection. We essentially serve as a market signal of the rising costs of climate change – as the risk increases, insurance prices increase, or availability becomes more limited."

The results of our scenario analyses on climate-related risk inform our business strategy on an ongoing basis, both in terms of making underwriting decisions on specific accounts and in terms of managing entire lines of business.

Chubb also accounts for the potential impact of catastrophe and climate risks on the company's own facilities and operations. Direct risk to Chubb's business operations exists if such weather events occur where Chubb has offices. Severe weather events have tested Chubb's business continuity program and operations have functioned effectively. Chubb's risk analysis ranges from the known (based on definitive historical loss experience) to the hypothetical (based on a probable maximum loss (PML) calculation).

Pricing

Chubb incorporates risk mitigation services through its risk management and site surveys, specification of terms and conditions in policies and the development of sound underwriting guidelines into the underwriting of catastrophe-exposed products (e.g., property, energy, marine or crop coverage). Chubb's modeling and underwriting approach allows for risk — and hence price — differentiation across our client base.

Clients that mitigate risk — through retrofitting buildings to comply with updated building codes, installation of hurricane shutters and relocating exposures away from coastlines and flood plains — will have lower insurance costs than those that do not. Chubb also makes use of terms and conditions, such as sub-limits, coverage restrictions and deductibles, to ensure appropriate risk selection and potentially reward certain policyholder behavior.

The company is also actively engaged with regulators to ensure that pricing is actuarially sound and can be adapted to meet new and emerging climate change risks and the capital implications of these risks. For Chubb to continue to offer coverage under climate change conditions, pricing must always be set at sound actuarial rates that cover loss costs, expenses and risk margins on exposed capital. Thus, pricing must be flexible over time and by geography.

Unfortunately, many regulatory regimes impose the functional equivalent of price controls, which are not built to respond to developments in risk assessment and signal the wrong incentives to consumers and businesses that are encouraged to increase exposures.

Reinsurance

We mitigate our exposure to climate change risk by actively hedging catastrophe risk in both the reinsurance and capital markets. In addition, our investment portfolio, which backs the loss reserves and claims-paying ability of our insurance businesses, is highly diversified by risk, industry, location, and type and duration of security.

Successful risk transfer from policyholders to insurance and capital markets also requires industry standards around exposure data. We are committed to helping the industry improve standards that will ultimately help increase risk transfer capacity and provide additional incentive for risk mitigation behavior by policyholders.

Supporting Solutions

Chubb continues to participate in and support scientific-based research to enhance the loss modelling response to climate change and is participating in leading environmental information forums.

Evidence also applies to principle(s): 1.1, 3.2, 5.1, 5.2, *Source: Chubb*

Lloyd's / The Market / MS Amlin

Throughout the ORSA process, MS Amlin has identified climate change as an emerging risk, amongst others, and the implications of climate change on our business remain a concern, especially considering the non-modelled elements of the recent catastrophe events in 2017/18 which are an indication of a changing climate and how it could affect our business. Throughout the Own Risk and Solvency Assessment (ORSA, part of Solvency II) process, MS Amlin has identified climate change as an emerging risk, amongst others, and the implications of climate change on our business remain a concern, especially considering those elements of the significant catastrophe events in 2017/18 which are an indication of a changing climate and its business impact.

Regular discussions between the first-line functions and the Risk function facilitate the identification and consideration of potential emerging threats. All emerging risks of significance are escalated to the appropriate Committee and where necessary the board.

Climate-related risks are identified through MS Amlin's internal research, support given to external research and extensive catastrophe modelling capabilities. MS Amlin licence a number of natural catastrophe risk models for a range of different region and perils, and the output from these models is used to assess the risk from the annualised climate-related perils to the insurance portfolio.

As part of MS Amlin's quarterly reporting, the most material modelled perils and regions are ranked based on MS Amlin's materiality. The materiality ranking is one of the ways MS Amlin identifies the climate-related risks that are most relevant to the business.

Climate-related risks are regularly reviewed by a dedicated Catastrophe Risk Management committee (CRMC) at least two times per quarter.

The purpose of the CRMC is to provide an effective control framework over the management and reporting of current annualised catastrophe risk. The committee reviews the suitability of the current catastrophe model suite to real-world conditions. The committee also directs any research into where the catastrophe models diverge from current scientific understanding or our own loss experience.

MS Amlin employs a 'fit for purpose' framework to decide whether a model needs to be reviewed and a number of areas are considered within this framework:

1. A review of the current external validation of a model is undertaken following a model version change. The extent of the validation will be based on proportionality of the model upgrade and the materiality of the peril/ region to MS Amlin.
2. If the materiality of a region/ peril significantly increases for MS Amlin as result of a changing portfolio (increasing exposures, riskier business etc.), a review of the catastrophe model external validation should be undertaken.
3. Re-validation of a model should occur if a natural catastrophe event for that peril/ region featured significant 'loss-causing factors' which are beyond the current model's scope.
4. A review of MS Amlin's use and acceptance of a model will be triggered if our expectation of the materiality of a peril/ region fundamentally changes following post-event analysis.
5. Academic consensus is contrary to any of the vendor's model assumptions or there is significant challenge from the scientific/ academic community to the current catastrophe model, a review of the external validation will be triggered.

The CRMC recommend to the Model Governance Committee (which oversees the capital Internal Model) any changes to our view of risk, observations or areas of concern that relate to climate related risks.

MS Amlin's proprietary portfolio simulation model allows the flexibility of adjusting the frequency of events to align with current understanding of climate-risk and establish MS Amlin's own view of risk. In 2019, MS Amlin developed its own view of risk for European Windstorm to reflect climate variation experienced in the past two decades. The model was adjusted to align the short return period events to be more reflective of recent experience, while maintaining the third-party vendor's view of tail risk.

The ability to make adjustments to our own view of risk allows MS Amlin to react much quicker to changes in current and future understanding of climate risk, rather than waiting for a third-party's model version change.

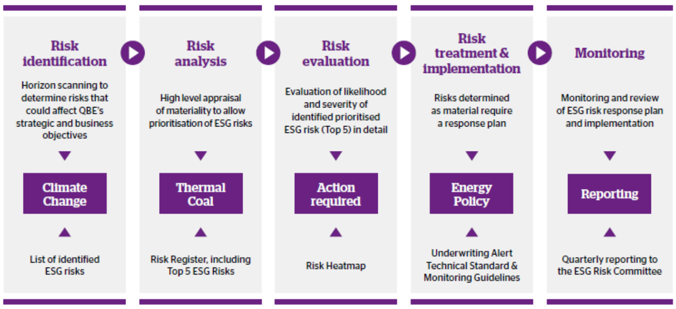
Source: MS Amlin

Lloyd's / The Market / QBE / Identifying, assessing and managing climate related risks

Climate-related risk is a type of strategic risk, which we identify, assess and manage using our Enterprise Risk Management (ERM) framework and ESG business practices. Climate-related risk is also implicitly considered within the insurance, credit, market, liquidity and operational risk classes.

In line with our membership of the UNEP FI, and our PSI signatory status, we continually work to embed sustainability and the consideration of current and emerging ESG risks and opportunities in our decision-making processes. We use a robust risk identification, measurement and mitigation process. As part of QBE's Risk Management Strategy, we categorise risks into eight classes, with ESG risks across underwriting and investments classified as strategic risks, as well as being integrated into other risk classes.

In 2019, we developed an ESG Risk Standard, as part of our Strategic Risk Policy, outlining the process of identifying and managing ESG risks across the business. Our ESG Risk Standard applies to indirect ESG risks (defined as risks which impact QBE from external sources). Direct ESG risks are addressed and managed by other functions of the business. Our Standard outlines governance and oversight, associated roles and responsibilities, and minimum requirements for managing ESG risks. ESG risks are reported to the Group Chief Risk Officer (CRO) quarterly, with our ESG Risk Committee focusing on any ESG risks that are deemed to be high risk. The Committee proposes actions to the ENFRC following such discussions. During 2019 and in 2020, the Group ESG Risk team has continued to analyse and manage ESG risks and to raise awareness of these risks. The following diagram illustrates the risk management process for an identified ESG risk:



In 2019 we undertook both transition and physical scenario analysis to understand the risks and opportunities associated with climate change in our priority portfolios and geographic regions.

Climate-related risks have been identified as risks arising from Climate-related Physical Risks, Transition Risks or Liability Risks. All three risks are currently at treatment stage (step 4). The treatment plans include the creation of three working groups (one for each risk type) which have been set up to further manage and understand how these climate-related risks could impact QBE's strategic priorities and business objectives and also within the three main QBE geographical divisions e.g. International (Europe and Asia), North America and Australia Pacific. The Working Groups have been tasked with determining the significance of the climate-related risk to QBE e.g. priority underwriting portfolios as related to the climate-related risk type. In addition, working groups have been established in QBE's European Operations in order to progress with the implementation of EO's Roadmap for meeting the requirements of the PRA's SS 3/19.

The ESG Risk function is responsible for ensuring these business practices and processes are integrated into QBE's overall risk management framework. As discussed in section 1.1, the Group Board ensures climate-related risks are assessed and managed through the integrated risk management framework.

Evidence also applies to principle(s): 1.1, 1.2, 1.4, 2.1, 2.2, 3.1

Source: QBE Sustainability Report 2019 (p. 17); QBE Annual Report 2019 (p.38).

Lloyd's / The Market / RenaissanceRe Syndicate Management Ltd / Integrating climate risk into business practices

RenaissanceRe have taken various measures to mitigate losses related to climate change through their underwriting process and by continuously monitoring and adjusting their risk management models to reflect the higher level of risk that they think will persist.

Before binding a (re)insurance risk, exposure data, historical loss information and other risk data is gathered from customers. Using a combination of proprietary software, underwriting experience, actuarial techniques and engineering expertise, the exposure data is reviewed and augmented, as deemed appropriate. RenaissanceRe use this data as primary inputs into the REMS© modeling system as a base to create risk distributions to represent the risk being evaluated. A key advantage of RenaissanceRe's REMS© framework is their ability to include additional perils, risks and geographic areas that may not be captured in commercially available natural hazards risk models. As a result, they are able to incorporate the risk of an increase in the frequency and severity of natural catastrophes due to climate change in their models more comprehensively than commercially available models. More generally their team of scientists at RenaissanceRe Risk Sciences have been tracking the impact of climate change and expanding urban development in both tornado/hail and wildfire risk over the last several years. For example, the history of California wildfire events, and particularly the extreme outbreaks during 2017 and 2018, are being used to validate, and where necessary inform, their representation of this risk.

Evidence also applies to principle: 2.1

Source: RenaissanceRe

Lloyd’s / The Market / The Hartford

Insurance Operations

The Hartford’s policies and procedures for managing natural catastrophe risks include disciplined underwriting protocols, exposure controls, sophisticated risk-based pricing, risk modeling, risk transfer, and capital management strategies. The Company has established underwriting guidelines for both individual risks, including individual policy limits, as well as risks in the aggregate, including exposure limits by geographic zone and peril for natural catastrophe perils. Significant risks to the company or emerging risks that could be significant in the future are monitored to evaluate how they could affect the properties and people we insure.

The Company also continually examines industry publications and analysis for guidance on best practices such as the Task Force for Climate Related Financial Disclosures (TCFD) and scientific consensus on climate change. The Company uses both internal and third-party models to estimate the potential loss to insured exposure resulting from various catastrophe events and the potential financial impact those events would have on the Company's financial position and results of operations across its businesses. The Company calibrates its analytical tools to recognize both historical experience and expectation regarding the impact of climate change over the short, medium, and long term including climatic conditions and catastrophe modeling firms’ proprietary research. The dynamics of climate change and severe weather impact various underwriting and pricing activities across the enterprise. Catastrophe modeling and other analytical tools incorporating climatic assumptions are significant inputs into pricing and underwriting the insurance policies issued by the enterprise, as well as capital requirements. Risks identified with the potential to have a substantive financial or strategic impact on our business (highlighted below) are risks having a financial impact of $1 million or more.

The Board has ultimate responsibility for risk oversight, exercised through standing committees. The company’s formal risk appetite framework is reviewed by the Board at least annually and includes an enterprise risk appetite statement, tolerances, and limits by risk type. Risk is managed at multiple levels, including the company and asset level. The Finance, Investment and Risk Management Committee (FIRMCo), comprised of all Board members, oversees investment, financial and risk management activities of the Company and oversees risks falling outside the responsibility of any other committee. FIRMCo meets at regular Board meetings and is updated on risk management activities by the Enterprise Chief Risk Officer (ECRO) and the Chief Executive Officer (CEO).

The Enterprise Risk and Capital Committee (ERCC), chaired by the CEO and comprised of senior leaders oversees the risk profile, capital structure and risk management practices. The ERCC has oversight of significant company-wide risk exposures. ERM is independent of business units and provides risk analysis on an individual and aggregated basis to ensure the Company’s risks remain within its risk appetite and tolerances. ERM is led by the ECRO who reports to the CEO and is responsible for maintaining and enforcing ERM’s program and policies. With assistance from ERM, business units share risk-related information with senior management and Board committees. Business risk self-assessments are conducted periodically by each business unit and functional area to identify and disclose their most material risks to senior management and the Board Audit Committee. Emerging risk councils identify, assess, measure and monitor emerging risks and the Emerging Risk Steering Committee reviews and reports significant emerging risks to the ERCC and the FIRMCo.

The Company's SVP of facilities management and procurement is responsible for identifying and prioritizing activities that reduce our carbon footprint as well as requiring supplier compliance with The Hartford’s Vendor Code of Conduct. The Company monitors its major risks at the enterprise level through a number of enterprise reports, including but not limited to, a monthly risk dashboard, tracking the return on risk-capital across products, and regular stress testing. ERM communicates the Company's risk exposures to senior and executive management and the Board, and reviews key business performance metrics, risk indicators, audit reports, risk/control self-assessments and risk event data.

The Company quantifies its risk exposures using multiple lenses including statutory, economic and, where appropriate, U.S. GAAP. ERM leverages various modeling techniques and metrics to provide a view of the Company's risk exposure in both normal and stressed environments at the company and asset level. ERM regularly monitors the Company's risk exposure and provides regular reporting to the ERCC. The Company defines insurance risk as its exposure to loss due to a range of perils and risks covered under its policies including loss due to catastrophes.

The Company has rolled out a company-wide program called Harvest, which conforms with Six Sigma principles, that helps identify opportunities. It formally solicits new ideas from employees and presents to company leaders who vet and prioritize them. This process occurs at both the company and asset level.

The Company also relies on its internal work on climate change to help guide the prioritization process. The Hartford's Environment Committee, which was created in 2007 as part of our public commitment to climate change, is made up of company leaders from across the enterprise, including risk management, operations, representatives of the company’s

Personal Lines and Commercial Markets businesses, and our investment company, as well as Actuarial, Sales, HR, Strategic Sourcing and Real Estate, Marketing and Communications, Government Affairs, as well as representation from our employee environmental action team (HEAT). This Committee also updated the Company's statement on climate change based on the 5th assessment of the IPCC.

In 2017, The Hartford formed an ESG Sustainability Governance Committee comprised of senior management to set and help drive execution of the Company's sustainability strategy, including environmental stewardship. This committee prioritizes opportunities aligned to the Company's sustainability strategy and reports progress to The Hartford's Board of Directors at least annually. In 2019, the Sustainability Governance Committee met six times. Members from both The Hartford's ESG Sustainability Governance Committee and the Environment Committee helped to create The Hartford's new ESG Investment Policy Statement in early 2019 and helped to drive the company's policy on insuring and investing in Coal / Tar Sands announced in December 2019.

In addition to the actions described above, a full assessment of The Hartford's Scope 3 emissions inventory is currently underway. This evaluation will help to determine which of the relevant categories contribute most to the company's Scope 3 emissions and offer the greatest reduction opportunities.

Investments

HIMCO has developed and instituted a policy for assessing every active investment in the portfolio and this assessment is part of the analysis made in the investment decision process. Our policies and practices continue to evolve as ESG practices continue to develop across the investment community as well as amongst issuers.

Source: The Hartford

Support Links:

- ESG Investment Policy Statement

Lloyd's / The Market / Tokio Marine Kiln / Joint research on climate change with universities

The process for identifying, assessing and managing climate-related risks and opportunities are embedded within the broader ERM Framework at TMK. There is a specific Climate Risk on the TMK Risk Register, managed by the RMT and owned by the CRO.

As part of their management of the risk register risk, the RMT have identified and assessed the varied ways in which climate risk is likely to materialise to affect the business. These broader risk areas have been exemplified in section 2.1 of this Report, and vary from Physical Risks affecting exposures and investments, to Transition Risks, Strategic risks, and Reputational risks. It also references as well as numerous 2nd and 3rd order risks that have not yet been fully understood ('Emerging Risks', considered separately by the RMT, such as Arctic Development opportunities that may arise). A variety of Physical Risks have been identified, including the risk of increased damage from windstorms (e.g. from increased rainfall), the risk of more frequent wildfires, and the risk of longer-term sea-level rises. The broad threats and opportunities are being monitored by RMT and strategic implications are being reported. The identification of these risks and their prioritisation in terms of a rating was part of the motivation for the creation of the ESG Committee and Climate Group.

The implementation of the ESG Committee and Climate Group has led to increased integration of climate risk management throughout the business, with involvement of stakeholders from across TMK. The Climate Group's membership includes staff from across different levels and departments within TMK, helping to support its embedding. The varied staff membership allows the Group to draw on diverse experience of climate risk as TMK develops its approach.

As risk metrics around climate risk are finalised and reported quarterly, the management of climate risk is expected to become increasingly integrated into the business. From this point, key decisions will have the grounding that they require.

Source: Tokio Marine Kiln; TMK ERM Framework; TMK 2020 Annual ORSA Report

3.2 Support and undertake research and development to inform current business strategies (including investments) on adapting to and mitigating climate-related issues.

Lloyd's / The Corporation of Lloyd's

Lloyd's thought-leadership team is responsible for: researching emerging market risks, trends, and areas of market interest; supporting the development of insurance products, and; promoting a culture of innovation and removing barriers to innovation. The team is working towards improving the analysis of risks like climate change and environmental issues. The Corporation supports this by making the thought leadership research produced publicly available. Recent reports have included:

- 'Evolving risks in the global food supply chain', which analyses the risks and opportunities in this industry, and what is driving this fast-growing area of insurance. The report also identifies how climate-related issues are impacting the industry and what the impact might be in the coming years.

- The report looking at insurance for a low carbon economy, 'Below 2^{o}C', provides a strategic overview of the potential effects of the low carbon transition on the general insurance market. The report reviews the effects of decarbonisation scenarios on sectors and regions of the global economy up to 2030, and the opportunities and challenges these changes will pose for the insurance sector over the next 3-5 years.

- A series of three reports enitiled 'Renewable Energy: Risk and Reward' analyse the implications of the changes to the energy generating landscape for insurers, risks managers, and brokers. Energy systems across the world are experiencing fundamental shifts driven by climate change policies and rapid technological changes.

Innovation Lab

Lloyd's Lab is the home of InsurTech at Lloyd's, it is a global centre for insurance innovation. Over a ten week programme, s, start-ups are given the unique opportunity to work with Lloyd's market experts to shape the next big innovation.

In 2019, the Lloyd's Lab ran its third cohort. The successful teams were aligned with Lloyd's new strategy for the future. The start-ups focused on finding solutions with the potential to contribute to the ecosystem of services as part of the Future at Lloyd's vision. Some of the teams also focused on helping to provide cover for customers experiencing losses from extreme weather conditions. These are:

- **FloodFlash** enables instant-settlement flood insurance for customers as soon as sensors detect that waters have exceeded a critical depth, with a focus on the UK market.

- **Oasis** (Loss Modelling Framework) is providing an open-source catastrophe modelling platform. The business seeks to change the world around catastrophe modelling to better understand risk in insurance.

The Innovation Lab is currently running its fourth cohort. The start-ups are focusing on four different themes: cyber; future of transportation; new insurance product and market; data and models. The cohort includes:

- **Previsico** offers a flooding model that provides real-time data to prepare customers for flood warnings. The start-up provides local and real-time surface water flood warnings tailored to the needs of a range of global insurance customers.

- **Skyline** is a data and technology-focused parametric Managing General Agent (MGA) for emerging risks and under-protected segments. The company aims to close the protection gap on climate change-related losses.

Charity partnerships

The Corporation has made a strategic decision to fund charity partners through our community involvement programme. Insurance plays a valuable role in creating a more confident and secure world and the Corporation believe that our charitable funding should extend this role in relevant ways.

The Responsible Business team support three independent charities and a community volunteer programme supported by the Lloyd's market in London (principle 5.2). All three charities have their own trustees made up from professionals across the Lloyd's market and academia, however the day to day running is managed by the Responsible Business team at the Corporation. These include:

Lloyd's Charities Trust

Lloyd's Charities Trust (LCT) builds resilient communities by supporting causes relevant to the market and our people. For more than 60 years, Lloyd's Charities Trust has helped to build resilient and sustainable communities where it matters most. The Lloyd's market is recognised for supporting global economic growth, and helping businesses and communities recover after disasters (*see Lloyd's Strategy*).

This is supported by Lloyd's Charities Trust, which has two clear objectives:

- As the Lloyd's market responds to emerging risks and the challenges that these pose to communities around the world, it becomes increasingly important that Lloyd's Charities Trust supports projects that aim to reduce the risk of devastation to the people who need it most. Through our charity partnerships, we work with organisations who help the most vulnerable groups with disaster risk reduction globally (principle 5.2).
- Lloyd's Charities Trust also supports causes close to the hearts of our people in the Lloyd's market in London. Recognising the voluntary and fundraising efforts of individuals from across the market through our Lloyd's Market Charity Awards, we reward their chosen charities with unrestricted grants to help maintain stability and resilience in a changing world.

The day to day running of Lloyd's Charities Trust is undertaken by the Responsible Business team at the Corporation of Lloyd's, and is overseen by trustees from across the Lloyd's market. Partner charities are required to establish work plans with targets and timelines, and present these to the trustees (principle 1.2).

From October 2016 – August 2020, three charities were funded including Build Change and RedR:

- Build Change is an international Non-Governmental Organisation working to reduce loss from disasters in emerging nations and working to combat the crisis of substandard and unsafe housing. Build Change aims to strengthen buildings for people living in vulnerable housing to make them safer. We have supported an ambitious grassroots pilot which aims to retrofit (structurally strengthen) vulnerable homes in the slum areas of Medellin, Colombia and Manila, the Philippines. We are proud to say that through this partnership: 1,761 Houses in Colombia and the Philippines were structurally strengthened, 1,524 builders, partners, and homeowners were trained on the basics of disaster-resilient construction, 754 new jobs in construction were created, 7,501 people were made safer by improving the homes that they were living in through structural strengthening, 26 organisations improved their practices by better understanding the principles of resilient building.
- RedR - international disaster relief charity – received donations of £150,000 a year to deliver the 'Ready to Respond' programme, with the aim of increasing the ability of individuals and organisations involved in humanitarian action to prepare for and respond to emergencies, especially in urban centres. Through Lloyd's partnership: 3,383 aid workers have been directly impacted, increasing professionalism and effectiveness, 185 individuals attended private sector collaboration conferences. 91% stated the conference had a positive impact on their urban response, 108 people took part in our global cross-sector mentoring programme, 1,801 aid workers have been trained in capacity building across 128 events, 341 questions received and answered on our online platform, with 551 monthly visits, 75 private sector specialists trained in urban humanitarian response.
- Lloyd's Charities Trust has launched a new disaster resilience partnership with Habitat for Humanity Great Britain, as part of Lloyd's ongoing response to emerging risks and the challenges they pose to communities around the world. The partnership will encourage a Lloyd's market wide approach to help fulfil Habitat for Humanity's goal of a world where everyone has a safe and decent place to live. The partnership will focus on the joint vision to create braver and more resilient communities in climate risk areas.

  Habitat for Humanity Great Britain is keen to utilise Lloyd's and the (re)insurance sector's expertise in natural hazard risk modelling and mapping to help them develop new tools and models. In particular, expert advice on flood risk reduction strategies will enable the most vulnerable communities to build their capacity to successfully tackle flood threats. A key component of the new partnership is funding a project in Malawi's Chikwawa District that was affected by severe flooding and devastation from Cyclone Idai in March 2019.

Lloyd's Tercentenary Research Foundation

LTRF was established to mark the tercentenary of Lloyd's in 1988 with the objective of funding research in the fields of medicine, science, safety, the environment, engineering and business. Through its partnerships with specifically commissioned academic institutions and research organisations, Lloyd's Tercentenary Research Foundation funds academic research by supporting new research on risk related issues and offering scholarships to study in the US.

Over the reporting year, funding around climate related risks included:

- A 6-month research project led by the Smithsonian Tropical Research Institute (STRI). The STRI and partners conducted research aimed at reducing the protection/resilience gap by promoting the success of Smart Reforestation® options that reduce climate-risk and support climate-resilient development. The safest and most efficient way to sequester atmospheric carbon dioxide is to plant trees in the tropics. Smart Reforestation® is about planting the right trees in the right place at the right time and for the right reason. This pilot project will reduce the uncertainty and associated risk of reforestation
- A 6-month research project led by the Grantham Research Institute on Climate Change and the Environment (GRI), London School of Economics and Political Science. This project is aimed at promoting just

and sustainable dividends of resilience investments at the local level in the Philippines.

– A Fulbright scholarship for Dr Freya George, conducting research aimed to to provide insight into the vital influence of plate tectonics on the volatile cycle, and has implications both for the development and evolution of Earth's atmosphere and habitability, and our understanding of subduction zone earthquakes along regions such as the western seaboard of the Americas.

– A project researching and modelling the physical loss and social vulnerability arising from tsunami events across all islands of Indonesia. The project partners will co-develop, with local stakeholders and experts, a catastrophe model of Indonesian tsunamis comprising of an event set and vulnerability curves on the open platform Oasis. The project will create regional models of all major sources of tsunamis generated by earthquakes over the entire coast of Indonesia, including potential combinations with landslide sources triggered by earthquakes and volcanoes since these can have severe local impacts. The project will produce stochastic hazard footprints for all these events by developing, and applying, bespoke statistical tools of Uncertainty Quantification. New vulnerability functions for the resilience of infrastructure such as ports and for livelihood of populations will be produced. The output will be of use to both Government and the insurance industry and enable modern disaster risk financing for Indonesia.

Evidence also applies to principle(s): 1.2, 3.2, 5.1, 5.2, 6.1, 6.2

Source: The Corporation of Lloyd's

Lloyd's / The Market / ArgoGlobal

Clean Energy and Technology and New Products

The Clean Energy team underwrites technology performance insurance and reinsurance products through Lloyd's of London, Syndicate 1910. The team is dedicated to developing and distributing insurance and risk financing solutions related to clean technologies that are intended to reduce the overall carbon footprint. Below are some of our listed offerings; however, we recognize as demand increases, new products came come about along with and cross-sell and delivering digital customized solutions in this growing sector.

Solar Project/System Performance: We protect investors by covering long-term project cash flows through a Performance Ratio Guarantee or a MWh Guarantee (this includes irradiance risk, or solar, as a resource).

Fuel Cell System Performance: We provide the backstop of the manufacturer's original electrical and/or thermal performance warranties. We are flexible to insure manufacturers' total sales (corporate balance sheet protection) or dedicated customer sales or site locations.

Energy Storage Performance: We provide the backstop of the manufacturer's original performance warranties. Subject to the accuracy of the battery management system (BMS), we insure utility, commercial and residential site applications, as well as the growing e-mobility market.

Bioconversion System Performance: Our coverage is applicable to conversion of biomass or waste to:

- Energy (electric power and/or heat)
- Synthetic fuels
- Other sustainable chemical products

We provide the following flexible coverage structures:

- Pre-COD – start-up commissioning risk cover in form of repair cost and/or debt repayment
- Post-COD – protect long-term investment with guarantee of project output and quality of end-product; operational and excessive maintenance risks

- https://www.argolimited.com/international/product/clean-energy-and-technology/

Hydroponic Farming: First mover advantage in supporting development of liability insurance cover for non-marijuana hydroponic farming. There is the potential to partner with hydroponics entrepreneurs providing difficult to obtain liability insurance, and securing entire digitally delivered insurance portfolios.

LMA Sustainability Working Group

In 2019, Argo Group took the lead of convening a group of our peers in the London market under the banner of the Lloyd's Market Association (LMA); the purpose of the committee is to engage in further discussion around climate change and sustainability issues. The Group is chaired by Argo Group's CR&SO and has met at Markel and Argo's offices as well as remotely, due to COVID-19. Attendance and interest are strong, and there is a positive engagement to share best practices, including risk reporting, underwriting and investment exposures, stress testing, and greenhouse gas reporting. The Group meets quarterly and is a guided formal presentation mixed with an informal and open discussion around climate change issues and the impact on each of our businesses.

Industry Events and Feedback

As insurance professionals, we must continuously improve our collective understanding of climate effects; this will allow us to be better positioned to support our clients in those markets where the potential impact of natural catastrophes on economies and politics is heightened. Several staff have attended climate-related events in different geographical areas that have allowed for networking with likeminded people, industry peers, and clients. Attendance at these various conferences has allowed our team members to develop professionally and gain a deeper understanding of how to tackle climate change specific challenges. These face-to-face events have been a forum for learning and have allowed us to cultivate ideas that benefit the company and the client. We support and undertake a range of research and development work and are at times called upon as subject matter experts to provide feedback and consult on various discussion papers.

- Bank of England - The 2021 biennial exploratory scenario on the financial risks from climate change

Source: ArgoGlobal

Lloyd's / The Market / Beazley

The most obvious climate related issues are the physical impacts of weather i.e. the effects of increased sea water temperature (leading to increased rainfall), rising sea levels and more volatile storms. One of the biggest challenges the insurance industry faces is that data models do not yet exist which provide a simple tool for assessing risk. To help develop this weakness, Beazley worked with insurtech partners as well as established modellers to build a picture of the short term impacts of changed weather patterns on North American assets. One example of this work, is the work undertaken in partnership with DNV GL to help understand the impact of Climate Change on 50 of our assets in the USA. This collaboration enabled Beazley to understand the risks, whilst helping DNV GL to develop a tool which could potentially be brought to the market as a part of climate change modelling solution. This data has been used to inform our property insurance and our insureds about potential future scenarios.

To further develop this area, a further body of work is planned to investigate the climate change risks and opportunities in detail. The first stage of this process is to undertake a complete review of risks and opportunities for each aspect of Beazley's business. In turn this will enable the identification of where further research is required to inform business decisions. It is also expected that opportunities for new products, or enhancements to existing products will be realised. Beazley has recently created an Incubation team, with the objective of bringing new products to market. A target has already been set for this team, that one in three new products will focus on climate change opportunities which will aid the development of the long term business strategy for the company.

Source: Beazley

Lloyd's/ The Market / Chubb / Global 100 Cleantech

The renewable energy sector is a major product area for Chubb. The desire to develop clean, efficient alternative sources of energy is leading to the planning and construction of renewable energy projects around the world. These projects take many different forms: biomass/biofuel, biogas, energy from waste, fuel cell, as well as solar, wind and hydro energy. Chubb addresses risks that occur in the two main phases of a typical renewable energy project— construction and operation. Construction risks range from delay in start-up to public or employer liability, whereas operation risks range from business interruption to premises pollution.

In addition, Chubb insures over one third of the Global 100 Cleantech, which are the largest private innovation companies operating in the sustainable technology industry. The insurance protection Chubb provide to these companies indirectly supports the research and development, production and commercialisation of specific technologies that have the potential to reduce GHG emissions.

Source: Chubb

Lloyd's / The Market / MS Amlin

Underwriting Modelling

In March 2020, MS Amlin supported the publication of a research report on Scenario Analysis (see *R1 Scenario Analysis*) in collaboration with the Lighthill Risk Network (https://lighthillrisknetwork.org/) and the University of Cambridge*.* This report provides the insurance industry with a "how-to" guide for the development of scenarios and their use within the insurance industry. In the case of climate change, the report details how insurers are increasingly required to make decisions on how to address trend risks, through both adaption (e.g. keeping losses within an insurable window) and mitigation (e.g. discontinuation of certain polices). This work directly informed the development of MS Amlin's scenarios of the 2019 GIST submission, and will be used to inform the development of future scenarios used within the business and also for regulatory purposes (e.g. the PRA Biennial Exploratory Scenario). MS Amlin's role was as a funder of the overall report, and by management-level staff contributing in person to a series of workshops and reviews on the research project.

In June 2020 MS Amlin held an Academia Advisory Panel (AAP) (see *R2 AAP Agenda*) on the impacts of climate change on catastrophe modelling. The AAP provides MS Amlin with objective, peer-reviewed scientific advice, and information on the latest academic research trends in the main fields of natural catastrophe modelling. In total there were five presentations from leading UK academics on the topic of climate change as it relates to tropical cyclones, European windstorms, and precipitation. In addition, the MS Amlin Research Manager presented to the academics on catastrophe modelling and climate change. The event generated a number of research and collaboration opportunities that MS Amlin will support/explore over the coming 12-24 months.

In December 2019 MS Amlin's Dom Peters (former Chief Underwriting Officer, Reinsurance) participated in a roundtable discussion with UK Research and Innovation (UKRI). UKRI is the quango that directs research and innovation funding in the UK, based on funding from the science budget of the UK's governmental Department for Business, Energy, and Industrial Strategy). Some of its seven component research councils had previously engaged in a limited manner with the insurance industry, but this 2019 meeting was the first senior-level officially engagement for the UKRI overall in discussions with the insurance industry. The outcome of this engagement was a report on the research needs of the insurance industry, including climate change (see enclosed report – *R3 Insurance and Academia*). The long-term objective is to secure UKRI funding for academics to investigate research topics of relevance of the insurance industry (e.g. climate change), which in turn will inform business strategies on adapting to and mitigating climate-related risks.

In 2021, MS Amlin is sponsoring the second Symposium on Hurricane Risk in a Changing Climate, to be held in Miami (http://hennarot.forest.usf.edu/main/depts/geosci/conference/shrcc/main.html). The main objective of this symposium is to support communication among scientists, engineers, and insurers in order to increase understanding of and better ways to deal with tropical cyclone risks. The MS Amlin Research Manager, Cameron Rye, will attend and speak at the event.

In addition to the above specific recent activities, MS Amlin continues to develop its own bespoke view of catastrophe (and climate) risk through the evaluation and adjustment of catastrophe models. This work ensures that the catastrophe models used by MS Amlin reflect the present-day climate risk and that this information feeds into business strategies (e.g. pricing, capital modelling, risk tolerances). In 2019, MS Amlin reviewed the RMS European Windstorm model (see *R4 EUWS External Summary*), and approved the use of the "Climate Variability" view of risk, which better reflects recent climatological conditions. MS Amlin is currently in the process of reviewing the AIR US Hurricane Model, including the suitability of the AIR "Warm Sea Surface Temperature" event set, which in part captures the impacts of climate change on US hurricane losses.

Finally, MS Amlin is supporting a number of market-wide initiatives into climate change research. In the last 12 months MS Amlin has held workshops with catastrophe model vendors RMS and AIR to discuss climate change solutions that the vendors could build that would be beneficial for the insurance industry. In addition, MS Amlin hosted a Lighthill Risk Network workshop on climate change to discuss new research initiatives that the LRN could fund in the near future, including the development of a climate change data hub for the insurance market.

Investments

Within the Investments team at MS Amlin there is an on-going initiative to obtain and assimilate alternative datasets into to inform and enhance the investment process. Due to various resource constraints, this generally consists of utilising free, publicly available research and data. Climate risk data has been an important recent addition in this area as part of our wider ESG data initiative.

MS Amlin has obtained datasets and research from various sources including the World Resources Institute, HSBC, Climate Central and CRED. The team is in the process of integrating them into the governance framework and investment decision making process. In addition MS Amin is also working with our custodian to further develop our understanding of the full climate risk research landscape and data market place.

One of the main data challenges that MS Amlin has faced, is whilst it is possible to obtain country-level data reasonably readily for a wide variety of metrics, it has proven to be considerably more challenging (and costly) to obtain company specific data. There is also a need to overlay the raw climate risk data with appropriate economic data and other measures that permit critical analysis of a company or countries ability to respond to the risks and opportunities of climate change. Extensive resources are needed to discern the broad forward-looking individual climate risk strategies of the full investment universe of worldwide entities.

Source: MS Amlin

Lloyd's / The Market / QBE / Climate risk related research & development

In 2019 and 2020 QBE has continued its partnership with Jupiter, an emerging leader in predicting and managing climate risk. Jupiter's "ClimateScore" is a comprehensive, cloud-based platform that incorporates environmental factors in an integrated, dynamic model to deliver risk-focused solutions. The platform comprises data that analyses and predicts climate risk from one hour to 50 years in the future. Jupiter currently predicts the probability of extreme weather in select North American cities and the company is steadily expanding to service global markets.

QBE also invested in Jupiter via its venture capital arm, QBE Ventures, which partners with the world's best and brightest start-ups to deliver new technologies and competencies. QBE's partnership with Jupiter is in line with our commitment to managing climate-related risks and opportunities.

Another example of supporting research and innovation of climate-related issues is QBE's agreement with the Climate Corporation. On 5 March 2019, a platform agreement was announced between Climate Corporation's industry-leading Climate FieldView™ digital agriculture platform and NAU Country Insurance Company, a QBE Insurance Company. The new agreement between Climate and NAU Country enhances the digital reporting capabilities for farmers.

First launched in the United States in 2015, the Climate FieldView digital agriculture platform is on more than 60 million paid acres across the United States, Canada, Brazil and Europe. It has quickly become the most broadly connected platform in the industry and continues to expand into new global regions. As innovation in the digital agriculture space continues to accelerate rapidly around the globe, Climate Corporation continues to explore opportunities to provide farmers with the insights they need to improve their productivity.

Specific products and services developed by QBE to support innovation for climate mitigation and adaption are discussed in section 6.2 of this report.

Evidence also applies to principle(s): 1.2, 3.2, 5.1, 5.2, 6.1, 6.2

*Source: QBE press releases (*https://www.qbe.com/us/newsroom/press-releases/qbe-partners-with-jupiter-to-take-on*); (*https://www.qbe.com/us/newsroom/press-releases/the-climate-change-corporation*)*

Lloyd's / The Market / RenaissanceRe Syndicate Management Ltd/ Innovating products and solutions

RenaissanceRe is involved in leading industry collaboration on the Oasis open source platform for developing, deploying, and executing catastrophe models. RenaissanceRe's Chief Risk Officer outlined that: "RenaissanceRe supports Oasis as an important open source platform making the understanding of natural hazards risks available to more communities. The transparency of the platform can help advance the development of consistent and robust catastrophe risk models and facilitate more coherent communication about risk. These have the potential to assist with bridging the protection gap between the global demand for insurance and the supply of risk capital to meet that demand."

RenaissanceRe continues to work and engage with their clients to consider and develop products that fulfil their evolving needs as a result of climate change. The work outlined in developing open source models is one key area, as is developing products such as parametric or green bonds which are linked to defined events that result in the release of capital to the client not purely where there has been damage to property, but also as a means of disaster relief.

RenaissanceRe were recently involved in developing parametric insurance coverage against extreme weather events for communities in Australia as part of the consortium within the Lloyd's Disaster Risk Facility. The facility also wrote an Hurricane and Earthquake bond, which was issued to the Government of Puerto Rico, with RenaissanceRe playing an integral role in pooling the capacity required. RenaissanceRe has also been a key partner in the Lloyd's Tercentenary Research Foundation which awards grants for academic research and has funded project work related to climate risks.

Source: RenaissanceRe

Lloyd's / The Market / The Hartford

Insurance Operations

The Company regularly enhances hazard assessment and risk concentration modeling capabilities supporting underwriters and business leaders to manage exposure. In 2019 the advancements to assess and monitor flood risk included selecting a vendor model to gain a more comprehensive view of flood risk and inform strategic planning and portfolio diversification. Additionally, the Company enhanced modeling capabilities during 2019 for winter storm by partnering with a catastrophe model vendor to create a customized winter storm model, informed by internal claims analytics and third-party research. The Company started work in 2018 that was completed in 2019 to enhance the risk assessment of both hail and wildfire. The Company worked with a catastrophe model vendor to develop a custom hail model that incorporates the recent observed higher frequency of larger hail events in certain geographies. The Company enhanced wildfire hazard assessment by incorporating multiple risk factors to provide a comprehensive view of risk of the location, as well as peripheral surrounding areas.

Investments

HIMCO's ongoing research and development on the assessment of climate-related risk and actions by issuers to mitigate this risk continues to evolve and impact business strategies. Instruments like The Hartford's ESG Investment Policy Statement, the Policy on Insuring, Investing in Coal, Tar Sands and the proprietary credit research platform enhancements and training conducted at HIMCO all serve to direct investment professionals to focus on the climate-risk implications of investment decisions. HIMCO has an ESG committee dedicated to the development and implementation of policies and education of investment professionals on this topic. The HIMCO committee works in connection with The Hartford's Sustainability Governance Committee. HIMCO manages a Unit Investment Trust for Advisors Asset Management that implements the "NextGen" strategy. This strategy involves consulting a variety of ESG metrics including those published by the external evaluation firms MSCI and Sustainalytics. These external scores are then used to screen securities, from which HIMCO then overlays its proprietary quantitative investment models.

Hartford Funds also publishes educational materials focused on climate-related investment risk considerations. Examples include:

- Sustainable Investing
- Climate 101: What Are Transition Risks? (6/9/2020); As companies begin to transition to more climate-friendly policies they may encounter the dilemma of mitigating new costs.
- Are Climate Models Reliable Investment Inputs? (2/25/2020): By understanding the links between human behavior and the laws of science, we can help companies mitigate the physical risks of climate change.
- Pricing Climate Risk: A Multidisciplinary Approach (9/6/19); Climate change presents both significant risks and opportunities for investors.
- Climate Change: The Forgotten Physical Risks (8/26/19); The damage inflicted by climate change through increasingly volatile weather patterns is rising quickly and is already significant for many companies.

Source: The Hartford

Support Links:

- Policy on Insuring, Investing in Coal, Tar Sands
- ESG Investment Policy Statement

Lloyd's / The Market / Tokio Marine Kiln / Disaster modelling and climate change

The exploratory scenario testing discussed in section 2.3 has highlighted the challenges with quantification of the risk and led to TMK further engaging with climate risk modelling solutions during the last year. TMK have undertaken exploratory work with a range of vendors looking at ways in which climate risk modelling can be embedded into our business strategy.

Insurance products innovation in response to climate change

Tokio Marine Kiln has been providing insurance support to new technologies which serve to work against climate change, as has been exemplified below for different classes of business.

In addition, TMK's Head of Innovation is a leading member of the Lloyd's Product Innovation Facility (PIF), which looks to explore risks that might not fit the traditional market such as risks relating to intangible assets or new technologies. TMK's strategy is to look to support initiatives that come from the PIF that benefit our ESG strategy, while independently developing products for areas that we don't see development of at the PIF.

Intellectual Property

Our Intellectual Property underwriters have naturally supported several innovations that align with our ESG goals, including around sustainability. TMK's efforts to continuously research and develop risk transfer in this area have enabled clients to move forward with environmentally sustainable technologies that otherwise would overburden their balance sheets with contingent liabilities, restricting their ability to pursue development of innovations that support the transition to a low carbon economy.

US Wildfire

TMK has had a recent focus on our underwriting of, and exposure to, US wildfire risk. TMK has developed an internal wildfire scoring and accumulation tool based on data from the USDA Forestry Service, that allows underwriters to assess property-level risk and overall accumulation in key geographical areas.

NZ Forestry

TMK insures clients that own forestry through a product in New Zealand. The forestry is left as standing timber, and therefore not cut down. In doing so, the forestry is eligible for carbon credits that provide an income stream for the forestry owner. We protect the owner if there was a change in the law that would remove this income stream. The risk coverage enables the client (and their bank) to remain confident that their decision to not cut down the forests is upheld with insurance that would indemnify them for lost income, should the law change.

Carbon Credit Eligibility

TMK insures a client for the risk that a Certified Emission Reduction (CER) would not be convertible into an EU Allowance. There is risk that this might not occur on a 1:1 ratio, thus devaluing the CERs that have been collected by the client.

Flood

TMK via WNC, its wholly owned subsidiary in the US, offers expertise in private flood program administration to meet specific coverage needs of single-family homeowners, commercial property owners and tenants, residential condominium associations and hard-to-place risks such as those located in a designated CBRA zone.

Unmanned Aerial System (UAS)

The UAS industry indirectly provides solutions that help counter climate change as they provide a greener alternative to operating a conventional aircraft, with many UAS systems operating via batteries and even solar power rather than the usual polluting fuels used in manned aircraft. With its leading expertise, TMK is supporting the increase usage of UAS through the coverages it provides.

In May 2015, TMK successfully launched the first comprehensive insurance product of its type for Unmanned Aerial Systems (UAS) in the Lloyd's market. The product, "One Unmanned" offers clients, ranging from UAS operators, manufacturers and service providers, protection under a single wording featuring multiple coverages, which the client can tailor to best suit the needs of their business.

In recognition of TMK's contribution to the industry, the "One Unmanned" product was shortlisted for the category "most innovative product" in the inaugural Lloyd's Innovation awards in 2015.

In 2017, TMK won an award at the inaugural Tokio Marine Group CSR initiative for all the group companies globally. The award recognised the UAS policy as a greener insurance product in various commercial sectors. The submission highlighted how carbon heavy practices such as helicopter flights are being replaced by UASs in various commercial sectors, reducing carbon emissions. TMK's product supports the increase in usage of UASs.

Source : Tokio Marine Kiln

4. Reduce the environmental impact of our business

4.1 Encourage our suppliers to improve the environmental sustainability of their products and services, and understand the implications these have on our business.

The Corporation of Lloyd's / Working across our supply chain

Year on year the Corporation of Lloyds seeks to build on its commitments to fully embed sustainable procurement practices with internal stakeholders and across its supply chain. The mission of the Group Procurement team at Lloyds is:

To deliver an effective and sustainable approach to all third-party sourcing and supplier management, with a clear purpose to support Lloyds Protect, Promote and Provide principles while achieving maximum value, minimising risk and driving efficiencies to invest in the future.

Through 2019-20 the focus of Group Procurement has been to continue to build on commitments to embed sustainable procurement practices both internally and across the supply chain.

There are several projects and activities underway to support the team in delivering this mission and to help drive efficiencies and process-improvements, including;

1. Continued development of 'Lloyd's Procurement Strategy' to include objectives such as:
    - To better manage supply chain risks and key supplier relationships
    - To develop sustainable Procurement capabilities and embedding best practices across the organisation
    - To support Corporation-wide strategic programmes, such as 'Setting Ourselves up for Success' and 'Future at Lloyd's'
    - To develop a robust and integrated approach to supplier management
    - To continue supplier rationalisation activities and development of preferred supplier lists for key spend categories, such as Group Technology and Corporate Real Estate
2. Continued development of 'Lloyd's Procurement Policy' which sets out policies and procedures concerning all third-party supplier expenditure, with a clear vision:
    - To demonstrate continuous improvement and the achievement of value for money through the effective procurement of goods and services to ensure the Corporation of Lloyd's needs and those of the Lloyd's Market.
    - To have a clear framework of accountability and responsibility that adopts legally compliant, best practice procurement procedures and techniques.
    - To build a diverse and competitive market that can supply the Corporation of Lloyd's and its service user's requirements and provide value for money.
    - To encourage communication and interaction with local and national suppliers to understand their views and what enables and encourages diverse parts of the market to bid for work with the Corporation of Lloyds.

- To develop a relationship between the Corporation of Lloyd's and the business community and the broader voluntary and community sector that creates mutually advantageous, flexible and long-term relations based on continuous improvement of quality of performance and financial savings.
- To ensure that our purchasing and contracting activities are ethically, environmentally and socially responsible; applying 'Lloyd's' principles around sustainable procurement, Responsible Business, Living Wage, Anti-bribery & Corruption, Diversity & Inclusion, Modern Slavery and other applicable ethical sourcing and environmental considerations.
- To ensure that our suppliers promote an inclusive culture for all and embrace diversity in the workplace.

3. Development and implementation of a Supplier Risk framework which sets out Lloyd's approach to supplier risk management.
4. Supplier rationalisation continues in an effort to optimise the Corporation of Lloyd's UK supplier base, bringing both financial and business improvement benefits to Lloyd's and its' suppliers, as well as enhancing the supplier/customer relationship; the supply base has been consolidated from approx 1,400 suppliers in 2017 to 560 suppliers in 2020.
5. We have commenced a review with Lloyd's global office network to assess materiality and provide oversight of Lloyd's global supplier base ; this work will continue through 2021 and 2022.
6. A Sustainable Procurement Statement was published in 2018 on Lloyds.com setting out Lloyd's mission to deliver a sustainable approach to third-party sourcing and supplier management; this statement forms part of Lloyd's Responsible Business Approach to support global economic growth, enabling human progress and help nations, businesses and communities recover post disaster by paying claims.
7. A Human Rights policy was agreed that reflects the Corporation of Lloyd's promise to work ethically and with integrity.
8. The Buying at Lloyd's platform was launched in 2019 enabling us to automate parts of the purchasing process and provide a self-service tool for business users requiring new goods and services.
9. The 'Supplier Code of Conduct' continues to be utlitised to communicate and set out the standards of business conduct which all suppliers are required to comply with; our goal is to work collaboratively with our supply chain partners towards a responsible business approach. The Supplier Code of Conducts is continually reviewed and has recently been updated to ensure it remains fit for purpose. The Code includes:

Environment
Recognising that sustainable businesses should acknowledge the planet's finite resources; the Corporation of Lloyd's expects its suppliers to support sound environmental management principles and reduce their impact on the environment within which they operate:

- Suppliers must have a written environmental/sustainability policy or equivalent, appropriate to the size and nature of the supplier's operations that, where applicable, addresses preventing, mitigating and controlling serious environmental and health impacts from operations including raw material usage, greenhouse gas emissions, water, waste, air quality and biodiversity
- Suppliers must have effective internal environmental management programmes with adequately trained staff responsible for managing the organisation's environmental performance. Suppliers must abide by all legislation and regulations related to the protection of the environment and the handling of dangerous and hazardous materials
- Suppliers must endeavour to use products which can be re-used, recycled, used in an energy efficient manner and which cause minimal environmental damage at all stages of the supply chain

Economic
Economic sustainability focuses on bringing economic benefit to the workers, businesses and communities in which a company operates. From an ethical perspective, commercial transactions should be economically beneficial to all parties involved and relationships should be based on the principle of fair and honest dealings, and sustainable development:

- Suppliers must embed basic business principles in their activities and conduct e.g. in a Code of Business Standards or equivalent. This should include acknowledgement and commitment to adhere to local laws and regulations
- The Corporation of Lloyd's expects suppliers to have policies and controls in place to mitigate financial crime i.e. anti-bribery & corruption and anti-financial crime polices

- Suppliers must ensure that they comply with UK, EU and all other applicable sanction regimes and obligations
- Suppliers must have and adhere to reasonable and lawful payment policies with their own suppliers and subcontractors
- Where suppliers are acting for and on behalf of Lloyd's, they must not engage in any form of bribery, including making facilitation payments or in any way facilitate tax evasion
- Where suppliers outsource aspects of their deliverables or processes, they must ensure that their supply chain or subcontractors comply with the requirements set out in this Code

Labour
The Corporation of Lloyd's is committed to the protection of human rights and is guided by fundamental principles such as the United Nations Universal Declaration of Human Rights, the International Labour Organisation (ILO) Core labour standards and the Modern Slavery Act 2015; the Corporation seeks to ensure there are:

- No human rights abuses throughout our supply chains by encouraging behaviours and practices that are consistent with these principles, including:
- A commitment to anti-slavery and compliance with the requirements of the Modern Slavery Act 2015, or equivalent
- Provision of a safe working environment, abiding by local Health and Safety laws
- Compliance with all applicable local wage and working hour laws
- A mechanism to enable individuals to raise concerns relating to wrongdoing or malpractice at work i.e. a Whistleblowing or Speaking Up policy

Diversity & Inclusion
The Corporation of Lloyd's supports the belief that a diverse workforce and inclusive organisation is intrinsically linked to improved business outcomes. As an employer it recognises the importance that equality legislation must play in promoting equality and eliminating unlawful discrimination; in striving for excellence it seeks to create an inclusive environment globally for all regardless of their gender, marital/civil partnership status, race, religion or ethnicity, disability, age, sexual orientation, gender reassignment or nationality.

The Corporation's suppliers will support and reinforce its commitment to providing an inclusive environment for its workforce. Suppliers are expected to provide the same inclusive opportunities to their workforce and we require commitment to the following:

- Compliance with all applicable local equality laws
- Zero-tolerance of any form of unlawful discrimination: promoting a workplace free from bullying, harassment, victimisation, racism or any other form of abuse
- Demonstrate a commitment to inclusion: drafting an equal opportunities policy that covers gender, marital/civil partnership status, race, religion or ethnicity, disability, age, sexual orientation, gender reassignment and nationality.
- Provide staff training covering equality, diversity and inclusion principles
- Provide evidence where requested, of how services are inclusive and accessible to all intended users, such as people with disabilities as well as people from all diversity groups

Wellbeing
The Corporation of Lloyd's takes a proactive approach to wellbeing; it plays a key part in building an inclusive culture. Organisations taking this approach can also benefit from improved employee retention and productivity.

We expect our suppliers to support the Corporations commitment to wellbeing and to take a proactive approach by implementing:

- Policies and initiatives to support wellbeing, including a healthy work and family balance
- the provision of employee benefits designed to enhance wellbeing; such as an Employee assistance programme
- mental health core standards as detailed in the Stevenson / Farmer review of mental health and employers

Information Security & Data Protection
The Corporation of Lloyd's recognises that Information Security is a business matter, not just an IT matter, and that it must reflect changes from several sources, notably organisational design, technology adoption, culture and regulatory and legal change.

Corporation suppliers must demonstrate compatibility with 'Lloyd's Information' security policies and standards. The details of this section are less relevant to reporting but are available to the reviewers on request.

Account Governance and Compliance
The Corporation encourages active engagement, strong account governance and open communication with its

supplier throughout the term of the engagement; suppliers are expected to:

- Actively support eProcurement, e-Invoicing, including as a minimum to accept PDF Purchase Orders and provide PDF Invoices via email. This allows a reduction in paper, drives security, accuracy and efficiency, and requires consideration about information and data security to be included to provide a full view of our supplier expectations.
- Take responsibility for ensuring that they keep the Corporation up to date with any changes to details including; VAT registered number, bank account details and address.
- Notify the Corporation of any changes to authorisations, company ownership, investigations and material risks and any other development that may impact their ability, capacity and authorisation to deliver.
- Sign and comply with the Corporation of Lloyd’s Non-Disclosure Agreement (NDA).

10. Scout our new e-procurement tool was launched in June 2020; this system will facilitate enhanced collaboration across the Corporation and it’s suppliers helping to simplify and expediate sourcing, contract approval, and supplier management processes. It will also improve access to quality data and enhance third-party risk management increasing transparency and oversight through greater visitbility. This tool will also enable us to communicate and update suppliers on changes to Lloyd’s policies and processes i.e. Supplier Code of Conduct, RFP documents and replace the requirement for hard copy contacts as stated below in point 14.

11. The Procurement team operates a continuous improvement and review programme including a review of all supplier sourcing documentation and polices. The ‘Lloyd’s Tender’ documentation is continually updated to reflect best practice; suppliers are asked to respond to a series of questions via Scout and to provide supplementary evidence on key sustainability issues, including Environmental Protection, Diversity and Inclusion, and as outlined above in the Code of Conduct material.

12. During post-tender supplier evaluation, the Corporation continues to consider and score suppliers on responses to sustainability questions; the weighting used when scoring sustainability factors at this stage depends on the products/services being procured; as an average the weighting is 0-10-15%.

13. In instances where sustainability factors have more of an impact on the products and services being procured, it may be necessary for the Corporation to follow up with a supplier site visit or request further clarification at presentation stage.

14. As above we have developed an electronic contract management system Scout,to store all supplier contracts. Utilisation of this system has removed the requirement for hard copy contracts which were previously stored in a vault.

15. Centralised ownership of the Corporation of Lloyd’s Travel policy and Stationery provider;; employees are continually encouraged to make use of video and tele-conferencing facilities wherever possible.Lloyd’s has seen a significant reduction year-on-year in the number of flights taken and a reduction in the Corporation’s carbon footprint.

16.The Corporation of Lloyd’s seeks to involve its in-house suppliers in the development of annual environment action plans where appropriate. The full plans have been shared with the reviewers and contain 22 headline initiatives with associated environmental impact targets across energy management, Group Technology, employee engagement, travel and suppliers; some of the key highlights for this reporting year include:

- In 2019 during World Environment Day, Lloyd’s ran an initiative in the food hall to raise awareness of recycling by encouraging staff to take action at work and home to help reduce our impact on the planet
- Over the last year Lloyd's in-house catering provider in London has been working hard to reduce our footprint through a number of initiatives:
- Reducing deliveries in London by 2 per week and in Chatham by 3 per week
- The reusable cup initiative has been a great success, with approximately 15% of customers in 2019 using personal cups, rather than the use a disposable cup
- Operating a software-based waste management system, which enables Lloyd’s to track all wastage by weight and category, to predict trends and reduce food wastage
- Introduction of Friday salad give away. Customers are offered a great reduction on salad items that would not be suitable to save for Monday. This has been greatly received and has further reduced Lloyd’s food waste
- Introduction of carbon footprint (car miles) displayed on menus in the food hall, providing customers transparency on food choices and the impact on the environment
- Replacing plastic bags in the Lloyd’s shop with paper carrier bags

We work hard to reduce our energy consumption and associated carbon emissions through the course of each year. Given the majority (91%) of our emissions are from the UK, our energy and carbon reduction activities are focussed on our London headquarters. During 2019 we:

- Replaced heat pumps, testing and replacing VSDs (variable speed drives) in the air handling units in the Lloyd's building conditioning systems. Both measures will save energy and increase staff comfort going forward
- Commissioned LED lighting replacements in 3 Galleries of the Lloyd's main building, as part of our Better Working Environment (BWE) project. This will reduce our building lighting load and should be visible as a carbon reduction during 2020
- Installed eco-friendly urinals throughout our London headquarters have been producing water savings of over 50% since installation – the impact of this measure can already be seen in our UK emissions from water in 2019 (38 tCO_2e in 2019 compared to 48 tCO_2e in 2018)
- Switched car from petrol to hybrid in our post room operations, reducing our carbon emissions

The cleaning team are extremely aware of the importance of reducing our carbon footprint and have introduced a number of initiatives to support this goal.

- Stabilized Aqueous Ozone, which reverts to water and oxygen and can be disposed of via drains without negatively impacting our waterways. It is also harmless to the environment when disposed of and is 'Green Seal' certified
- The hand soap has been changed for a liquid brand and we refill bottles. We have also replaced existing towel rolls with paper towel rolls. This avoids cross contamination and saves space
- The aerosol air fresheners have been replaced with OXY-gen - the worlds most eco-friendly air freshener system, which is a new medical grade innovation that harnesses the power of pure oxygen to deliver continuous, consistent ambient fragrance
- Ceramic e-Mission Control has been introduced as a trial on the lifts, which deliver solutions on multiple levels, ranging from environmental impact to health & wellbeing. ECC coatings have been designed to work on a wide range of materials, to deliver high performance photocatalysis and long-term protection and enhancement. TiO2 coated surfaces convert high volumes of pollutants from the air to clean air, delivering more efficiency than that of trees. The coatings can also help to protect and extend the life spans of building assets, by reducing general wear and tear and corrosion

A key target for Lloyd's in 2020 is for certification to ISO 14001 (International Environmental Management Standard), which has resulted in a full review of our environmental management system to ensure compliance with the standard. Our external certification body BSi have completed Stage 1 assessment, and will be conducting Stage 2 assessment late September.

Examples of our current environmental targets, which are overseen by the Health, Safety and Environmental Coordination Group (HSECG) are:

- Execution of water saving projects – Installation of sensor taps in toilets during refurbishment works
- Installation of LED lighting – This has been completed throughout the ground floor (underwriting room) and on Gallery 5
- Upgrade of chiller and boiler controls

The Covid-19 situation has created some challenges for Lloyd's; however, in April we saw the following:

- Total building electrical consumption was lower when compared to the previous year (33%) and previous month (28%).
- Gas consumption was less than predicted based on heating degree day (HDD) data.
- Cooling consumption was less than predicted based on cooling degree day (CDD) data.
- Water consumption has decreased by ≈ 50% since October 2019

Forward planning

The Corporation of Lloyd's reviews the coming year's options to expand reporting across all offices, and therefore further improve the accuracy of the Corporation's carbon footprint. This plan comes in part from the Health, Safety and Environmental Coordination Group, which meets every four months to develop and monitor progress against an environmental action plan for the Corporation.

Meetings in 2020 are scheduled at the beginning of the year, and the group has met in January, April, and July with a further meeting scheduled for October. Activity, minutes, and all documentation is shared within the group in a SharePoint area available to the group. The full list of activities has been provided to the reviewers and details will be shared in the next reporting year when they become public.

Lloyd's / The Market / ArgoGlobal / Vendor Management

Argo Group recognizes that our supply chain is a key component of our environmental sustainability performance; we work with a range of suppliers and outsourced partners to maintain our operations.

Argo Group is committed to improving business results through mutually beneficial partnerships, programmatic performance analysis, vendor governance, reporting, and continuous improvement. Our approach to managing vendors is to establish, maintain, monitor, and evaluate vendor relationships to reduce risks, contain and reduce cost, and achieve greater levels of collaboration in the delivery of competitive advantages to the company. Proper vendor management means conducting thorough due diligence during the selection of new vendors, continuous monitoring activities and management oversight of existing vendors, and proactively managing contracts before the end of renewal periods. Therefore, we have made our commitment public by publishing our Vendor Management Policy and will provide updates on implementation over time.

Our vendor management framework consists of a governance structure to set expectations and provide oversight, direction, thought leadership and accountability, and a policy that provides the foundation of principles, rules, and guidelines for the vendor management process. The Vendor Management Governance establishes vendor decision making rights and creates accountabilities to ensure optimal performance, compliance and risk mitigation to our business and the environment. The Vendor Management Office is responsible for overseeing the implementation and reviews of the vendor management reporting and the ongoing monitoring of performance and risk.

To complement our Vendor Management Policy, we have drafted a Vendor Code of Conduct. The code of conduct document, which is expected to be published in Q4, further emphasizes a commitment to legal, ethical, safe, fair, and environmentally responsible business practices.

Source: ArgoGlobal

Lloyd's / The Market / Beazley

Beazley's Environmental Policy sets out our commitment to continual improvement of environmental practices. This includes: managing its environmental aspects; seeking to reduce adverse impacts arising from office based activities and business travel; and preventing pollution. There is also a commitment to provide appropriate resources as required in order to enable the organisation to meet the environmental objectives Beazley sets. The policy is signed by Beazley's CEO Andrew Horton and is communicated to all employees through the company's intranet, employee induction and training. Where appropriate, our internal and external stakeholders are required to acknowledge and adhere to the Beazley Environmental Policy and relevant operating procedures.

Our Procurement Policy also requires potential service providers to supply information on programs or policies to improve their environmental performance when responding to RFPs.

Environmental and sustainability assessments are done on an "as and when" basis for new initiatives (ie design and fit-out of new offices) or when reviewing existing processes (through meetings with the Responsible Business Committee) or by individual teams being proactive. Due to the nature of Beazley's emissions, one of the best methods to reduce our emissions is to move offices to newer and more sustainable facilities. In London, we expect to be able to move to our new offices at 22 Bishopsgate in early 2021 (delayed due to COVID-19). The development is currently being built to a BREEAM 'Excellent' standard and will also achieve a WELL certificate. Standards such as these, as well as the US Green Building Council's LEED methodology are an important part of our decision making when it comes to upgrading offices. The standards incorporate a number of technologies and initiatives i.e LED lighting, and minimisation of waste which we consider essential for a responsible business. As part of the fit out process, Beazley has also prioritised sustainability as part of the criteria when selecting materials in our fit-outs and furniture choices. We also focus on local suppliers to ensure we can contribute to the communities in which we are based.

Beazley's Environmental Working Group, which is a collaboration by staff from our worldwide offices, also plays an important role in delivering sustainable improvements in each of our offices. Initiatives have included:

- Increasing the size of milk carton in a London office to help reduce waste and carbon emissions associated with travel
- Changeover of photocopier paper in London and Birmingham to 100% recyclable.
- Eliminated the use of non-recyclable plastic plates and plastic utensils in favour of paper plates and wooden utensils, which are biodegradable.
- Reducing paper usage in our offices
- Sourced environmentally friendly cleaning products for Beazley offices.
- Introduction of alternative milk options (soya, almond) in all US offices and London and Birmingham offices

- Removal of waste bins in our London office and increased opportunities for recycling provision
- Working with our lunch and food delivery suppliers to identify the opportunities to reduce non recyclable materials. This encouraged the supplier to change their packing and we now receive deliveries in packaging which is compostable.

Our Responsible Business Marketplace workstream is focused on considering how climate change and wider sustainability issues impact our business, at every level from procurement through to underwriting and investment. Led by the Sustainability Officer, a review of the climate related risks and opportunities will also determine where product innovations could incentivise better environmental and social outcomes. This approach will be developed over the next year.

Evidence also applies to principle(s): 4.3

Source: Beazley

Lloyd’s / The Market / MS Amlin

MS Amlin Procurement has a supplier code of conduct (see *Supplier Code of Conduct*) which is put in place with suppliers as they are on-boarded into the organisation. The code of conduct includes a statement on Environmental Standards, requiring suppliers to comply with applicable laws and regulations. The MS Amlin Procurement Policy is under review and will be updated later this year and the intention is to include a statement related to environmental issues when considering new supplier relationships and product purchases.

MS Amlin’s supplier due diligence process includes questions about a supplier’s compliance with environmental laws and regulations and a review of supplier’s environmental policy. Should this due diligence highlight any concerns, MS Amlin would address these with the supplier with a view to resolving or may result in selecting an alternative supplier.

Where feasible, MS Amlin works with suppliers to identify energy efficient products, this has been demonstrated during our selection of the new standard of laptop, where energy efficiency has been considered as part of the selection process and will lead to an overall reduction in energy consumption. MS Amlin has also undertaken a review of its datacentre services with a view to reducing energy consumption and has implemented a number of changes to realise this.

Source: MS Amlin

Lloyd’s / The Market / QBE / Supply chain engagement on environmental sustainability

Following the introduction of our Supplier Sustainability Principles, in 2019 we:

- Implemented a remote claims adjustment program helping to reduce our carbon footprint through reduced fleet use across our North American Operations.Partnered with the Qantas Future Planet program to deliver an impactful global employee engagement initiative. 75% of our global scope 3 emissions relate to air travel, and Qantas is our preferred airline for our Australian Division and Group Head Office functions. Our engagement initiative included selection of offset projects in each of the key geographies in which we operate, to support employee connection to the individual offset projects and provide hands-on employee engagement within each Division. For example, we arranged for one of our AUSPAC Executives and an employee to participate in the Babinda Reef experience, which involves the rehabilitation of native rainforests and wetlands, which act as a natural water filter protecting the Reef from run off.

Our procurement team aims to deliver value for money in a responsible and sustainable manner, with a focus on minimising operational risk when negotiating and interacting with suppliers. We are doing this by developing third party risk management practices that include considerations for suppliers’ ESG practices.

QBE Group’s procurement teams aim to deliver business value in a responsible and sustainable manner, with a focus on minimising operational and supply chain risk when interacting with suppliers.

Aligned to our Supplier Sustainability Principles, we are commencing a process to integrate sustainability considerations as part of procurement. We seek to engage suppliers and partners who share our understanding and commitment of developing sustainable supply chains for our regional and global communities, and who will work with us to achieve these objectives, where relevant and applicable for our strategic relationships.

The Supplier Sustainability Principles are referenced as part of our supplier agreement templates (including our Global Services Agreement template). In North America, as part of the 'Request for Proposal' process, we include questions on environmental initiatives and metrics that the supplier tracks.

In Australia Pacific, we worked on utilising our supply chain decisions to support diversity and financial inclusion through our partnerships with:

- **Social Traders** – Australia's leading organisation connecting social enterprises with social procurement opportunities;
- **Supply Nation** – Australia's leading database of verified Indigenous businesses; and
- **WEConnect International** – a global network connecting women-owned businesses to qualified buyers around the world.

During 2019, we were able to work with these partners to enter diverse supplier relationships equating to A$425,000 of spend. We also promoted sustainable travel by integrating sustainability considerations into our accommodation-sourcing activities.

QBE Euopean Operations undertook a Baseline Environmental Review in order to:

– identify the key aspects and impacts associated with the physical assets under our control;

– identify relevant environmental performance metrics; and

– inform the development of our approach to environmental sustainability performance management and reporting.

QBE EO monitor our environmental performance on an on-going basis using a range of metrics aligned with our key environmental aspects and impacts.

QBE EO considers environmental sustainability during procurement. In addition to consideration and engagement during procurement, QBE EO also engages with those supplies and service providers associated with our environmental performance metrics on an at least quarterly basis to collect and collate activity data to support our on-going environmental reporting. We regularly and routinely remind our suppliers of the importance of sustainability performance during quarterly activity collection e.g. environmental and sustainability credentials of paper purchased, information to support calculation of GHG emissions associated with business travel etc.

Key areas where we engaged with our suppliers during 2019 include:

– Office environmental performance

QBE leased a new office, Exchange Tower, during 2019, with fit-out during December / January and staff relocated from our 88 Leadenhall and Plantation Place offices during February 2020.

The Exchange Tower office is more efficient than the older offices [further details requested].

QBE considered environmental performance / sustainability during its selection, specfifying a minimum BREEAM excellent rating.

– Energy Consumption

During 2019, in line with QBE's global commitment to 100% renewable electricity (see Q4.3, the RE100 initiative) we implemented a policy of transferring our electricity supply contracts to 'green tariffs', using electricity from certified renewable sources. Four of our UK offices (accounting for 64% of QBE EO's 2019 UK electricity consumption) are currently on 'green tariffs' with our other UK offices scheduled to transfer by April 2021.

In addition to using electricity from renewable sources we have also undertaken audits of energy consumption by our offices and transport fleet to identify opportunities to reduce consumption or improve energy efficiency (See Q4.3, ESOS compliance).

– Reducing Waste

QBE EO implemented several initiatives to reduce the amount of waste generated by our offices.

Staff at our London offices were issued with a reusable plastic cup and a reusable stainless steel water bottle to replace single use / disposable cups were removed from the offices. QBE engaged with the manufacturer of the reusable cups to discuss various aspects of their sustainability including; the source of the materials used in their construction (recycled), the cups expected functional life, the manufacture's policy for repairs and replacement of faulty cups and their end of life management. A product life cycle assessment was also requested, however, this was not available at the time of purchase.

Sources:

QBE EO, Environmental Report, 2019. QBE's 2019 Sustainability Report, available on the internet at: https://www.qbe.com/about-qbe/sustainability. QBE, Our Approach to Climate Change, available on the internet at: https://www.qbe.com/about-qbe/sustainability/climate-change

Evidence also applies to principle(s): 1.2, 4.2, 4.3, 4.4

Source: QBE Sustainability Report 2019 (p.57).

Lloyd's / The Market / The Hartford

The Hartford has implemented several initiatives to ensure our supplier partners share our commitment to environmental stewardship.

– An enhanced supplier request for proposal process includes a series of sustainability questions each supplier under consideration must address that are used to measure each potential supplier's sustainability practices. The data collected helps to guide sourcing decisions informally. The Hartford is currently building a more formal process that weights these sustainability questions and influences the "supplier score" that ultimately impacts The Hartford's supplier selection.

– For suppliers with a contract currently in place, The Hartford partners with strategic suppliers with the largest spend to better understand their sustainability practices, including climate related initiatives.

  Information sharing sessions with strategic supplier partners occur at various points throughout the year, both as in-person working sessions as well as collaboration calls. Relationship managers, members of corporate sustainability teams and other subject matter experts based on the topic(s) covered join these discussions from both organizations. These meetings serve as an opportunity to learn from each other and share best practices regarding program success, implementation challenges, reporting requirements and other sustainability-related topics as appropriate.

  The Hartford also collects information and documentation related to the sustainability practices of our top suppliers with more mature sustainability programs (annual sustainability report, vendor Code of Conduct, ESG Scorecard, etc.).

Source: The Hartford

Lloyd's / The Market / Tokio Marine Kiln / Sustainable procurement

TMK commissioned an independent external consultant (Scott Wilson) to undertake a Baseline Environmental Review in 2010 in order to:

– identify the key aspects and impacts associated with the physical assets under our control;

– identify relevant environmental performance metrics; and

– Inform the development of our approach to environmental sustainability performance and reporting.

We monitor our environmental performance on an on-going basis using a range of metrics aligned with our key environmental aspects and impacts.

TMK considers environmental sustainability during procurement. In addition to consideration and potential engagement during procurement, TMK also engages with those supplies and service providers associated with our environmental performance metrics on a regular (at least bi-annual basis) to collect and collate activity data to support environmental reporting. As a result of the information requested (e.g. environmental and sustainability credentials of paper purchased, information to support calculation of GHG emissions associated with business travel) we regularly remind our suppliers of its importance to TMK.

Key areas where we engaged with our suppliers during 2019 include:

Office environmental performance

TMK has a representative on the Building Management Group for 20 Fenchurch Street and continues to look at ways to improve the environmental efficiencies of the building.

Energy Consumption

During 2019, TMK commissioned Energy Savings Opportunities Scheme (ESOS) audits of our offices at 20 Fenchurch Street and our IT infrastructure at the Sungard Data Centre (Guildford). We are currently considering the recommendations made and opportunities to reduce energy consumption or improve energy efficiency arising from these audits.

Paper Consumption

- All copier and printer paper was purchased by TMK during 2019 was from FSC certified sources.

- All headed paper purchased by TMK during 2019 was from FSC certified sources.
- All paper used to produce our Annual Reports and brochures by a design agency, was from FSC certified or recycled sources.

Waste Management

TMK works with a number of service providers to manage our waste. More than 70% of our waste was reused or recycled during 2019. Our success in this area is evidenced by our 2019 waste statistics, which are summarised in the table below.

Waste Stream	TMKG 20 Fenchurch Street Waste Arisings / kg	Waste reused or recycled / kg
Mixed Dry Recyclables (General office waste)	28,011	28,011
Food Waste (General office waste)	19,500	19,500
Residual Waste (General office waste)	23,115	0
Glass waste	335	335
Confidential waste*	17,215	17,215
Time Served Archive Material	3,752	3,752
Waste Electrical and Electronic Equipment (WEEE)*	490**	490**
Toner Cartridges	8	8
Computer Keyboards*	36	
Batteries	10	10
TOTAL / kg	**92,472**	**69,321**

* No 2019 data submitted for confidential waste, WEEE or computer keyboards – associated waste streams are assumed to be unchanged from 2018.

** Reported WEEE is for TMKG in the UK as whole and includes waste from other TMKG UK locations e.g. the SunGard data centre.

Given Covid-19 where all our employees have been working from home since the end of March, we expect significant reduction in energy consumption and waste in 2020.

Source: Tokio Marine Kiln: TMK Facilities Management.

4.2 Disclose our Scope 1 and Scope 2 GHG emissions and Scope 3 GHG emissions using a globally recognised standard.

Lloyd's / The Corporation of Lloyd's

2019 marks the sixth year in which the Corporation of Lloyd's is reporting the GHG emissions inventory of international offices in addition to that of the UK, and sees those hubs continuing to engage with their resource consumption. These are supported by activities forming the responsible business strategy, with tracking in the Health, Safety, Environmental Coordination Group (HSECG) (principle 1.2).

These figures are reported publicly in the Corporation of Lloyd's annual and strategic reports, and made available online in the environmental section of the public website.

Methodology

The GHG accounting and reporting follows principles of relevance, completeness, consistency, accuracy and transparency. Avieco applies these principles when collecting, reviewing and performing the GHG emission calculations as part of: defining organisational and operational boundaries, verifying the integrity of data, checking the data audit trail and finally performing the calculations.

The Corporation of Lloyd's continues to use the operational control approach for defining the scope of its GHG emissions inventory and calculate total direct Scope 1, 2 and major Scope 3 emissions. Reported environmental data covers 100% of contracted staff worldwide; the review includes all the Corporation's entities that meet the criteria of being subject to control or significant influence of the Corporation.

As 2019 is only the seventh year the Corporation is reporting on emissions from its international offices, data on some emissions sources remains challenging to obtain, and therefore was excluded from the Corporation's overall GHG emissions summary for 2018: refrigerants, company owned/leased vehicles and national rail from non-UK offices.

Consistency

In order to ensure comparability, Avieco has continued to use the same calculation methodologies used in previous years. The Corporation has dual reported for scope 2 emissions in 2019, in line with changes with the WRI Greenhouse Gas Protocol, for the third time. The location-based scope 2 total has been used to report the Corporation's total GHG emissions to ensure a consistent approach with previous years.

The data for 2019 was collected, verified and calculated in accordance with the requirements of the following standards:

– World Resources Institute (WRI) Greenhouse Gas (GHG) Protocol (revised version)
– ISO 14064 part 1, and
– Defra's Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance, June 2013

The emissions have been calculated using the Defra 2019 conversion factors. This work is partially based on the country-specific CO^2e emission factors developed by the International Energy Agency, © OECD/IEA 2019 but the resulting work has been prepared by Avieco and Lloyd's and does not necessarily reflect the views of the International Energy Agency.

For more insight into the quality and reliability of the Corporation of Lloyd's GHG emissions inventory please visit the opinion statement issued by Avieco on the Lloyd's website.

Results

The Corporation of Lloyd's total reported GHG emissions from all business activities in 2019 were 8,363 tCO2e tonnes of CO_2e consisting of:

GHG emission tracking

	Scope 1 (tonnes CO^2e)	Scope2 (tonnes CO^2e)	Scope3 (tonnes CO^2e)	Out of scopes (tonnes CO^2e)	Lloyd's total 2019 GHG emissions (tonnes CO^2e)	Lloyd's total 2018 GHG emissions (tonnes CO^2e)
UK	1,312	4,578	1,739	<1	7,629	8,840.8
International offices	-	642	92	-	734	890.9
					8,363	9,730

As in 2019, the Corporation of Lloyd's continue to dual report scope 2 emissions emanating from electricity consumption. Location-based scope 2 emissions are calculated using a conversion factor based on the average grid mix in each location (issued by Defra in the UK).

Market-based scope 2 emissions are calculated using a conversion factor specific to the electricity purchased by the Corporation. Scope 2 location-based and market-based emissions are shown in the table below:

Scope 2 location-based emissions[i]

	Scope 2 – location-based (tonnes CO^2e)	Instrument type	Scope 2 – market-based (tonnes CO^2e)	Instrument type
UK	4,578	National grid average emission factor (issued by Defra)	0	Supplier emission factor (100% renewable energy used)
International offices	642	Various national grid average emission factors (issued by Defra & International Energy Agency)	670	Various national grid average emission factors (issued by Defra & International Energy Agency)
Total	5,220		670	

The Corporation's total location-based scope 2 emissions are 5,220 tCO2e whilst market-based scope 2 emissions are 670 tCO2e.

95% of electricity consumed globally, all of which is used in the UK, is sourced renewably as a result of KPIs from 2016 where the supplier contract has been renewed, and therefore has an associated conversion factor of zero.

To avoid confusion and ensure a consistent approach with previous years, the Corporation has chosen to report location-based emissions, which is the methodology used to calculate historical scope 2 emissions since 2007.

Scope 1, 2, 3 reductions from 2013 baseline

- Scope 1: 20%
- Scope 2: 48%
- Scope 3: 31%

A further breakdown of the Corporation's emission performance is detailed below:

- Scope 1 emissions have reduced by 26% since 2017 and 20% compared to the 2013 baseline. The 24% reduction in our total global scope 1 emissions this year is related to reduced usage of liquid fuels in our estate and a 3% reduction in natural gas usage in the UK.
- Scope 2 emissions, comprised of global electricity emissions, have fallen by 16% compared with 2018 and 48% since the 2013 baseline year. 91% of Lloyd's electricity consumption occurs in the UK. This year we have achieved a 13% reduction in our location-based emissions from electricity. The primary driver for this reduction is a 4% reduction in electricity usage in our London headquarters and the decarbonisation of the UK grid by 10% compared to 2018.
- Scope 3 emissions fell by 40% on 2017 and by 31% relative to the 2013 baseline. Our selected supply chain emissions have reduced by 8% in 2019. This is the aggregate impact of a 9% increase in flights offset by reductions in emissions from paper (related to changes in consumption and conversion factors), water and our third-party data centres

For more insight into the quality and reliability of our GHG emissions inventory please access the opinion statement issued by Avieco on the Lloyd's website.

Evidence also applies to principle(s): 1.2, 4.3

Source: The Corporation of Lloyd's

[i] All totals have been rounded to the nearest whole number

Lloyd's / The Market / ArgoGlobal

Greenhouse Gas Emissions Data

In previous years, ArgoGlobal has only provided to ClimateWise its UK footprint. However, for 2019, Argo Group launched a group-wide initiative sponsored by the Sustainability Working Group to capture, analyse, and report our Greenhouse Gas (GHG) emissions.

This GHG inventory and details on our methodology have been published on our external website.

- https://d1hks021254gle.cloudfront.net/wp-content/uploads/2020/06/2020-GHG-Data.pdf

With 2019 as our base year for calculation greenhouse gases, our methodology for measuring carbon footprint is evolving, and some data gaps do exist. We used the ISO 14064-1 greenhouse gases-part 1: specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals, to quantify, monitor, report, and verify our Scope 1 and Scope 2 GHG emissions.

Scope 1 emissions calculation was based on a small fleet of company-owned cars. In the absence of data mileage, we made conservative estimates to calculate our CO2. Scope 2 emissions were exclusively from purchased electricity and represented 93 percent of our Scope 1 and 2 emissions.

Our organization is made up of multiple facilities, our GHG calculation was based on the equity share approach. As a global company with operations in different jurisdictions we determined our GHG inventory across 40 locations.

Should there be any changes to the qualitative and/or quantitative criterion used to define or any significant changes to the data, inventory boundary, methods, or any other relevant factors, we will recalculate the base year. A significance threshold that triggers a base year emissions recalculation will be disclosed.

Efforts were made to find the appropriate internationally recognized sources for all global emission factors, and where it was not possible, comparable conservative estimates were made. Assumptions made in the calculations of emission factors also contribute to the variations in the data that may to the base year being recalculated.

We recently drafted our scope 3 calculations for the entire group based on 2019 air travel and hotel stay data. A summary of the findings has been forwarded internally for senior management to review. A proposal for a travel reduction of 33% has been put forward as a new target for air travel in 2021.

Creating New Standards and Streamlining Processes

Obtaining our 2019 baseline GHG emissions proved to be problematic at times. The exercise of collecting utility invoices for purchased electricity was challenging. Some landlords proved to be not as forthcoming or could not provide the data. There were additional complexities around office space where shared meters calculated the kWh for multiple tenants.

These issues have been taken into consideration, and we have proposed new solutions that will be built into lease renewals and or terminating leases when they are due to expire in search of buildings that are BREEAM or LEED-certified. We have also streamlined the process internally, staff that managed the local utility statements can now drop those documents in a shared drive. This eases the administrative burden of collating the information in future years and will lead to improvements in data capture and quality Previously ArgoGlobal did not report on group-wide emissions solely because there was not a dedicated resource to undertake the project. Since the appointment of the Sustainability Analyst, this is now part of her remit.

Argo Group GHG Inventory Overview

All figures in the table below relate to Argo Group.

ArgoGlobal rents a number of desks in the Room at Lloyd's - these have not been included in the table below because they fall completely within the operational control of Lloyd's and have been included within their GHG inventory.

	(t CO_2e)	Comment
Scope 1: Direct Emissions		
Company Owned Vehicles	123	Argo Group has a small fleet of 27 cars in the US
Scope 2: Indirect Emissions		
Purchased Electricity	1,783	Data collected group wide
Scope 3: Indirect Emissions		
Employee Air Travel	4,135	Data collected group wide
Employee Hotels Stays	392.70	Data collected group wide
TOTAL (Scopes 1, 2 and 3)	6,433.70	

Flights

FTE	Carbon Emission (metric tons / FTE)	Trips	Spend	Mileage
1,470	2.81	7,168	$6,157,388	13,749,178

Hotels

FTE	Carbon Emission (metric tons / FTE)	Total Carbon Emission (metric tons)	Spend	Hotel Nights*
1,470	0.27	392.70	$2,231,082	10,000+

*assumption made based on given data and estimates made on hotel trips

Source: ArgoGlobal

Lloyd's / The Market / Beazley

Beazley has been completing GHG reports annually since 2008, in compliance with legal requirements. These are publicly available on our website in our annual report. The data is collated and reported by a third party consultant to verify the data, and is detailed in a separate Green House Gas report for detailed analysis. The annual report also receives third party verification. Beazley's emissions are considered low, as we operate from a small number of offices, where arrangements with Landlords means that emission fall under their jurisdiction. Over the past couple of years Beazley has relocated to new premises in a number of locations. This has made it very difficult to provide a meaningful baseline from which to set a target.

Our focus over the coming year will be to expand the data available, provide further detailed analysis of areas where our biggest improvements in Greenhouse Gas Emissions can be achieved and develop a metric by which targets for reductions can be set. The data will also be normalised, to enable comparisons with similar companies. This will enable the context in which targets are set to be reported against and provide additional focus for employees.

Source: Beazley

Lloyd's / The Market / MS Amlin

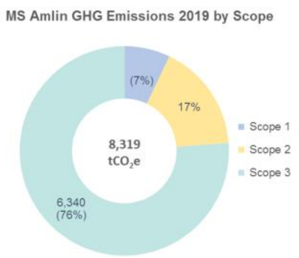
1. Disclosing greenhouse gas emissions

Responsibly managing the environmental impact of our global office portfolio is one of the key pillars of our approach to operate MS Amlin's global office portfolio. MS Amlin recognises that the operation of our office portfolio to service clients includes the generation of carbon emissions, in addition to other key environmental impacts.

MS Amlin quantifies and reports (see *Environmental Reporting Criteria 2019*) greenhouse gas emissions (GHG) according to the *Greenhouse Gas Protocol Corporate Standard,* the International Energy Agency (IEA) emission factors, and the *UK Government 2019 Environmental Reporting Guidelines.*

MS Amlin consolidates its organisational boundary according to the operational control approach. In cases where data was not available, this has been estimated using either extrapolation of available data using floor area from the current reporting period or data from the previous year as a proxy.

The graphs below indicate the emissions categories included in the Scope 1, 2 and 3 carbon emissions and our performance during the reporting year ended 31st December 2019[m]. In 2019, MS Amlin emitted a total of 8,319 tCO_2e. Of this, 591 tCO_2e of Scope 1 direct emissions were emitted from the combustion of fuels and through fugitive emission releases from the portfolio. Through electricity purchased for our own use (Scope 2), we emitted a total of 1,387 tCO_2e[n] on a location-based approach and 125 tCO_2e on a market-based approach. Scope 3 emissions from our purchased goods and services, business travel and employee commuting amounted to 6,340 tCO_2e.



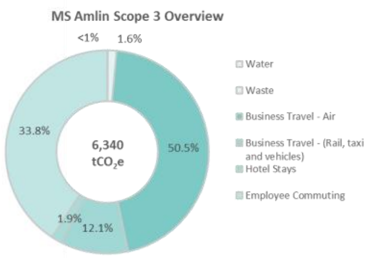


Table 1 below highlights MS Amlin's efforts to improve the impact associated with carbon emissions from MS Amlin's

[m] Scope 1 includes direct carbon emissions from our use of energy from fuels and refrigerant gas refills of office HVAC systems.
Scope 2 include indirect emissions from the use of purchased electricity across our own buildings in the portfolio.
Scope 3 includes indirect emissions from business related travel (incl. air, rail, vehicle and hotel stays), employee work-related commuting, waste generation, paper and water consumption.

[n] Represents location-based emissions.

global office portfolio. In 2019, total carbon emissions impact had reduced by 13% since 2018. This was driven by the following trends:

MS Amlin total 2019 Scope 1 & 2 emissions decreased by 2.13%, attributed to

– Increased gas usage across certain European offices
– Reduced emissions from electricity consumption across the global property portfolio, using in-country decarbonised electricity sources
– Consolidation of our floorspace to mirror our operational requirements across the portfolio, including the disposal of office space in London, Glasgow, Hamburg, and Bermuda.

-

There was a 16% decrease in overall Scope 3 emissions in 2019, driven by the following key trends:

– 11% decrease in emissions from business travel in conjunction with the implementation of our strict travel policy, leading to decreased air and road miles travelled and out-of-town hotel stays.
– 26% decrease in emissions from employee commuting.
– Better oversight of emissions arising from waste due to improved data coverage & data collection for reporting.

Table 1: Historical carbon emission performance metrics

	2019	2018	2017	2019 Scope 1, 2 & 3, as % of Total emissions	2019 vs 2018 change
Scope 1 emissions (tCO_2e)	591	558	499	7%	5.99%
Scope 2 emissions (tCO_2e)	1,418	1,503	2,076	17%	-5.23%
Scope 1 & 2 emissions (tCO_2e)	**2,009**	**2,061**	**2,575**	N/A	**-2.13%**
Scope 3 emissions (tCO_2e)	6,340	7,549	10,930	76%	-16.02%
Total Scope 1, 2 & 3 emissions (tCO_2e)	**8,349**	**9,610**	**13,505**	N/A	**-13.08%**

We will continue to closely monitor our carbon emissions performance annually to track future performance against strategic reduction targets set to benchmark and support the management of our environmental impact.

2. Emissions reductions targets

In-line with MS Amlin's commitment to support society's response to the impact of climate-related issues, a strategic evaluation of our global office portfolio was undertaken to identify opportunities in support of reducing our environmental impact, and strengthen alignment with the sustainability ambition of our parent company MS&AD.

The outcome of the exercise was the development of a suite of draft short, medium and long-term energy and carbon emission targets up to 2030. These aim to guide our efforts to reduce emissions through the efficient operation of the estate and adapting the workplace behaviour of our employees across MS Amlin's global portfolio.

The targets and roadmap described below were prepared pre-covid19, and will be reviewed in due course in accordance with government and international guidelines on the pandemic, and the resultant changes in the company's policy.

The draft short-term reduction targets include a 5% reduction in our overall energy consumption across our portfolio by the end of 2021. MS Amlin also recognises that business-related travel represents a significant source of emissions associated with our business. Consequently, MS Amlin has` prepared a draft short-term travel focused target to achieve a 10% reduction in air travel emissions by end of 2021. This reduction target is complemented by our commitment to support employees to reduce emissions associated with their work-related commuting.

These draft short-term energy and emission reduction targets were approved by the MS Amlin Business Services Board in 2020 and are currently under review by our respective entity boards. Following the approval of our draft short-term targets, our draft medium and long-term energy & carbon emission reduction targets will be presented to the entity boards for review for approval.

These draft targets build on the aspiration of the short-term targets to achieve the following reductions:

– A 20% reduction in energy consumption across portfolio by end of 2025.

– Further aiming to reduce the impact of our air travel, with a 20% reduction in air travel emissions by end of 2025.

- Support Amlin employees to achieve a 10% reduction in emissions associated with commuting to work by end of 2025, and
- MS Amlin's long-term aspiration is to achieve a 40% reduction in Scope 1 & 2 carbon emissions across portfolio by end of 2030, whilst setting of a net-zero emissions reduction target up to 2030.

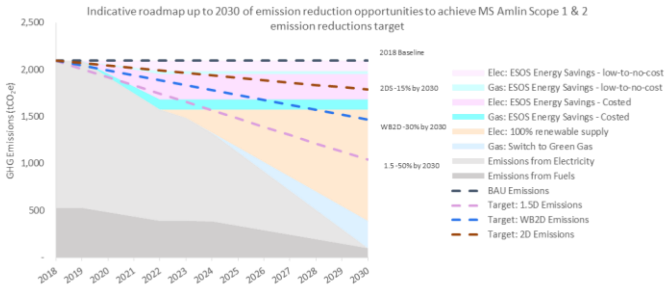
MS Amin anticipates rolling out these targets out across the portfolio over the next two years.

The development of our draft long-term Scope 1 & 2 emission reduction target was informed by the Science Based Targets initiative (SBTi) methodology and is aligned with the decarbonisation pathway required for the well below 2°climate scenario. MS Amlin will explore the submission of emission reduction targets to the SBTi for approval within the next two years.

3. Roadmap to guide progress and achieve emissions reductions

To support the realisation of draft short, medium, and long-term energy & emission reduction targets, MS Amlin has begun developing a clear roadmap that will guide the proposed actions needed to achieve these commitments. The roadmap below for example, for the draft long-term Scope 1 & 2 emission reduction target gives consideration to

- implementing all energy savings opportunities identified through compliance with the EU's Energy Efficiency Directive, and
- exploring energy decarbonisation opportunities across our portfolio.



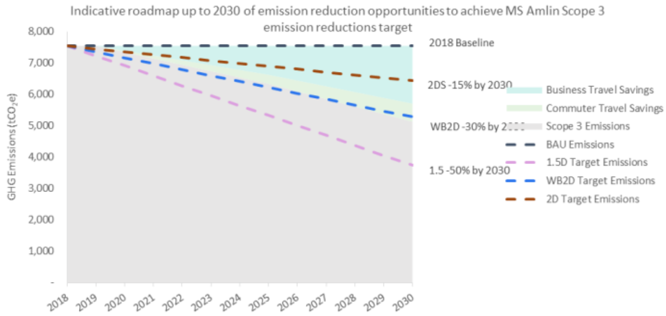
The graph below demonstrates some of the suite of opportunities that could be adopted to reduce our Scope 3 travel-related emissions from business travel and commuter travel. The indicative roadmap will be complemented by a series of initiatives to support employees to reduce emissions from their business travel and employee commuting.

This will be complemented by active implementation of the travel policy for business travel, through a centralised travel partner. This policy mandates the selection of lower carbon-intensive flight modes for business travel, and restricts Business Class flights to journeys of more than 8 hours.

In parallel, there is continued investment in and roll-out of standardised digital and video conferencing technologies across the office portfolio. This ensures employees have the tools to adapt their approach to engage colleagues and clients.

Employee commuting remains an on-going focus. This will continue to be addressed this through regular internal engagement to encourage the reduction of commuting and adoption of alternative travel options. These include, for example,

- Promoting flexible working arrangements through our *"Work Life Better"* initiative (see *Work Life Better booklet*).
- Encourage employee uptake of the *Cycle2Work"* and *"Walk-to-Work"* initiatives introduced by MS Amlin.
- Where commuting journeys are essential, employees are encouraged to adopt alternative modes of transport (e.g. adoption of greater use of public transport and maximising off-peak travel commuting).
- Continued investigation the feasibility and roll-out electric car charging points at offices beyond the offices in Amstelveen and Brussels.



In-line with the Greenhouse Gas Protocol Scope 3 Standard, the activities of the business will continue to be reviewed on an on-going basis to identify additional Scope 3 emission categories that may be relevant. It will be determined how to appropriately include these as part of the on-going climate-related disclosures, and target setting.

Source: MS Amlin

Lloyd’s / The Market / QBE / QBE Group Reporting

QBE Insurance Group Limited reported gross global greenhouse gas emissions of 28,931 tonnes carbon dioxide equivalent (tCO_2e) for 2019, a 40% reduction from 2018 (48,603 tCO_2e). We continued to operate on a carbon neutral basis in 2019, and our net emissions were zero.

Greenhouse gas (GHG) emissions by activity

tCO_2-e GHG EMISSIONS[1]	% CHANGE FROM PRIOR YEAR	2019	2018	2017	2016	2015
Direct emissions (Scope 1)[2]						
Business travel – fleet vehicles	-20%	**5,615**	6,988	6,631	7,529	10,500
Stationary energy – gas[4]	-26%	**985**	1,326[4]	1,273	1,157	1,900
Total Scope 1	-21%	**6,600**	8,314	7,904	8,686	12,400
Indirect emissions (Scope 2)[2]						
Stationary energy – renewable and non-renewable electricity	-22%	**16,729**	21,382	23,899	25,155	33,344
Stationary energy – renewable electricity purchased		**(10,557)**	–	–	–	–
Total Net Scope 2	-71%	**6,172**	21,382	23,899	25,155	33,344
Other indirect emissions (Scope 3)[2,3]						
Stationary energy – gas indirect[4]	7%	**1,274**	1,186[4]	1,570[4]	2,081[4]	–
Business travel – air[5]	-19%	**12,160**	14,973	17,739	19,524	10,698
Business travel – car hire and taxi	-1%	**2,146**	2,161	2,158	1,669	
Business travel – rail and bus travel	-4%	**133**	139	133	168	
Office paper purchased	-29%	**5**	7[8]	13[8]	11[8]	
Waste – recycled and landfill	-2%	**249**	253[4]	277[4]	406[4]	
Water	2%	**192**	188	229	193	
Total Scope 3	-15%	**16,159**	18,907	22,119	24,052	10,698
Total GHG emissions (Scope 1, 2 and 3)	-40%	**28,931**	48,603	53,922	57,893	56,442
Carbon offsets		**(28,931)**	(48,603)[6]	–	–	–
Net GHG emissions (carbon neutral from 2018)		**-**	–	53,922	57,893	56,442

1 GHG emissions data is calculated based on QBE business activities and includes emissions from CO_2, N_2O and CH_4. Emissions from HFCs, PFCs, SF_6 and biogenic activities are not applicable to QBE's operations and therefore have not been reported.
2 Estimates have been made for certain office locations and activity data streams where actual activity was not available, and were based on comparable offices/activities in the same region.
3 Scope 3 emissions from 2016 onwards include waste disposal, water consumption and indirect stationary energy consumption. Scope 3 emissions from investments and employees commuting are not included in QBE's GHG inventory due to unavailability of data. Other Scope 3 activities related to capital goods, transportation and distribution, real estate and franchisees are not applicable to QBE's operations.
4 In 2019, as part of our ongoing focus on improved data quality, we have been able to capture more complete natural gas emissions data for both direct and indirect emissions and waste emissions. For consistency, we have restated natural gas and waste emissions for 2016-2018.
5 Scope 3 emissions from business air travel from 2016 onwards include DEFRA's required distance uplift and exclude radiative forcing. For 2015 these emissions exclude distance uplift and radiative forcing.
6 The carbon offsets amount purchased in 2018 was sufficient to cover the 2018 increase in emissions due to the restatement of natural gas consumption and waste mentioned in point 4 above and we remained carbon neutral.
7 The emissions intensity indicators for 2019 and 2018 are per FTE. The 2018 indicators have been restated from per number of employees to per FTE. Indicators for 2015-2017 are per number of employees.
8 Restated to reflect emissions related to office paper purchased only. In 2018, the reported emissions included emissions related to paper and board recycled, these are now reported as part of Waste – recycled and landfill.

In 2019, we joined some of the world’s most influential companies in the RE100 initiative, committing to target 100% renewable electricity across our global operations by the end of 2025. We are the first Australian-headquartered insurance business to do so. We are making good progress towards this target, with 63% of our global electricity use coming from renewable sources. We have achieved our scope 1 and 2 science-based emissions reduction target and aim to maintain this going forward.

Additionally, during 2019 we set three new global climate-related operational performance targets that will be measured from a 2018 base year. These targets, and our performance against them, is presented in the following table (alongside the air travel reduction target set in 2018).

INDICATOR	BASELINE[2]	TARGET	TARGET YEAR	ACTUAL PERFORMANCE	PERFORMANCE AGAINST TARGET	STATUS
Air travel (tCO_2-e)	17,739	-20%	2021	**12,160**	**-31%**	Achieved
Energy use (GJ)	178,976	-15%	2021	**153,296**	**-14%**	On track
Net Scope 1+2 emissions (tCO_2-e)[1]	29,696	-30%	2025	**12,772**	**-57%**	Achieved
Renewable electricity use (MWh)	0	100%	2025	**18,876**	**63%[3]**	On track

1 This is a science-based emissions reduction target calculated in line with the most ambitious decarbonisation scenario, which is the 1.5°C scenario.
2 Air travel baseline is 2017. Baseline for all other indicators is 2018.
3 Actual 2019 percentage of total electricity sourced from renewable electricity. This is not a year-on-year percentage change.

Our reporting on environmental data follows the guidelines / standards / protocols outlined in:

- the Global Reporting Initiative (GRI) Standards' requirements for Emissions Disclosures 305-1, 305-2 and 305-3;
- the Greenhouse Gas Protocol's Corporate Accounting and Reporting and Corporate Value Chain (Scope 3) Accounting and Reporting Standards; and
- QBE's Greenhouse Gas Reporting Framework which governs our data collection and reporting process.

QBE European Operations

QBE EO Corporate Real Estate (CRES) has primary responsibility for identifying, monitoring, reducing and reporting environmental impacts from QBE European Operation's physical assets and internal activities.

CRES has, since 2007 developed and implemented reporting procedures and infrastructure for monitoring and reporting of Environmental Key Performance Indicator (EKPI) data for QBE's European offices. CRES collates and reviews data provided by the company's European offices on a quarterly basis. Quarterly reports summarise a range of EKPI, including resource consumption and greenhouse gas emissions, providing the data for internal and public disclosure of QBE EO's corporate 'carbon footprint'.

QBE European Operations report 2019 greenhouse gas emissions of 5,529.32 tonnes carbon dioxide equivalent (tCO_2e). 2019 emissions are 6% lower than those for 2018 emissions (5,860.87 tCO_2e), continuing the downward trend from 2015. Emissions reduction has been achieved primarily through reduced property portfolio (m^2), reduced energy consumption (kWh/m^2) and reduced grid carbon intensity ($kgCO_2e/kWh$).

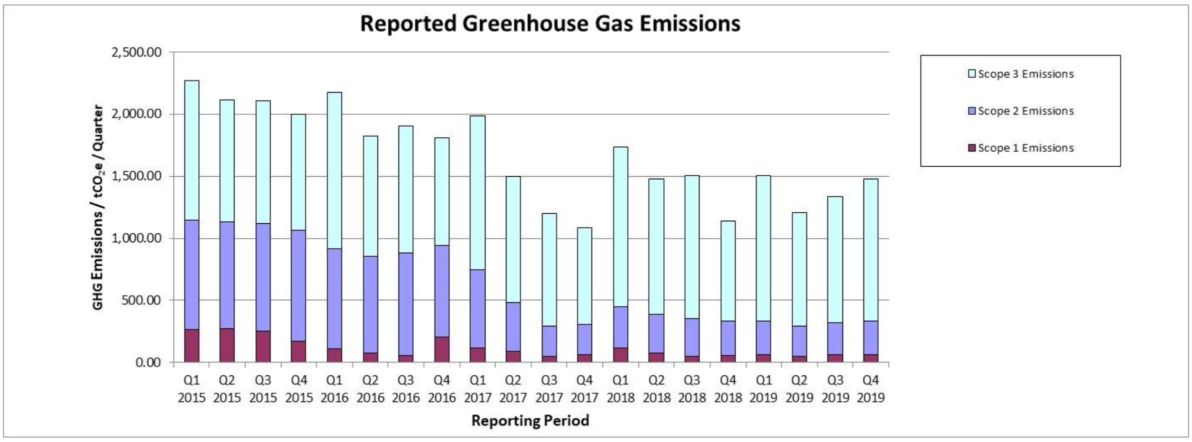
QBE European Operations 2019 greenhouse gas emissions are calculated as 5,529.32 tonnes of carbon dioxide equivalent (CO_2e). Electricity consumption and air travel continue to be the main sources of reported GHG emissions.

Scope 1 emissions = 243.87 tCO_2e

Scope 2 emissions = 1,035.49 tCO_2e

Scope 3 emissions = 4,249.96 tCO_2e

QBE EO's quarterly greenhouse gas emissions (tCO_2e) from Q1 2015 are shown by GHG Protocol scope in the graph below.



QBE EO's reporting is based on operational control. The scope of reporting covers direct environmental impacts associated with 28 QBE offices / sites located in 12 countries, with c2,340 QBE employees. Reporting excludes impacts associated with the activities of home workers.

QBE's European offices are generally leased with shared tenancy; building services such as boilers, back-up generators and centralised cooling systems are generally managed and controlled by the landlord or landlord's agent under a service contract.

QBE EO calculates greenhouse gas emissions associated with our offices in accordance with the World Business Council for Sustainable Development / World Resources Institute Greenhouse Gas Protocol and applicable UK Government guidance for company reporting. GHG emissions associated with the activities of QBE EO are, where possible, calculated using the 2019 UK Government conversion factors for carbon dioxide, methane and nitrous oxide reported as carbon dioxide equivalent emissions (tonnes CO_2e). The exceptions to this are emissions associated with electricity supply to non-UK offices, which are calculated using International Energy Agency emission factors (2019) for carbon dioxide, methane and nitrous oxide reported as carbon dioxide equivalent emissions (tonnes CO2e) and refrigerants which are reported as tCO_2e.

Evidence also applies to principle(s): 1.2, 4.3

Source: QBE Sustainability Report 2019 (p58-61).

Lloyd's / The Market / The Hartford

The Hartford has a proud history of environmental stewardship including reducing the company's energy dependency. Since 2007, the company has reduced its greenhouse gas emissions (GHGe) by 67%.

Various emission reduction activities contributed to the decrease in GHGe including The Hartford's work from home and remote work programs, and the associated real estate consolidation, as well as the ongoing efforts to modernize our physical plant and make the attendant energy efficiency investments, fully detailed in Section 4.3 of our CDP response.

	2013	**2014**	**2015*** *(base year)*	**2016***	**2017***	**2018***	**2019***
Scope 1 GHGe (mT CO_2e)	22,798	19,516	19,609	16,695	15,307	14,230	**13,251**
Scope 2 GHGe (mT CO_2e)	50,108	41,737	33,363	27,828	23,008	21,063	**18,964**
Scope 3 GHGe (mT CO_2e)**	54,909	52,480	56,920	49,019	49,308	49,913	**47,303**
Total Scope 1, 2, and 3 GHGe (mT CO_2e)	136,747	122,666	109,892	93,542	87,624	85,206	**79,518**

* In alignment with the recommended approach of the Science Based Target Initiative, The Hartford's baseline and subsequent data was adjusted to incorporate GHGe impacts resulting from the acquisition of Aetna's Group Benefits business in 2018 and the acquisition of Navigators in May 2019.

** The Hartford's Scope 3 emissions included in reported data are those generated from employee commuting and business travel. A comprehensive review of the company's scope 3 emissions is currently underway.

The Hartford's GHG emissions data is verified by WSP, an independent third party in accordance with the ISO 14065 International Standard.

The standards, protocols, and methodology's used to collect activity data and calculate The Hartford's emissions include:

– The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

– US EPA Center for Corporate Climate Leadership:

    - Direct Fugitive Emissions from Refrigeration/ Air Conditioning/ Fire Suppression/ and Industrial Gases

    - Direct Emissions from Stationary Combustion Sources and Mobile Combustion Sources

– US EPA Mandatory Greenhouse Gas Reporting Rule

Source: The Hartford

Support Links:

- Sustainability Highlight Report, p. 6

Lloyd's / The Market / Tokio Marine Kiln /

TMK engages an independent external consultant, AECOM, to support and document our environmental reporting on an ongoing basis. TMK's environmental activity data is collected and collated bi-annually, with this information used to calculate and report our corporate environmental metrics, including GHG emissions.

Our scope of reporting encompasses TMK's head office at 20 Fenchurch Street (20FS) and electricity consumption at two UK data centres. The 2019 scope of reporting is consistent with that for 2017 and 2018.

GHG emissions are calculated and presented in accordance with the 'GHG Reporting Protocol – Corporate Standard'. GHG emissions are, calculated using UK Government's conversion factors for carbon dioxide, methane and nitrous oxide and reported as tonnes of carbon dioxide equivalent (tCO_2e).

Reporting of energy use and greenhouse gas emissions is based on operational control. TMK does not have operational control over the building infrastructure and plant at its office due to shared tenancy and the presence of a facilities management company, consequently reported emissions primarily fall within Scope 3 of the Greenhouse Protocol.

Scope 1 sources are: fugitive refrigerant losses from AC systems. Scope 2 emissions are emissions associated with electricity used in TMK office and data centres. Scope 3 sources are: natural gas used in the core building functions at 20 Fenchurch Street (managed by the landlord's agent and allocated against tenants on the basis of floor area occupied), water supply and waste water treatment and emissions from transmission and distribution of imported electricity, business travel by air, hire cars, and personal car use for business travel.

TMK's 2019 GHG emissions are reported as 3,181.33 tCO_2e, 6% lower than 2018 emissions (3,385.27 tCO_2e). Business travel by air (a Scope 3 emission) continues to be the largest source of TMK's corporate GHG emissions.
TMK's 2019 Greenhouse Gas Emissions are reported as follows:

- Scope 1 Emissions = 0.00 tCO_2e (unchanged from 2018)
- Scope 2 Emissions = 403.47 tCO_2e (down 25% form 2018)
- Scope 3 Emissions = 2,777.86 tCO_2e (down 2% from 2018)

TMK report a range of environmental metrics to our parent company Tokio Marine Holdings, for aggregation at global level and disclosure via the company's Annual Report. The 2019 Tokio Marine Group Sustainability Report is published at: https://www.tokiomarinehd.com/en/sustainability/pdf/sustainability_web_2019.pdf with a supporting Sustainability booklet available from https://www.tokiomarinehd.com/en/sustainability/
TMK will also disclose its 2019 corporate energy and greenhouse emissions via its Director's Report in accordance with the requirements of UK's Streamlined Energy and Carbon Reporting.

Source: Tokio Marine Kiln: TMK Facilities Management; Tokio Marine Group Sustainability Report.

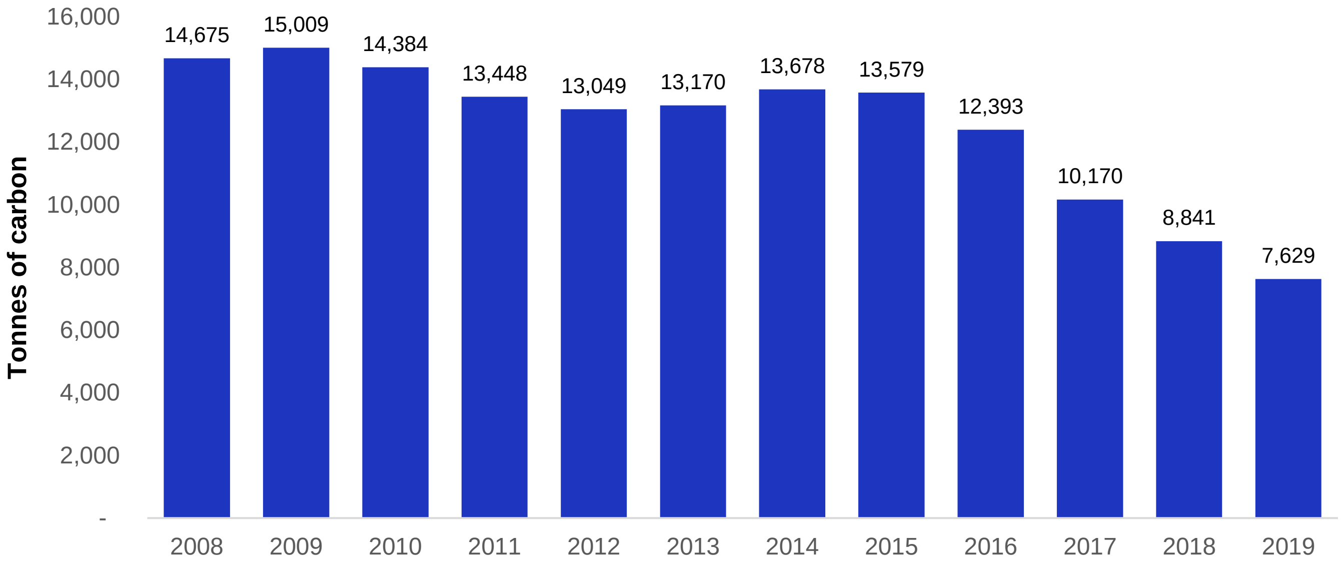
4.3 Measure and seek to reduce the environmental impacts of the internal operations and physical assets under our control.

Lloyd's / The Corporation of Lloyd's

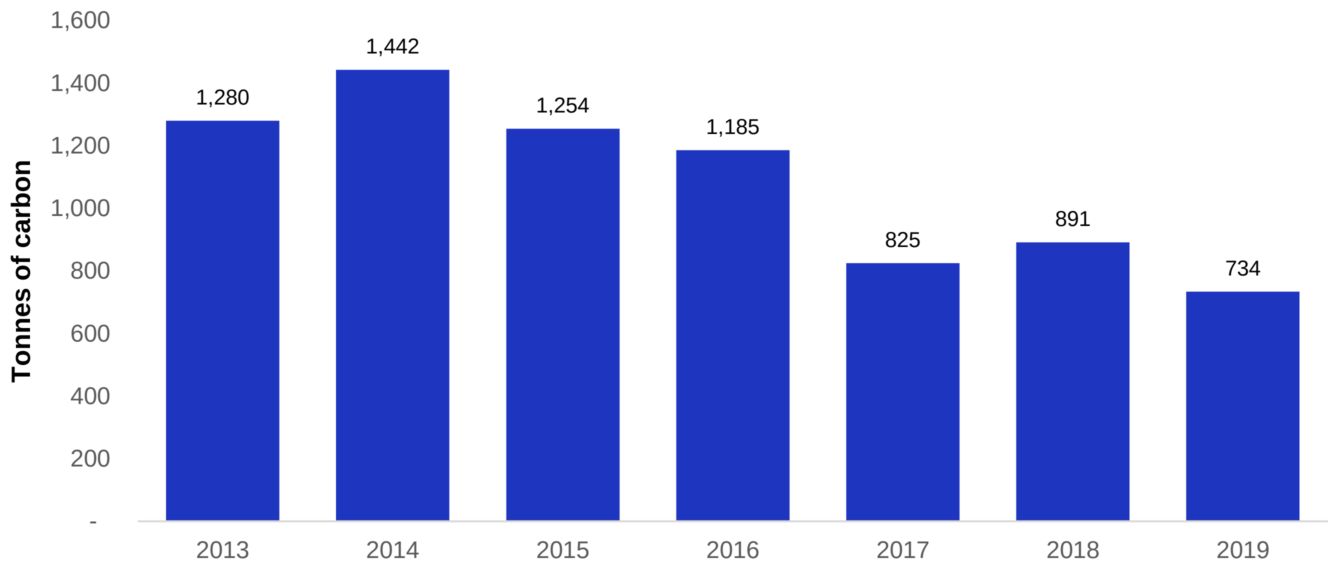
The Corporation of Lloyd's works in partnership with Avieco – environmental consultants contracted by the Corporation – to calculate the GHG emissions of the Corporation's global operations. These figures are disclosed publicly each year in Lloyd's annual report and are made available on a dedicated page on Lloyds.com. They are also shared on the Corporation intranet – MyLloyd's – as part of staff engagement on environmental initiatives throughout the year such as World Environment day (principle 4.4).

2019 marks the seventh year in which the Corporation is reporting the Green House Gas (GHG) emissions inventory for Lloyd's global offices in addition to that of the UK, and sees those offices continuing to engage with their resource consumption. Examples of initiatives are covered in principle 4.1 and 4.4.

12-year UK carbon footprint trend



Seven-year international carbon footprint trend



Reported environmental data covers 100% of contracted staff worldwide; the review includes all the Corporation's entities that meet the criteria of being subject to control or significant influence of the Corporation. Given the distribution of the Corporation's international estate (a high number of small sized properties), data on some emissions sources remains challenging to obtain, and therefore has been excluded from the Corporation's overall GHG emissions summary for 2019 for example: refrigerants, company owned/leased vehicles and national rail from non-UK offices.

Due to their small size, not all of the Corporation of Lloyd's international offices have the capability to report on GHG emissions related activities. As a result, the Corporation has collected data from offices representing 86% of their international headcount and applied estimations for the rest of the non-UK operations on an average tCO_2e per employee basis.

Results

The Corporation of Lloyd's total reported emissions have decreased by 14% since 2018. This has been driven by a number of carbon reduction activities. Given the majority (91%) of our emissions are from the UK, our energy and carbon reduction activities are focussed on our London headquarters. During 2019 we have:

- **Replaced heat pumps and are testing and replacing VSDs** (variable speed drives) in the air handling units in our building conditioning systems. Both of these measures will save energy and increase staff comfort going forward
- **Commissioned LED lighting replacements** in 3 Galleries of our main building as part of our Better Working Environment (BWE) project. This will reduce our building lighting load should be visible as a carbon reduction during 2020
- **Installed eco-friendly urinals** throughout our London headquarters which have been producing water savings of over 50% since installation – the impact of this measure can already been seen in our UK emissions from water in 2019 (38 tCO_2e in 2019 compared to 48 tCO_2e in 2018)
- **Switched our petrol car for hybrid** in our post room operations, reducing our emissions

Carbon offsetting

The Corporation of Lloyd's offsets all emissions from business travel by buying carbon credits for carbon offset projects through Natural Capital Partners (principle 4.3).

We are currently supporting two Gold Standard certified offsetting projects;

- An improved cook stoves project in India. Due to traditional stove cooking practices, over 900 million people are exposed to indoor pollution on a daily basis. The new cook stoves we are supporting are designed to be 60% more fuel efficient and durable. This project has distributed 490,000 stoves since 2008, ensuring that the health and financial benefits from the reduced pollution and fuel costs can be seen across India.

- A solar water heating project in sub-Saharan Africa. Solar water heaters (SWH) provide households, small and medium sized enterprises (SMEs) and institutions with an in-house hot water supply fueled by renewable energy rather than carbon intensive grid electricity. This project delivers approximately 120,000 tonnes of emissions reductions annually as well as offering a number of social co-benefits aligned with the Sustainable Development Goals such as Affordable and Clean Energy and Decent Work and Economic Growth.

Forward planning

The Corporation of Lloyd's reviews the coming year's options to expand reporting across all offices, and therefore further improve the accuracy of the Corporation's carbon footprint. This plan comes mainly from the Health, Safety and Environmental Coordination Group (HSECG), which meets every quarter to develop and monitor progress against an environmental action plan for the Corporation. The 2020 action plan contains 22 initiatives covering aspects associated with energy reduction, information technology, employee engagement, travel, suppliers, management systems and reporting. The plan covers activities in the UK and offices around the world.

Meetings in 2020 are scheduled at the beginning of the year, and the group has met in February, April and July, with the final meeting scheduled for October. Activity, minutes, and all documentation is shared within the group in a SharePoint area. The primary objective for the group is to measure and seek to reduce the environmental impact of the internal operations and physical assets under the Corporation of Lloyd's control.

This group is composed of representatives from the following Corporation teams: Corporate Real Estate, Group Technology, Legal & Compliance, Innovation, Supplier Management, Responsible Business, Risk Management, Human Resources, Business Continuity and Global Operations.

Evidence also applies to principle(s): 4.1, 4.2, 4.4

Source: The Corporation of Lloyd's

Lloyd’s / The Market / ArgoGlobal / Impact on Internal Operations

The GHG data has been beneficial in influencing discussions around decision making. The emissions and financial costs related to corporate travel provoked conversations around setting new reduction targets in the future. The scope two emissions on purchased electricity and the new reality of working remotely bring into question how our staff will continue to work. Will the traditional office space still be the way forward in how we work? It has forced us to re-examine what will best suit our staff and business requirements going forward. These issues are still new and evolving, and we are methodically working out the best outcomes for each one. Our end goal is to have measures in place that complement target reductions on our GHG footprint.

Source: ArgoGlobal

Lloyd’s / The Market / Beazley

Led by Beazley’s Responsible Business Committee and supported by the Environmental Working Group, Beazley’s approach has been to focus on changing behaviour, rather than setting quantitative targets. As part of the annual planning process, the Responsible Business Committee sets out their objectives for the forthcoming year. Narratives and updates are then provided throughout the year when the Responsible Business Committee meets. This enables a continuous process of self appraisal and tracking of our ambitions to occur.

There are a number of reasons for not setting quantitative targets, which include the accuracy of the data available, the value of the data to achieving long term sustainable changes in behaviour, and the limited scope over which Beazley has control to deliver improvements.

It is envisaged that over the course of the next year, data collection will form part of the work undertaken by the Sustainability Officer. This will enable further analysis to be undertaken and potentially targets to be set. Targets will be agreed in consultation with the business and will balance the need to reduce GHG emissions, whilst ensuring business demands are met. This is particularly relevant when focusing on Scope 3 emissions such as business travel.

Source: Beazley

Lloyd’s / The Market / Chubb / Chubb 2019 Energy & Emissions Management

One of the primary objectives of Chubb’s Corporate Environmental Programme is to measure, record and reduce the GHG emissions from our own operations. As an insurance company, Chubb has a modest environmental footprint. However, we aim to reduce our mark on the environment even further. This includes efforts to reduce the direct and indirect GHG emissions generated from heating, cooling and lighting our offices and from company owned or leased vehicles, as well as the reduction, reuse or recycling of resources.

Chubb’s strategy includes reducing GHG emissions from its own operations. In 2019, Chubb set a companywide goal to reduce its global greenhouse emissions by 20% on an absolute basis by 2025 and 40% by 2035. Both goals use 2016 emissions levels as the baseline. Chubb’s goals are aligned with the 2-degree Celsius target outlined in the Paris Climate Agreement, as well as the science-based standards methodology of the United Nations Environment Program.

Chubb has achieved its short-term goal. By year-end 2019, Chubb's GHG emissions were cut 22% from a 2016 baseline. The company continues to pursue its long-term goal.

The company accomplished its goal through a combination of real estate portfolio optimization and energy-efficiency projects. Chubb has focused on reducing energy consumption at the facility level, primarily in owned buildings and larger, long-term leased spaces. Chubb will continue to use this approach to achieve its 40% GHG reduction goal by 2035, which is equivalent to 45,000 metric tons of CO_2 per year.

In support of its global reduction goal, Chubb created a targeted plan to address energy consumption at the European level through the Chubb European Group Energy Policy. The Chubb European Group Energy Policy aims to increase transparency, accountability, and organisational awareness about energy reduction and reducing GHG emissions. Targeted emissions reductions and a clear outline of the company’s commitments will encourage innovation and make energy management a priority for the organisation at the European level. The contents of the policy include: a corporate policy statement, short-term objectives including a reduction target, a statement of commitment regarding management issues, procurement issues, financial issues and technical issues, and a log to track performance year on year. As an appendix to this document, Chubb has also designed a checklist for evaluating all new real estate leases, as well as a section that summarises proposed energy efficiency projects.

Another initiative in 2019 was the purchase of renewable energy for 100% of Chubb’s offices in the U.K. In total, from January 2019 to December 2019, 9,872 MWH of renewable energy was purchased, equating to the avoidance of 1,750 tons of CO2e.

Chubb’s success in reducing GHG emissions builds on earlier efforts and progress. In 2014, Chubb announced a goal of reducing emissions by 10% per employee by 2020 from a 2012 baseline. From 2012 to 2015, Chubb’s GHG emissions per employee were reduced by 5%. In 2016, ACE acquired The Chubb Corporation and adopted the Chubb name. From 2015 to 2017, the combined Chubb reduced absolute global emissions by 11%.

2019 Chubb Group Emissions Report[a]

	Emissions Released (tCO2e)		
Emission Type	2017	2018	2019
Scope 1 Emissions	27,211	26,048	26,332
per FTE	*0.83*	*0.79*	*0.80*
Scope 2 emissions – Location Based	56,061	47,190	44,293
per FTE	*1.71*	*1.44*	*1.35*
Scope 2 Emissions – Market Based	52,921	45440	42,520
per FTE	*1.61*	*1.38*	*1.29*
Scope 3 Emissions – rail and air travel[b]	16,689	17,310	29,192
per FTE	*0.51*	*0.53*	*0.89*
Total	80,132	71,488	68,852
per FTE	*2.44*	*2.18*	*2.09*

a - Emissions have been verified by a third party, a verification document can be provided
b - In 2019 only scope 3 air travel has been included

Source: Chubb

Evidence also applies to principle(s): 4.1, 4.2,

Chubb Office Initiatives

Across its operations in 54 countries and territories, Chubb's primary strategy remains the reduction of the impact of its operations. In the U.K. in particular, renewable energy in accordance with generally agreed practices is a major component in the reduction of Chubb's Greenhouse Gas emissions. Since 2016 Chubb has been purchasing only renewable energy in its UK offices, a practice which has now been extended to Chubb offices in Spain, Switzerland, and commencing in 2020 some offices in the U.S.

On top of reducing Chubb's own impact, Chubb encourages its employees to minimise their impact; particularly whilst working or commuting. For many years now Chubb has been encouraging U.K. staff to cycle to work through a 'ride-to-work' scheme in which bicycles are subsidised by the company, and in Switzerland public transport is subsidised for the employee.

Following the success of the 'Smart-Working' programme trialled in our Leadenhall office, which successfully increased the effective utilisation rate of our available office space, all new or refurbished offices will be transitioning to the new working environment. Following internal research which suggested that at any time there is a surplus of least 20% of desks, offices are being refitted with highly adjustable equipment so that existing space is used more efficiently rather than expanding operations. So far the offices that have been transitioned include (but are not limited to):

- London
- Paris
- Amsterdam

Source: Chubb

Evidence also applies to principle(s): 4.3, 4.4,

Lloyd's / The Market / MS Amlin

1. Environmental performance

The objectives underlying MS Amlin's long-term response to manage its environmental impacts are captured in Table 2 below.

Table 2: Long-term environmental sustainability objectives

Pillar	Objectives
Leadership	Investigate the feasibility of developing a pathway for MS Amlin to 'net-zero' by the end of 2030
Benchmarking & Disclosure	Continue to voluntarily disclose our environmental performance to key stakeholders annually against industry benchmarks, where applicable
Compliance	Manage our compliance risks, going beyond minimum requirements

Table 2: Long-term environmental sustainability objectives

Pillar	Objectives
Stakeholder Engagement	- Ensure our staff are engaged and appropriately trained on strategic environmental priorities, with clear accountability to do the right thing. - Ensure our supply chain partners clearly understand our sustainability priorities. - Ensure our customers are engaged on climate-related issues that may present risks & opportunities for consideration.
Asset improvement	Rollout action plans to enable a robust programme of environmental initiatives across the portfolio with environmental impact reported and monitored.

These objectives underlie the on-going ambition to continually improve the environmental performance of the directly managed estate. In addition to carbon emissions, MS Amlin closely monitors the environmental impact of its portfolio, using a suite of environmental performance metrics related to resource consumption (in particular, office paper and water), and waste arisings from across the company's operations.

As show in Table 3, key highlights of performance this year in response to these impacts include:

- Paper usage: In 2019, MS Amlin continued to roll out digital document and communication solutions to support the responsible use of paper across the offices and to support colleagues to reduce their overall paper usage.
- *Water:* A 13% reduction in the volume consumed across the portfolio, due to a combination of factors, including the consolidation of the office footprint in 2019 from floorspace disposals, as well as improved accounting of water consumption by offices across the portfolio.
- *Waste management:*
    - In 2019, on average, over 50% of waste generated across the portfolio is diverted from landfill.
    - While a significant increase in the amount of waste being sent to landfill in 2019 has been seen, this is attributed to continual improvement in the data monitoring & reporting processes across the portfolio. The waste management metrics will continue to be closely monitored to ensure a continued build on progress to-date.

Table 3: Historical environmental performance metrics

	2019	2018	Change from 2018, as a proportion of the total 2018 KPI baseline data
Paper			
Total paper usage (kgs)	**32,030**	**36,442**	12.11%
Waste			
General waste to landfill	161	78	30.06%
Waste diverted from landfill – Incineration	65	81	-6.04%
Waste diverted from landfill - Recycled	111	117	-2.40%
Total waste disposed of (tonnes)	**337**	**277**	**21.62%**
Water			
Total water consumption (m^3)	**21,452**	**24,774**	**-13.41%**

2. Environmental targets

MS Amlin's strategic review of the environmental impact of our global office portfolio, developed a suite of draft targets that will guide its efforts to responsibly manage the impacts. These were developed in consultation with internal MS Amlin stakeholders and have, where possible, been aligned with the sustainability ambition of our parent company the MS&AD Group.

The draft short-term environmental targets in Table 4 below were reviewed by the MS Amlin Business Services Board, and are currently under review by our respective entity boards. Our priority in 2020 is to rollout the draft short-term targets across our portfolio, develop supplementary action plans to support the achievement of these targets, and to closely monitor our environmental progress against these metrics on an annual basis.

Table 4: Draft environmental targets, designed to manage the environmental impact of our global portfolio

#	Target timeframe	Draft environmental targets
1.1	**Short-term, up to 2021**	By end of 2020, aim to source at least 90% of paper consumed from recycled or sustainable sources, where a supply contract is in-place.
1.2		Remove single-use plastics from offices across portfolio by end of 2021.
1.3		Ensure office-based recycling amenities available across all portfolio assets, by end of 2021.
1.4		100% of Amlin employees engaged annually on MS&AD Group Environmental Policy & the associated sustainability priorities.
1.5		Establish internal network of sustainability champions across portfolio by end of 2021 to drive sustainability performance across the assets.
1.6		Commit to ensuring that 100% of portfolio assets to have dedicated environmental sustainability plan by end of 2021.
2.1	**Medium-term, up to 2025**	20% reduction in energy usage across portfolio by end of 2025
2.2		20% reduction in air travel emissions by end of 2025
2.3		Support Amlin employees to achieve a 10% reduction in emissions associated with commuting to work travel by end of 2025.
2.4		Commitment to achieve at least 75% waste diversion from landfill rate, through primary disposal route, by 2025
2.5		Commit to adopt paperless approach across 50% of assets by end of 2025
2.6		Achieve 10% reduction in absolute water consumption by end of 2025
3.1	**Long-term, up to 2030**	40% reduction in Scope 1 & 2 carbon emissions across portfolio by end of 2030
3.2		Set net-zero emissions reduction target up to 2030
3.3		Adopt paperless approach across all portfolio assets by 2030
3.4		Achieve at least 90% waste diversion from landfill, through primary disposal route, by 2030

MS Amlin's emissions disclosure and targeted emissions roadmap presented in Principle 4.2 was used to complement the development of these environmental targets. MS Amlin has reviewed its material environmental impacts made efforts to set key targets across a wide range of environmental metrics within our direct control.

Source: MS Amlin

Lloyd's / The Market / QBE

QBE Group monitors a number of environmental indicators around resource consumption (energy, water, office paper, business travel etc.) in order to identify opportunities to improve performance and support decision making to manage climate-related risks and opportunities within its internal operations. The environmental indicators measured can be seen in the below dashboard, which is included in QBE's annual Sustainability Report

Other environmental indicators

	UNITS	% CHANGE FROM PRIOR YEAR	2019	2018	2017	2016	2015
Stationary energy use[1]							
Non-renewable electricity	MWh	-69%	**11,304**	35,916	40,691	46,500	54,089
Renewable electricity[2]	MWh		**18,876**	-	-	-	-
Electricity use per FTE[6]	MWh/FTE	-10%	**2.67**	2.96	2.88	3.27	3.72
Gas - direct	GJ	-26%	**19,513**	26,231	25,362	20,772	16,515
Gas - indirect	GJ	7%	**25,133**	23,446	31,218	37,460	
Gas use per FTE[6]	GJ/FTE	-3%	**3.95**	4.09	4.00	4.09	
Business travel	'000 km	-16%	**93,074**	110,499	132,851	124,195	97,569
Air travel	%	-19%	**77,958**	95,775	118,192	114,928	
Road travel[4]	%	2%	**11,876**	11,623	11,831	5,882	
Rail and bus travel	%	4%	**3,240**	3,101	2,828	3,385	
Business travel per FTE[6]	'000 km/FTE	-10%	**8.23**	9.10	9.40	8.73	6.71
Office paper purchased[1]	tonnes	-27%	**248**	339	618	505	
Office paper purchased per FTE[6]	kg/FTE	-21%	**22**	28	44	35	
Water use[1]	kL	2%	**182,502**	178,731	218,156	183,906	
Water use per FTE[6]	kL/FTE	10%	**16.13**	14.72	15.43	12.93	
Waste and recycling[1]	tonnes	-11%	**2,235**[3]	2,522[3]	3,266[3]	2,734[3]	
Waste to landfill	tonnes	-2%	**1,512**	1,536	1,770	1,764	
Waste per FTE[6]	kg/FTE	-5%	**198**	208	231	192	
Paper recycled	tonnes	-30%	**589**	844	1,340	833	
Other recycled waste[5]	tonnes	-6%	**134**	142	156	137	
Recycling rate	%	-17%	**32.34**	39.08	45.80	35.48	

1 Estimates have been made for certain office locations and activity data streams where actual activity was not available, and were based on comparable offices/activities in the same region.
2 2019 is the first year QBE has started sourcing on renewable electricity. No comparable data is available.
3 In 2019, we revised the methodology used in estimating waste data as part of our ongoing focus on improved data quality. For consistency, we have restated waste volume for 2016-2018.
4 Road travel includes business travel by car hire, taxi and private car.
5 Includes recycled IT asset waste and mixed plastics and glass.
6 Indicators for 2019 and 2018 are per FTE. The 2018 indicators have been restated from per number of employees to per FTE. Indicators for 2015-2017 are per number of employees.

Other activities completed to reduce the impact of our operations in 2019 include a review of our energy portfolio and publishing a Group Environmental Policy and a Group Energy Policy. Our Group Environmental Policy outlines our commitment to environmental sustainability across all aspects of our business – from our operations, underwriting and investment activities, to how we engage employees, contractors, partners and suppliers and provide our customers with environmental solutions and products. Our Group Energy Policy aims to provide shareholders, customers and the wider community with a clear explanation of QBE's approach to investing and underwriting energy projects, now and in the future. It also details our commitment to support our customers in the transition to a lower carbon global economy.

QBE European Operations

Measururing Environmental Impacts

QBE European Operations, Corporate Real Estate (QBE EO CRES) has primary responsibility for the management and maintenance of QBE's European office infrastructure – physical assets and internal operations. QBE EO CRES has, since 2007 developed and implemented procedures and infrastructure for monitoring and reporting of Environmental Key Performance Indicators (EKPIs) for QBE's European offices. QBE EO monitors a range of EKPIs including resource consumption (energy, water, paper), business travel, waste generated and greenhouse gas emissions in order to identify opportunities to improve performance, support decision making and also to provide the data for internal and public disclosure of QBE EO's corporate 'carbon footprint'.

CRES EO, produces quarterly Environmental Inventories that collate EKPI data for QBE's European offices to improve environmental management through an on-going 'rolling programme'. Activity information is collated and reported on an annual basis. The reports identify data gaps, limitations and actions required to develop and maintain robust sustainability reporting. Our Environmental Inventories include calculation of greenhouse gas emissions associated with QBE EO's offices in accordance with the World Business Council for Sustainable Development / World Resources Institute Greenhouse Gas Protocol; and provides an 'audit trail' for environmental reporting to QBE Group Environmental, Social and Governance (See Q4.2).

QBE Group introduced a worldwide Environmental and Social Governance (ESG) System at the end of 2016, which provides a framework to improve global data quality. QBE EO aligned its pre-existing data management system with the requirements of the ESG system during 2017, with global environmental activity data audited and verified by Deloitte.

Reduce adverse environmental impacts

QBE EO has a rolling programme of initiatives to reduce our adverse environmental impacts.

Our corporate GHG emissions provide a good example of the measurement of environmental impact and reduced adverse environmental impact associated with our internal operations and the physical assets under our control.

QBE EO's corporate Scope 1 and 2 GHG emissions for 2015-2019 show steady decline, with 2019 total reported emissions (i.e. the sum of Scope 1, 2 and 3 emissions) 35% lower than those for 2015 (see Q4.2).

QBE EO initiatives to reduce adverse environmental impacts during 2019 include:

On-going monitoring of QBE EO sustainability performance using a range of metrics aligned with our key environmental aspects and impacts.

Consolidation of QBE's office space throughout the QBE EO portfolio and selection of more efficient offices (see Q4.1 – relocation of staff a more efficient office at Exchange Tower.

Energy Savings Opportunities Scheme (ESOS) audits of our significant areas of energy use (offices and car fleet) to identify opportunities to reduce consumption or improve efficiency. QBE EO is currently considering the recommendations made and opportunities identified through these audits.

Reduced office waste through the replacement of single use cups with reusable alternatives (See Q4.1 – Reducing Waste).

Evidence also applies to principle(s): 4.1, 4.2, 4.4

Source: QBE Sustainability Report 2019 (p58-61).

Lloyd's / The Market / RenaissanceRe Syndicate Management Ltd / Environmental outlook & carbon offsetting

RenaissanceRe have published an Environmental Policy on their external website outlining their commitment to a long-term, sustainable approach to protecting the environment. The policy outlines that RenaissanceRe looks for effective ways to minimise their impact on the environment, monitoring and analysing operations and facilities to determine how they can be more efficient and environmentally friendly. RenaissanceRe's activities include replacing equipment and technology with more efficient versions, identifying and implementing measures to reduce waste and conserve natural resources, and conducting assessments with utility providers and vendors to better understand and consider their environmental impact.

In addition to the broader ESG strategy review, RenaissanceRe has also been considering third party providers to calculate its global carbon footprint for energy usage and carbon emissions resulting from international travel.

Evidence also applies to principle: 4.4

Source: RenaissanceRe

Lloyd's / The Market / The Hartford

In 2017, The Hartford set a goal to continue to reduce our total Scope 1, 2, and selected categories of Scope 3 GHGe, achieving a reduction of at least 2.1% of GHGe each year, resulting in a minimum decrease of 25.7% by 2027 and 46.2% by 2037 (using 2015 as a base year). This goal has been exceeded each year to date, with the reductions since the base year now reaching 27.6%.

To help drive these emissions reductions and demonstrate The Hartford's commitment to environmental stewardship, The Hartford's CEO, Chris Swift publicly announced several additional environmental goals in The Hartford's 2017 Sustainability Highlight Report published in July 2018 (p.4). The company measures and reports the progress made toward these goals annually.

The Hartford reported the following progress toward achieving these goals as of 12/31/2019:

Goal	Target	2019 vs. Base Year (2017)
Reducing facilities energy use by 15% through energy efficient building management by 2022 • In-Scope: Owned and leased offices in the U.S. and abroad (metered scaled up) • Exclusions: Business travel, fleet vehicles, employee commuting	15% reduction	Facilities energy use is down 11% from the baseline year
Reducing water usage by 15% by 2022 • In-Scope: All metered U.S. offices • Exclusions: Non-metered U.S. offices; international sites	15% reduction	We achieved an 11% decrease in water usage through 2019
100% renewable energy by 2030 • In-Scope: Self-generation, RECs, offsets and credits in owned and leased offices in the U.S. and abroad • Exclusions: Business travel, fleet vehicles, employee commuting	100%	69% of our facilities' energy consumption came from renewable energy sources in 2019
Reducing our non-recyclable, non-biodegradable solid waste from our facilities by 20% by 2022 • In-Scope: Waste that can't be recycled or composted such as prepackaged food and other plastic products in owned and leased offices in the U.S. and Canada • Exclusions: Landlord managed waste removal; international sites; construction waste, decommissioned furniture, computer hardware	20% reduction	Waste reduced by 8% from baseline, aided by a new centralized waste management program including composting
Eliminating the use of Styrofoam by 2020 • In-Scope: Connecticut fully managed sites • Exclusions: Prepackaged food, computer packaging, partially managed (leased) locations	Eliminate	Successfully eliminated the use of Styrofoam and plastic food containers in our Connecticut offices
Doubling the percentage of hybrid fleet vehicles and moving to 100% electric campus shuttles and security vehicles by 2022 • In-Scope: Entire fleet; shuttles and security vehicles in Connecticut • Exclusions: None	Double percentage and move to 100%	We doubled the percentage of hybrid vehicles in our fleet, successfully achieving our goal and introduced the first 100% electric shuttle to our Connecticut fleet

This progress is achieved through a variety of actions and initiatives including those highlighted in The Hartford's 2019 Sustainability Highlight Report, (p. 6-11).

Source: The Hartford

Support Links:

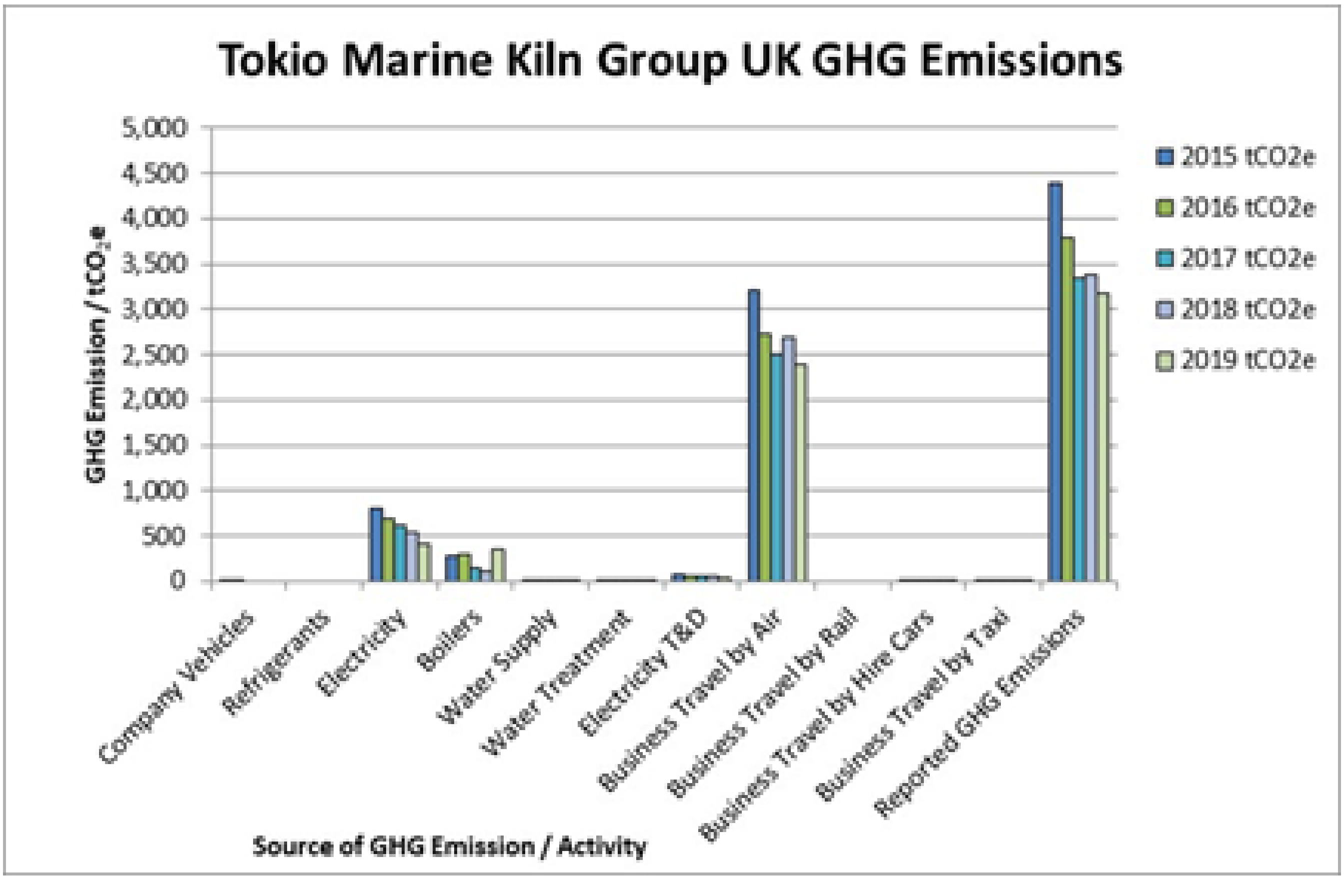
- 2019 Sustainability Highlight Report, p. 6-11
- 2017 Sustainability Highlight Report, p. 3-7

Lloyd's / The Market / Tokio Marine Kiln /

We monitor our sustainability performance on an on-going basis using a range of metrics aligned with our key environmental aspects and impacts – See 4.1 above.

Our corporate GHG emissions (see 4.1 and 4.2) provide a good example of the measurement of environmental impact and reduced adverse environmental impact associated with our internal operations and the physical assets under our control.

TMK's annual GHG emissions for 2015-2019 show a year on year decline over the last five years.



Source: Tokio Marine Kiln AECOM report.

4.4 Engage our employees on our commitment to address climate change, helping them to play their role in meeting this commitment in the workplace and encouraging them to make climate-informed choices outside work.

Lloyd’s / The Corporation of Lloyd’s

The Corporation of Lloyd’s Responsible Business team lead engagement in this area, and are supported by various teams across the Corporation including but not limited to catering, corporate real estate, comms team, and Lloyd’s international offices.

The engagement process starts before an employee joins Lloyd’s:

- Lloyd's Code of Conduct sets out our expectations of our employees and is included as part of the induction process for new joiners.
- Lloyd's has a Speaking Up policy which provides a mechanism to enable employees to voice any concerns they may have in a responsible and effective manner. It also periodically carries out a Speaking Up policy survey to assess awareness and views towards speaking up on issues of concern such as suspected crime, discrimination or ethical issues.
- Authors of all Lloyd's Council papers are required to outline any material social, ethical and environmental implications of their proposals to the Council.
- Lloyd’s is a member of the Institute of Business Ethics.
- Lloyd's is an accredited Living Wage Employer. Our pay levels for direct employees and on-site contractors meet or exceed the living wage requirements set out by the Living Wage Foundation.

In addition to these examples, Corporation staff are engaged through a number of avenues in addition to those listed throughout this report.

These include:

1. The induction process: new employees are introduced to the strategic priorities from the very beginning as part of their e-learning induction process.

   Within the Responsible Business section of the e-learning module the content describes the Corporation’s history with ClimateWise, and provides links to the pages on Lloyd’s.com for staff to find out more.

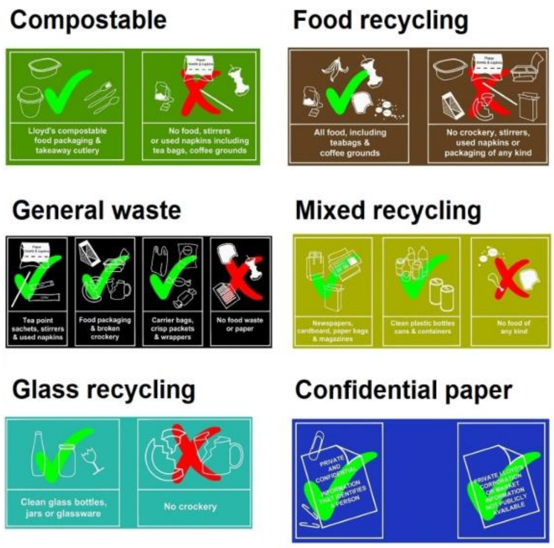
2. Corporation of Lloyd’s employees (including contractors) are entitled to three days voluntary leave over a calendar year to take part in volunteer activities.

   This includes assisting community organisations with the up-keep and maintenance of public spaces with opportunities ranging from giving a hall a deep clean or fresh coat of paint to creating a new community space.

3. Employees are also engaged on an ongoing basis through MyLloyd’s, which is the Corporation-wide intranet that consists of resources and updates for all employees. This helps employees keep up to date with the Corporation’s views of what is happen, in London and across the world.

   Key messages were:

- Increasing the amount of recyclable waste: advice shared through blog posts.
  - Reducing the amount of waste being generated: signage, internal posts, a stand in the Operations Directorate town hall.



  - Communicating and celebrate our success both internally & externally: posts shared on internal and external social media platforms.

Over the last reporting year this was used to communicate activities including but not limited to:

4. For World Environment Day (5 June 2020), a communications plan involving all 23 Lloyd’s international offices was developed, which included centralised messaging and activities around the main area of focus for the year – biodiversity.

   The Corporation of Lloyd’s encouraged staff to take action to help save global bee populations, which are under threat due to a combination of pesticides, parasites and climate change. Due to the Covid-19 pandemic and with many staff working from home, activities were more limited than in previous years, but colleagues were given ideas for actions they could take such as planting a bee garden and specific bee-firendly plants, or taking part in citizen science projects in the UK and the US that are surveying bee populations.

Engagement is also employee led, through groups such as the 'Lightning Talks' group and the Yammer network:

- Lightning Talks are a set of short, informal, employee-led presentations. Lasting for about ten minutes and cover any topic chosen by the speaker, the talks can come in any format, from straight presentations, to Q&A discussions, or interactive demos.
- There is a Responsible Business group on Yammer, the employee engagement network, to share responsible business initiatives; including Environment and Sustainability, Lloyd's Charities Trust, Lloyd's Community Programme, Lloyd's Patriotic Fund, Lloyd's Tercentenary Research Foundation, Responsible Business Strategy.

  Ad hoc questions are also asked by Corporation employees and responded to by those involved in activities. This has included queries on the sustainability of data centres, suggestions for environmental improvements, and market engagement activities. One particularly active thread was seen by 274 out of 1,149 global employees.

Evidence also applies to principle(s): 1.2

Source: The Corporation of Lloyd's

Lloyd's / The Market / ArgoGlobal

Going Back Better

Since the implementation of the mandatory working from home arrangement due to COVID-19, we are evaluating alternative work arrangements. A steering committee has been formed to consider the short and medium-term implications. A key element has been to ensure employee engagement in the process, and there have been employee engagement surveys, pulse surveys, and global townhalls with open questioning using Slido to allow a free exchange of information. Staff have been very interested in how this enables improvements in our environmental performance.

Going forward, working from home may be a new permanent reality for some staff. A committee has been established to reasses our business requirements around office space. Going Back Better is the new tag line around how we want to keep staff safe and, at the same time, be able to meet all their requirements around individual job functions. A blended work environment with hot-desking mixed with traditional workspace will encourage people to move around the office and foster flexible work schedules while significantly reducing and replacing the conventional commute.

New Initiative

We are currently putting forth a survey to all employees to establish a baseline for current employee commuting behaviours. The survey's objective is to examine employee commute information and what commute solutions could be implemented. We want to get a better understanding of our pre-COVID-19 commuting footprint for 2019. We are considering the opportunity to put forward a company-wide bike to work scheme. Current government programs already in place, such as the UK Cycle to Work scheme that offers tax exemptions, will further incentivize this initiative.

Source: ArgoGlobal

Lloyd's / The Market / Beazley

Led by the Environmental Working Group (EWG), a comprehensive program of engagement activities has taken place to help to promote awareness amongst employees and help address climate change. When the EWG was formed in the summer of 2019, an 18 month plan was created to set out the ambitions for the group. This plan was updated in January 2020 to reflect the progress made. There are more than 60 employees signed up to participate in the EWG. To date, the focus has been on areas of the business where small changes can make a big difference such as reducing waste and increasing recycling.

The EWG use a variety of methods to create awareness, this includes publishing articles on the intranet, planning initiatives to coincide with internationally recognised events i.e. World Environment Day, as well as holding a Responsible Business Fair. As a result, this enables constant dialogue to be held with employees on sustainability and climate change topics. Although the Covid 19 lock down has provided a challenge, articles and material have continued to be circulated on the intranet to provide an update whilst employees have been out of the office, highlighting where changes at home can continue to contribute to a more sustainable future.

Beazley employees were asked to choose a new charity partner for a three year relationship. There was an overwhelming consensus to partner with a charity who had an environmental focus. As a result, Beazley has partnered with Renewable World, a charity who work in developing nations to deliver small scale renewable projects to enhance the lives of rural villagers. This relationship not only raises vital funds for people in developing nations, but also helps raise awareness of how the transition to a low carbon economy can benefit communities.

Further activities are being planned by the EWG, however, the majority of these are reliant on office facilities re-opening. Alongside this, a long-term Sustainability strategy is being developed for the business, which will include a program of engagement with both internal and external stakeholders.

Source: Beazley

Lloyd’s / The Market / Chubb / Chubb Environmental Staff Awareness

Chubb’s first ever environmental month took place across Europe on the 20th of May until the 14th of June; either side of World Environment Day (5th of June), which represents the United Nation’s principal vehicle for encouraging awareness and action for the protection of our environment.

Chubb had three main objectives for the month:

- Enhance employee awareness of climate change
- Enhance employee knowledge of Chubb environmental risk products
- Encourage the cross sale of environmental risk products

Internally a video was presented featuring the environmental team across our operations, so as to inform employees of where to find information. Information was presented so that any employee would be able to explain the products Chubb provided, and how they protect resources, assets and the policy holder.

To improve engagement a series of infographics were produced, in multiple languages, with the centrepieces being the recycling of plastic bags and clothing. The topics were chosen primarily because of the extent of ocean based plastic pollution, and how the average person can minimise their impact. Once a level of awareness was established, a number of offices arranged for local charities to collect unwanted clothing or electronic devices so that they may be reused rather than refused.

A number of briefing sessions were held across Europe to educate employees regarding a variety of subject matters ranging from the decline of bees in France, to how to transition to a zero-waste lifestyle.

To encourage our employees to participate, an ongoing competition is being held whereby prizes will be awarded to those underwriters in other lines of business who bring in the most new environmental risk policies; by premium value, number of policies issued, or number of new submissions.

The result is a net benefit to the end customer. Knowledge of other Chubb products allows our underwriters to identify coverage gaps that the customer may have, and recommend the appropriate product to mitigate their risks.

A social media campaign was launched in tandem with the environmental month, where each week information and news articles were published on Twitter and Linked In with the goal of enhancing the public awareness of Chubb’s activities.

In 2020, despite COVID-19, Chubb celebrated Earth Day with an employee photo contest to celebrate Earth Day. Chubb asked employees to share pictures of the beauty that still surrounds us to celebrate the 50th Anniversary of Earth Day. Our colleagues posted 180 creative, diverse, and beautiful pictures. Winners of the contest were awarded prizes including donations to the environment charity of their choice, wildflower seeds, and sustainable re-usable water bottles.

Evidence also applies to principle(s): 1.1, 1.3, 1.4, 3.1

Chubb Environmental Network

In early 2018, Chubb established a European working group, focused on the improvement of the sustainability of the offices they represented. Since then the group has expanded to include countries that previously had no representation, not only in Europe but world-wide. The initiative was replicated in all the regions Chubb operates in, and is now being centrally coordinated by the Senior Environmental Program Manager. This allows for the various countries and regions to share knowledge, best practices and local initiatives all whilst helping to ensure that the objectives of the Chubb corporate environment programme are met.

The network will continue to be focused on the reduction of the impact of our operations and the education of our employees either through internal communication projects or hosting guest speakers. The network's primary goal is to establish a base level sustainability through recycling programmes, elimination of single-use plastics and continual reduction of paper consumption. Once the above has been established the network will focus on novel initiatives to directly reduce our operational impact and engage our employees. Since the establishment of the Chubb Environmental network, Chubb offices in Europe have switched to paper from fully sustainable sources and primarily recycled paper.

Evidence also applies to principle(s): 4.3

Source: Chubb

Lloyd's / The Market / MS Amlin

MS Amlin continues efforts to reduce our environmental impact, in-line with our commitments, with the support of the company's employees who play a vital role in addressing climate change in the workplace and make informed choices beyond.

In the forthcoming year, MS Amlin plans to continue and adopt a suite of practices in the workplace to support the achievement of the commitments:

- MS Amlin has initiated an internal review process to identify the assets requiring management plans, focused on energy, water & waste management. Facilities managers are engaged to develop and implement these plans, in support of responsible managing the environmental impact of the offices.
- MS Amlin has committed to banning the use of disposable plastic bottles, packaging & straws in office canteens. Staff will be encouraged to use water taps and reusable bottles/coffee cups where possible.
- MS Amlin continues to promote the adoption of digital working patterns and has begun to cut down the number of printing/photocopy machines to discourage unnecessary printing. The company will look to explore the feasibility of adopting digital communications, as standard customer engagement mechanism.
- MS Amlin will develop procurement requirements with administration colleagues across the office portfolio and will engage paper suppliers to ensure more paper is sourced from sustainable sources.
- MS Amlin will continue to rollout the recycling programme across all portfolio offices to support the adoption of in-office recycling of waste streams, to divert waste from landfill. The company also continually reviews portfolio performance to identify new and/or additional in-office recyclable waste streams.
- MS Amlin will continually engage local facilities and asset cleaning services to ensure recycling amenities are available across all assets to support efforts to increase recycling rates.
- MS Amlin will deploy staff engagement materials on priority topics and use of internal social media platforms for employees to share best practice on innovative solutions for issues.
- MS Amlin will utilise internal employee engagement to create awareness to encourage & drive active employee participation to contribute towards the company's environmental targets in the workplace.

Source: MS Amlin

Lloyd's / The Market / QBE / Employee climate change engagement

In 2019, the Group Sustainability function engaged directly with teams across the business to raise awareness of sustainability, including climate change. We also published a range of intranet articles and created dedicated internal Yammer groups to provide frequent updates on sustainability trends, insights and news for our international business. In addition, we invited several external speakers to present at lunch-and-learn sessions on a range of sustainability topics.

Other engagement mechanisms employed include:

- Employee engagement survey (e.g. QBE Voice);
- Roadshows, meetings and events;
- QBE Ethics Hotline;
- Employee focus groups; and
- The annual Sustainability Report

In 2019, the QBE Foundation partnered with the Earthwatch Institute, an international environmental not-for-profit organisation that offers unique, hands-on experiences in climate change research and ecosystem restoration. Some of our employees participated in expeditions across the globe – with destinations including the Acadia National Park, Andorran Pyrenees, Daintree River, Great Barrier Reef and La Selva Biological Station in Costa Rica. The experiential learning program provided our employees with an understanding of how protecting our natural environment is a colossal task, one in which everyone has a role to play. Our employees came to appreciate the huge amount of work involved in scientific research and data collection, and the importance of environmental issues for QBE. Each employee returned from their expedition with a renewed understanding of the relevance of climate change and our ability to impact change globally.

We continue to collaborate with our external partners, including the Qantas Future Planet program and the Earthwatch Institute, to build internal awareness and capability on environmental issues. This has helped establish a strong network of environmental champions across our global operations. In 2019, employees across our offices, including Adelaide, Brisbane, Dusseldorf, Italy, Madrid, New York, Paris, Parramatta, Stockholm, and a few offices in the United Kingdom, have formed sustainability working groups with an initial focus on pressing environmental issues.

Investment team

New training sessions by our Responsible Investments team are strengthening the ESG knowledge and skills of the broader Investments team. Subjects in 2019 included climate change, and long-term social and economic trends. With more training and development sessions scheduled, we will continue to educate our employees on the importance and relevance of ESG issues to investments decisions.

QBE EO

QBE EO Quarterly Environmental Reports, listing a range of environmental metrics including GHG emissions, are posted on our intranet for our employees. The reports are also submitted to QBE Group, where the environmental KPI data is aggregated and consolidated with comparable data from other regions for reporting via the Company’s online Annual Report.

Evidence also applies to principle(s): 1.2

Source: QBE Sustainability Report 2019 (p43, 58-61).

Lloyd’s / The Market / The Hartford

The Hartford engages our employees on our commitment to address climate change and helping them play their role in meeting this commitment in and outside the workplace in many ways:

– We send 100% of our employees an annual survey to understand their commuting habits for the prior year. The information obtained provides data for our Scope 3 emissions reporting. It also provides the company an opportunity to share what the company is doing on environmental stewardship with all our employees, including providing them with links to The Hartford's CDP response and Sustainability Highlight Report. The survey response rate for our 2019 survey was 15% (consistent with 2018).

– We conduct an annual “Alternative Commuter Challenge” to encourage employees to find less carbon-intensive ways to commute to work.

– Employees who carpool into Hartford are rewarded by ability to park in a specially designated parking lot that is particularly convenient in an otherwise tight parking environment.

– Employees who own Electric Vehicles may charge their cars for free using one of 30 chargers provided at our Connecticut locations, including ten chargers added in 2018.

– The Hartford offers a Commuter Benefit Program allowing employees to use pre-tax dollars to pay for qualified parking and public transit costs.

– Employees also may use gym and shower facilities for free, removing disincentives for those who commute by bike or running.

– The successful launch of our new waste management program with composting included providing employees educational information on the importance of sorting waste as well as how to sort it appropriately. To support sustained recycling efforts among its employees The Hartford publishes the locations of local recycling centers on its intranet site.

– The Hartford has also developed a process excellence program (HARVEST) that encourages employees to develop innovative solutions and increased efficiencies at all levels across the enterprise.

– An internal website provides employees information about our environmental sustainability efforts as well as opportunities to volunteer.

– The Hartford’s Environmental Action Team (HEAT) saw a 32% growth in membership in 2019, with 950 employees participating in the group from across the company. The HEAT team participated in more than 30 environmental activities across the company in 2019 including quarterly climate change discussion groups and our annual Memorial Day tree planting ceremony help at our Hartford, CT campus. HEAT also partners with local non-profit organizations like KNOX each year to plant trees on Arbor Day to help revitalize local parks and neighborhoods.

Source: The Hartford

Support Links:

- 2019 Sustainability Highlight Report, p. 9-10

Lloyd’s / The Market / Tokio Marine Kiln / Employees engagement

TMK is planning to launch a Summer Learning campaign in 2020, with a brand-new learning portal. As part of this, we will take the opportunity to push out themes topical/close to us as a company, such as those within Inclusion and Diversity, Wellbeing, CSR and Climate Change. These issues are all linked, and TMK hopes to raise awareness amongst its employees. We plan to curate our content for our summer learning campaign (and beyond) by drawing upon several online learning modules we have, and resources developed using content from TEDx and YouTube, for each theme.

TMK are relaunching our Values in Q3 2020, and there is room for the programme to address the ESG themes. Our Compliance training is also being refreshed and adding ESG modules for the New Joiner induction is being investigated.

TMK aspires to be a global “Good Company”, consistent with the Group business strategy. We have embedded the key pillars of the Good Company culture within the annual performance reviews of our employees. This encourages and rewards employees in their positive engagement on these values. The recognition is also supported by the Tokio Marine Group where each subsidiary will nominate an employee to receive the Good Company Award in Tokyo each year.

In addition, the Tokio Marine Group including TMK, has implemented a wide range of charitable activities where the company and our employees can get involved at several different levels: company donations and two main charity partnerships with Kidney Research UK and Impact on the Streets, personal donations and volunteering.

Another example is Tokio Marine Kiln’s employees’ involvement in the Street Child, Sierra Leone marathon. Every year, employees volunteer to run in raising funding for orphans in the country to rebuild their lives after the civil war, the marathon has currently been postponed but significant funds have been raised by staff supported by the Charity committee for when the marathon goes ahead.

TMK has arranged, as part of a wider commitment to reducing our environmental footprint, to plant trees in the UK to counteract our carbon dioxide usage levels by staff business flights. The trees are being planted by the Carbon Footprint charity at locations in London and the South East on our behalf. The calculation is based on the tonnage of carbon dioxide we generate as a business. The tree varieties vary from season to season, but all the trees are native broad leaf varieties including: Hawthorn, Sessile Oak, Hazel, Downy Birch, Guelder Rose, Field Maple, Rowan, English Oak, Blackthorn, Wild Cherry along with some Common Alder, Crab Apple, Silver Birch, Spindle Bush and Goat Willow.

Source: Tokio Marine Kiln: List of charity donations, Tokio Marine journals available upon request.

5. Inform public policy making

5.1 Promote and actively engage in public debate on climate-related issues and the need for action. Work with policy makers locally, regionally, nationally and internationally to help them develop and maintain an economy that is resilient to climate risk.

Lloyd's / The Corporation of Lloyd's

In previous reporting the Corporation of Lloyd's has provided evidence of the commitment to effect positive change by being seen as a leader in its responsible business approach. This is reflected in the Corporation of Lloyd's business practices as well as its work with community and charity partners.

Over the reporting year there have been a range of examples. A selection are included below to reflect the extensive activity that has occurred.

– An engagement campaign continues to run on the City Risk Index, through a series of news stories that look at providing further context and insights to the risks raised. Over the reporting year, the following articles have been released, which talk about climate-related impacts and the need for action. Examples include:

  - May 2020: Cities on a quest for carbon neutrality[o]: Indonesia is planning to move its capital city, Jakarta, as the city is sinking as a result of rising sea levels and poor planning decisions. It is to be replaced by a new city that will be built 2,000km away on the island of Borneo. Jakarta is collapsing because inadequate water supply means too much groundwater is being illegally pumped out. At the same time, sea levels are rising as a result of climate change: it's believed that 95% of Jakarta's coastal area could be under water by 2050. Lloyd's City Risk Index points out that cities present a clear sustainability challenge – they account for 70% of greenhouse emissions and global waste, and 60% of the planet's energy consumption. But they also face the economic consequences of climate change. Climate events will cost cities in the index $122.98bn annually with temperate and tropical windstorms accounting for $66.31bn every year and flood potentially adding a further $42.91bn.
  - August 2019[p]: Turning up the heat on city planners: Madrid's climate could resemble that of Marrakech in 30 years' time, while London will experience the sort of summer conditions that residents of Barcelona are accustomed to today. The predicted climatic changes pose big challenges for city planners, businesses and communities, because cities are built for the specific climates they experience. Infrastructure design is based on historical averages of heat, precipitation, freezing temperatures and the most frequent weather events.

Evidence also applies to principle(s): 1.1, 1.2, 3.1, 3.2, 5.1, 5.2

Source: The Corporation of Lloyd's

[o] Cities on a quest for carbon neutrality

[p] Turning up the heat on city planners

Lloyd's / The Market / ArgoGlobal

International Insurance Leaders Advisory Council

Argo Group continues to participate in the International Insurance Leaders Advisory Council for Climate Change. The purpose of this Council is to bring leaders from the insurance industry and global regulators to coordinate a more systematic response to Climate Change within the financial services sector. The Council has overseen the delivery of two projects during the period, specifically, with the subject matters of Transition Risk associated with investment portfolios and physical vulnerability and resilience to flood exposures. The Group Chief Risk & Sustainability Officer represents Argo Group on this Council.

Chapter Zero

Our ESG sponsor and non-executive director, Kate Nealon, is senior member of Chapter Zero, a directors' climate forum that engages discussion around the related risks and opportunities and for members to take the dialogue back to their boardrooms. Chapter Zero's initiative to have businesses 'build back better' post-COVID-19, has parallel concepts to our objective of 'going back better.' Our Chief Risk & Sustainability Officer is now also a member of Chapter Zero and has prepared in a video blog to share thoughts and insight around the challenges in setting up our ESG programme.

- https://www.chapterzero.org.uk/about-us/
- https://www.youtube.com/watch?v=tOnslHV2wIM&feature=youtu.be

Source: ArgoGlobal

Lloyd's / The Market / Beazley

Beazley are undertaking various activities, although predominantly focused on the private sector and ways in which insurance can respond to the challenges of climate change. In November 2019, we co-hosted a working breakfast with Menas Associates on Green Energy, discussing the opportunities for renewable technology, and the transition from oil and gas. This breakfast meeting built on a previous session earlier in 2019 on Climate Change which was again co-hosted with Menas Associates.

We are a founding member of the Lloyd's Disaster Risk Facility, a consortium of Lloyd's syndicates working to address underinsurance and promote resilience in countries vulnerable to natural disasters. In particular we are focused on developing parametric insurance coverage against extreme weather events for communities where demand for cover is not met by traditional insurance. Through this forum we are engaging with governments and organisations around the world to develop insurance solutions and are also represented at the Insurance Development Forum.

Beazley wishes to make a greater contribution to the public debate on climate related issues. The recruitment of a dedicated Investor Relations role will help facilitate this engagement. This role will also be supported by the Sustainability Officer. Through this engagement, it is expected that climate change and sustainability matters will be able to add value to the products Beazley deliver, whilst providing our clients and stakeholders with the tools and knowledge necessary to help them tackle climate change.

Beazley has a seat on the Managing Committee of ClimateWise.

Source: Beazley

Lloyd's / The Market / MS Amlin

MS Amlin is a member of The Reinsurance Association of America (RAA), one of the leading trade associations of property and casualty reinsurers doing business in the United States. The RAA is an active advocate for reinsurance interests before state regulators and legislators, who directly regulate the insurance business. At the federal level, the RAA actively lobbies on insurance and reinsurance regulatory issues, engaging in a variety of activities that serve its members and affiliates by representing their collective interests, as well as providing information and analysis to audiences outside the industry.

MS Amlin is a member of the Insurance Development Forum which aims to optimise and extend the use of insurance and its related risk management capabilities to build greater resilience and protection for people, communities, businesses, and public institutions that are vulnerable to disasters and their associated economic shocks.

In additional to the main IDF Steering Committee, MS Amlin is represented on the IDF Risk Modelling Steering Group, giving practical advice to the RMSG development of a non-profit Risk Modelling Alliance, including commentary on operations, strategy, research, governance, and data. The Risk Modelling Alliance is intended to fast-track the availability of newly developed hazard models for developing and "protection gap" countries (ie where insurance penetration is very low), enabling governments in these regions to respond rapidly to climate change impacts by arranging risk transfer products where traditional insurance is unavailable. In the last century, the development path for new models and risk transfer products was beset with intellectual property ownership issues, conflicts of interest, and lack of operating structure, which meant, in some cases, that it could take more than a decade for the first practical outcome on a particular project. The Risk Modelling Alliance as a non-profit group is able to remove or substantially reduce these barriers, and reduce the development path to years or even months.

The two MS Amlin managers who attend the RMSG (and also sit on MS Amlin's CCRPG) have between them nearly forty years' experience of catastrophe modelling and climate change research, and are able to offer authoritative advice and recommendations. In turn this will benefit governments and economies in those areas where climate change impact is increasing exponentially on very short timescales.

MS Amlin is a member of The Disaster Risk Facility (DRF) consortium, a group formed of Lloyd's syndicates, which offers insurance and reinsurance capacity against natural catastrophe for protection gap countries and regions. The consortium provides access to the collective underwriting expertise of Lloyd's members to help developing economies build resilience to disaster, climate and weather risks.

The key benefits of the facility:

- Up to $445m of capacity on a per risk, per region basis
- Ease of access to the pooled knowledge, expertise and resources of the consortium members
- Local contacts through Lloyd's global platforms

David Singh (MS Amlin's Head of Exposure Management) is Co-Chair of a newly formed Lloyd's Market Climate Risk working group (CRWG). The primary aim for the CRWG is to coordinate stakeholder groups that contribute to the Lloyd's market's ability to demonstrate an understanding of the facets of the financial impacts that may arise from climate change and to liaise with the other applicable LMA Committees and Working Groups to encompass key market issues. These include regulatory disclosure, scenario development and best practice guidance, where appropriate, in relation to climate change-related issues. The CRWG will also act as a conduit with LMA's ESG Working Group and the Corporation of Lloyd's to facilitate market input into Lloyd's market guidance and external stakeholder engagements and public positions.

MS Amlin will publish in Q3 2020 a whitepaper titled "The role of insurers in incentivising corporate climate change behavior". The white paper is being developed with an external communications partner. In phase one of the research, the partner company undertook a series of interviews with senior political and public people outside the insurance industry to collect their impressions of how insurers are responding to climate change. The feedback was shared with MS Amlin, as a challenge to the perception gap between insurers' own view of their activities and the impact these have had outside the industry. This in turn shaped the research approach and the selection of title for the final report. The second phase of the research is being conducted by the communications partner with a number of insurance industry leaders globally, and also with additional non-industry groups (including the World Bank and the United Nations). The responses will be kept anonymous when MS Amlin is reviewing the material, to avoid any conflict of interest with respondents involved in a business or trading relationship with the company. The Research, Catastrophe Modelling, and Exposure and Portfolio managers will contribute significantly to the review of the material and add sections to the report, to ensure this is reflective of the strategic principles being developed by the company's Climate Change and Resilience Policy Group.

In December 2019, MS Amlin's Dom Peters (former Chief Underwriting Officer, Reinsurance) participated in a roundtable discussion with UK Research and Innovation (UKRI). This was the first time UKRI (which is a government body that funds UK academic research) had officially engaged in discussions with the insurance industry. The outcome of this engagement was a report on the research needs of the insurance industry (see *R3 Insurance and Academia*), including climate change. The long-term objective is to secure UKRI funding for academics to investigate research topics of relevance of the insurance industry (e.g. climate change), which in turn will inform business strategies on adapting to and mitigating climate-related risks.

In February 2020, MS Amlin was a sponsor of a conference hosted by Aon titled "Collaborating to close the protection gap". Chris Beazley (CEO MS Amlin AG), James Illingworth (former Chief Underwriting Officer), Dominic Peters (former Chief Underwriting Officer, Reinsurance) and Kiyotaka Shuto (former MSI Liaison Officer) attended the event that was designed to generate discussion and share experiences on how the global finance and insurance industry can work more effectively with governments, humanitarian and non-governmental organisations to close the gap between the insured and uninsured to protect global communities and build scalable solutions, ie in those regions that are particular vulnerable to climate change.

In March 2020, MS Amlin supported the publication of a research report on Scenario Analysis (see *R1 Scenario Analysis*) in collaboration with the Lighthill Risk Network and the University of Cambridge. This report provides the insurance industry with a "how-to" guide for the development of scenarios and their use within the insurance industry. In the case of climate change, the report details how insurers are increasingly required to make decisions on how to address trend risks, through both adaption (e.g. keeping losses within an insurable window) and mitigation (e.g. discontinuation of certain polices). The results from such scenarios could feed directly into public policy decision making, assisting with the question on whether organisations or communities can adapt to, and even capitalise on, future changes.

Source: MS Amlin

Lloyd's / The Market / QBE's climate partnerships for impact

Climate change is a global challenge requiring the collaborative efforts of a range of stakeholders to minimise economic disruption and deliver an orderly transition to a lower carbon economy.

We engage and work with a range of partners in the value chain on climate-related topics, including governments, regulators, broker partners, other participants in the financial services sector and employees. Examples of engagement include:

- Collaborating with finance sector participants to establish a roadmap for realigning our sector to support improved environmental, social and economic outcomes (the Australian Sustainable Finance Initiative).
- Collaborating on climate change and participating in the Climate Measurements Standards Initiative to develop standards for measuring the physical risk impact of climate change.
- Collaborating with the Energy Storage Systems (ESS) working group in Singapore to add value to our customers as ESS technology expands.
- Advocating for greater infrastructure mitigation funding and broader climate resilience measures, including through the recent Senate Finance Committee hearing on the 2019/20 Australian bushfires.

We are also involved in a range of initiatives, allowing us to contribute our expertise, support the development of our strategic climate responses and advocate for climate mitigation and resilience measures on behalf of our customers. This includes participating in the Insurance Council of Australia's Climate Change Action Committee and Actuaries Institute Climate Change Working Group. As a member of the Investor Group on Climate Change, we participate in member meetings and initiatives, including the Low Carbon Working Group.

Throughout the year, QBE representatives also engaged with partners in the value chain by attending and speaking at business roundtables, seminars and events on sustainability. Topics included climate change, international carbon markets, resilience and sustainable finance. Examples include:

- Participating in a workshop convened by the International Association of Insurance Supervisors and Sustainable Insurance Forum, focused on implementing the recommendations of the Taskforce on Climate-related Financial Disclosures within the insurance industry.
- Attending several Climate Week events in New York on renewable energy sourcing, sustainable finance and insurance and innovation in built environment technologies designed to support the transition to a low carbon economy.
- Attending the second Annual Climate and ESG Asset Owner Summit presented by the CFA Society New York in New York to connect with and share knowledge with other asset owners.

We also engage business partners and employees to raise awareness of climate-related issues, manage risks and develop solutions. We offer events, seminars, tools and publications that help our clients, brokers and employees build and develop their risk management knowledge and sustainability awareness.

In 2019 we also promote climate and sustainability awareness and engagement in the following ways:

- Across our divisions, we published market leading insights on sustainability-related topics such as extreme weather events (including through our Resilience Series articles and guides for customers and broker partners).
- In collaboration with global insurers, reinsurers, brokers and academics, we are part of the core project team developing the first industry standard on integrating sustainability in insurance underwriting. We are also part of the UNEP FI PSI TCFD Pilot Group with the objective of building scenarios and approaches for insurers and reinsurers to assess climate-related risks and opportunities.
- We ran an ideation process encouraging our employees to identify an existing or emerging sustainability topic and to suggest a new way to support our customers to manage that challenge – through a risk or opportunity lens. The Global Challenge created a platform for our employees to innovate on a range of topics faced by our customers such as climate change, building more resilient cities, transition and liability risks. We received 155 submissions and the final round saw four teams present their ideas with one team focused on climate-related transition risks. The business is committed to supporting the finalists' ideas with seed funding.

QBE EO

QBE EO participate in industry groups on an ad-hoc basis to provide feedback to regulatory work on climate change where appropriate. For example, QBE EO provided feedback on the PRA consultation paper in relation to enhancing banks' and insurers' approach to managing the financial risks from climate change, via the ABI.

Evidence also applies to principle(s): 1.1, 1.2, 3.1, 3.2, 5.1, 5.2

Source: QBE Sustainability Report 2019 (p.20-21).

Lloyd's / The Market / RenaissanceRe Syndicate Management Ltd / Collaboration efforts & engagement activities

External Forums & Sponsorship

RenaissanceRe has long been active in promoting risk mitigation and disaster preparedness to save lives and increase the economic resiliency of cat-exposed communities. In February 2020, RenaissanceRe were a co-sponsor of the Aon Protection Gap conference which encouraged collaboration beyond the market by working with governments, humanitarian organisations and NGOs to protect communities before and after catastrophes, including those impacted by significant climate risk. During 2019/20, various RenaissanceRe representatives also attended a number of ClimateWise events and committee meetings related to the discussion of climate change issues.

Senior members of RenaissanceRe staff also attend various forums including The Geneva Association, which is an industry thinktank that detect early ideas and emerging debates on political, economic and societal issues concerning the insurance industry, with research programs including themes dealing with risk management and climate change issues. RenaissanceRe are also involved in The IUA Climate Risk Committee, which is a London market forum created in January 2020 to discuss the industry response to the changing regulatory landscape around climate risk.

RenaissanceRe Risk Sciences Foundation

RenaissanceRe has a dedicated company, RenaissanceRe Risk Sciences Foundation, which was created to support advanced scientific research in natural catastrophes, the development of risk mitigation and adaptive techniques to safeguard communities, efforts that reduce the economic turmoil following disasters, and organisations that preserve coastal and other risk-exposed habitats.

The Foundation promotes education, preparation, adaptation, and mitigation of catastrophic risks. As a component of these activities, RenaissanceRe also established an award-winning series of Risk Mitigation Leadership Forums, featuring world-renowned speakers. Since the forum series began in 2008 there have been over 4,000 attendees, and over 400 speakers and political leaders attend the events hosted by RenaissanceRe. These free events bring together emergency responders, scientists, policymakers, academics, and private sector representatives to advance natural hazards risk mitigation efforts and awareness. The most recent Leadership Forum was held in New York City in November 2019 to discuss the impact of today's natural disasters, what one can learn from them, and how Government can help in preparing for future catastrophic events.

Insurance Development Forum (IDF)

RenaissanceRe have played an active role within the Insurance Development Forum (IDF). The IDF was formed in April 2016 following the UN Sendai Framework which highlighted that the key foundation needed to assist emerging nations' uninsured populations is first helping them in understanding risk. Therefore, the IDF initiative grew out of the climate change underpinnings of Sendai. The IDF aims to incorporate insurance industry risk measurement know-how into existing governmental disaster risk reduction frameworks, and build a more sustainable, resilient insurance market in a world facing growing natural disaster/climate risk.

The Risk Modelling Steering Group (RMSG)

The RMSG is a sub-group of the IDF which is co-chaired by RenaissanceRe's EVP Group Chief Risk Officer, Ian Branagan. The core goal of the RMSG is to expand access to credible and consistent natural hazards risk data, models, and expertise. The RMSG involves circa thirty organisations and aims to achieve methods and practices which are repeatable, scalable, and efficient, thereby reducing duplication of activity. This will also serve to remove the persistent reinvention of models, data, and information. The RMSG has been recognised by the IDF as having a central role in the IDF's priorities on climate and natural hazard resilience.

The key workstreams from the RMSG to date include:

- Understanding the problem space;
- Cataloguing risk models;
- The development of an exposure database;
- Model validations and consistent data standards; and
- The end to end development of an open risk model for a number of pilot countries.

One of the core workstreams for the RMSG is trying to understand the problem space. This is a continuous programme of research to understand the requirements of discrete groups of non-insurance users in the Disaster Risk Reduction world. The aim is to define how relevant re/insurance catastrophe models might be adapted or developed for use by these groups and a framework for user questions on hazard and risk with responses provided which identify the data and the models required to answer the question. Another key workstream is the development of consistent data standards for risk data which will assist in the interoperability of models. The previous inconsistent development of data, models, methods and language has resulted in reduced confidence in risk modelling outputs and a reduced ability to coordinate, share and communicate about risk. The harmonisation of language approaches and standards for risk modelling will help to promote rather than restrict innovation.

The development of an end to end open risk model for a number of pilot countries will consolidate the other activities of the other RMSG workstreams. The project is geared towards lowering the barrier to risk insights in the developing world. This project will help to test the practical challenges with data standards, understand the limitations of open data and also test the benefits of having different hazard, exposure and vulnerability modules to better understand model uncertainty. This project involves a number of different organisations, government agencies, insurance companies and academics and through this process new risk data would be available to pilot countries (such as Sri Lanka and Pakistan) and the international community for insurance development and disaster risk management.

The IDF has been working with the German Development agency in connection with InsuResilience work initiated by the G7 to help develop risk financing solutions for the Sri Lankan government to help finance recovery following a natural hazard. The Sri Lanka project seeks to improve exposure and claims management of the Sri Lankan National Natural Disaster Insurance Scheme (NNDIS). The high-resolution exposure model has been developed using model expertise from within the IDF RMSG member companies and external consultants, with the model released onto Simplitium's ModEx platform. The model, which is the first probabilistic flood model for the country, helps analyse the potential flood losses to the scheme and in doing so provides greater understanding of risk to the international reinsurance market.

SmarterSafer

RenaissanceRe is a supporter of SmarterSafer, a national coalition that is made up of a diverse membership united in favour of environmentally responsible, fiscally sound approaches to natural catastrophe policy that promote public safety. The coalition believes that the US Federal government has a role in encouraging and helping homeowners to undertake mitigation efforts to safeguard their homes against natural disasters. The coalition opposes measures that put people's lives at risk at the expense of taxpayers. Measures such as subsidising artificially low rates for homeowners' insurance policies help to encourage construction in environmentally sensitive and unsafe areas. The coalition is working to ensure that US Congress does not incentivise people to live in harm's way in places prone to hurricanes and floods.

Institute of Building Home Safety (IBHS)

RenaissanceRe has long been part of the Institute of Building Home Safety, which is an insurance industry trade group that focuses on reducing the social and economic effects of natural disasters and other property losses by conducting research and advocating improved construction, maintenance and preparation practices. RenaissanceRe's President of RenaissanceRe Risk Sciences is on the Board. The organisation works to promote resiliency from natural disasters and other property losses by developing an infrastructure that is damage-resistant, and through personal and corporate action to help minimise disruption to normal life and work patterns.

Lloyd's Disaster Risk Facility (LDRF)

RenaissanceRe was instrumental in setting up the Lloyd's Disaster Risk Facility which involves several syndicates working together to promote resilience and address under-insurance. RenaissanceRe played an integral role in pooling the capacity required for the facility's first risk; the Hurricane and Earthquake bond issued to the Government of Puerto Rico.

InsuResilience

Through their IDF membership, RenaissanceRe is part of this global partnership for Climate and Disaster Risk Finance and Insurance Solutions. The vision of the InsuResilience Global Partnership is to strengthen the resilience of developing countries and to protect the lives and livelihoods of poor and vulnerable people from the impacts of disasters by enabling faster, more reliable, and cost-effective responses to disasters.

Source: RenaissanceRe Syndicate Management Limited

Lloyd's / The Market / The Hartford

The Hartford continues to be represented on the Connecticut Governor's Climate Change Council and has participated on the city of Hartford's Climate Stewardship Council as well.

The Hartford also advocates directly and through its trade association such as the American Property Casualty Insurance Association (APCIA) in states for price adequacy in the property and casualty products it sells, and also for price adequacy in the states that maintain residual markets for property insurance for homeowners. This effort covers many states, in particular coastal states that are most prone to severe weather events. For example, in the past The Hartford participated in industry efforts in Florida to advocate for provisions in proposed legislation that would have accelerated the glide path to rate adequacy for residual market property rates and would also lower limits of liability, thereby moving higher value properties to the private market. The legislation passed, though without the provision that would have accelerated price adequacy.

The Hartford was also one of the first companies to publicly and loudly add its name to the organizations urging the incoming U.S. administration to remain committed to the Paris Agreement in November 2016, something we did again in May 2017 as a signatory to the "We Are Still In" commitment.

Source: The Hartford

Support Links:

- 2019 Sustainability Highlight Report, p. 11

Lloyd's / The Market / Tokio Marine Kiln / Social contribution through participation in international initiatives

As part of our membership at ClimateWise, TMK member has participated in the Policy Engagement Task Force in 2020 where a thought leadership paper specifically focussed on Underwriting aspects is expected to be published this year.

Furthermore, TMK participates in webinars organised by ClimateWise, Cambridge University, Cass Business School, Independent Woman Insurance Network and ABI on climate risk related industry research.

The TMK Group CRO gave a keynote presentation to the ERM Insurance conference held in December 2019. The presentation on 'Climate Change Resilience: The role of the CRO' explored the risks to insurers from climate change, and the response options that are available to CROs in managing those risks.

Source : Tokio Marine Group CSR Report

5.2 Support and undertake research on climate change to inform our business strategies and help to protect our customers' and other stakeholders' interests. Where appropriate, share this research with scientists, society, business, governments and NGOs in order to advance a common interest.

Lloyd's / The Corporation of Lloyd's

Since joining ClimateWise we have produced a number of influential reports ("Adapt or Bust"; "Climate change and security"; "Food system shock"; "Catastrophe Modelling and Climate Change", all available on Lloyd's website) to advance the debate by providing practical context to considerations in the financial services sector (principle 3.1 and 3.2).

Over the reporting year, examples of Corporation led research, include:

- 'Renewable Energy: Risk and Reward: Energy systems across the world are experiencing fundamental shifts driven by climate change policies and rapid technological changes. Over the past 10 years or so, renewable energy sources have expanded to such an extent they are now the dominant source of new power capacity additions in many countries. Unquestionably, the rapid growth in the renewables industry, the changing nature of risks in the sector and the fact that insurance is often a pre-requisite for provision of project finance mean that there might be a growing need for insurance. This series of three reports on the renewable energy sector by Lloyd's, in association with researchers from Imperial College London's Centre for Energy Policy and Technology (commissioned via Imperial Consultants) analyses the implications of the changes to the energy generating landscape for insurers, risk managers and brokers.
- 'Below 2^{o}C': Insurance for a low carbon economy': This report provides a strategic overview of the potential effects of the low carbon transition on the general insurance market. Vivid Economics and experts from the London School of Economics Grantham Research Institute were engaged by Lloyd's to review the effects of decarbonisation scenarios on sectors and regions of the global economy, and the attendant opportunities and challenges this poses for the insurance sector. The work focuses on the impact of the transition and liability risks on general insurance, seeking principally to understand sectoral trends up to 2030, which will inform risks and opportunities over the next 3-5 years.

  The impacts of decarbonisation on the insurance sector are analysed in this report through three 'impact channels', consistent with the risk and opportunity framing developed by the Taskforces on Climate-related Financial Disclosure (TCFD). These are: activities within sectors; relationships between sectors; and, interations between sectors and the legal system.
- Forthcoming research: In the next reporting year, we expect to report against projects that look to explore aspects of climate-related risks and solutions to a low carbon economy:

Sharing our research

Climate change is a key issue for everyone, and recent natural disasters show the very real cost that climate change could cause insurers in the future. Lloyd's recognises the effects of climate change and the direct impact on the business community and we are in regular dialogue with insurers, businesses and policy makers to address the challenges of climate change, both for our industry and for the wider world.

Government and regulatory engagement

The Corporation believes that it is important that supervisors, insurance undertakings and others in the global insurance market have a good understanding of the nature and scale of the risks arising from climate change and look to provide responses in support of the work occurring globally in this area.

Over the reporting year the Corporation engaged with international regulators on climate risk:

Engagement with the IAIS

- Lloyd's International Regulatory Affairs team are responsible for protecting and promoting Lloyd's licences around the world. This requires maintaining a positive dialogue with the global supervisory community on emerging areas of regulatory focus such as climate change. Andrew Gurney, Head of International Regulatory Affairs, attended the 2019 annual conference of the International Association of Insurance Supervisors (IAIS) where climate-related financial risks to the insurance industry was an item of discussion. Lloyd's will also be participating in this year's IAIS Annual Conference where the theme will be Sustainable Insurance.

Engagement with Geoff Summerhayes, APRA

- Geoff Summerhayes, Executive Board Member of APRA, and Chair of the Sustainable Insurance Forum (SIF) is a leading regulatory voice on climate change. Through frequent dialogue and engagement, Lloyd's has built a positive relationship with Geoff Summerhayes, including a constructive dialogue on Lloyd's understanding of climate-related risks. Over the last year, a number of senior Lloyd's officials have met with Geoff Summerhayes, including Lloyd's CEO John Neal, Lloyd's CRO David Sansom, as well as Lloyd's Head of International Regulatory Affairs Andrew Gurney.

Monetary Authority of Singapore (MAS)

– As an international re/insurer with a strong local ties across the markets we operate, Lloyd's supports national regulators in building more sustainable financial systems. In Singapore, Lloyd's Asia has been an active contributor to the MAS Financial Centre Advisory Panel Green Finance workstream over the last year. Lloyd's Asia has also worked with the local insurance industry to support the development of MAS' Guidelines for Environmental Risk for Insurers.

Evidence also applies to principle(s): 3.1, 3.2

Source: The Corporation of Lloyd's

Lloyd's / The Market / ArgoGlobal

Signatory UK Business Group Alliance for Net Zero

As part of the Cambridge Institute for Sustainability Leadership (CISL) network, ArgoGlobal supported a letter from business CEOs to the UK Government on a sustainable, resilient recovery for the UK. The letter is calling on the UK Government to ensure that the economic recovery is aligned with the UK's broader goals and delivers a clean, just improvements that create quality employment and builds a more sustainable, inclusive, and resilient UK economy for the future.

The letter is a joint initiative from the UK Business Group Alliance for Net Zero, which includes the CBI, The Prince of Wales's Corporate Leaders Group, the Aldersgate Group, CDP, the B Team, IIGCC, the Climate Group, BITC, the UKGBC, and many more UK business groups.

Association of Bermuda Insurers and Reinsurers (ABIR)

As an ABIR member, we are providing feedback on a draft Climate Change Insurance Survey. This survey will be issued by the Bermuda Monetary Authority (BMA). The BMA will begin to work on a climate stress test for the market. With industry experts in our organization, we can provide valuable input on climate change scenario development.

PRA Requirements of Financial Impact of Climate Change

As further outlined in Principle 3.1, ArgoGlobal piloted the development of stress and scenario analysis related to climate change in line with Prudential Regulation Authority (PRA) expectations under their Policy Statement PS11/19.

Contributing Ideas Through Research and Modelling

Our effort to move the needle is through participating in public speaking events and sharing industry knowledge. Our Research and Development efforts have been put forth from industry scientists and engineers that have expertise in seismology, meteorology, hydrology, and building design. Our contributions from various team members to research and development concepts are outlined in Principle 2.1. In addition to the above, we continually seek opportunities to join or partner with organizations on the subject of climate change to further our understanding and have a more significant presence to make contributing efforts to changing policy.

Evidence also applies to principle(s): 2.1, 3.1

Source: ArgoGlobal

Lloyd's / The Market / Beazley

Led by the Sustainability Officer, Beazley will look to undertake further research on climate change related issues to help inform our business strategy. Through a process of identifying risks and opportunities with our underwriting teams, we will be able to determine where the undertaking of research would be of benefit. To maximise the impact of this research we would look to collaborate with external stakeholders in order to develop tools and awareness which are of benefit to all. Sharing the findings of our research with the wider industry is also an important step to tackle climate change.

Alongside the research, Beazley also has the privilege of sponsoring the Beazley Design of the Year award, in conjunction with the Design Museum. This award enables Beazley to champion innovative design developments across six categories including architecture, digital, transport and fashion. Many of the entries and winners deliver solutions which can support the drive to a more sustainable world. One of the winners, which were announced in late 2019, was a self driving electric bus developed to serve rural communities all year around. Through Beazley's global reach, the entrants and the technologies they advocate can be celebrated. In turn this creates awareness of sustainable solutions and encourages companies and individuals to understand the possibilities for transitioning to a low carbon future.

Source: Beazley

Lloyd's / The Market / Chubb / Chubb Support for Research Projects

Our support of the liability risk research project being conducted by Lloyd's will be covered by Lloyd's.

Chubb is a data-driven company and relies heavily on research and evidence-based decision-making processes. While we are at the forefront of CAT modeling research, we also pursue external opportunities to engage with our peers, scientists, society, business, governments and non-profit organizations in conducting climate risk research.

Evan Greenberg, Chairman and CEO of Chubb Limited, is among the 68 chief executives to date who have signed the Geneva Association's Climate Risk Statement. The statement provides the foundation upon which the direction of future climate-related initiatives by the Geneva Association will be based. Further, Chubb is an active member of the Association's Climate Change Working Group and Task Force on Scenario and Stress Testing Assessment.

Chubb is also currently pursuing a project with the Bren School of Environmental Science & Management at the University of California Santa Barbara to better map and understand future potential wildfire risk in regions of critical interest to Chubb.

While we can't push back sea level rise, we are engaged in projects such as with The Nature Conservancy to support a resilience project in Miami to increase flood protection and serve as a model for replication in other threatened coastal cities. And while we can't stop storm surge, we supported the expansion of a reef restoration project in Mexico's Yucatan Peninsula that included transplanting 10,000 new coral colonies as a natural barrier to help protect the critical tourist economy - a great example of the sustainable economy. We have supported for many years the Conservation Fund's efforts to enhance and protect biodiversity through the preservation of more than 8 million acres of threatened land and water habitats, as well as extensive forest restoration project across the U.S. and Canada.

Source: Chubb

Lloyd's / The Market / MS Amlin

As outlined in Section 3.2, MS Amlin is involved in a number of climate change research activities including:

- Supporting and funding climate change research via the Lighthill Risk Network (https://lighthillrisknetwork.org/)
- Supporting academic research and collaboration via the MS Amin Academic Advisory Panel.
- The development of bespoke view of catastrophe (and climate) risk through the evaluation and adjustment of catastrophe models

Highlights from the last 12 months include:

- In March 2020, MS Amlin supported the publication of a research report on Scenario Analysis in collaboration with the Lighthill Risk Network (see *R1 Scenario Analysis*) and the University of Cambridge. This report provides the insurance industry with a "how-to" guide for the development of scenarios and their use within the insurance industry. In the case of climate change, the report details how insurers are increasingly required to make decisions on how to address trend risks, through both adaption (e.g. keeping losses within an insurable window) and mitigation (e.g. discontinuation of certain polices). This work directly informed the development of MS Amlin's scenarios of the 2019 GIST submission, and will be used to inform the development of future scenarios used within the business and also for regulatory purposes (e.g. the PRA Biennial Exploratory Scenario). MS Amlin's role was as a funder of the overall report, and by management-level staff contributing in person to a series of workshops and reviews on the research project.
- In June 2020, MS Amlin held an Academia Advisory Panel (AAP) (see *R2 AAP Agenda*) on the impacts of climate change on catastrophe modelling. The AAP provides MS Amlin with objective, peer-reviewed scientific advice, and information on the latest academic research trends in the main fields of natural catastrophe modelling. In total there were five presentations from leading UK academics on the topic of climate change as it relates to tropical cyclones, European windstorms, and precipitation. In addition, the MS Amlin Research Manager presented to the academics on catastrophe modelling and climate change. The event generated a number of research and collaboration opportunities that MS Amlin will support/explore over the coming 12-24 months.
- In 2021 MS Amlin is sponsoring the second Symposium on Hurricane Risk in a Changing Climate, to be held in Miami (http://hennarot.forest.usf.edu/main/depts/geosci/conference/shrcc/main.html).The main objective of this symposium is to support communication among scientists, engineers, and insurers in order to increase understanding of and better ways to deal with tropical cyclone risks. The MS Amlin Research Manager, Cameron Rye, will attend and speak at the event.
- In addition to the above specific recent activities, MS Amlin continues to develop its own bespoke view of catastrophe (and climate) risk through the evaluation and adjustment of catastrophe models. This work

ensures that the catastrophe models used by MS Amlin reflect the present-day climate risk and that this information feeds into business strategies (e.g. pricing, capital modelling, risk tolerances). In 2019, MS Amlin reviewed the RMS European Windstorm model, and approved the use of the "Climate Variability" view of risk, which better reflects recent climatological conditions (see *R4 EUWS External Summary*). MS Amlin is currently in the process of reviewing the AIR US Hurricane Model, including the suitability of the AIR "Warm Sea Surface Temperature" event set, which in part captures the impacts of climate change on US hurricane losses.

– MS Amlin is supporting a number of market-wide initiatives into climate change research. In the last 12 months MS Amlin has held workshops with catastrophe model vendors RMS and AIR to discuss climate change solutions that the vendors could build that would be beneficial for the insurance industry. In addition, MS Amlin hosted a Lighthill Risk Network workshop on climate change to discuss new research initiatives that the LRN could fund in the near future, including the development of a climate change data hub for the insurance market.

Source: MS Amlin

Lloyd's / The Market / QBE / Research on climate change

QBE's Catastrophe Modelling Team, in conjunction with the climate-related physical risk working group, have begun internal research to calculate the potential impact of the severity and frequency of naturals catastrophes increasing in the medium to long-term (6-10+ years), in line with the scientific evidence from the Intergovernmental Panel on Climate Change. This Working Group aims to prioritise the geographies where the risks are most likely to manifest (e.g. hurricane and cyclone regions) and run climate scenarios to assess our exposure. This work will inform future underwriting portfolio optimisation business strategies in relation to climate change exposure.

In 2019, in partnership with catastrophe modelling firm RMS, we assessed the impact of hurricanes in North America and tropical cyclones in Australia, which represent some of our largest exposures to weather-related events. We considered impacts on our existing portfolio up to 2100 under scenarios consistent with a 2–3˚C global mean temperature rise. This initial analysis did not show material increases in our expected claims costs before 2050. During 2020, we are extending the analysis to other weather-related exposures in our portfolio including windstorm and flood in Europe and convective/hail storm in North America.

QBE is part of the UNEP FI PSI TCFD Pilot Group with the objective of building scenarios and approaches for insurers and reinsurers to assess climate-related risks and opportunities. The Pilot has progressed more slowly than we anticipated in our Climate Change Action Plan and we expect it to be completed by the end of 2020. QBE is part of a sub-group looking at transition risks in the property sector in Australia. The work undertaken as part of the Pilot will help to inform our scenario analysis and strategic responses.

In Australia, QBE is participating in the Climate Measurements Standards Initiative to develop standards for measuring the physical risk impacts of climate change on property damage. We are collaborating with a range of stakeholders including other Australian general insurers, reinsurers and banks, and the Earth Sciences and Climate Change Hub (a partnership of Australia's leading climate change research institutions, including the CSIRO and Bureau of Meteorology), Climate-KIC Australia (a 'Knowledge Innovation Community' comprising a range of public and private entities), catastrophe modellers, hazard scientists and financial reporting professionals. The Initiative is expected to complete a draft report in 2020 for wider consultation.

Specific products and services developed by QBE to protect customers' and other stakeholders' interests are discussed in section 6.2 of this report. Additional examples / case studies can be found in the QBE 2018 Sustainability Report.

Evidence also applies to principle(s): 3.1, 3.2

*Source: QBE Annual Report 2019 (p35-37), QBE Sustainability Report 2019 (p22), QBE press release (*https://www.qbe.com/us/newsroom/press-releases/qbe-partners-with-jupiter-to-take-on*);).*

Lloyd's / The Market / RenaissanceRe Syndicate Management Ltd

RenaissanceRe Risk Sciences

RenaissanceRe through a wholly owned company, RenaissanceRe Risk Sciences, seeks to assist in the understanding of natural hazards and evolving risks. The mission purpose of the Company is to integrate science and technology to deliver meaningful business solutions for their clients. RenaissanceRe Risk Sciences' advanced scientists leverage their deep expertise to elevate the Company's understanding of loss exposures and gain actionable risk intelligence.

The RenaissanceRe Risk Sciences team is made up of 17 advanced scientists with, on average, 20 years' experience in the industry, actively working on research in to 11 perils across 35 countries. They engage heavily in research of natural hazards and evolving risks and released a paper on understanding the California Wildfire events of 2017 which highlighted the impact of climate change and the higher propensity for significant wildfire weather conditions as a result of climate change. RenaissanceRe Risk Sciences holds close partnerships with the following global scientific and mitigation organisations to enhance their risk intelligence:

- Earthquake Engineering Research Institute;
- Florida Coastal Monitoring Program;
- Insurance Institute for Business & Home Safety;
- National Hurricane Center;
- National Oceanic and Atmospheric Administration;
- Pacific Earthquake Engineering Research Center;
- Risk Management Center at the Wharton School, University of Pennsylvania; and
- University of Rhode Island, Graduate School of Oceanography.

NatCatDaX

RenaissanceRe was a founding member of The Natural Catastrophe Data and Analytics Exchange (NatCatDaX) Alliance, which was launched at the 7th International Symposium on Catastrophe Risk Management and is an industry-led catastrophe data and analytics platform for Asia. The Alliance is a partnership with Nanyang Technological University (Singapore's Institute of Catastrophe Risk Management), Aon Benfield, Mitsui, Risk Management Solutions and PERILS, with support by the Monetary Authority of Singapore (MAS).

The aim of the Alliance was to generate a rigorous database by tapping into national and industry data. Such high quality data, market analytics and product innovations are currently lacking in the region, and the output of this Alliance could be used to help analyse key cities and regions within Asia to understand both the insurance exposure to a loss as well as the economic exposure more generally as a result of an event.

RenaissanceRe's SVP Chief Underwriting Officer in Singapore, Jon Paradine, served on the International Advisory Board (IAB) for the Institute of Cat Risk Management (ICRM) at Nanyang Technical University in Singapore for a two-year period ending April 2020. The mission of the ICRM is multi-disciplinary research projects in science, engineering, finance, technology, economics and socio-political aspects related to catastrophe risk and to help the community to better understand the fundamental characteristics of risks related to natural and non-traditional disasters such as earthquakes, tsunamis, typhoons, volcanic eruptions, floods and droughts. The IAB comprises of globally leading academics, researchers and representatives from the industry, academia, research organisations and government agencies to guide the ICRM's strategic plans.

Jon Paradine also serves as the Chairman of the ILS alternative risk transfer working group, which is a group comprising of industry experts in the ILS space and has been established by the MAS. The group will continue to advise the MAS on initiatives that aim to develop Singapore as an ILS hub and to create a framework to allow ILS to provide risk financing solutions in developing and developed countries.

Source: RenaissanceRe Syndicate Management Limited

Lloyd's / The Market / The Hartford

In addition to the engagement cited in section 5.1, we have also taken the following actions in support of climate change research that informs our business strategies and helps to protect our customers' and other stakeholders' interests:

In 2017, The Hartford joined The Geneva Association. Founded in 1973 by the CEOs of global insurers, The Geneva Association is an international insurance think tank that produces and distributes high-quality research and analysis on global strategic insurance and risk management issues. The objective of the Geneva Association is to develop and promote a wider understanding on the unique role and importance of insurance in economies and for societies through publications, conferences and active discourse with policymakers, regulators, supervisors, academics and other key constituents. The socioeconomic risks associated with weather-related events and other natural catastrophes are on the rise, exacerbated by climate change and urban development patterns. The adoption of the Sendai Framework for Disaster Risk Reduction, the Agenda for Sustainable Development and the COP21 Paris Agreement promotes the need for a comprehensive approach to managing extreme events and climate risk. The (re)insurance industry can play a key role in public-private partnerships that take these commitments forward as integral components of national to local development planning. The Geneva Association conducts research focused on two key pillars: (i) building resilience to extreme events and climate risk; and (ii) the transition to a low-carbon economy. It also facilitates high-level dialogue engaging C-level executives of the insurance industry and authorities from policymakers, standard-setting and regulatory bodies, governments, the United Nations and development organizations.

Hartford Funds was accepted into the UN Principles for Responsible Investment (UNPRI) protocol in the second quarter of 2015. Under the terms of the protocol, Hartford Funds publishes an annual PRI Transparency Report.

The Hartford partners with the Insurance Information Institute. For over 50 years, this non-profit organization has provided information to help consumers, reporters, insurance companies and researchers understand how insurance works. It communicates on climate change and severe weather events and their implications for the insurance industry and society at large.

After acquiring Navigators in May 2019, The Hartford assumed the existing membership of ClimateWise.

Source: The Hartford

Support Links:

- 2019 Sustainability Highlight Report, p. 11

Lloyd's / The Market / Tokio Marine Kiln / Insurance Advisory Council

Research on climate change to inform our business strategies at TMK has thus far been limited to the Risk Management Team's work in the identification and assessment of the varied aspects of climate risk.

This research work has drawn on a range of external sources including from the Insurance community, the ERM community, the actuarial community, and the scientific community. It has led to a development of understanding around the ways in which stakeholders are being and will continue to be affected by climate change. This has then been shared with others at TMK and in the wider insurance industry community through presentations, including at the Insurance ERM conference in December 2019 (as mentioned in section 5.1).

Source: Tokio Marin Kiln

6. Support climate awareness amongst our customers/ clients

6.1 Communicate our beliefs and strategy on climate-related issues to our customers/ clients.

Lloyd's / The Corporation of Lloyd's

This document constitutes 'Lloyd's' response to the ClimateWise principle for the period covering 1 July 2019 – 30 June 2020. The Corporation of Lloyd's collates and submits this document on behalf of the Corporation of Lloyd's and the Lloyd's market members outlined in the front matter of the document, to provide an overview of activities undertaken by 'Lloyd's'.

Similar information is also available in the annual report, across Lloyd's.com and social media accounts, and internally to Corporation employees for transparency. This report goes into substantially more detail that can realistically be expected from the other sources.

In the annual report there are mentions of climate change in the following areas: Benefits to Society (p11), Lloyd's Key Risks and Risk Appetite (p14).

Responsible business strategy

The Corporation of Lloyd's is committed to being a responsible global corporate citizen by adopting ethical principles and practices, sharing knowledge and expertise, and by making a positive contribution to social and environmental issues. The Corporation operates in a way that meets fundamental responsibilities in the areas of human rights and labour, as well as environment and anti-corruption.

In 2018, we carried out research to understand better our employees' attitudes to responsible business, how the Corporation was performing as a responsible organisation, and what behaviours and actions were required to bring our responsible business strategy to life.

Through an employee survey, interviews and focus groups with employees from a cross-section of roles and departments, including the Executive Committee, participants were asked what responsible business meant for the Lloyd's market in general and the insurance sector. The findings identified four key areas for Lloyd's responsible business approach to address:

- Influencing and working with the market
- Core services, products and operations
- Workplace and culture
- Role in the community

Responsible Investment Strategy

The Corporation of Lloyd's believe that we should use our shareholder power to influence the behaviour of the companies in which we invest – and persuade them to respond more effectively to the impact of climate change.

The Corporation has a responsible investment strategy that has been communicated publicly. Details are available as part of the annual report, Responsible Business webpages, and in outputs throughout the year, such as regulatory responses and media requests.The Corporation's investment philosophy focuses on generating long term, sustainable capital growth for Central Fund assets. The approach to responsible investment is built upon three core pillars;

- Protecting the Central Fund assets by considering environmental, social and governance risks;

– Promoting responsible business practices in companies through activities such as corporate engagement and shareholder action; and

– Providing capital to support a sustainable future, through investments in green and social impact bonds and by excluding investments in coal focused companies.

Evidence also applies to principle(s): 6.1

Source: The Corporation of Lloyd's

Lloyd's / The Market / ArgoGlobal / Climate Change Position

Our Climate risk management position is shared with our clients via our enhanced external Corporate Responsibility webpage, which notably features content on our entire ESG program. We have a dedicated section on climate change and environmental related subjects.

This year was the first year we published our Sustainability Report, see Section 1.2 under 'Sustainability Working Group' for more information. All of these disclosures highlight the impact of climate change on our business and our plan to understand climate-related risks according to the recommendations of the Task Force for Climate-Related Financial Disclosure (TCFD).

We recently launched a quarterly ESG-specific newsletter that we distribute to all staff along to a targeted audience of clients and industry stakeholders. The newsletter focusses on all matters related to ESG and our plans for addressing climate change. The July newsletter highlights new insurance solutions and how critical data is to flood modeling. Additionally we have other online digital channels where we communicate our messages and commitment to climate-related issues Instagram (lifeatargogroup), Facebook (Argo Group), and Twitter (@argo_group).

Our commitment to our membership to ClimateWise and yearly reporting confirms our intentions on continuous improvement around climate-related business solutions.

This year we have decided to expand the scope of our ClimateWise report to cover Argo Group as well as ArgoGlobal and to publish the report externally to show our ongoing commitment to move towards TCFD recommendations.

- https://www.argolimited.com/about/corporate-responsibility/
- https://www.argolimited.com/flood-modeling/
- https://www.argolimited.com/news-release/ariel-re-delivers-insurance-solution-to-support-newly-formed-novasource-power-services/

Evidence also applies to principle(s): 1.2

Source: ArgoGlobal

Lloyd’s / The Market / Beazley

We have a prominent Responsible Business section on our website (https://www.beazley.com/united_kingdom/responsible_business.html), and include a section in our annual report and accounts. A standalone Responsible Business report is issued alongside our annual report, focusing specifically on the work of the Responsible Business Committee. A large proportion of this report was climate change related.

Beazley intends to further the level of communication with our external stakeholders, in order to create better relationships, inform them of the risks and opportunities climate change may present to both Beazley and themselves. The first step in this engagement plan will be the undertaking a materiality assessment to identify the sustainability issues important to all our internal and external stakeholders. Once this has enabled Beazley to shape its long term strategy then a more detailed engagement strategy will be developed in conjunction with the Head of Investor Relations.

Source: Beazley

Lloyd’s / The Market / Chubb / Chubb Philanthropic Activities

Chubb Charitable Foundation Commits $500,000 to Rainforest Trust

The Chubb Charitable Foundation announced a $500,000 commitment to Rainforest Trust, a global conservation organization that purchases and protects the most threatened tropical forests, saving endangered wildlife and sequestering carbon through partnerships and community engagement.

The grant will support Rainforest Trust's Conservation Action Fund, which focuses on urgent conservation initiatives to protect critical habitats that would otherwise be used for development, agriculture or natural resource extraction.

The Foundation's first grant of $154,000 will support the expansion of the Papagaios de Altitude Reserve in the Atlantic Rainforest of Brazil, one of the world's most threatened biodiversity hotspots. Rainforest Trust, working with local partner Associação dos Amigos do Meio Ambiente, will purchase a 220-acre property in Santa Catarina and register the land as a protected natural area. Doing so will safeguard one of the most significant remaining Araucaria forests in Brazil, secure the ecological requirements for wildlife and preserve an important watershed. The property stores 17,482 metric tons of carbon, equal to 43 million miles driven by an average passenger vehicle.

Chubb Marks Thirteenth Year of Support for American Forests American ReLeaf Program with the Planting of 33,000 Trees

Chubb announced its pledge to sponsor the planting of 33,000 trees in 2020 as part of the American Forests American ReLeaf Program. Chubb began supporting the cause in 2008, and this pledge represents one tree for each new environmental insurance policy written globally throughout 2019.

In addition to this donation, Chubb, its employees and its charitable foundation continue to demonstrate their support for a wide range of environmental philanthropies and volunteer activities in local communities around the world. Chubb's charitable foundation grants have also helped preserve sensitive lands and habitats, finance green business entrepreneurs, and support educational programs that promote a healthy and sustainable environment, both domestically and globally.

Chubb's contribution will support the following planting projects with American Forests in 2020:

- Kirtland's Warbler Habitat Restoration in Michigan: When human settlement and commercial timber harvest in the 1970s and 1980s altered natural forest cycles in northern Michigan, home to the endangered Kirtland's warbler, the bird's numbers plummeted. Conservation efforts over several decades have expanded the warbler's population from approximately 400 to more than 4,000 birds. Thanks to supporters like Chubb, a species was brought back from the brink of extinction and conversations have started around delisting it.

- Florida Longleaf Pine Red-Cockaded Woodpecker Habitat Restoration: The longleaf pine ecosystem is an incredibly diverse supporter of wildlife, featuring hundreds of unique plant and animal species. The gopher tortoise on its own provides habitat for more than 360 species by digging tunnels in the sandy loam distinctive to these forests. It and the red-cockaded woodpecker are two landmark species central to recovery efforts. The longleaf pine habitat that is crucial to the survival of the tortoise and the woodpecker once spanned across more than 90 million acres. Extensive logging and the abandonment of Native American wildfire management practices began to diminish longleaf pine forests. Today less than five percent of that ecosystem still exists and, as a result, many wildlife species are in danger of extinction. Reforestation is critical to the survival of the longleaf pine forests and the species that call it home.

- Sierra National Forest French Fire Restoration: After several years of sustained drought, Sierra National

Forest was incredibly dry. An abandoned camp fire escaped and ultimately burned over 14,000 acres. It cost $12 million to suppress. This was called the French Fire. Trees have failed to regenerate in many of the most severely burned areas. The forest needs our help to come back. These areas are home to both the California Spotted Owl and Pacific Fisher, both threatened/endangered species. This project will accelerate the growth of mature forest habitat for these species and many others. It will also restore scenery along the Sierra Vista Scenic Byway.

- Oregon Whitewater Fire: The Whitewater Fire devastated Willamette National Forest in Oregon in 2017, burning more than 11,000 acres and causing severe damage to the ecosystem. The area is near the North Santiam Watershed located along the north east boundary of the adjacent to the Northern Willamette Valley, home to approximately 750,000 people. This is a highly productive watershed that is important for people and natural resources. The area provides an abundance of recreation opportunities concentrated along the North Santiam River including hiking trails, camping facilities, and swimming opportunities. The watershed also provides habitat for a wide range of species including the endangered Spring Chinook Salmon and Northern Spotted Owl. For these reasons, support is critically needed to start the restoration process. Chubb is helping plant a variety of Douglas-fir, Noble fir, White Pine, Western Hemlock and Red Cedar trees which will help bring this critical area back to life.

- Chippewa Blowdown Restoration: Chippewa National Forest is a shared home to many diverse inhabitants. The protected lands of the native Ojibwe tribe and the juxtaposed recreational areas share more than 300 species of plants and animals, including the largest breeding population of bald eagles. The forest is now under threat from a number of different sources. Insects and disease are ravaging conifer thickets, climate change is affecting the resilience of old-growth stands, and increasingly powerful storms are levelling entire groves. The good news is that the soil is fertile and the native tree species are easily cultivated and the impact of this project will extend far beyond Chippewa. Not only will the forests work to purify the lakes and streams nearby, which include the headwaters of the Mississippi River, they will also be hard at work purifying the atmosphere.

Source: Chubb

Lloyd’s / The Market / MS Amlin

The MS&AD Insurance Group pledges in its Corporate Philosophy “to contribute to the development of a vibrant society and help secure a sound future for the planet, by enabling safety and peace of mind through the global insurance and financial services business.” Being part of the MS&AD Group, MS Amlin is committed and contributing towards this vision.

Full details can be found on the environmental pages of the MS&AD Group website and published in the annual sustainability report. https://www.ms-ad-hd.com/en/csr.html

When the CCRPG has finished its 2020 programme of work on the Risk Framework and Mission Statement, (in line with the MS&AD Corporate Philosophy), MS Amlin will develop an external communications plan to begin a series of briefings to clients.

Source: MS Amlin

Lloyd’s / The Market / QBE / Communication of our climate change strategy

As an international insurer with insurance products covering a diverse portfolio including property, crop, energy, marine and aviation, QBE is acutely aware of the risks and opportunities that climate change presents for our customers and our business.

- QBE communicates with our customers / clients on climate-related risks and opportunities and our progress in integrating these into our business strategies through our Annual Report (which includes our Climate Change Action Plan and TCFD-related disclosures, our Sustainability Report, and various other channels.

In 2019 QBE published ‘Our approach to climate change’ to update customers and clients on what we are doing in relation to climate change, including recent achievements and future plans.

We participate in several external reporting and benchmarking initiatives, including but not limited to the ones in the following graphic. Further details of some of the initiatives are given below:

QBE is a signatory to the CDP, a not-for-profit organisation which runs a global disclosure system that enables companies, investors and other bodies to measure and manage their environmental impacts. QBE has responded to CDP since 2010. Our climate-related progress resulted in our annual score jumping two places to a 'B' for 2019.

In early 2018, QBE signed the public Statement of Support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and we published an action plan in our 2018 Half Year Report to implement the recommendations over a three-year period. The 2019 Annual Report describes the progress made during 2019 in meeting the commitments of our action plan.

Evidence also applies to principle(s): 3.1, 3.2, 5.1, 5.2, 6.2

Source: 'Our approach to to climate change' presentation, QBE Sustainability Report 2018 (p.8-9).

Lloyd's / The Market / RenaissanceRe Syndicate Management Ltd / External representation

RenaissanceRe has long been committed to being a thought leader on climate-related issues. Several members of staff within senior leadership and underwriting positions at RenaissanceRe undertook individual speaking engagements across a variety of conferences within the 2019/20 reporting period to advance the Company's thought leadership on climate resilience:

- EVP Group General Counsel, ABIR Climate Risk Webinar (June 20)
- President RNR Risk Sciences, Lloyd's of London Climate Changes and Natural Catastrophe Risk (February 20)
- President & CEO, ILS Convergence (October 19)
- SVP Underwriting, Bermuda Climate Risk Forum (October 19)
- EVP Group Chief Risk Officer, Aon Australia 2019 Hazards Conference (September 19)

Source: RenaissanceRe Syndicate Management Limited

Lloyd's / The Market / The Hartford

The Hartford's annual Sustainability Highlight Report provides an overview of our commitment to environmental stewardship and the actions we are taking to reduce negative impact. The report also includes a message from our CEO, Christopher Swift who reiterates our commitments each year.

The Hartford's official stance on climate change can be found in our Statement on Climate Change and our ESG Investment Policy Statement communicates how environmental impacts influence our investment decisions.

Source: The Hartford

Support Links:

- Statement on Climate Change
- ESG Investment Policy Statement
- CEO Letter in the 2019 Sustainability Highlight Report

Lloyd’s / The Market / Tokio Marine Kiln / Reporting

Source: Tokio Marine Kiln

Tokio Marine Kiln and the Tokio Marine Group continue to report CSR related activities in the respective annual reports and via their company websites.

At Tokio Marine Kiln, many of these activities are directly driven by our Good Company values, which encourage us to provide clear leadership and act responsibly in:

Our marketplace:

We believe we are in partnership with our customers, delivering the highest quality service, striving for excellence and behaving with integrity. We work in an industry that can involve significant and extreme catastrophes – it's about doing the right thing at the right time. That is why we are here.

Our workplace:

We take pride in recruiting, retaining and developing proactive, responsive people and we believe in treating them with respect. We are committed to providing a safe, open, inclusive and empowering environment in which everyone can thrive and so that staff can provide the best support for our clients and our investors.

Our community:

We believe that we should all contribute to the local community. Staff are encouraged to get involved as much as they can; through volunteering schemes, taking part in our many charity activities that reach local as well as national causes and by acting as mentors to young people about to enter the world of work. Together we can have a big impact on our community.

Our environment:

We are committed to achieving sustainable business growth together with the development of society and the conservation of the global environment. We believe that we should all behave responsibly by making sensible buying decisions, cutting down on what we consume and making the most of recycling opportunities.

6.2 Inform our customers/ clients of climate-related risk and provide support and tools so that they can assess their own levels of risk.

Lloyd's / The Corporation of Lloyd's

In addition to the thought leadership, market insight reports, and initiatives such as the Lloyd's Lab mentioned in other principles, the Corporation also provided the following information to inform and support policyholders and market stakeholders (principle 3.1, 3.2, 5.1, 5.2, 6.2):

– The Lloyd's City Risk Index, built in collaboration with Cambridge University, is a unique study measuring the impact of 22 threats on 279 cities' projected economic output. The Corporation continues to make the site available and has been further developing resources such as news articles to support awareness of climate-related risks.

  The index reveals that 279 cities across the world – the key engines of global economic growth with a combined gross domestic product (GDP) of $35.4 trillion – risk losing on average $546.5bn in economic output annually (GDP@Risk) from all 22 threats. This comprises $320.1bn to man-made risks and $226.4bn to natural catastrophes.

  The analysis included breakdowns of the different drivers of risks, and climate change was identified and flagged up as a major risk driver that is communicated throughout marketing and communications efforts where relevant, such as the opinion pieces from: Bruce Carnegie-Brown that are referenced in principle 5.1.

  Climate-related risks together account for $123.0bn of GDP@Risk and this sum is expected to grow as extreme weather events become increasingly frequent and severe. The costliest climate events are windstorms which account for $66.3bn of GDP@Risk and flood that puts a further $42.9bn of economic output at risk.

– As part of the work towards informing Lloyd's market customers of climate related risks, the Corporation of Lloyd's publishes an annual page of information for those who may live or work in areas at risk of hurricanes that includes details on regional forecasts, three guideline thoughts for considering risk, and a link to the policyholder enquiry form to assist with understanding and any claims. The information has been shared on the Corporation of Lloyd's twitter account.

  Each post is embedded with tracked links to establish impact to work towards annual KPIs on promoting the Lloyd's value proposition and brand.

– Following its successful use during recent cat events, the Lloyd's market's satellite imagery service, which was developed and supported by the Corporation of Lloyd's Claims team and Lloyd's Market Association, with members of the Lloyd's market, has been enhanced with further developments in the pipeline.

  Using detailed satellite imagery and radar, the service provides managing agents with damage data at an individual property level in the immediate aftermath of a catastrophe. It enables Lloyd's managing agents to assess damage from major claim events far quicker than would have been previously possible.

  The service, supplied by McKenzie Intelligence Service (MIS), has already proved its worth. It was used by Lloyd's managing agents in 2017 to assess damage from hurricanes Harvey, Irma and Maria, as well as the devastating wildfires in California. It was activated again in 2018 for hurricanes Florence and Michael and a series of US wildfires.

  Service usage has increased by 75% since the 2017 hurricane season and all Lloyd's managing agents are now on board. It has proven particularly valuable for wildfires, where underwriters can quickly see if an insured property is a total loss.

– Lloyd's Global Development Centre designs, develops and delivers tailored programmes that promote Lloyd's as the leading specialist (re)insurer.

  The GDC also provides an environment in which business relationships can be formed and developed through interactive sessions, workshops, presentations and networking events with the market and technical specialists serving the (re)insurance sector.

  The GDC provides a platform for the Lloyd's market, giving businesses access to a diverse audience of brokers, risk managers and cedants, supporting the development of Lloyd's business globally. They also showcase the expertise and innovative thinking to be found in the market.

Evidence also applies to principle(s): 3.1, 3.2, 5.1, 5.2, 6.2

Source: The Corporation of Lloyd's

Lloyd's / The Market / ArgoGlobal / External Communication

We help our clients understand and navigate climate-related risk through our published research and by way of our products and services.

Section 1.2 goes into more detail on our research and development and related products. Our research and models elaborate on climate-related extreme weather events such as drought and the impact on the economy and how it threatens other aspects of daily life.

Evidence also applies to principle(s): 1.2

Source: ArgoGlobal

Lloyd's / The Market / Beazley

Beazley partnered with DNV GL to undertake modelling of 50 key sites across the USA to determine the impacts of different climate change scenarios. This work was then used to inform our clients of their climate related risk in general terms, through a knowledge sharing session.

This process is one of the first steps Beazley has taken to develop its knowledge base on Climate Change and the direct impact for our clients. Over the next couple of years further dialogue with our clients will occur specifically focusing on the impact of climate related risk, providing them with support to understand their risks through the use of tools and insight. This is expected to include increased awareness, development of additional products to help our client's transition to a low carbon economy, and increased knowledge sharing.

Source: Beazley

Lloyd's / The Market / Chubb / Chubb Environmental Risk Products and Services

Chubb is one of the largest and most advanced global underwriters of environmental liabilities and pollution risk, with environmental risk units in North America, Europe, Asia and Latin America.

Chubb is committed to developing insurance products and risk management services that facilitate market-based solutions to current and pending environmental and climate-related issues. Our products and services touch on virtually all lines of coverage worldwide.

In the U.S., we are a leader in meeting the insurance and risk engineering needs of clean technology companies, including renewable and alternative energy providers, manufacturers and software and hardware companies.

Renewable Energy Insurance Solutions

Renewable energy projects remain a major segment for Chubb, particularly in light of the increased global attention on climate change. The projects take many different forms: biomass/biofuel, biogas, energy from waste, fuel cell, as well as solar, wind and hydro energy.

Chubb Renewable Energy Environmental Protection launched in U.K. and Ireland covers the full spectrum of environmental risks faced by renewable energy companies, providing seamless coverage, from the start of construction of renewable energy plants through to their operation. Construction risks range from delay in start-up to public or employer liability, whereas operational risks range from business interruption to premises pollution.

In 2016 we launched our new package policy designed for the Biogas and Solar industries. This product is a seamless package solution which covers the project from construction through to operation, including Environmental Liability.

Clean Technology Insurance Solutions

Chubb's Technology Industry Practice has dedicated underwriters, risk engineers and claims examiners who specialise in handling Clean Technology (Cleantech) clients.

Any company involved in the following activities would fall within our Cleantech business:

- Deriving power from renewable sources
- Creating energy efficiency
- Addressing the scarcity of natural resources

Cleantech clients face differing exposures through the development, or lifecycle, of their business. Through our Industry Practice Chubb provides bespoke insurance solutions that cover companies as they move from start-up, including research and development, to pilot projects to commercialisation. The exposures faced by these clients stem from complex supply chains, the globalisation of their product, intellectual property rights and environmental liability. Our Risk Engineers are able to provide clients with risk management advice in all of these areas.

Chubb has joined Cleantech Associations and sponsored European events to enable direct access to the local Cleantech ecosystem. Such engagement enhances product development because we can translate our understanding of client exposures into new, bespoke coverage. This approach ensures that our insurance solutions tailored for this fast-paced, innovative segment remain relevant.

We have entered into the following association and sponsorship;

- The Cleantech Group – Sponsorship of the European Forum 2019 in Stockholm, Sweden.

Environmental Liability Insurance

Chubb's Online Environmental Liability product is designed to offer broad, flexible and affordable protection for environmental risks arising out of a client's entire business operations, whether undertaken at their own premises or at third-party locations.

The market-leading product features of this cover are supported by a team of highly qualified environmental scientists and engineers in addition to crisis management support for all risks, ensuring that companies are best equipped to respond when they suffer a loss -- and minimise its impact on their business.

Green Initiatives

Chubb works with public and private stakeholders worldwide to develop risk transfer and risk management services that allow for innovative responses to the additional risks associated with implementing green initiatives. Chubb's Green Property Insurance policy provides coverage for commercial businesses that desire to rebuild to a "greener" standard in the event of a loss to an existing building. This includes: energy-efficient appliances, electronics, heating and cooling systems, interior plumbing systems and lighting fixtures; low volatile organic compound (VOC) paints, primers, solvents, finishes and adhesives; low emissions carpet and floor coverings; or Forest Stewardship Council (FSC) certified wood. There are also premium credits available to customers that buy "preventative measures" coverage, which provides the policyholder up to a certain amount of money if the insured has certain mitigation features in place. These policies encourage actions from Chubb's customers that help to reduce GHG emissions.

Engineering Services

Chubb Environmental Risk Engineering continues to offer insureds a built-in opportunity to enhance existing risk management programmes with access to a global network of best-in-class engineering consultants. Chubb call upon these same industry experts to conduct the majority of our environmental due diligence work.

Consulting Services

Chubb clients also receive a full complement of traditional environmental consulting services in the following categories: wastewater management, waste management, air quality management, emergency preparedness and response, reporting, environmental management systems including ISO 14001, as well as sustainability and environmental impact analysis and reduction.

In addition Chubb provides services such as industrial hygiene assessments; regulated and hazardous materials management and remediation oversight; environmental due diligence; and Leadership in Energy and Environmental Design (LEED) and regulatory compliance consultation. Customized Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) compliance training programs and services are also provided. Programs in asbestos, lead-based paint and microbial management, and water intrusion prevention are also offered.

Furthermore, accredited compliance staff are available to augment clients' environmental, health and safety personnel at their locations as necessary to meet their health, safety and the environment (HSE) objectives.

Other services include wildfire defense services and infrared camera scans of our personal lines clients' homes to identify areas of improved energy efficiency.

Evidence also applies to principle(s): 3.1, 3.2, 6.1

Source: Chubb

Chubb Crisis Management

Chubb provides clients with insurance protection from the impact of weather events that may be more frequent or severe due to climate change.

Chubb partners with an assistance company to provide its clients with specialised crisis readiness and response services that will allow them to streamline their communications and processes, have access to critical specialist resources when facing a serious environmental incident and, as a result, help preserve their reputation and bottom line. Chubb offers clients and brokers comprehensive insurance cover combined with the reassurance of access to critical services that can help them navigate the immediate aftermath of a serious environmental incident.

Evidence also applies to principle(s): 3.1, 3.2, 6.2

Chubb ALERT Application

Another innovative product that continues to be provided is Chubb Environmental Risk's Chubb ALERT application, which facilitates more rapid dispatching of incident-response contractors as well as real-time monitoring of clean-up costs. This programme has demonstrated it can both reduce environmental damage and lower claim costs by as much as 20% to 25%.

Source: Chubb

Chubb 'Thought Leadership' Publications

Chubb produces a number of publications throughout the year that are distributed to key clients from industries identified as likely having gaps in their insurance coverage. This distribution happens in several ways: white papers given to brokers, articles written in industry magazines and press releases on Chubb's website.

For example, Chubb, in partnership with Clyde & Co, published an article on the potential risks associated with the running of a multinational organisation when considering environmental liability. Chubb also recently published a paper outlining the trends and mitigation measures for European wildfires. The paper explained the limitations of typical insurance policies, which may not have been a consideration prior to the apparent increase in wildfire occurrence. The paper also explains how Chubb goes the extra mile for our clients, providing real time warnings so that damage can be prevented rather than simply repaired or replaced.

Evidence also applies to principle(s): 5.2, 6.1

Source: Chubb

Lloyd's / The Market / MS Amlin

In June 2020, MS Amlin Underwriting Modelling shared research with customers/clients by publishing a statement overview of the 2020 hurricane season forecasts (see *Forecast Statement*). The report correlated forecast data from more than 20 research groups, private companies and universities which (on 25 June 2020) called for an above average season, with a mean forecast of 17 named storms, 9 hurricanes and 4 major hurricanes. All reports on atmospheric perils published by MS Amlin, including this one, now automatically include commentary on the potential impact of climate change to the perils in question.

MS Amlin has developed a Chart Magazine area on its website which features articles, interviews and insights from a variety of sources on topical issues and future innovations for businesses, people and society. Climate change is a key theme for content and in the past 12 months research and articles have been shared that cover thought-provoking topics such as:

- Combating rising sea levels with an ambitious plan to build massive sea dams across the North Sea and English Channel.
- Sustaining greener air following the Coronavirus pandemic
- How leading architects are devising ever more radical solutions to rising sea levels and overcrowded cities by designing floating conurbations for the future.
- Ocean wave energy that could eventually produce a fifth of the world's energy demands

In addition to being hosted on MS Amlin's website, content is also shared with customer/clients across social media platforms and through direct email communications.

Source: MS Amlin

Lloyd's / The Market / QBE /Climate risk related customer support, tools and products

QBE works with clients and business partners to raise awareness of sustainability issues, manage risks and develop solutions. QBE offers events, seminars and publications that help clients and brokers build their risk management knowledge and sustainability awareness and assist customers in addressing sustainability issues through our products and services. Examples of some of the products and services are provided below:

During the year, our Group Innovation and Digital team worked with our Claims teams to deliver solutions to enhance our responses to natural disasters. We used geospatial information to identify many of our customers that were potentially in the path of storms. We then sent them proactive messages expressing our concern for their safety and providing them with their policy number and a link to lodge an online claim, so that if they were impacted, their policy details were at hand without the need for a phone call. We made it easier for our customers to file a claim and has also reduced overall call volumes. After Typhoon Mangkhut, we built a simple rules engine to quickly review a backlog of travel delay claims. The engine helped us decide which could proceed directly to payment so that we could prioritise successfully closing these claims. By leveraging our innovative capabilities, we have been able to make a difference for customers in times of need.

Our Global Risk Solutions Practice is a community of risk engineers, risk management consultants and scientists. Together, they work with our customers on risk profiling and evaluation, accident investigation, business continuity, risk assessment, supply chain analysis, environmental management, client awareness forums and training materials. The team uses technology to proactively engage business owners, making it easy for them to learn about, and plan for, the risks they face. In 2018, we launched a solution targeted at small to medium-sized businesses, honing their focus on risk management, and equipping them with expert knowledge, data and tools.

We have introduced a new mobile offering for selected new clients in Europe to make fleet telematics more accessible. The solution allows clients to reduce risk and fuel use, while encouraging safe-driving behaviours, as well as giving our underwriters the data they need to offer affordable premiums.

We offer a range of solutions that support our customers' transition to a low-carbon economy and manage the risks associated with climate change. In our Asia Pacific Operations, we have expanded our renewable energy portfolio, providing cover for solar farms across Vietnam and Korea. Some are set on floating pontoons in lakes, reservoirs and harbours. Floating solar farms are more efficient than normal farms because of the water's cooling effect, which can make the panels as much as 10% more effective, and limit water from evaporating.

Jupiter, a partner of QBE, offers a range of services for customers to assess their climate-related risks. Jupiter offers services for predicting specific perils and combined impacts. Each service is built on top of the Jupiter ClimateScore Intelligence Platform. Services are currently available for predicting the probability and climate impact of flood, fire, heat, drought, cold, wind, and hail events, providing climate-driven analysis from 1 hour to 50 years in the future.

QBE EO

EO work in partnership with GCube, a specialist provider of renewable energy insurance services. GCube helps wind, solar, biomass, wave, tidal, hydro and energy storage asset owners to identify, quantify, mitigate and insure risk efficiently and cost-effectively.

Evidence also applies to principle(s): 3.1, 3.2, 5.1, 5.2, 6.1

Source: QBE Sustainability Report 2019.

Lloyd's / The Market / RenaissanceRe Syndicate Management Ltd / RenaissanceRe Risk Sciences

At RenaissanceRe, consideration of the impacts of climate change on their clients and the communities they serve is integral to their enterprise risk management process. They have taken measures to mitigate losses related to climate change through their underwriting process and by continuously monitoring and adjusting their risk management models to reflect the higher level of risk that they think will persist.

RenaissanceRe engages with its investors and clients on a regular basis to discuss their view of risk. RenaissanceRe continue to raise awareness amongst their investors, outlining the requirement for them to consider their resilience strategies and the need to perform climate risk assessments as part of their own operations. RenaissanceRe's clients enjoy unique access to their scientific team and industry-leading expertise. The RenaissanceRe Risk Sciences team is based in the U.S. and Europe, monitoring, and quantifying global geophysical risks across business segments. Their wide-reaching data analytics are broad in scope, including emerging cross-portfolio perils like climate change and emerging risk amplifiers. Coupled with the insight of their underwriters, RenaissanceRe's risk intelligence resources support and inform their clients' view of risk, helping them optimise coverage against ever-changing global perils.

Source: RenaissanceRe Syndicate Management Limited

Lloyd's / The Market / The Hartford

The Hartford helps our customers protect themselves from the risks associated with climate change and help them reduce their impact on the environment in several ways:

- The Hartford continues to offer a number of insurance products that help customers avoid GHG emissions by encouraging customers to purchase a hybrid or Electric Vehicle (EV) with premium discounts and encouraging / facilitating installation of energy efficient equipment and use of environmentally friendly materials.
- Renewable Energy products providing end-to-end coverage for the solar, wind, fuel cell and biomass industries. As of 12/31/19, The Hartford had $800M invested directed in utility-grade solar, wind and hydroelectric power generation facilities and nearly $12M in written premium from our renewable energy practice.
- The Hartford's dedicated Catastrophe Claims Operation team is available 24 hours a day, 365 days a year to help our customers through catastrophic events from preparation through recovery. The team provides guidance on associated risks, how to minimize damage and protect property, as well as actions to take following a catastrophic event. Examples of educational support include: earthquake safety, flood protection, hurricane safety, tornados, wild fires, winter storms and other severe weather events.
- Promoting environmental sustainability through our mutual fund business, launching The Hartford Global Impact Fund and the Climate Opportunities Fund (formerly known as the Environmental Opportunities Fund) after joining the UN Principles for Responsible Investment (UNPRI) in 2016.
- Educational resources to help customers manage climate-related risks, operate in a more sustainable way and share The Hartford's green product offerings. Examples include:
    - Green Your Business – The Hartford's Business Owners Playbook
    - Risk Engineering services help customers create practical solutions that minimize loss and improve overall operations. These services include on-demand training on managing and mitigating specific business risks including environmental risks.
    - Green product information including Technical Information on Green Construction and an overview of Builder's Risk Insurance

Additional Support Links:

- 2019 Sustainability Highlight Report, p. 10

7. Enhance reporting

7.1 Submission against the ClimateWise Principles.

Lloyd's / The Corporation of Lloyd's

This document constitutes 'Lloyd's' response to the ClimateWise principle for the period covering 1 July 2019 – 30 June 2020. The Corporation of Lloyd's collates and submits this document on behalf of the Corporation of Lloyd's and the Lloyd's market members outlined in the front matter of the document, to provide an overview of activities undertaken by 'Lloyd's'.

As with previous years – although this has not previously been reported publicly – there have been no requests to exclude 'Lloyd's' from responding to any sub-principles, and this response will be publicly available on Lloyds.com/ClimateWise with previous year's responses when the independent report is released.

Evidence also applies to principle(s): 1.1, 1.3, 1.4, 3.1

Source: The Corporation of Lloyd's

Lloyd's / The Market / ArgoGlobal

Submitted Against All Principles

We have submitted our report against all ClimateWise sub-principles, on time and in full.

Source: ArgoGlobal

Lloyd's / The Market / Beazley

"The insurance industry has an important role to play in understanding and evaluating the impacts of climate change, supporting the transition to a low carbon economy and promoting resilience. At Beazley, we are a long-term signatory to ClimateWise and we welcome the recommendations of the TCFD. In particular, we continue to enhance the disclosure of our exposure to the physical, transition and liability risks of climate change and the risks that climate change presents remain an important consideration in our business planning process." Adrian Cox, Chief Underwriting Officer

Climate change is recognised as an issue at Executive Committee. Beazley's ClimateWise sponsor at Executive Committee level is Adrian Cox, Chief Underwriting Officer.

Source: Beazley

Lloyd's / The Market / MS Amlin

Climate change is one of the biggest issues affecting global society. MS Amlin believes the (re)insurance industry must play a key leadership role in understanding the risks, promoting the response and increasing the world's resilience to climate change. Being a founder signatory to the ClimateWise initiative, MS Amlin continues to value the opportunity to collaborate with other industry practitioners to support the climate change agenda and has reported annually against the ClimateWise Principles as one of the ways to demonstrate its contribution and proof of progression year on year.

MS Amlin's submission report for the ClimateWise Principles is made via the Lloyd's ClimateWise membership.

Source: MS Amlin

Lloyd's / The Market / QBE

This document constitutes QBE's response to the ClimateWise principles and no requests to exclude QBE from responding to any of the sub-principles were submitted.

Source: QBE

Lloyd's / The Market / RenaissanceRe Syndicate Management Ltd / ClimateWise response

This document constitutes RenaissanceRe's submission to the Corporation of Lloyd's to include in their response to the ClimateWise principles for the period covering 1 July 2019 – 30 June 2020. The Corporation of Lloyd's collates and submits this document on behalf of the Corporation of Lloyd's and the

Lloyd's market members to provide an overview of activities undertaken by 'Lloyd's'.

Source: RenaissanceRe Syndicate Management Limited

Lloyd's / The Market / The Hartford

This report for reporting year 2019 will be The Hartford's first submission against the ClimateWise Principles following the Navigators acquisition in May 2019. However, The Hartford has been submitting annual reports to CDP since 2007.

Source: The Hartford

Lloyd's / The Market / Tokio Marine Kiln

Tokio Marine Kiln and the Tokio Marine Group view climate change as one of the top risks facing our industry. The commitment from our Board and senior management is embedded within our culture and corporate values: "To be a Good Company". This is evidenced and formalised in our CSR Charter, CSR reporting and our participation in international organisations which work against climate change.

TMK is represented by our Group CRO on the ClimateWise Insurance Council and we have included our annual submission to Lloyd's and TMK since 2015.

Source: Tokio Marine Kiln

7.2 Publish a statement as part of our annual reporting detailing the actions that have been taken on these principles.

Lloyd's / The Corporation of Lloyd's

This document constitutes 'Lloyd's' response to the ClimateWise principle for the period covering 1 July 2019 – 30 June 2020. The Corporation of Lloyd's collates and submits this document on behalf of the Corporation of Lloyd's and the Lloyd's market members outlined in the front matter of the document, to provide an overview of activities undertaken by 'Lloyd's'.

As with previous years – although this has not previously been reported publicly – there have been no requests to exclude 'Lloyd's' from responding to any sub-principles, and this response will be publicly available on Lloyds.com/ClimateWise with previous year's responses when the independent report is released.

Similar information is also available in the annual report, across Lloyd's.com and social media accounts, and internally to Corporation employees for transparency. This report goes into substantially more detail that can realistically be expected from the other sources.

In the annual report there are mentions of climate change in the following areas: How we benefit society (p11), Lloyd's Key Risks and Risk Appetite (p13), and Responsible Business (p17).

In 2020 we reported against the United Nations Global Compact and sustainability development goals for the first time allowing us to align our vision, culture and operations with the worlds largest corporate responsible business initiative.

Evidence also applies to principle(s): 1.1, 1.3, 1.4, 3.1

Source: The Corporation of Lloyd's

Lloyd's / The Market / ArgoGlobal /

ClimateWise Report Will Be Publicly Available

We will make our ClimateWise Principles report publicly available on our website.

We have produced our first Environmental, Social & Governnance (ESG) Annual Report in 2020 and an annual report.

ClimateWise membership is disclosed, reference is made to Climate Risk in the annual report risk disclosures and reference is been specifically made to TCFD and our commitment to its principles.

Source: ArgoGlobal

Lloyd's / The Market / Beazley

We submit our ClimateWise report through Lloyd's and make a statement to this effect in our annual report. We have also included specific climate risk disclosures within the risk management section of the annual report, and have published a standalone sustainability report detailing our ESG performance.

Source: Beazley

Lloyd's / The Market / Chubb / Chubb Environmental Reporting

At Chubb, we recognise our responsibility to provide solutions that help clients manage environmental risks, to reduce our own environmental impact and to make meaningful contributions to environmental causes.

Annual Environmental Report:

The company produces an annual Environmental Report that outlines the full scope of our commitment and activities to address environmental concerns, including our environmental risk products and services, goals and initiatives to reduce greenhouse gas emissions in our own operations, and our philanthropy and volunteerism.

Environmental Statement:

The company's annual report, filed with the U.S. Securities and Exchange Commission, includes a third-party certified Environmental Statement on the company's GHG emissions program.

CDP:

The company reports its GHG emissions data and related activities to CDP, an international, not-for-profit organization providing the only global system for companies and cities to measure, disclose, manage and share vital environmental information. In 2019, Chubb earned a score of B.

Climate change is an important and serious issue for the global insurance industry because it is our business to provide security against many of the property-related risks posed by such change. With Chubb having operations in 54 countries, Chubb's business and operating models are exposed to the full impact of global climate change. At Chubb, we recognise that a changing climate affects everyone — our customers, employees, shareholders, business partners and the people who live and work in the communities we serve. Therefore, climate change is integrated into aspects of Chubb's short and long-term strategies.

The primary objective of Chubb's environmental programme is to measure, record and reduce greenhouse gas (GHG) emissions in the company's own operations. Chubb will continue to deploy the approaches it has used successfully to date, including installing energy-efficient lighting and equipment and more efficient use of office space.

Chubb's Corporate Environmental Programme is now in its fourteenth year. We continue to be at the forefront in addressing environmental issues and the implications of climate change for all areas of our business. We are proud of the progress we have made and are committed to taking further steps to make meaningful improvements in the environment.

Evidence also applies to principle(s): 3.2, 4.1, 4.2, 4.3

Source: Chubb

Chubb Limited Annual Report, Environmental Statement

Chubb Greenhouse Gas Reduction Programs

As an insurance company, Chubb's environmental footprint is relatively modest, but through our corporate greenhouse gas inventory program and corporate environmental strategy, we work to reduce it even further. Some of the primary objectives of our environmental strategy are to measure, record and reduce Chubb's corporate GHG emissions.

In 2007, Chubb joined the voluntary U.S. Environmental Protection Agency (EPA)-sponsored Climate Leaders program, through which the company was able to develop long-term, comprehensive climate change strategies, inventory its emissions and set a six-year GHG reduction goal of 8% per employee. While the EPA program was discontinued in September 2011, Chubb's corporate GHG inventory program remains active using its methodology, which is based on the World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol for data collection and analysis. In 2012, Chubb successfully met its first generation GHG reduction goal with a 27% reduction in emissions per employee since 2006. In order to continue Chubb's global commitment to reducing its environmental footprint, a GHG reduction target was announced in September 2014 to reduce emissions 10% per employee by 2020 from a 2012 base year. From 2015 to 2018, Chubb reduced its global absolute GHG emissions by 21%.

In 2019, Chubb announced new companywide goals to reduce GHG emissions globally by 20% on an absolute basis by 2025 and by 40% by 2035. Both goals use 2016 emissions levels as the baseline and are aligned with the two-degree Celsius target outlined in the Paris Climate Agreement, as well as the quantitatively supported science-based standards (SBTs) methodology of the United Nations Environment Program (UNEP). By year-end, Chubb achieved its first goal of reducing emissions by 20%. Chubb is now pursuing its longer-term 40% emissions reduction goal.

Chubb 2019 GHG Inventory Data

	2019
Global Absolute Emissions (CO_2-eq.)	**68,852**

The data above represent 26,332 metric tons of CO_2-eq. of Scope 1 emissions from fossil fuel combustion; 44,293 metric tons of CO_2-eq. of location-based Scope 2 emissions; and 42,520 metric tons of CO_2-eq. of market-based Scope 2 emissions from purchased electricity. Chubb's GHG emissions data are reviewed by a third-party on an annual basis. The company's most recent 2019 GHG inventory was reviewed by Apex Companies, LLC and the verification statement can be found on the following page.

In addition to tracking GHG emissions versus its goals, Chubb reports its GHG emissions data to the CDP, an organization that scores carbon emissions information from thousands of corporations on behalf of the global investment community. In 2019, Chubb's response to the questionnaire resulted in a score of B.

Chubb's global GHG management plan concentrates primarily on reducing energy consumption at the facility level - specifically, in owned buildings and larger, long-term leased spaces. Projects have been implemented at a number of major offices including: Philadelphia, Pa.; Wilmington, Del.; Whitehouse Station, N.J.; Hamilton, Bermuda; Sydney, Australia; the Chubb Conference Center, Lafayette Hill, Pa.; London, U.K.; and Monterrey, Mexico. The projects include installation of new HVAC equipment, lighting upgrades and installation of a central building automation system (BAS) in order to improve operations within the building and reduce energy consumption.

In Chubb's office building in Philadelphia, the company has reduced energy consumption by over 20% since 2006 through the installation
of new boilers and LED lighting, the use of variable speed drive HVAC equipment and installation of an exhaust energy recovery ventilator.

Through these steps, the company earned LEED Silver certification in 2009 and was awarded LEED Platinum certification in 2020. It was also awarded Energy Star Certification by the U.S. EPA in 2016.

In July 2011, the company's Bermuda office building was awarded LEED Gold certification - the first building in Bermuda to be awarded the designation - due in large part to a re-lamping of office lights, applying a floating temperature set point and installing motion sensors and timers on office equipment. These actions reduced electrical needs by approximately 500,000 kWh (358 metric tons CO2e) per year. In 2014, the company engaged with the U.S. Green Building Council (USGBC) and the Bermuda facility became
one of the first buildings using LEED Dynamic Plaque, a tool that continuously monitors and encourages improvement of overall building performance. The building was re-certified LEED Platinum in 2019, becoming the first building on the island to win the designation.

In Chubb's two office buildings in Whitehouse Station, N.J., the company has reduced energy consumption through the installation of LED lighting, the use of variable speed drive HVAC equipment and careful management. The buildings were awarded LEED Gold certification for the first time in 2020.

Information about Chubb's full range of environmental efforts, including insurance solutions to help customers manage their environmental and climate change risks, corporate initiatives to control our own ecological impact and philanthropic actions in support of environmental causes, can be found in the company's annual Environmental Report, which is available at https://www.chubb.com/us-en/about-chubb/environment.aspx.

Evidence also applies to principle(s): 4.3, 6.1,

Chubb Limited Annual Report, Chaiman and CEO statement

In the 2019 Chubb annual report, Evan Greenberg, Chairman and CEO, provided a perspective on climate change in his letter to shareholders that sets the scene for the company. In this discussion Mr. Greenberg writes:

"We and our industry have an opportunity and responsibility to do our part to support society in managing a risk environment that is both volatile and changing due to global climate change. Our response is guided by our core business competencies and values, and our perspective begins with the obvious: We are an insurance company and our job as underwriters is to assess and manage risk using analysis that is data–driven and apolitical. Applying this approach to the perils of climate change, we recognize a growing global risk that requires action from government, the private sector and, in fact, society at large to manage and mitigate the growing threat.

"As an insurer, our first responsibility is to use our expertise in risk management to provide products and services that protect individuals, businesses and communities against the effects of climate change. We manage risk — that's our business. We employ sophisticated modeling and have considerable data that identify the physical and economic impact of climate–related risk on individuals, businesses and communities, and this is reflected in the prices we charge for insurance protection. We essentially serve as a market signal of the rising costs of climate change — as the risk increases, insurance prices increase, or availability becomes more limited."

The discussion of sustainability and Chubb's responsibility continues, focusing on Chubb's market-based solutions to climate risks; risk engineering capabilities that help moderate the risks from climate change perils and make them more resilient, and the commitment to environmental philanthropy. He concludes: "As our work and philanthropy demonstrate, we are serious about understanding and responding to climate change. We are committed to undertaking responsible actions to do our part to provide insurance protection for people, businesses and society from the impact of global temperature increases, develop effective mitigation strategies and support the collective action necessary to address this existential threat."

In setting the scene, it is also important to understand Chubb's perspective as an underwriting company: We strive to emphasize quality of underwriting rather than volume of business or market share. Our underwriting strategy is to manage risk by employing consistent, disciplined pricing and risk selection. This, coupled with writing a number of less cyclical product lines, has helped us develop the flexibility and stability of our business, and has allowed us to maintain a profitable book of business throughout market cycles. Underwriting discipline is at the heart of our operating philosophy.

Chubb uses internal and external data together with sophisticated analytical, catastrophe loss and risk modeling techniques to ensure an appropriate understanding of risk, including diversification and correlation effects, across different product lines and territories. We recognize that climate changes and weather patterns are integral to our underwriting process and we continually adjust our process to address these changes. This is intended to help to ensure that losses are contained within our risk tolerance and appetite for individual product lines, businesses and Chubb as a whole.

As part of its underwriting process, Chubb regularly applies exclusions, which depend on the specific conditions and circumstances of the risk being evaluated. Those exclusions may reflect climate-related considerations. For example, Chubb is among the world's largest global underwriters of environmental liabilities and pollution risks. However, Chubb's underwriting in this business restricts certain industries, including mining and reclamation operations, oil refining, pipeline and distribution operations and chemical manufacturing and distribution. For more information, visit Chubb's Environmental Insurance and Services section.

In addition, Chubb offers specific coverages that address sensitive sectors in the company's insurance underwriting business. Some of these are bespoke coverage, which we do not disclose publicly. Some are for sensitive sectors that we do disclose on the company's website, such as underground storage tanks, which are environmentally sensitive due to the risk of leakage and ground water contamination. Chubb's 2019 Environmental Report provides an overview of the company's environmental initiatives to its clients, shareholders, employees, business partners, the communities where Chubb operates and others who have an interest in the company, the insurance industry and the environment.

Chubb also sees opportunity in providing innovative insurance products and risk engineering solutions that are climate related. For example, Chubb's Clean Tech business provides bespoke insurance solutions to companies that are creating new technology and driving innovation. This global business has dedicated underwriters, risk engineers and claims examiners who specialize in serving clean technology companies. Examples of other industries with unique risk management needs addressed with innovative Chubb products include transportation, long term care facilities and premises pollution liabilities for agricultural businesses. In addition to its product offerings, the company provides a variety of tools, resources and programming to help agents and brokers succeed, including training on environmental risk engineering and loss control techniques.

The centrality of underwriting to Chubb's culture is also evident in the work of the company's Executive Committee, which includes the Chairman and CEO and Chubb's most senior executive leaders. The Executive Committee has responsibility for ensuring that Chubb's ESG and citizenship activities are consistent with the company's culture, values and corporate mission. Chubb's General Counsel is responsible for monitoring ongoing ESG/citizenship activities, reporting periodically to the Nominating and Governance Committee of the Board of Directors on those activities and bringing new ESG/citizenship issues as they arise to the Committee's attention for review and decision, which may involve advocacy or specific corporate action.

Chubb is also distinguished by its industry-leading risk engineering services, which includes more than 400 risk engineers worldwide who help companies anticipate and minimize costly exposures, including those related to climate. For example, risk engineers bring deep technical knowledge and talent to help companies reduce their exposure to extreme weather events, which are becoming more frequent and severe due to climate change, as well as actions that will reduce the risk of accidents and injuries at construction sites, in factories, etc.

Source: Chubb

Lloyd's / The Market / MS Amlin

MS Amlin's progress against the ClimateWise Principles will be shared with the MS&AD Sustainability team for inclusion in the 2020 Integrated Annual Report.

Source: MS Amlin

Lloyd's / The Market / QBE

QBE recognises that ESG issues are critical to the sustainability of all businesses over the longer term, and that the insurance industry has an important role in ensuring these issues are appropriately prioritised across society.

As part of our commitment to PSI and PRI, we produce annual reports to demonstrate how these principles are integrated into our decision making, risk management and investment processes. Although the ClimateWise principles are not explicitly discussed within the annual report, the key elements and themes of the principles are discussed which details progress made against each topic. Further information about how QBE approachs sustainability issues more broadly can be found within the 2019 Sustainability Report.

The Lloyd's submission represents the annual statement of ClimateWise activities.

A statement from the Group CEO can be found within the 'Our approach to climate change' publication, which is available on our website, and demonstrates the commitment at the highest levels of our business to speaking about the impact of climate change, and the recognition of it as a business imperative.

Evidence also applies to principle(s): 1.1, 1.3, 1.4, 3.1

Source: QBE Sustainability Report 2019; QBE Annual Report 2019; 'Our approach to climate change' (p.3)(available here: https://www.qbe.com/about-qbe/sustainability/climate-change*).*

Lloyd’s / The Market / RenaissanceRe Syndicate Management Ltd / Corporate disclosures on climate change

Within the RenaissanceRe Holdings Ltd. 2020 Proxy Statement (page 35) is a section on ‘Climate Change and Risk Mitigation’. This exhibits specific commitment to ClimateWise principle 7.2 as the statement is included in a document that is publicly available and distributed to all shareholders, communicating recognition of these issues.

Our Leadership on Climate Change and Risk Mitigation

At RenaissanceRe, we understand the considerable environmental and social risks related to climate change. For more than 25 years, we have been a leader in understanding and modeling atmospheric hazards and the economic impact of climate-related events. Based on the research of our team of scientists, meteorologists, and engineers at our Weather Predict Consulting Ltd. subsidiary, we believe that climate change is driven by human activity and is contributing to an increase in the frequency and severity of natural catastrophes over and above normal climate variability, and that this trend will persist into the future. Consideration of the impacts of climate change on our clients and the communities they serve is integral to our enterprise risk management process. We have taken measures to mitigate losses related to climate change through our underwriting process and by continuously monitoring and adjusting our risk management models to reflect the higher level of risk that we think will persist. We integrate the anticipated impact of climate change holistically into our enterprise risk management process and catastrophe models, and regular reports by management to our Board and its committees on these issues are central to our governance processes. In addition, we proactively engage with our stakeholders to promote resiliency in order to help our clients, and the homeowners and businesses they serve, adapt to and manage climate change risks. We have long been active in promoting risk mitigation and disaster preparedness to save lives and increase the economic resiliency of communities. Reinsurance is an important contributor to helping communities recover after a natural disaster, and we have made significant commitments to both reduce the protection gap and mitigate the impact of natural disasters on populations and economies in the developing world.

Similarly, within the RenaissanceRe Holdings Ltd. 2019 Annual Report (page 6) there is an introductory statement from their President and Chief Executive Officer outlining the Company’s role in relation to climate risk, and a separate dedicated section on ‘Environmental and Climate Change Matters’ (page 18).

Our Role in Ameliorating Climate Change Risk

For over 25 years, we have been a leader in understanding and modeling climate change risk, proactively engaging with our stakeholders to promote mitigation and disaster preparedness in order to increase the resiliency and sustainability of communities throughout the world. We believe that the frequency and severity of natural catastrophes have increased due to human-driven climate change. Already in California, the wildfire season has shifted and now overlaps more with the wind season, making extreme conflagrations increasingly prevalent. Our scientists predict that extreme weather events will be more frequent and more severe. There will be increasing wind and rain risk from tropical cyclones. A higher proportion of hurricanes will reach extreme category 4 and 5 levels. Sea level rise will exacerbate storm surge. Anthropogenic climate change is amplifying extreme weather events. We have incorporated this reality into our catastrophe models, increasing hazard functions above where commercially available models are set. One of the advantages of having an independent view of risk is that we can easily adapt our proprietary models to reflect the evolving climate paradigm. As rising greenhouse gas levels amplify the risk of climate change, we are uniquely positioned to anticipate and absorb the increased economic losses that will result. I believe RenaissanceRe can best advance positive environmental and social change by ameliorating climate change risk in two important ways.

First — we can help protect those most vulnerable to climate change. The availability of insurance and other forms of risk financing is critical to protecting communities around the world from the economic impacts of increasingly severe weather. One of the most efficient forms of capital to provide this protection is reinsurance. Beyond direct stakeholders, I believe our beneficial impact is much broader. In my 2017 letter, I wrote extensively on the social value proposition of reinsurance, and our role in closing the protection gap and improving the overall well-being of society. That said, our mission is to produce superior returns, by which we mean maximizing long-term shareholder value. We do this by being a trusted, long-term partner to our customers for assessing and managing risk, delivering responsive solutions, and keeping our promises. Serving stakeholders and maximizing shareholder value are complementary values. I believe it is not possible to achieve the latter without first focusing on the former. We have always been good stewards of the capital that our shareholders and other partners have entrusted to us and will continue to deploy that capital consistent with our mission and our principles. In Closing Last year, I closed my letter by recognizing the challenge that we would face in 2019 growing our business while simultaneously integrating TMR. I am very proud of the RenaissanceRe team, who worked hard to accomplish these strategic goals and more than exceeded our expectations. We begin 2020 looking different than we did one year ago, with a larger and much more diversified business that I believe will make us more resilient and help us to be a broader and better partner to our stakeholders.

Second — anthropogenic climate change means polluters are getting a “free lunch”, damaging the environment without paying the economic cost. This “free lunch” makes the world increasingly more expensive to protect and prevents society from achieving a Pareto optimal outcome — the best possible outcome for the largest number of people. If the economic cost of this pollution can be accurately reflected, it will act as an incentive to reduce greenhouse gas emissions. Reinsurance acts as a mechanism to reflect the costs of climate change. This outcome is only possible if reinsurers explicitly factor the impacts of climate change into their models and charge an appropriate price for the increase in risk. Ultimately, this should incentivize reduced greenhouse gas emissions and result in an increasingly optimal benefit to society.

Environmental and Climate Change Matters

Our principal economic exposures arise from our coverages for natural disasters and catastrophes. We believe, and believe the consensus view of current scientific studies substantiates, that changes in climate conditions, primarily global temperatures and expected sea levels, have increased, and are likely to continue to increase, the severity and frequency of weather related natural disasters and catastrophes relative to the historical experience over the past 100 years. While it is difficult to distinguish between permanent climate change and transient climate variability, an ever expanding body of research suggests that these trends are in fact man-made, and, if correct, we believe that this trend will not revert to the mean but continue to worsen. We believe that this increase in severe weather, coupled with currently projected demographic trends in catastrophe-exposed regions, contributes to factors that will increase the average economic value of expected losses, increase the number of people exposed per year to natural disasters and in general exacerbate disaster risk, including risks to infrastructure, global supply chains and 18 agricultural production. Accordingly, we expect an increase in both the frequency and magnitude of claims, especially from properties located in coastal areas. The consideration of the impacts of climate change is integral to our ERM process. We have taken measures to mitigate losses related to climate change through our underwriting process and by continuously monitoring and adjusting our risk management models to reflect the higher level of risk that we think will persist. In addition to the impacts that environmental incidents have on our business, there has been a proliferation of governmental and regulatory scrutiny related to climate change and greenhouse gases, which will also affect our business. For example, many of our regulators are increasingly focused on climate change disclosures.

In addition to these written disclosures, RenaissanceRe’s President and Chief Executive Officer has intentionally made reference to the Company’s stance on climate change within their public investor earnings calls, outlining the scientific evidence to support the Company’s views, urging adaptation and collaborative action to help mitigate against the inevitable risks that climate change presents.

Source: RenaissanceRe Syndicate Management Limited.

Lloyd’s / The Market / The Hartford

The submission of this report will be disclosed in our annual reporting ongoing including the next GRI response to be published in Q3 2020. We also cite membership in ClimateWise in The Hartford’s 2019 Sustainability Highlight Report (p. 11).

Source: The Hartford

Lloyd’s / The Market / Tokio Marine Kiln / Our commitment to Climate Change

None in this year’s annual reporting. To be addressed in future years.

Source: Tokio Marine Kiln