



Insuring a
sustainable
future



Insurable Cities

The ClimateWise Principles
Independent Review 2017

10th Anniversary

ClimateWise

Established in 2007, ClimateWise is a growing global network of 28 leading insurers, reinsurers, brokers and industry service providers which share a commitment to reduce the impact of climate change on society and the insurance industry. ClimateWise is a voluntary initiative, driven directly by its members and facilitated by the University of Cambridge Institute for Sustainability Leadership (CISL), which brings business, government and academia together to identify solutions to critical sustainability challenges.

Members are asked to submit a report annually which summarises their actions taken against the Principles across their business activities. These reports are subject to an independent review to assess the extent to which members have integrated the Principles.

The ClimateWise Principles include leading on climate risk analysis and climate-resilient investment, raising customers' climate awareness, and reducing the member's own carbon footprint.

Cambridge Institute for Sustainability Leadership

For 800 years, the University of Cambridge has fostered leadership, ideas and innovations that have benefited and transformed societies. The University now has a critical role to play to help the world respond to a singular challenge: how to provide for as many as nine billion people by 2050 within a finite envelope of land, water and natural resources, whilst adapting to a warmer, less predictable climate.

The University of Cambridge Institute for Sustainability Leadership (CISL) empowers business and policy leaders to make the necessary adjustments to their organisations, industries and economic systems in light of this challenge. By bringing together multidisciplinary researchers with influential business and policy practitioners across the globe, we foster an exchange of ideas across traditional boundaries to generate new solutions-oriented thinking.

Rewiring the Economy

Rewiring the Economy is our ten-year plan to lay the foundations for a sustainable economy, built on ten interdependent tasks, delivered by business, government, and finance leaders co-operatively over the next decade.

Publication details

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Author and acknowledgements

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Reference

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Copies

This full document can be downloaded from ClimateWise's website: www.cisl.cam.ac.uk/climatewise

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November 2017

Executive summary

Extreme weather events caused havoc in 2017 with thousands of lives lost and billions of US dollars of losses incurred. These events highlighted the urgency to enhance resilience to climate risks. The ClimateWise Principles allow ClimateWise members to disclose their responses to the risks and opportunities of climate change.

They include a focus on adaptation and mitigation across the industry's asset management and underwriting activities. Celebrating its tenth year, The ClimateWise Principles highlight a rethinking of the traditional insurance model by members. This includes engaging in collaborative resilience-building initiatives right across the public and private sectors. This is especially true in cities given they are sources of concentrated climate-related risk and offer significant commercial opportunity.

These responses reflect concerns regarding the climate risk protection gap; the widening divide between total economic and insured losses. This protection gap presents a growing challenge for both insurers and society at large. As society becomes increasingly vulnerable insurers must rethink the traditional insurance model.

“ClimateWise members are already on the front foot with regards to implementing the TCFD recommendations. They have been voluntarily considering and disclosing their strategic response to climate change for a decade”

Mary Schapiro, Special Advisor to the Chair of the Task Force on Climate-related Financial Disclosures (TCFD)

Insurance cover needs to be affordable for those most at risk from climate perils. This is more likely to be achieved if insurers can become more proactive in helping others to enhance resilience. There are many opportunities to achieve this across both the industry's underwriting and asset management activities.

Enhancing resilience requires a more collaborative approach to anticipating and mitigating climate-risks. To encourage collaboration, improved transparency and communication must be encouraged. The Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures (TCFD) offers one way to enhance climate disclosures on the risks and opportunities of climate change. ClimateWise members have now been doing this for 10 years.

ClimateWise members continue to lead the way in responding to climate change, and continue to make steady progress. The 2017 ClimateWise reporting cycle saw average scores increase from 59 per cent to 60 per cent. One member scored 91 per cent, the highest ever score under the current marking criteria.

ClimateWise members reported on a variety of impactful and strategic initiatives addressing climate change challenges. Some are providing micro-insurance products and working with the public sector in developing countries to improve disaster risk management. Others have produced climate research and communicated ways for urban areas to adapt to climate change. Some have then gone further and are incentivising risk-reduction activities by reducing certain product prices for customers taking adaptive action.

The ClimateWise reporting process also highlights clear areas for improvement. Members should look to further integrate climate change related initiatives into their core business strategies (see Principles 1 and 6). Members should also look to increase board-level oversight on climate change and sustainability (see Principle 6). These strategic changes are required to maintain long-term climate action.

Looking ahead, ClimateWise members must take stock of how the first disclosures emerging from the TCFD recommendations can help to highlight concentrations of climate risk exposure and build societal resilience. Crucially, there are significant overlaps between the ClimateWise Principles and the TCFD recommendations. Consequently, ClimateWise members are well positioned to extend their leadership role by supporting TCFD disclosures. This could facilitate the innovative and multi-sectoral work required to build resilience to climate risks.

The greatest improvement in average score was in Principle 4 (Incorporate climate change into our investment strategies) with members responding to various sustainable investment initiatives from both ClimateWise and the broader market over the last two years.

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ClimateWise members 2017



Foreword



This past year has been catastrophic in terms of climate-related events. The flooding in Houston, the Caribbean and Bangladesh highlighted the sheer vulnerability facing both developed and developing countries and brought untold misery to millions of people. The impact could be felt for decades to come.

In 2007 CISL worked with His Royal Highness the Prince of Wales to establish ClimateWise. It brought together a group of insurance companies challenged by the risks climate change presents to their industry – but equally importantly – motivated by an ambition to promote positive change and create opportunities for progressive business.

A decade on, The ClimateWise Principles which were developed by the group remain the primary framework helping the global insurance industry publically disclose its response to climate change. What is remarkable and encouraging is just how many of the disclosures that our members have been reporting on for so long align with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

ClimateWise's progress reinforces the role this industry can play in helping society to manage its risk exposure. This is especially true at the critical interface between climate change, cities and financial disclosure, which is the theme of this year's report.

I wish ClimateWise, and its members, another successful decade of growth and impact.

A handwritten signature in black ink that reads "Polly Courtice".

Dame Polly Courtice, DBE, LVO
 Director of the University of Cambridge Institute
 for Sustainability Leadership (CISL)

Chairman's foreword



It is no coincidence why the theme for The ClimateWise Principles Annual Review this year is cities. Our industry has been shaken by climate perils impacting urban centres and 2017 is on track to become one of the most expensive years on record.

However, large parts of the urban world still do not have access to insurance cover. These populations are left highly vulnerable to climate-related perils and often unable to cope following the loss.

The climate risk protection gap presents insurers with one of our industry's most profound challenges. The exponential increase in risk exposure, in many global cities, is undermining large parts of our existing business model. The cost of extending sustainable insurance cover is now simply not affordable in many places. A proactive response is required.

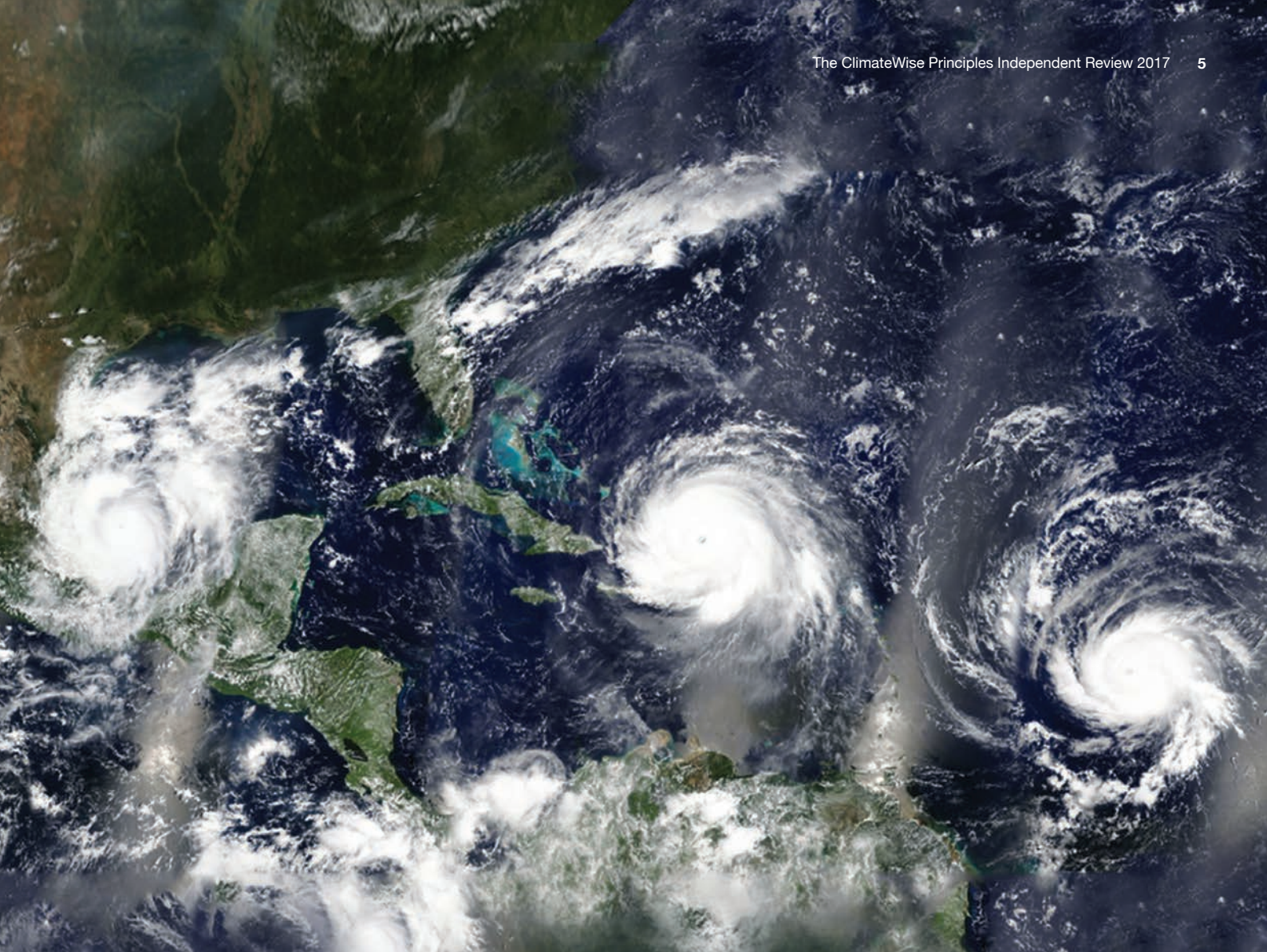
ClimateWise continues to play an active role in supporting the insurance industry in understanding its response to the climate risk protection gap. Its work across the financial markets, with regulators and, increasingly, in partnership with global cities explores how insurance data and expertise can promote physical resilience to the perils faced. The ClimateWise Insurance Advisory Council, launched together with 15 of my colleagues from across the insurance industry, has played a significant role in this.

The 2017 annual review of The ClimateWise Principles highlights just how much activity is being undertaken by our global insurance membership. Overall improvements in scoring, across almost all of The ClimateWise Principles, is a reassuring sign of the proactivity of our members.

As such, I am delighted to present this new edition of The ClimateWise Principles Annual Review on the occasion of its 10th anniversary. I wish to thank all members for their hard work and commitment to meeting their obligations to The ClimateWise Principles.

A handwritten signature in black ink, appearing to read 'Maurice Tulloch', written over a horizontal line.

Maurice Tulloch, Chair of ClimateWise and CEO International and Chairman Global General Insurance of Aviva



The new model of insurance

Growing physical risks driven by climate change and an increasing population vulnerable to these risks means insurers need to rethink the traditional insurance model. This is necessary for both the sustainability of the industry and resilience of society as a whole. Insurers need to adapt how they design products and how they assess, price and mitigate risk to become key agents in loss prevention and build climate resilience in society.

This report demonstrates the activities of ClimateWise members this year to enable this transition. Members have reported against the six ClimateWise Principles, as outlined below, and they have been scored on their disclosures. This annual process provides an opportunity to take stock of the overall progress being made by the ClimateWise community, while giving members individual rankings that allow them to benchmark progress against their peers.



The protection gap: a challenge for insurers and society

One of the greatest challenges facing the insurance sector and society today is the protection gap: the divide between economic and insured losses. Data from Swiss Re's *sigma* report¹ shows that coverage of insured losses grew from 2015 to 2016. However, this increased coverage still could not match the increase in total economic losses between the years. This led to the global catastrophe protection gap growing by US\$ 65 billion between 2015 and 2016.

This year, events like Hurricane Harvey reinforced the very real threat the protection gap presents, even for the world's richest country. In Texas, Hurricane Harvey displaced over one million people and damaged some 200,000 homes.² However, the Consumer Federation of America estimates that just 20 per cent of homeowners in the greater Houston area had flood insurance protection.³ Both governments and insurers need to find ways to address the protection gap (in developed and emerging economies prone to natural disaster), now and in the future, to provide access to affordable insurance products and services for all parts of society.

Physical risks from climate change will continue to become a serious threat to social stability under projected greenhouse gas emissions scenarios. Currently, the national targets proposed by countries under the Paris Agreement fall short of what is needed to achieve the global temperature goal of "well below 2°C above preindustrial levels". Although countries are expected to review progress and raise the ambition of their targets in subsequent rounds of climate talks, it is likely that society will continue to face an increasing frequency and severity of some extreme weather events across the world.⁴

In addition to the physical impact of extreme weather events, economic assets at risk in developing and emerging economies are expected to increase. Underinsurance is prevalent across these markets, which currently lack resources and capacity to predict, prepare and respond to events. For insurers, developing and emerging economies present new market opportunities and avenues for growth. There would be clear societal benefits if insurers rise to this challenge, and support all communities vulnerable to climate change. To build commercially viable insurance markets, the sector may also need to provide a degree of support to the national governments and policy makers in these markets. Insurers have a key role to play in supporting sustainable economic growth and social development in the face of climate change risks.

The changing role of the insurer

The traditional insurance model – to evaluate risks and pay-out following a disaster – may no longer be sustainable in a climate-changed world. Exposure to climate risk could simply render large customer segments uninsurable without adaptation. For their part, insurers with a long-term view are increasingly engaging in (i) climate mitigation activities, to reduce the drivers of climate change and (ii) helping society to adapt to and prepare for climate risk (including transition and physical risks, as defined in the TCFD recommendations⁵). When reporting against the ClimateWise Principles, members report on how they are helping to mitigate climate change and how they are

encouraging climate change adaptation in society. These actions have clear societal benefits, and also mean that insurance products become affordable for customers as risk premiums fall, expanding the customer base.

In terms of climate change mitigation, there are a range of opportunities for insurers that align with the ClimateWise Principles. Supporting climate awareness amongst customers (Principle 3) and incorporating climate change into investment strategies (Principle 4) can directly reduce insurers' climate risks, for example by encouraging customers to take action to mitigate against extreme weather events. These activities can also facilitate the shift to a low carbon economy, by leading to greater investment in low carbon technologies.

Insurers can play an active role in helping society to respond to and prepare for climate risks, as some of the ClimateWise members are already doing. Insurers can carry out research to better understand climate change risks, improve forecasting, and better educate both the public and private sectors (Principle 1). Insurers can support climate awareness amongst customers (Principle 3) by helping customers to assess their own levels of risk and by integrating incentives for risk reduction into insurance products and services. These approaches can help countries and cities to better assess and prepare for extreme weather, and ultimately reduce property damage, business interruption and lives lost.

Organisations and industry initiatives – such as ClimateWise and the Insurance Development Forum – are driving forward performance and innovation at the corporate and sector level. They are also encouraging engagement with public policy making (Principle 2). However, transformation at the societal level is still required. Economic development and planning need to be coupled with risk reduction and insurance coverage. For this, greater levels of collaboration and co-ordination between different stakeholder groups is needed.

Cities: opportunities for insurers and inter-sectoral action

Over the coming years, cities will increasingly become areas of opportunity for the insurance sector. Today, more than half of the population live in urban areas, and 1.5 million people migrate there weekly. If urbanisation occurs in a rapid yet unplanned manner, social stability, critical infrastructure, and health may be impacted. This challenge is exacerbated by underinsurance. Uninsured losses can impact future economic growth and hamper the ability of cities to recover after catastrophes, such as extreme weather events. Therefore, urban authorities, governments, and insurers should find ways to provide protection and insurance coverage against such losses. This is a commercial opportunity for insurers to provide insurance products and services to cover infrastructure, homes, businesses, and lives in urban centres, and at the same time contribute to a city's resilience.

In addition to their products and services, insurers can build resilience and financial stability at the cities level through inter-sectoral collaborations. There is a growing global focus from both the public sector (e.g. local governments, urban planning authorities), and the private sector (e.g. financiers of infrastructure, property developers) on urban resilience. This

presents multiple opportunities for insurers to build long-term, strategic partnerships.

As risk experts, insurers are well-placed to advise city developers and local governments on the risks to cities in the face of climate change. This can enable better informed development plans, as well as urbanisation policies that ultimately lead to a more sustainable city. Furthermore, insurers can leverage their forecasting expertise to inform and provide tools to local governments and consumers on risk exposure, and how to prepare for it.

Insurers also play an important role in supporting the private sector. For example, insurers can help financiers better understand climate and other risk profiles of infrastructure in cities. This will enable them to make investments and capital allocation decisions that not only have sound financial returns but also support a climate resilient city. In summary, insurers can now step-up to the challenges and opportunities presented by cities, by innovating new products and services, and by forming long-term meaningful inter-sectoral partnerships.

You can find a more detailed look at urban resilience and the actions being taken by ClimateWise members on page 10.

Progress on the Task Force's recommendations

The Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures (TCFD) released its final recommendations report on climate-related financial disclosure in June 2017. The recommendations are intended to improve

companies' reporting to investors, lenders and insurers on their climate-related financial impacts, both risks and opportunities. The recommendations lay out a framework for consistent cross-sector reporting.

There are wide-reaching benefits of such disclosure, if used effectively. The recommendations provide a common reporting language across sectors and can help organisations to identify the physical and transitional risks of climate change. Identification of key risks and strategy gaps can help to inform the collective change management that is needed and guide innovation that will maximise material benefits. This is a key step towards finding solutions to build climate resilience.

A differentiator of the recommendations is that they are explicitly forward looking and involve financial disclosure. The recommendations encourage organisations to consider strategies across different climate-related scenarios, including a 2° Celsius or lower scenario. The consideration of different scenarios is important for companies to better understand the potential financial implications of climate change, and subsequently take action to either manage their climate risk or exploit the opportunities arising from climate change.

The ClimateWise Principles have been encouraging companies to consider the risks and opportunities arising from climate change for a decade now. Indeed, there are significant overlaps between the Task Force's recommendations and ClimateWise principles, as discussed and mapped out on page 13. ClimateWise members are therefore already integrating many of the considerations raised by the Task Force, and will be well placed to implement the recommendations in 2018.



The ClimateWise Principles: member progress

It has been an important year for maintaining progress towards implementation of the Paris Agreement. Reassuringly, this year saw the mean weighted score increase by 1 per cent, from 59 per cent to 60 per cent, an important sign of continued progress. One member set a record score under the current performance criteria, scoring 91 per cent.

Across the ClimateWise Principles, the greatest change in group-mean score was for the improvement in Principle 4 (Incorporate climate change into our investment strategies). In 2015, the ClimateWise Principles Independent Review focused on climate change and investment. Alongside this, CISL published an *Investing for Resilience* report in 2016, which

highlights the relationships between the insurance industry, its investment activities, and its potential support for climate resilience. Since 2015, market initiatives, such as TCFD, have been driving for better investment disclosure. Therefore, it is very positive to see progress on this principle in this context.

ClimateWise members have demonstrated a range of activities relating to the key themes being considered in this year's ClimateWise report, namely: addressing the protection gap, building urban resilience and enhancing disclosure. The following table demonstrates just a few of the headline activities that members have been engaged in over the past 12 months:

Closing the protection gap:

- **Santam** partnered with the South African Local Government Association and the Department of Cooperative Governance to improve municipal disaster risk management: the Partnership for Risk Resilience (P4RR).
- **Prudential plc**, as a life insurer, provides savings and protection products through mobile payments to sub-Saharan Africa, in order to help them build climate resilience. More recently, Prudential's micro-insurance products have entered Laos and Cambodia's markets.
- Farmers and farm mutuals in China and India have access to risk management advice, assurance, and insurance cover from local insurers that **Hiscox** partners with.

Urban resilience:

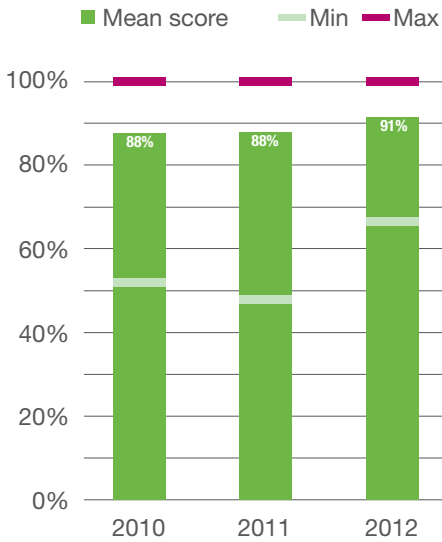
- **Swiss Re** published a paper 'Barisal: helping a city prepare for climate change', which quantifies current climate risks and potential changes to populations and assets at risk.
- **If P&C** presented the results of their analysis of municipality scale climate change adaptation during a seminar titled 'How do we speed up climate adaptation?'.
- **Chubb** offers lower insurance costs to customers that install hurricane shutters and relocate away from coastlines and flood plains, to encourage behaviour change in customers.

Disclosure and inter-sectoral communication:

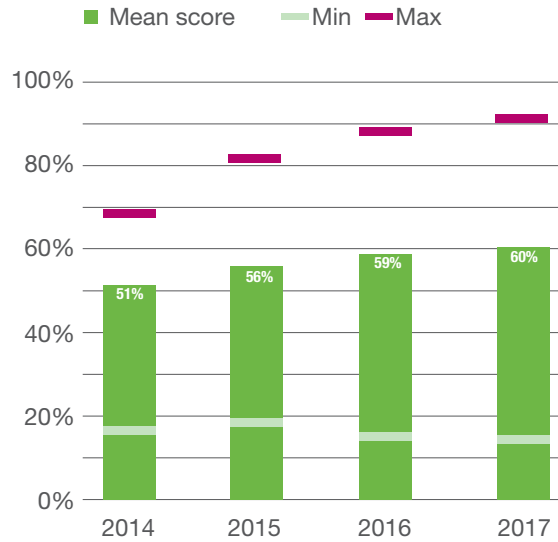
- **Aon** is amongst a growing number of members making use of and publishing open source models. Its catastrophe modelling function, Impact Forecasting, now has Oasis-capable models hosted on a public web platform.
- **Willis Towers Watson** held a series of four workshops to identify collaboration opportunities that would improve the protection and resilience of UK citizens to flooding.
- Members are increasingly engaging with the TCFD recommendations, and **Aviva** and **Swiss Re** have already publicly reported against the recommendations. **Allianz**, **Aviva**, **Swiss Re** and **Willis Towers Watson**, are all signatories of the TCFD statement of support.

We return to member activities in more detail on page 20.

Member scores over time (2010–2012)



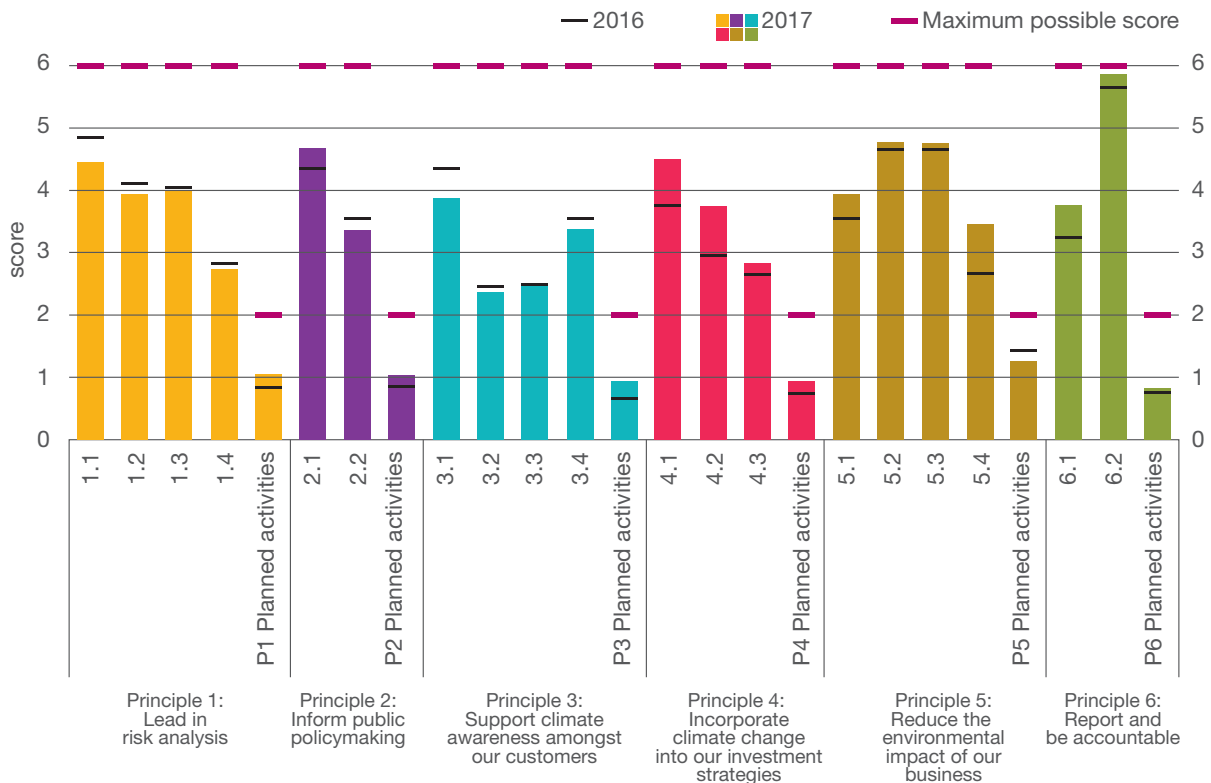
Member scores over time (2014–2017)



Note: The introduction of the revised ClimateWise Principles approach in 2014, following a one-year gap in reporting in 2013, led to a significant decrease in mean score across the ClimateWise membership between 2012 and 2014.

The minimum and maximum markers in the two graphs on the left refer to the lowest and highest scorers of ClimateWise members

Group mean absolute score by sub-principle 2016 vs 2017



Building resilient cities

2017 has become an unfortunate reminder of the increasing vulnerability many urban centres are facing from climate risks. Consequently, the urgency to enhance the resilience of cities has never been greater.

Cities are at the epicentre of the climate risk protection gap crisis, given their concentration of economic activity and vulnerability. The flood following Hurricane Harvey, for example, resulted in economic losses of US\$180 billion. Yet estimates also suggest that insured losses will amount to less than US\$19 billion.

This is just one example of the increasing pressure cities face. According to ClimateWise member Swiss Re, the past decade has seen just 30 per cent of catastrophic losses insured, producing a cumulative shortfall of US\$ 1.7 trillion over the last ten years, the majority of this was borne by government and civil society.

This climate risk protection gap impacts home owners and businesses, through reduced access to insurance and therefore an ability to recover post-loss. Governments, banks and asset managers are also vulnerable to associated collapses in real estate prices (including reduced tax income) and economic downturns. Insurers not only lose out on market opportunities but their historic role, as society's risk manager, risks being eroded.

Agreement on the need to narrow the protection gap is almost universal. However, the challenge is how to extend insurance cover in a world where climate risk exposure continues to grow. In a free market, where the cost of premiums is based on the actual level of risk faced, insurance may become unaffordable and progressively less available.

The solution lies in conscientious management of a city's physical exposure to climate risk. Key city stakeholders all have significant roles to play. City governments, for example, control the purse strings for infrastructure and development planning; banks and investors have direct influence over those they lend to or invest in; and insurers have a wealth of untapped risk management expertise and data to inform responses. Risk transfer can then cover the remaining, unmanageable, risk.

For their part, insurers have been actively exploring their role. The Insurance Development Forum is an industry initiative launched to focus on building greater resilience and protection for people, communities, businesses, and public institutions vulnerable to disasters. At this year's International Insurance Society conference, the UK and German governments announced a £30 million Centre for Global Disaster Protection. The Centre will draw on insurance expertise to provide neutral advice, innovation and cutting-edge science to extend cheaper, faster and more reliable emergency finance across emerging economies.

A group of ClimateWise member executives have also launched the ClimateWise Insurance Advisory Council. The Council commissions research on ways that physical and transition risks of climate change will impact high carbon infrastructure investments and real estate lending portfolios. The emphasis is on cities. Others are also exploring the potential of 'Resilience Bonds'. These offer insurers a way to invest in resilience-enhancing urban infrastructure that also reduces risk on the underwriting side of their business.

Finally, new collaborations between insurers and cities, such as ClimateWise's City Innovation Platform, are exploring how insurance data, risk expertise and investment can support cities' responses to climate risk. This promises opportunities for insurers to innovate new products and services that move the industry beyond its traditional role in simply providing risk transfer.

While the climate risk protection gap presents a very real challenge for cities, there are also many opportunities for new partnerships and products. Insurers must start proactively exploring where, within their own value chains, and collaboratively across the industry, these opportunities lie.

How can disclosure build resilience?

There are already a number of multi-stakeholder collaborations involving insurance organisations, but much more needs to happen for the financial system to address urban climate risks in a systematic and effective manner.

Having considered the theme of 'Building resilient cities', it is important to consider how disclosure can be used to identify and address risks in cities. Cities are likely to be increasingly susceptible to climate risk, yet represent great sources of opportunity for insurers. Given the impact of climate-related events on governments, society, insurance organisations and wider business, what could be done for these groups to better understand concentrations of exposure and potential areas for investment in resilience? Consistent and comparable climate-related disclosures will be an important step.

The Task Force on Climate-related Financial Disclosures (TCFD)

The Financial Stability Board (FSB) set up the TCFD in December 2015 with the objective of developing climate-related financial disclosures that "could promote better informed investment, credit and insurance underwriting decisions" and "enable stakeholders to better understand the concentrations of

carbon-related assets in the financial sector". In June 2017, the TCFD launched its final report recommending voluntary, consistent climate-related financial disclosures which will provide information to investors, lenders, insurers and other stakeholders. The recommendations apply to all companies in the G20 with listed debt or equity, including asset managers and asset owners. They are structured around four themes:

Widespread implementation of the TCFD recommendations should lead to improved, consistent and comparable disclosure of the financial impacts of climate-related risks and opportunities on companies in a range of sectors. Not only will this encourage companies to undertake the analysis internally to understand their exposure to climate risk (and opportunity), it will also encourage them to disclose this exposure to the market, including the steps they are taking to manage it. In the longer term, this could contribute to creating a financial system which is more proactive at managing the impacts of climate change.

The four overarching TCFD recommendations

Governance – how a company's board and senior management oversee and manage climate-related issues.

Risk management – how a company identifies, assesses and manages climate-related risks.

Strategy – how climate-related issues may affect a company's businesses, strategy and financial planning, including its resilience to different climate scenarios.

Metrics and targets – the indicators used by a company to monitor its management of climate-related risks and opportunities.

Disclosure supporting resilience

In practice, disclosure against the TCFD recommendations will facilitate the sharing of climate-related information across the financial 'value-chain' and with external stakeholders in a common reporting language. Companies will disclose their exposure to climate-related issues and their processes and strategies for managing these to their investors and insurers. Insurers, in their dual role as underwriters and investors, can aggregate this information to understand their own exposure to their customers and investees. This information can be used to supplement their own disclosures against the TCFD recommendations to their investors and other stakeholders.

In the context of urban resilience, disclosure of this information will lead to greater widespread understanding of which companies operate in 'risky' areas from a climate perspective, the exposure of the financial sector to these risks, and the steps being taken by the private sector to manage these risks. TCFD disclosures are intended to sit in annual financial filings so that they are financial disclosures and thus subject to the same governance and sign-off procedures as annual reports. Stakeholders outside the investment chain, such as regulators and governments, will also be able to access this information to better understand climate vulnerabilities in the economy.

Companies, their investors, their insurers, and the governments of where they are located all have a vested interest in systemic climate resilience. If concentrations of climate risk can be identified alongside a lack of adaptation or mitigation measures, TCFD disclosures will provide an important forward-looking

evidence base and business case for collaborative investment in climate resilience.

Additionally, there are a number of other commercial drivers for uptake of the TCFD recommendations. Investor pressure regarding TCFD implementation is growing, with prominent asset owners such as Aviva Investors, BlackRock and Vanguard making climate a top engagement priority and stating they will use their voting power to get investees to disclose against TCFD. Stock exchanges are expected to integrate TCFD disclosures into listing requirements over time. Rating agencies will promote adoption by including climate change impacts in their analysis and ratings of companies. The TCFD recommendations have been generally accepted by the G20 Finance Ministers and Central Bank Governors, meaning regulation in some countries may emerge in the next three to five years, depending on the extent the market implements the recommendations. Finally, prominent sustainability indices and initiatives are integrating the TCFD recommendations into their assessments of company performance, including CDP, the Principles for Responsible Investment (PRI) and of course The ClimateWise Principles.

ClimateWise and TCFD

There is considerable overlap between The ClimateWise Principles and the TCFD recommendations as explicitly indicated in the TCFD's final report and summarised in the table below. ClimateWise is already encouraging members to disclose against the TCFD recommendations by including its requirements in the scoring guidance (on an unscored basis initially).



Mary Schapiro, Special Advisor to the Chair of the Task Force on Climate-related Financial Disclosures (TCFD) and former Chair of the U.S. Securities and Exchange Commission

For insurance companies, climate-related risks and opportunities constitute a key topic affecting the industry's core business and as such, it will be increasingly important for investors and others to understand how insurance companies are incorporating climate-related risks into their strategy, risk management, underwriting process and investment decisions. Further, insurance companies are very well-placed to build climate resilience and influence the low-carbon transition through their dual role as risk managers and investors. As both asset owners and underwriters, how insurance companies are evaluating and managing climate risk in their underwriting and investment activity is of deep interest. The insurance industry's implementation of the TCFD recommendations will therefore be key to its long term success.

Implementing the recommendations of the Task Force on Climate-related Financial Disclosures will benefit ClimateWise members in a number of ways. They will increase their awareness and understanding of how their business can be financially impacted by climate change. Disclosure of climate-related financial information will improve their access to capital by increasing investors' confidence that climate risks are being appropriately considered, managed and mitigated.

ClimateWise members are already on the front foot with regards to implementing the TCFD recommendations. They have been voluntarily considering and disclosing their strategic response to climate change for a decade. The next step for them will be to begin the process of identifying and quantifying the financial impacts of climate change, exploring how resilient their strategies are to different climate scenarios, and encouraging others to do the same.

<div style="text-align: right;">ClimateWise</div> <div style="text-align: left;">TCFD</div>	Principle 1 Lead in risk analysis	Principle 2 Inform public policy making	Principle 3 Support climate awareness amongst our customers	Principle 4 Incorporate climate change into our investment strategies	Principle 5 Reduce the environmental impact of our business	Principle 6 Report and be accountable
Governance The organisation's governance around climate-related risks and opportunities						
Strategy The actual and potential impacts of climate-related risks and opportunities on the organisation's businesses strategy and financial planning						
Risk management The processes used by the organisation to identify, assess and manage climate-related risks						
Metrics and targets The metrics and targets used to assess and manage relevant climate-related risks and opportunities						

It was encouraging to see the CEOs of ClimateWise members Allianz, Aviva, Swiss Re and Willis Towers Watson signing a public statement of support for the TCFD recommendations. Indeed, Aviva and Swiss Re have already partially integrated disclosure against the TCFD recommendations into their 2016 financial disclosures. A number of members' ClimateWise reports also outlined their ambition to implement the TCFD recommendations over the next couple of years, suggesting many of the membership will be early adopters.

The reporting this year emphasises that ClimateWise members are already integrating climate consideration into their risk management and business strategies. Public disclosure of these activities in a consistent manner against the TCFD recommendations will help to improve all stakeholders' understanding of exposure to climate risk. Disclosure can promote more collaboration to improve climate resilience, and help the insurance industry to continue its unique role in supporting overall financial stability.



ClimateWise's Societal Resilience Programme

The first decade of ClimateWise has seen a tremendous response by the insurance industry to climate change. Many ClimateWise members have been proactive in exploring opportunities across both their underwriting and asset management activities.

At the same time, voluntarily reporting their progress against The ClimateWise Principles, is helping the industry to communicate, publicly, on how a group of leading insurance companies are responding to the risks and opportunities they face from climate change.

This tenth anniversary of The ClimateWise Principles coincides with the launch of the TCFD recommendations. The ClimateWise Principles are already aligned in helping members meet many aspects of their TCFD reporting requirements. This is an exciting opportunity and ClimateWise will further align The ClimateWise Principles with the TCFD framework, over the coming year.

ClimateWise's Societal Resilience Programme continues to explore how insurers can move beyond their traditional role as underwriters and more proactively support society's resilience to climate change risks. The Programme draws on the unique research capabilities across the University of Cambridge, CISL's broader academic and research network and the wealth of expertise within its member organisations.

The past year has been busy. ClimateWise has completed three headline projects and launched the ClimateWise Insurance Advisory Council and two major ongoing research projects (see page 16).

The Societal Resilience Programme

Finance

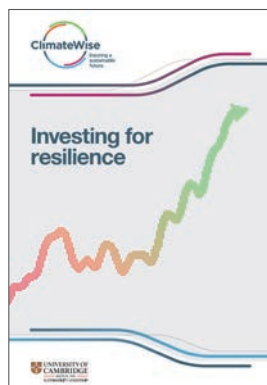
Explores how the insurance industry, as an asset manager, can manage its financial assets in ways that can also reduce risks on the underwriting side of its business. It promotes the commercial opportunities associated with such strategies, the tools and standards required and where the industry can collaborate, with other stakeholders, to further this agenda.

Regulation

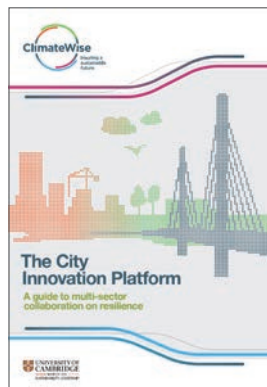
Explores where the insurance industry can support global regulators to fully understand the nature of the physical, transition and liability risks climate change presents the insurance industry. It also identifies how the industry can support other parts of the financial system as it responds to the zero carbon, climate-resilient transition.

Resilient Cities

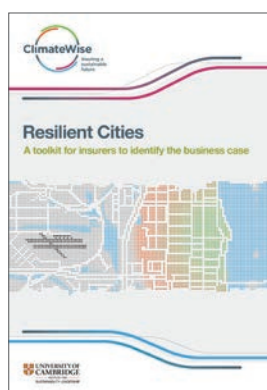
Explores which parts of the insurance industry's value chain can support cities to make better infrastructure and development decisions while creating new commercial risk transfer and risk management opportunities. The insurance industry has extensive capabilities that can enhance climate-risk resilience in cities that represent its most concentrated and exposed markets.



The Investing for Resilience report finds that insurers are not the natural investors in resilience many external commentators believe them to be, however, it identifies numerous ways that insurers can support investments in climate resilience more broadly across the financial markets. The insurance industry, with its array of stakeholders and involvement in so many spheres of economic activity, is well placed to help lead and co-ordinate increased investments in resilience. This could lead to many new commercial opportunities for the industry.



The City Innovation Platform (CIP) was a two-day workshop held in Dar es Salaam, Tanzania in 2016 to enhance the resilience of public infrastructure projects. The workshop involved active participation from senior Dar city officials, insurers, investors and the private sector. Together they explored how insurance industry risk transfer, risk management and consultancy expertise could support cities make more informed decisions about managing the physical and financial risks of infrastructure projects. It highlights many opportunities for insurers to leverage their specific skills and expertise to reduce the cost of risk transfer.



The Resilient Cities toolkit is designed to help insurers identify commercial opportunities, by developing new products and services that can support cities respond to climate risks. The toolkit, split across two workshops, contains all the material needed to hold internal conversations on the future role of their organisation in managing the climate-risk protection gap. Many commercial opportunities exist for the insurance industry to leverage its underwriting, risk management and investment activities. Yet, many insurers are still formulating their responses. This toolkit will encourage these responses.

The ClimateWise Insurance Advisory Council

In 2015, ClimateWise supported the Bank of England's Prudential Regulation Authority (PRA) to publish its report into the likely impacts of climate change for the insurance sector. At its launch, the Governor of the Bank of England, Mark Carney, delivered a speech referring to climate change as the "tragedy of the horizon".

This led to 15 ClimateWise members launching the ClimateWise Insurance Advisory Council. Its objective is to commission research to support global regulators in better understanding the impact of the physical and transition risks of climate change for the insurance sector, as introduced in the PRA's report. It also explores how insurance expertise can support other parts of the financial system in its response.

The Council has recently commissioned two significant research projects. The first is to model the downside impacts that transition risks (i.e. policy changes, carbon taxes and stranded assets) will have on investments in high carbon infrastructure projects, and the upside impacts of investments in low carbon over the short, medium and long term.

The second is exploring how insurer climate models can help to inform banks and other financial institutions on geographic concentrations of climate risk within real estate lending portfolios. It also highlights how adaptation measures can mitigate many of these exposures. Both projects are ongoing and will be completed by the middle of 2018.



Maurice Tulloch, Chair

Chair of ClimateWise and CEO International and Chairman Global General Insurance of Aviva

Stephen Catlin,

Special Advisor to XL's Chief Executive Officer, XL Group plc

Dominic Christian,

CEO, Aon UK Ltd and Executive Chairman of Aon Benfield

Rowan Douglas CBE,

CEO for Capital, Science and Policy Practice, Willis Towers Watson

Jon Dye,

CEO, Allianz UK

Scott Egan,

Chief Financial Officer, RSA Insurance Group

Huw Evans,

Director General, Association of British Insurers (ABI)

Charles Franks,

Group CEO, Tokio Marine Kiln

Alex Hindson,

Chief Risk Officer, ArgoGlobal

Martyn Parker,

Chairman, Global Partnerships, Swiss Re

John Parry,

Chief Financial Officer, Lloyds

Charles Philipps,

CEO, MS Amlin and Executive Officer, Mitsui Sumitomo Insurance (MSI) Amlin

John Scott,

Chief Risk Officer, Zurich Insurance plc

Steve Weinstein,

Group General Counsel and Chair, RenaissanceRe Risk Sciences Foundation, RenaissanceRe

Ricard Wennerklint,

CEO, If P&C



The ClimateWise Principles 2017 annual review

The annual assessment of the integration of The ClimateWise Principles across member business activities is based on members reporting progress that is independently reviewed by PwC. It highlights the overall progress being made by the ClimateWise community, while giving members individual rankings that allow them to benchmark progress against their peers.

Principle 1
Lead in risk analysis

See page 20

Principle 2
Inform public policy making

See page 23

Principle 3
Support climate awareness amongst our customers

See page 26

Principle 4
Incorporate climate change into our investment strategies

See page 29

Principle 5
Reduce the environmental impact of our business

See page 32

Principle 6
Report and be accountable

See page 35

Summary

Lead in risk analysis

Many members have a broad portfolio of climate-related risk research. There were good examples of research on urban resilience and catastrophe modelling. Some members are also engaging in collaborative multi-year research projects. However, in comparison to 2016, group-mean scores have fallen slightly across the four sub-principles under Principle 1.

Moving forward, members should aim to align risk analysis activities with their business strategies, and should increasingly assess risks associated with new technologies. It is positive to see that the score for planned activities has increased compared to 2016. This suggests that there is a good pipeline of risk analysis activities for 2018.

Inform public policy making

ClimateWise members continue to engage with public debate and policy makers through a range of channels. Examples include engagement through conferences, speeches, roundtables and written communications. Members increased their mean total score on Principle 2 compared to 2016.

However, within Principle 2, the sub-principle related to public engagement and public debate had a slight reduction in mean scores this year. This may indicate reduced activity after COP21, which took place during the 2016 ClimateWise reporting period and was a good platform for public policy engagement. The insurance industry is well positioned to have a positive impact on policy and planning, and therefore it is important that public engagement is maintained.

Support climate awareness amongst our customers

Members showcased a number of pioneering insurance initiatives for raising customer awareness this year. This has been achieved through a range of approaches including customer surveys, web-based communication tools, 'green' insurance

products, and micro-insurance initiatives. However, there is still a significant opportunity for insurers to extend their initiatives to markets that have low insurance penetration and high exposure to climate risks.

This year, there was an overall decrease in members' scores across Principle 3. However, an increased mean score in planned activities is a positive sign that this is an area ClimateWise members are looking to improve and do more in.

Incorporate climate change into our investment strategies

This year, members have demonstrated progress across all sub-principles of Principle 4. Members are increasingly taking climate change risks and opportunities into consideration when evaluating and managing their investment portfolios. Members are building climate exposure considerations into their investment assessments, and some members are now improving their stakeholder communications on investment strategy. There is, however, still room for improvement for many members on how they engage stakeholders and communicate their investment strategies to them.

Reduce the environmental impact of our business

There has been an increase in the group-mean score of the members for all sub-principles under Principle 5. This is the Principle that has the highest overall mean score, with the majority of members scoring highly on the level of quantitative and qualitative disclosure. This year, members have made good progress in galvanising employees to adopt more sustainable behaviours in and out of work.

Report and be accountable

There was a small increase in mean score for Principle 6. Most members are able to identify senior and board-level members that have responsibility and oversight over climate change issues. However, in some cases there could be better disclosure on how members uphold these board-level responsibilities and how they translate into business action.

Next steps for ClimateWise members

Strengths to build upon:

- **Reduction of environmental impacts (page 33).** The majority of members had excellent disclosure on their management of their own business' environmental impacts. The next step for members will be to encourage customers to reduce their impacts, through outreach activities, products, and services.
- **Climate risk management and climate-related opportunities are increasingly being integrated into investment strategies (page 30).** Environmental, social and governance (ESG) risk management and sustainability risk management frameworks are now being implemented by a number of members. Members have recognised the potential financial impact of climate-related risks, and are developing responsible investment strategies. Members should consider how they can engage and educate other organisations on the benefits of these activities.

Next steps for improvement:

- **Members could further integrate climate change related initiatives into business strategy (page 36).** Members provide a range of good examples of climate-related activities but some still fail to demonstrate how these activities align with core business strategy. This recommendation is in line with the TCFD recommendations, which ask companies to mainstream climate change into strategies, businesses and financial plans as well as their overall financial disclosures.
- **Board-level oversight (page 36).** Many members have a good level of board oversight for climate-related issues and initiatives. Members clearly recognise that it is beneficial to consider climate change in a company's business and operations. However, members could further disclose how this translates into action, for example how climate-related mandates in products and services, and core business strategy are being considered at board level.

Appendices

Appendix 1: Member evidence against the ClimateWise Principles

Principle 1 Lead in risk analysis

The sub-principles

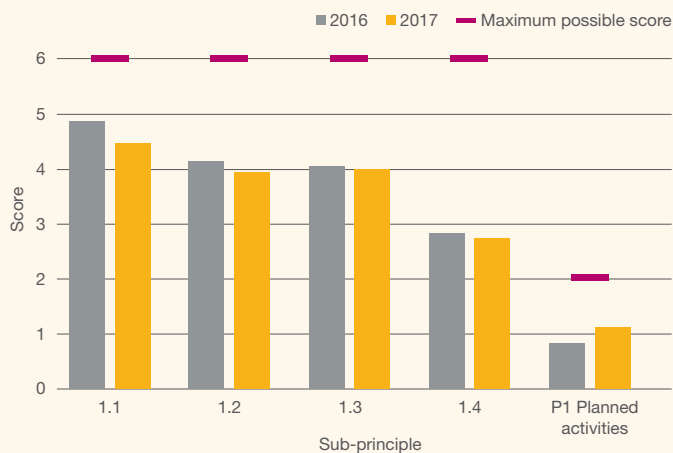
Research: 1.1 Support and undertake research on climate change to inform our business strategies and help to protect our customers' and other stakeholders' interests. Where appropriate, share this research with scientists, society, business, governments and NGOs in order to advance a common interest.

Forecasting: 1.2 Support national and regional forecasting of future weather and catastrophe patterns affected by changes in the Earth's climate.

Application: 1.3 Use research and improve data quality to inform levels of pricing, capital and reserves to match changing risks.

Innovation: 1.4 Evaluate the risks associated with new technologies for tackling climate change so that new insurance products can be considered in parallel with technological developments.

Group mean absolute score by sub-principle



Note: The 'Maximum possible score' markers in the graph above reflect the total marks available under each sub-principle.

Research, analysis and data collection are crucial for maintaining robust pricing structures as climate change alters physical risks. ClimateWise members should therefore be both driving and utilising the latest science in climate risk projection and forecasting.

ClimateWise members continue to work with leading academic institutions in productive research partnerships that benefit from the crossover of business and scientific perspectives. In comparison to 2016, mean scores have fallen slightly across the four sub-principles under 'Lead in risk analysis'. To strengthen the impact of research, members should ensure that the research they undertake is clearly aligned to their overall business strategy. Members should demonstrate how they have implemented research outcomes as results become available. As new technologies continue to be developed and used to mitigate and adapt to climate change, ClimateWise members should strengthen their focus on how they can assess and price the associated risks.

Key strengths and progress achieved

Members leading in this area have a broad portfolio of ongoing research projects and are working with a number of different organisations to deliver multi-year research goals. These collaborative relationships ensure that members have a strong understanding of the context in which their pricing decisions are made. Furthermore, sharing research drives widespread awareness of risk profiles and exposure. This enables the insurance industry, academics and the public to respond to risk.

Swiss Re published a paper 'Barisal: helping a city prepare for climate change'⁷, which quantifies current climate risks and potential changes to populations and assets at risk. Santam's agricultural meteorologist, Johan van den Berg, produced a video 'La Niña: tips for planting season'¹⁰. It presents farmers with advice to safeguard their crops against climate variability following a La Niña phase.

Forecasting abilities are crucial to reduce damages from climate events as the accurate modelling of event severity and frequency can inform adaptation and resilience building. Currently, there are disparities in model sophistication for different regions and for different hazards, with significant challenges in forecasting the severity of certain events. For example, models for extreme temperature and precipitation events typically have less uncertainty than those for cyclones, wildfires or convective storms. ClimateWise members should be identifying and tackling weak areas: for the insurance industry, robust forecasting can reduce claims, inform pricing and help to identify vulnerable customer groups. KatRisk, a company developing flood models, now provides risk scoring for **Hiscox's** US flood book. This information helped Hiscox to develop new products for a wider base of homeowners. **Aon** is amongst a growing number of members making use of and publishing open source models. Its catastrophe modelling function, Impact Forecasting, now has Oasis-capable (an open source catastrophe modelling platform that is free to use by anyone) models hosted on a public web platform making it accessible to everyone.

In terms of data quality, **Zurich's** new web-based peril and accumulation assessment tool, GLEAM (Global Exposure & Accumulation Management), provides a single application for all UK property risks. GLEAM collates existing flood assessment and accumulation systems and presents risks and maps in greater detail. This enables proactive management of exposure. At **Prudential plc**, a benchmarking service can identify potential environmental risks in a real estate investment portfolio, using analysis of environmental variables that could impact asset and portfolio values.

Hiscox is one of several ClimateWise members using research to integrate new technologies into insurance policies. The aim is to encourage customer uptake. For example, its high-value household product offering now permits renewable energy as a replacement energy source in their home, in the case that the original energy source is damaged. **RSA** evaluates risks from new technologies that reduce greenhouse gas emissions directly, for example electric vehicles, and indirectly, such as through offering restricted cover to underwrite prototypes.

Recommended areas for development

Many members have a broad portfolio of climate-related risk research. However, there could be improvement in the explanation of how these research projects link to business strategy. For example, members could disclose on how their research on climate-related risks, and development of risk models and tools impact business decisions such as product development and pricing. Additionally, members could better demonstrate that their research efforts are directly linked to climate-related risks that have been identified as material for their business and sector. Similarly, sharing this research with industry groups, governments or the public is crucial to building climate risk resilience more widely. These elements of disclosure are necessary to demonstrate the impact of research on business priorities, pricing and organisational values.

Sub-principle 1.4 rewards members for considering risks associated with new technologies that tackle climate change. Previously, many members have focused on renewable energy, although the potential scope is much wider. Like in 2015 and 2016, this is an area where members could develop their approach as the mean score for this sub-principle is significantly

lower than the rest of Principle 1. For insurers, these technologies represent significant and growing opportunities. Members should engage in assessing and supporting new applications of technologies for climate change mitigation and adaptation.

Case study **RSA: flood modelling and data quality**

RSA has been working to develop and improve its approach to climate-related perils and how they are priced.

In particular, RSA is responding to the increasing rate of severe floods through the implementation of a global flood model. Flood risk modelling requires highly accurate data and RSA is working closely with its data providers to ensure active prioritisation of data improvement work to ensure that it is aligned with

RSA's own ongoing priorities. The RSA flood model is updated on an annual basis and is shared with RSA's underwriting and pricing teams to ensure that the benefits of the models are fully realised across the organisation.

Case study **Willis Towers Watson: Willis Research Network**

The Willis Research Network (WRN) is an award-winning collaboration between the insurance industry, academics and the public science institutions that has been active for more than ten years.

Through these collaborations the WRN has published a number of climate-related papers in peer-reviewed journals. Willis Towers Watson also contributed to *Natural Catastrophe Risk Management and Modelling: A Practitioner's Guide*, published in May 2017.

The WRN hosts a number of events and seminars each year. In the tenth year of the WRN, the team hosted events looking at hurricane forecasting and European windstorm modelling. In its ClimateWise report this year, Willis Towers Watson was able to evidence the impact of WRN outputs on the business strategy of the company.

As well as improving the sophistication of internal catastrophe models, the scale of the WRN allows Willis Towers Watson to offer a significant level of detailed

information to clients, well-tailored to the risks faced in their key geographies and markets.

The expertise available through the WRN helps Willis Towers Watson and Willis Re to provide advice on climate change scenarios relating to extreme events for specific regions. Presentations to clients include reference to the latest climate impact research from senior academic experts in climate science. Finally, Willis Towers Watson organises internships and placements for post-doctoral researchers. Those on the placements have the opportunity to gain an understanding of the insurance industry risk assessments and workflow practices. This feeds back into the research relationships with their own organisations.

Principle 2

Inform public policy making

The sub-principles

Policy engagement: 2.1 Work with policy makers nationally and internationally to help them develop and maintain an economy that is resilient to climate risk. This should include supporting the implementation of emissions reductions targets and, where applicable, supporting government action that seeks to enhance the resilience and reduce the environmental impact of infrastructure and communities.

Public debate: 2.2 Promote and actively engage in public debate on climate change and the need for action.

Group mean absolute score by sub-principle



Note: The 'Maximum possible score' markers in the graph above reflect the total marks available under each sub-principle.

ClimateWise members engage with public debate and policy makers through a variety of channels. This demonstrates leadership in climate risk management and advocacy. The insurance industry has a good view of the impacts society faces from climate change. This can be a powerful voice in advocating for recognition of these risks in policy and planning. Amongst this year's evidence, there is a growing trend for members showing support for initiatives which tackle climate change challenges. Examples include the Task Force on Climate-related Financial Disclosures (TCFD) and the Paris Pledge for Action.

In the 2016 ClimateWise report, many members performed strongly on Principle 2.2. This was due to activities linked to COP21 and the associated attention on climate change and climate risk. This year, competing priorities for organisational focus meant that performance was not as strong, though some members reaffirmed their position on the Paris Agreement.

Key strengths and progress achieved

ClimateWise members have continued to engage with policy makers to share insights on changing risk planning. Some of this work happens behind closed doors. However, an increasing number of members are making public statements on the topic of climate-related policy. Representing its members, **ABI** continues to raise climate risk matters when providing views on government policy papers. This year, ABI's Head of Property responded to the Environment, Food and Rural Affairs Committee report into future flood prevention on behalf of the British insurance industry. In this response, ABI supported greater transparency in planning, greater accountability for developers and more grants for businesses in order to increase resilience to future floods. **If P&C** shares knowledge of climate change risks across Nordic countries and the role of insurers with policy makers in a variety of capacities. This year, If P&C presented the results of analysis they undertook of municipality-scale climate change adaptation entitled 'How do we speed up climate adaptation?'. It was launched during Almedalen Week, a key forum in Swedish politics, with a broad reach of regional and national politicians, NGOs and lobbyists. On an international scale, **Allianz's** Chief Investment Officer attended the 7th Petersberg Climate Dialogue to give a speech on 'Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development'. The speech was part of a roundtable discussion and emphasised the importance of clear price signals, public-private partnerships and long-term policy plans for institutional investors to increase investments in renewables.

ClimateWise members can be thought-leaders and advocates for responsible consideration of climate risk through participation in public debate around climate risk. The Capital, Science and Policy team at **Willis Towers Watson** prioritise their public engagement according to material issues currently facing

their customer base. Engagement in this reporting year has focused on UK floods. Government and insurance industry risk specialists from Willis Towers Watson held a series of workshops to identify collaboration opportunities to improve the protection and resilience of UK citizens to flooding. Willis Towers Watson also published a blog answering key questions about changing flood frequencies in the UK. The India country manager of **The Corporation of Lloyd's** participated in a roundtable aimed at strengthening the financial resilience of five cities through climate risk insurance to safeguard infrastructure investment. **Zurich** hosted its annual Global Risk Management Summit in September 2017 in Edinburgh. The overall theme of this year's event was navigating risk in the innovation economy. Topics for discussion included smart cities, artificial intelligence, cyber risks and climate risks.

A significant number of members have reported their involvement with the FSB TCFD, which released its final report in June 2017. **Allianz, Aviva, Swiss Re and Willis Towers Watson**, for example, are signatories of the TCFD statement of support.

Recommended areas for development

Principle 2 focuses on members being active agents for progress in climate change related policy. To improve in this area, members need to go beyond simply disclosing basic membership of industry groups. Members should demonstrate how they proactively engage in government action and public debate. Members should communicate their specific role and position in the action. For sub-principle 2.2, it is also important that the initiatives and events are truly public, aiming to engage audiences far wider than the insurance sector.

Case study **Santam: Partnership for Risk Resilience**

Santam observed increasing claims in 2008 and 2009 associated with extreme weather events, with losses growing faster than insurance penetration. Rather than increase premiums, Santam partnered with the University of Cape Town, the Council for Scientific and Industrial Research and the World Wide Fund for Nature South Africa to better understand the impact of climate change on local communities.

The research phase identified key drivers of climate change risk within the Eden District Municipality, in the Western Cape. The risk drivers identified included wildfire and degraded coastal areas. Wildfires reduce vegetation cover and rainfall interception, which increases flood risk during intense rainfall events. Degraded and hardened coastal areas significantly increase risk from extreme waves.

Using this information, Santam partnered with the South African Local Government Association and the Department of Cooperative Governance in 2012 to improve municipal disaster risk management: the Partnership for Risk Resilience (P4RR). P4RR identified high fire and flood risk areas where institutional bodies were not equipped to prevent or manage catastrophes. In order to bring the spotlight onto this potential disaster, as well as to influence institutional policy and processes, P4RR commenced with a project alleviating the immediate risk to vulnerable communities.

Through the initiative, interventions by Santam have

achieved impacts ranging from community disaster risk education and awareness programmes, targeting schools, crèches and retirement homes; the donation of R6 million worth of fire-fighting equipment that enabled fire-fighters and first responders to respond timeously and appropriately to all fire-related catastrophic events, thereby saving lives and assets, and enabling flood-risk mapping for three District municipalities. One of the key initiatives of P4RR is the installation of over 5,000 smoke alarms as an early warning initiative in informal settlements in nine local municipalities.

The P4RR project engages constantly with local and national government officials from diverse disciplines, including safety, social and technical areas. Since 2012, Santam has invested more than R5.4 million in helping 24 municipalities to better respond to the risk of fires and floods. The programme has now been expanded to assist a total of 53 local municipalities in ten districts over the next five years, and impacting the lives of about five million South Africans.

Case study **Aviva and the Economist Intelligence Unit: financial regulation addressing climate change**

Aviva's campaign to make the global rules for finance more sustainable led to it sponsoring an Economist Intelligence Unit paper 'The Road to Action: Financial regulation addressing climate change'.¹² This followed the 2015 paper 'The Cost of Inaction: Recognising the value at risk from climate change'.¹³

The recommendations made in this latest paper include collaboration between the financial industry and governments to identify the information necessary to prove that investors understand the risks affecting their portfolios, as well as the introduction of integrated accounting standards and clarification on the definition of materiality in climate risk. The Economist Intelligence Unit reviewed the TCFD recommendations and considered how climate-related financial disclosure can be integrated into the Sustainable Development Goals.

Publicly available, and written for an audience of financial institutions, regulators and standard-setting institutions, this paper is a discussion starter. The report follows communication on the topic from Mark Wilson, CEO of Aviva, who spoke about the work at the UN in 2016 and on social media in 2017.

Principle 3

Support climate awareness amongst our customers

The sub-principles

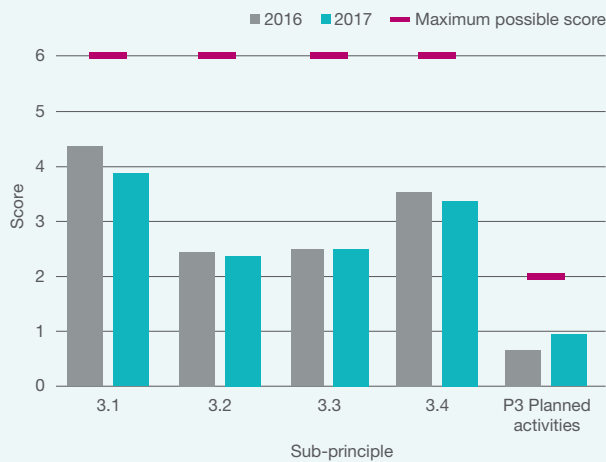
Advice: 3.1 Inform our customers of climate risk and provide support and tools so that they can assess their own levels of risk.

Products: 3.2 Encourage our customers to adapt to climate change and reduce their greenhouse gas emissions through insurance products and services.

Claims: 3.3 Seek to increase the proportion of non-life claims that are settled in a sustainable manner.

Market Penetration: 3.4 Through our products and services assist markets with low insurance penetration to understand and respond to climate change.

Group mean absolute score by sub-principle



Note: The 'Maximum possible score' markers in the graph above reflect the total marks available under each sub-principle.

Insurers play a significant role in influencing customers, both corporates and individuals, to consider climate-related risks and opportunities. Members can empower customers to assess their exposure to climate risks by providing open source tools and resources. Members should also provide products and services that encourage customers to seek sustainable solutions and reduce their carbon footprint. This is because customers turn to insurers as leaders in risk management and often seek their advice on these matters. There is a significant opportunity for insurers to extend their initiatives to markets with low insurance penetration, yet high exposure to climate risks. For example, there is an increasing demand for micro-insurance products in developing countries as farmers face climate-related risks in agriculture. This year, there is an overall decrease in members' scores across Principle 3, particularly in Principle 3.1 and 3.4.

Key strengths and progress achieved

Despite the minor decrease in members' mean score for sub-principle 3.1, members have still evidenced a variety of initiatives to support their customers in assessing and understanding their climate risk exposure. For example, **Hiscox** conducted a survey of 610 customers to better understand their attitudes to climate change, and their expectations for insurers in managing and informing climate risks. Some of the key findings include consumers' expectations for insurers to take a lead role in informing and advising them on relevant environmental and weather-related issues, and that insurers should take a proactive approach when it comes to climate change by offering customers discounts and rewards for acting sustainably and taking measures to reduce climate-related risks. This year, **If P&C** further developed its web-based visualisation, VisAdapt into VISUAL WATER. This tool enables more informed management of urban flood risks and storm water in Sweden.

As with previous years, only a handful of members scored well on sub-principle 3.2 – encouraging customers to adapt to climate change and reduce their greenhouse gas emissions through insurance products and services. A leading example is **If P&C**, which offers a 30 per cent reduction in insurance payment to customers using electric cars in their business operations. **Chubb** similarly offers lower insurance costs to customers that install hurricane shutters and relocate away from coastlines and flood plains to encourage behaviour change in customers. **Allianz** is one of the few members that have included the revenue derived from such products and services, having generated €1.1 billion from 156 'Sustainable Solutions'. This quantification demonstrates how Allianz has successfully incorporated these products and services across the business.

Members continue to demonstrate progress in settling non-life claims in a sustainable manner, with most members offering paperless claims options. For example, **Willis Towers Watson** has implemented electronic claim filing and e-accounting systems, eliminating its use of paper. Similarly, **If P&C's** number of e-customers amongst the private segments has increased

by 217 per cent during 2014–16. Members also deploy more sustainable repair and restoration strategies over replacement for non-life claims. For instance, **Aviva** continues to work with its suppliers that are able to restore 85–95 per cent of smoke or water damaged items, instead of dispose and replace. **RSA** re-launched its UK Buildings Strategy, which now includes on-site storage pods to save time and cost in removals, and shorter drying times.

This year the criteria were tightened for sub-principle 3.4, whereby members had to demonstrate products and services with a commercial imperative, rather than corporate social responsibility. The aim is to support markets with low insurance penetration in understanding and responding to climate change. For example, **Swiss Re** provided weather insurance to one million smallholder farmers in 11 sub-Saharan countries through the African Risk Capacity (ARC). **MS Amlin** also underwrites catastrophe schemes and reinsurance in developing countries. This is made possible by the modelling capability they have developed over several years, underpinned by close relationships with reinsurance brokers. It ensures clients have the most up-to-date modelling and assessment of their risk exposure. **Tokio Marine** continues to be involved in IFFCO-TOKIO General Insurance (ITGI), providing index-type micro-insurance to 1.5 million farmers in India, who receive compensation for revenue losses during droughts. Farmers and farm mutuals in multiple geographies, particularly in China and India, have access to risk management advice, assurance, and insurance cover from local insurers that **Hiscox** partners with. This is to protect farmers against reduced yields due to poor weather conditions during the growing season, and ensure access to insurance cover after major disasters.

Recommended areas for development

A recurring area for development is how members have identified areas of behaviour change needed to reduce their carbon footprint and increase awareness of risk exposures. Despite providing substantial examples of initiatives and tools to support customers in these issues, there is a lack of description on how members arrived at the need for those initiatives. Members could improve by better disclosing any processes, research, customer roundtable sessions, or surveys that were conducted.

Another consistently weak area is estimating the proportion of revenue or business that has been derived from sustainable products. This may be challenging as there is often no distinct 'sustainable' product, rather, sustainability is embedded across

a range of products and services. However, having this high-level estimate will also be useful for members' monitoring of performance of such products and services.

Furthermore, members could increase their engagement and collaboration in markets with low insurance penetration. There has been a decrease in scores this year, as many examples provided by members were philanthropic in nature, and not related to their core products and services. Members can firstly assess currently under-insured markets and customers, then identify strategic geographies to engage with. This presents an opportunity for insurers to provide climate-related products and services and close the protection gap as climate risks often heighten in underinsured regions.



Case study Zurich: supporting real estate brokers and customers in managing sustainability risks

As a major real estate insurer, Zurich recognises the importance of climate change and sustainability issues for its customers.

Zurich strives to raise its customers' awareness and preparedness to manage and respond to such issues. To achieve this, Zurich actively publishes articles on environmental issues that are easily accessible to its brokers and customers in its tailored online publication *The Insider*.¹⁴ Some areas of focus are energy performance in real estate, flooding and smart technology. For example, there was an article on how to use smart technologies to improve energy efficiency and cut waste. These articles

provide comprehensive overviews of the sustainability issue, related legislation, how it may affect the customer, and strategic responses. This enables customers to make more informed decisions on sustainability issues. Thus far, these articles have had good reach, with one relating to fire risks of solar panels receiving up to 3,000 hits online. Additionally, Zurich runs training courses on sustainability issues for its underwriters across the business, enabling them to better support Zurich's customers.



Case study Allianz: products and services for 'emerging consumers'

Allianz is committed to continue closing the protection gap for people who need access to low-cost financial services by providing products and services to 'emerging consumers'.

These emerging consumers include underinsured customers in Asia, Africa and South America. Allianz predominantly offers micro-insurance products but has recently recognised that customers are also underserved in many other areas, such as savings, investments and health services. Therefore, Allianz expanded its offerings beyond micro-insurance to include micro-savings and micro-equity options, and rebranded its 'micro-insurance' business to 'emerging consumers'.

This was a move to reflect the broader customer base, their needs, and the increasingly diverse range of services Allianz offers to support these customers.

This is a key area of opportunity and growth for Allianz: in 2015, Allianz broke the 50 million customer mark in the emerging consumers market, and in 2016, revenues in this market grew by 95 per cent. As evidenced, Allianz is continually growing this segment of its business to support lower-income customers in emerging markets.

Principle 4

Incorporate climate change into our investment strategies

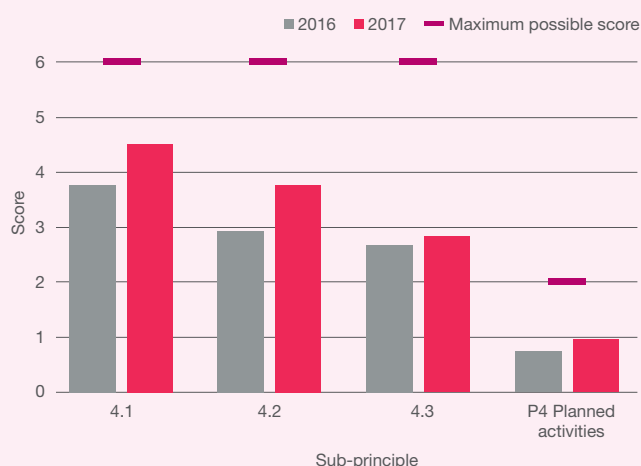
The sub-principles

Evaluate: 4.1 Evaluate the implications of climate change for investment performance and shareholder value.

Incorporate: 4.2 Incorporate the material outcomes of climate risk evaluations into investment decision-making.

Engage: 4.3 Communicate our investment beliefs and strategy on climate change to clients and beneficiaries.

Group mean absolute score by sub-principle



Note: The 'Maximum possible score' markers in the graph above reflect the total marks available under each sub-principle.

In addition to their products and services, insurers can support the transition to a low carbon economy by allocating capital and investing in low carbon assets. Furthermore, insurers can support more resilient and sustainable investments by systematically evaluating and communicating climate risks. This is also in line with the market's expectation as uptake of the TCFD recommendations is increasing, as is pressure from prominent investors on companies to disclose against the TCFD recommendations. This year, members have demonstrated progress in Principle 4: more members are actively prioritising risks and opportunities across their investment portfolios in sub-principle 4.1 and setting objectives for investment in sub-principle 4.2. There is, however, still room for improvement in how members engage stakeholders and communicate their investment strategies to them.

Key strengths and progress achieved

As highlighted in the graph above, members displayed marked improvement in incorporating climate change into investment strategies. For example, **Aviva Investors** has added supporting stakeholder resolutions that reflect their views on climate change and climate risk governance and disclosure to their voting policy. **Tokio Marine** evaluated the implications of climate change to their business and, consequently, decided to prioritise support services for Japan's renewable energy implementation and expansion, as it was found that it has most material impacts on investment performance and shareholder value.

The most prominent improvement was in members' incorporation of material outcomes of climate risk evaluations into investment decision making. Most members have an ESG framework under which climate risk is considered, to guide investment decisions. **Zurich** has reflected climate risk in its investment strategy. For example, it committed to investing up to US\$2 billion in green bonds, against objectives including mitigating environmental risks and increasing community resilience. **Lloyd's** has many managing agents that also have climate-related considerations when making investment decisions: **Beazley** ensures that their investment managers apply ESG criteria in evaluating corporate debt securities and investments; **QBE** introduced a new Credit Risk Policy that incorporates regulatory and ESG considerations in credit evaluation across their business, including investment; and **Argo Group** has identified 'stranded assets' as a strategic risk factor and reviewed its investment strategy as part of its Sustainability Plan to identify high carbon industry holdings.

As reflected in the increased mean scores, members have improved their communication on investment beliefs and strategy on climate change to clients and beneficiaries. This is potentially in response to rising expectations from customers, shareholders, and regulators for increased transparency and a higher proportion of sustainable investment. **Swiss Re**

achieves this via its dedicated responsible investment website to communicate latest developments promptly to shareholders and stakeholders. **The Corporation of Lloyd's** communicated its approach to responsible investment, and consideration of ESG risk factors in a 'Responsible Investment' event they hosted in partnership with CISL and United Nations Principles for Responsible Investment. Over the year, **Tokio Marine** conducted discussions with more than 100 of its investees to disclose its investment policy and how it fulfilled its stewardship responsibilities.

Recommended areas for development

Climate change is becoming an increasingly important consideration by the financial services sector, as it presents a variety of physical, transition and legal risks. If unaccounted for, these risks may impact the pricing and returns of carbon-intensive investment portfolios. As of now, some members still take a light-touch approach to climate risks by considering them as a part of wider ESG risks. Members can better communicate their approach specific to climate risks, with clearer objectives in their investment decisions. For example, members should consider disclosing how climate risks and opportunities are integrated into different investment strategies. Members could also better describe their engagement activity with investee companies relating to climate change. This could include the specific climate issues in question and how engagement has enabled the member to better assess their own overall exposure to climate change.

Furthermore, members should advocate the use of metrics and appropriate tools to drive quantitative considerations of climate risks, in addition to well-established qualitative considerations. For example, the Investment Leaders Group (ILG), convened by CISL, has published a report titled *Feeling the heat: An investors' guide to measuring business risk from carbon and energy regulation* which details a methodology to model the impact of carbon and energy-regulation scenarios on firm-level profitability.¹⁵

Lastly, there is an opportunity for members to improve their engagement and communication plan with customers and key stakeholders. The current ad-hoc and one-off approaches to communication and engagement is hoped to evolve into a robust and systematic engagement plan with clear targets and monitoring against them.

Case study **Prudential plc: Responsible Investment Framework**

Prudential is an international financial services group serving around 24 million life customers and with £635 billion of assets under management (at 30 June 2017). Last year Prudential established a Group-wide Responsible Investment Framework, with the goal of developing a consistent approach for considering the impact of ESG issues on investment activities.

This initiative was in response to increased expectations from investors, regulators and other stakeholders for businesses to have clearly defined approaches to managing financial risks. Furthermore, due to the complexities of Prudential's multi-regional business model, there was strong internal demand for a Group-wide view on ESG issues and a mechanism to ensure coherent and consistent messaging on these issues. The framework is sponsored by the Group Chief Risk Officer and delivery is co-ordinated through the Group

Investment Oversight team within Group Risk. The framework was developed following an independent review by an external consultant and through internal consultation with key Group functions and business units. As part of the framework, we have defined Group-wide Responsible Investing Standards which set out minimum requirements for each business unit and the relevant governance arrangements, monitoring and reporting that are expected to be implemented.

Case study **Swiss Re: Sustainability Risk Framework**

In 2009, Swiss Re's Group Sustainability Risk team developed and implemented the Sustainability Risk Framework.

This initiative was supported by the Group Risk Management and the Group CFO, who recognised sustainability risk as an essential consideration for underwriting and investment risk management. Hence, the aim for the Sustainability Risk Framework is to ensure that all sensitive transactions undergo appropriate due diligence and avoid transactions that are in breach of the Framework. This is accompanied by a Sensitive

Business Risks (SBR) online assessment tool, which Swiss Re's underwriters used to carry out sustainability checks on 7,137 transactions in 2016. The tool precisely identifies transactions that require further assessment from sustainability experts. Swiss Re also took the initiative to train all employees who work in underwriting via an e-Learning course for the Sustainability Risk Framework.

Principle 5

Reduce the environmental impact of our business

The sub-principles

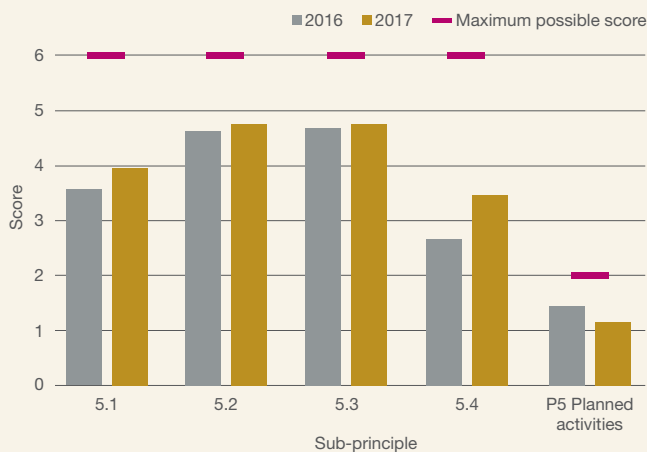
Supply chain: 5.1 Engage with our supply chain to work collaboratively to improve the sustainability of their products and services.

Operations: 5.2 Measure and seek to reduce the environmental impact of the internal operations and physical assets under our control.

Direct emissions: 5.3 Disclose our direct emissions of greenhouse gases using a globally recognised standard.

Employee engagement: 5.4 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.

Group mean absolute score by sub-principle



Note: The 'Maximum possible score' markers in the graph above reflect the total marks available under each sub-principle.

ClimateWise members have the potential to drive positive, or prevent negative, impact on the environment through their direct operations, supply chains and employee behaviours. This is the Principle that has the highest mean scores. The majority of members score highly on the level of quantitative and qualitative disclosure of performance. This year, members have made promising progress in galvanising employees to adopt more sustainable behaviours in and out of work.

Key strengths and progress achieved

For both claims and direct operations, ClimateWise members should work to reduce the impact of their supply chain through collaboration with suppliers. A growing number of members now have supplier assessments in place that include sustainability. In January 2017, **The Corporation of Lloyd's** established a Procurement Centre of Expertise to make third-party sourcing and supplier management sustainable, minimise risk and drive efficiencies, whilst considering The Corporation of Lloyd's internal strategic principles. Lloyd's assesses suppliers using a weighted approach tailored to the products or services being procured. In cases deemed to be high risk, The Corporation of Lloyd's would pursue a supplier site visit or request clarifying data. **Swiss Re's** Corporate Real Estate and Services division launched a request for proposal (RFP) for mailroom services in the Americas region in 2016. Participating vendors were invited to sign up for EcoVadis: a collaborative program to share corporate social responsibility data. Swiss Re's process then compared this data and included the outcomes in the final scoring of proposals. The vendor with the highest EcoVadis score now holds the contract and will be reassessed and benchmarked annually using the system.

Many ClimateWise members are undertaking a comprehensive suite of soft and hard impact reduction projects: from workforce behaviour change to infrastructural design. Along with several other members, **If P&C** has undertaken a range of impact reduction projects spanning virtual meetings, company cars, paper use and water consumption. In 2016, it invested in carbon offsets for operations. This includes offsetting 8,389 tonnes of CO₂ emissions in a project supporting the distribution of cook stoves in Tanzania. **Aviva** reported a list of impact reduction projects such as solar panels and lighting upgrades. They

included summaries of the activities undertaken, estimated annual CO₂ emission savings, relevant emission scopes alongside investments, savings and payback periods. This demonstrates internal recognition of the business case for reducing environmental impacts.

Sub-principles 5.2 and 5.3 have some of the highest mean scores overall, with more than half of members scoring the full six marks available. As well as reporting emissions for the reporting year, a growing number of members are reporting against a baseline, demonstrating a reliable effort to monitor and explain their emissions. The Greenhouse Gas Protocol was used by 11 of 15 members to report their emissions this year. **QBE** has re-designed its greenhouse gas data collection to yield more granular data, helping it to attribute emissions more accurately. **Direct Line's** energy-saving programme is a key driver of their significant emission reduction against baseline.

In terms of employee engagement, a group of **Aviva's** graduates in various geographies designed, planned and taught lessons to primary school children in the Sustainable Development Goals' 'World's Largest Lesson' this year. **RSA's** different geographies have a variety of approaches to engaging employees, united under the banner of Better Ways of Working. Alongside campaigns to reduce paper, waste and electricity usage, the group is championing flexible working which, amongst other things, can reduce emissions from business travel. In the UK, the teams marked Earth Hour by turning off non-essential lights and World Environment Day by screening 'Before the flood'. In Canada, the offices have a green team; focused on recycling and reducing waste such as coffee cups and pods. The **CII** also continued their Green Champions initiative, with the teams extending their monitoring of company energy consumption and business travel spend.

Recommended areas for development

Many members have disclosed information about a discrete aspect of their environmental impact, often choosing to discuss either claims or offices, alongside the associated supply chains. This Principle includes all environmental impacts attributable to processes and operations. To improve, members should explain the rationale behind their approach, i.e. why tackling this issue will materially reduce the business' environmental footprint. Here, quantitative data is key to demonstrate that their efforts are aligned to areas of significant impact.

When engaging with employees, many members describe standalone examples of activities conducted. To improve,

evidence should demonstrate that these activities are part of a broader programme for targeted engagement. It is crucial that the narrative of the report makes it explicitly clear how an initiative is linked to reducing environmental impact. For example, the argument must be made for how flexible working reduces emissions. Further, not many members discuss how they encourage employees to consider the environmental and climate change impacts of their lifestyles outside work. Expanding impact-reducing behaviours beyond office premises is increasingly important because a growing number of members are advocating flexible working.



Case study **Tokio Marine: value chain – consideration for the environment**

Tokio Marine Group encourages suppliers to understand and integrate sustainability into their businesses.

If a supplier is found to have unsustainable operations, Tokio Marine will collaborate with the supplier to improve its impact. In vehicle maintenance businesses, specifically, Tokio Marine & Nichido Auto Support Center supports certification to Eco-Action 21, an environmental management system established by the Japanese Ministry of the Environment for small- and

medium-sized enterprises. Tokio Marine & Nichido, Nisshin Fire and E. Design Insurance also champion the use of recycled parts in their auto insurance claims operations. They engage with not only auto repair shops but also both individual and corporate customers about the importance of the use of recycled auto parts and the environmental footprint reduction.




Case study **Hiscox: impact reduction**

Hiscox's approach to measuring and reducing its environmental impact combines bottom-up employee enterprise and top-down rigorous data collection.

The Group's 2015–20 carbon reduction targets were reviewed at the beginning of 2017 to identify areas requiring attention. Emissions data has been collected for all UK sites since 2010 and a detailed energy use audit was undertaken in 2017. This data collection informs the internal strategy around material areas for improvement and identifies opportunities for leaner operations. Hiscox can also report detailed trends and explain the drivers behind its impact.

Activities to achieve the reduction targets are often initiated at 'grass roots' through employees and teams. Their efforts are supported by the leadership and implemented more widely if successful. In the case of significant investment requirement, the business case is based around alignment to Hiscox's values and long-term savings. Hiscox has also engaged with its employees through a survey. Employee sustainability recommendations such as better labelling on recycling, waste audits and better use of the intranet to generate and promote environmental impact reduction ideas have been implemented.



Principle 6

Report and be accountable

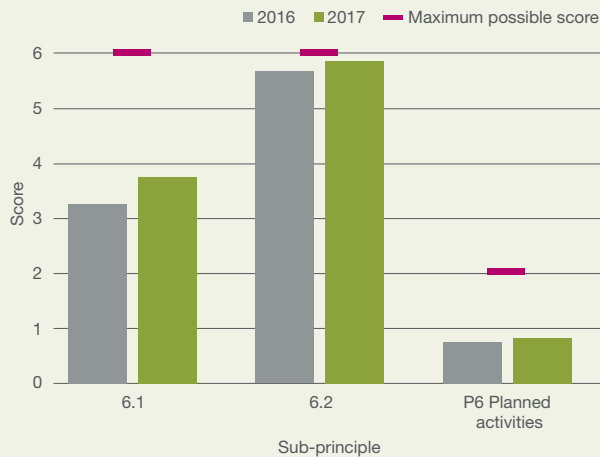
The sub-principles

Strategy: 6.1 Ensure that the organisation is working to incorporate the Principles into business strategy and planning by encouraging the inclusion of the social and economic impacts of climate risk as part of the Board agenda.

Transparency: 6.2 Publish a statement as part of our annual reporting detailing the actions that have been taken on these principles.



Group mean absolute score by sub-principle



Note: The 'Maximum possible score' markers in the graph above reflect the total marks available under each sub-principle.

Climate-related governance is key to ensuring comprehensive integration of climate change into business-wide strategy and risk management. Most members are able to identify senior and board-level members that have responsibility and oversight over climate issues. However, there is less clarity on how they uphold these responsibilities and how it translates into business action.

Key strengths and progress achieved

In general, there has been an increase in board-level engagement on climate-related risks. For example, **Prudential plc's** Board regularly reviews the group's climate change and corporate responsibility performance. The **CII's** Directors Steering Group team chaired by the Chief Executives discusses the CII's climate change related activities at least once a year. These meetings include taking stock of climate-related initiatives and making recommendations to the CII Board on policies, such as the *Carbon Smart* report and energy policy. As climate change has been classified as an emerging risk, **Aviva's** Board Risk Committee will review, manage, and monitor the risk across the business. Furthermore, Aviva continues to incorporate the ClimateWise Principles into business strategy and planning.

Mean scores across sub-principle 6.2 have increased across members. All but one member reported against all sub-principles relevant to their type of organisation. This demonstrates members' commitment to implementing The ClimateWise Principles and transparent reporting on progress.

Recommended areas for development

Though most members have identified board or senior-level roles and oversight over climate-related issues, members have not provided much detail on the frequency of these meetings. Furthermore, not many members state that issues raised by The ClimateWise Principles are regularly discussed at committee meetings. Looking forward, there is an opportunity for members to provide more detail on how The ClimateWise Principles are systematically considered as part of core business strategy.

Case study If P&C: Environmental Steering Group

In 2008, If P&C's CEO established the Environmental Steering Group with strong support from the entire management team.

The Steering Group consists of three representatives from Group Management, and has representatives from across all business areas, group services and communications. It was established to improve If P&C's environmental performance and meet various stakeholders' expectations. Furthermore, it aimed to enhance If P&C's credibility when communicating climate-related issues.

To achieve the above objectives, the Steering Group first developed If P&C's Environmental Policy, which supports and encourages endeavours across the business, on a daily basis to find the best possible environmental solution. It also created a 100-point action list to improve If P&C's

environmental performance. As a result, 85 per cent implementation was achieved over 18 months. A longer term objective of the Steering Group was to halve its group-wide CO₂ emissions compared to 2008, which If P&C achieved in 2015, and has now exceeded.

Today, the Steering Group is chaired by Deputy CEO, Ricard Wennerklint, who is also a member of the ClimateWise Insurance Advisory Council. The Steering Group continues to have oversight over climate-related and environmental issues, and they meet biannually to discuss climate change trends, climate-related products, and overall environmental policy and strategy.

Appendices

Appendix 2: Scoring methodology

Each sub-principle has three 'levels' of evidence against which members are scored. The levels outline the specific types of evidence that members need to report upon to gain marks. The scoring criteria are as follows:

Six points	All three levels of evidence are provided
Five points	All three levels of evidence are partially provided
Four points	Two levels of evidence are provided
Three points	Two levels of evidence are partially provided
Two points	One level of evidence is provided
One point	One level of evidence is partially provided
Zero points	No evidence is provided

An **additional two points** are available against each Principle for demonstrating planned activities. This is intended to encourage members to provide evidence of proposed activities and initiatives to drive improvements against each Principle.

Member scores are also weighted based on their organisation type to reflect the need for prioritisation of efforts on the most material areas.

Members are also exempt from responding to certain sub-principles based on their organisation type. These exemptions are summarised below:

A Professional bodies and associations	1.3, 3.1, 3.2, 3.3, 4.1, 4.2
B Insurers	None
C Brokers	4.1, 4.2
D Risk modellers	1.3, 1.4, 3.3, 4.1, 4.2
E Loss adjusters	4.1, 4.2
F Reinsurers	3.2, 3.3

Members can also exempt themselves from up to a further four sub-principles if a justifiable explanation is provided.

Scoring process

1. Detailed review of ClimateWise submissions

Members submitted their reports and supporting documents to CISL which are in turn reviewed and scored by PwC analysts using the methodology described above.

2. Distribution of initial feedback

An initial feedback template was shared with each member showing the initial score against each of the six Principles and highlighting areas of where further clarification could be provided.

3. Discussions with members

Following the distribution of initial feedback, all members were given the opportunity to participate in a call to discuss their initial score, provide clarifications and submit additional documentation relevant to the clarifications discussed.

4. Reassessment of scores

Some member scores were then amended as a result of the discussions with members and the review of additional relevant documentation.

5. Distribution of final feedback and scores

A final feedback template was then shared with each member including a breakdown of the final score, a high-level summary of key strengths and areas for development, and a summary of performance relative to other members.

Appendix 3: Member ranking

Member	2017 score	2016 score
Member A	91%	84%
Member B	83%	88%
Member C	77%	80%
Member D	75%	55%
Member E	74%	77%
Member F	71%	60%
Member G	69%	71%
Member H	64%	59%
Member I	61%	57%
Member J	61%	81%
Member K	59%	65%
Member L	59%	56%
Member M	39%	43%
Member N	35%	48%
Member O	33%	44%
Member P	16%	16%

Appendix 4: Compliance breakdown

		Score available:							Exemption	
		0	1	2	3	4	5	6	Self	Fixed
1. Lead in risk analysis										
1.1	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.	1	1	0	2	0	8	4	0	0
1.2	Support national and regional forecasting of future weather and catastrophe patterns affected by changes in the Earth's climate.	3	0	0	0	3	7	2	1	0
1.3	Use research and improve data quality to inform levels of pricing, capital and reserves to match changing risks.	0	2	0	5	0	3	4	0	2
1.4	Evaluate the risks associated with new technologies for tackling climate change so that new insurance products can be considered in parallel with technological developments.	2	4	0	3	3	2	1	1	0
<i>Demonstrating planned activities</i>		4	5	7					0	0
2. Inform public policy making										
2.1	Work with policy makers nationally and internationally to help them develop and maintain an economy that is resilient to climate risk. This should include supporting the implementation of emissions reductions targets and where applicable supporting government action that seeks to enhance the resilience and reduce the environmental impact of infrastructure and communities.	0	2	0	0	1	9	4	0	0
2.2	Promote and actively engage in public debate on climate change and the need for action.	1	2	0	6	2	4	1	0	0
<i>Demonstrating planned activities</i>		3	9	4					0	0
3. Support climate awareness among our customers										
3.1	Inform our customers of climate risk and provide support and tools so that they can assess their own levels of risk.	1	1	2	1	1	6	2	0	2
3.2	Encourage our customers to adapt to climate change and reduce their greenhouse gas emissions through insurance products and services.	1	2	2	7	1	0	0	0	3
3.3	Seek to increase the proportion of non-life claims that are settled in a sustainable manner.	2	2	1	4	1	2	0	1	3
3.4	Through our products and services assist markets with low insurance penetration to understand and respond to climate change.	4	2	0	1	0	5	4	0	0
<i>Demonstrating planned activities</i>		7	3	6					0	0

Appendix 4: Compliance breakdown

continued

		Score available:								Exemption	
		0	1	2	3	4	5	6	Self	Fixed	
4. Incorporate climate change into our investment strategies											
4.1	Evaluate the implications of climate change for investment performance and shareholder value.	0	1	1	1	0	6	3	0	4	
4.2	Incorporate the material outcomes of climate risk evaluations into investment decision making.	1	2	1	1	0	4	3	0	4	
4.3	Communicate our investment beliefs and strategy on climate change to clients and beneficiaries.	3	3	1	3	0	5	1	0	0	
<i>Demonstrating planned activities</i>		5	7	4					0	0	
5. Reduce the environmental impact of our business											
5.1	Engage with our supply chain to work collaboratively to improve the sustainability of their products and services.	0	4	0	1	2	6	3	0	0	
5.2	Measure and seek to reduce the environmental impact of the internal operations and physical assets under our control.	1	0	1	2	1	2	9	0	0	
5.3	Disclose our direct emissions of greenhouse gases using a globally recognised standard.	2	0	0	1	1	3	9	0	0	
5.4	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.	2	1	0	5	1	7	0	0	0	
<i>Demonstrating planned activities</i>		2	8	6					0	0	
6. Report and be accountable											
6.1	Ensure that the organisation is working to incorporate the Principles into business strategy and planning by encouraging the inclusion of the social and economic impacts of climate risk as part of the Board agenda.	2	1	0	3	1	8	1	0	0	
6.2	Publish a statement as part of our annual reporting detailing the actions that have been taken on these principles.	0	0	0	0	1	0	15	0	0	
<i>Demonstrating planned activities</i>		8	3	5					0	0	

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