QBE Insurance Group - Climate Change 2018

CO. Introduction

CO.1

(C0.1) Give a general description and introduction to your organization.

QBE Insurance Group (QBE) is listed on the Australian Securities Exchange (ASX) and is headquartered in Sydney. We are one of the top 20 global insurance and reinsurance companies, with operations in every key insurance market. Our operations span across North America, Europe, Australia and New Zealand, Asia Pacific, Latin America, and Equator Re. As at 31 December 2017, to reduce the complexity and simplify the portfolio, we exited our Latin American Operations, which sees QBE reduce its geographic footprint and focus on our ambition of being an "international" insurer, with meaningful operations in the major insurance market hubs. Across our operations, we offer commercial, personal, specialty products and risk management solutions to our customers. Our Equator Re business is instrumental in managing the Group's exposure and reinsurance risk appetites and plays a pivotal role in optimising capital across the Group.

As at 31 December 2017, we operate in 36 countries and employ more than 14,100 people. As a global insurance company, our financial strength and long-term sustainability is underpinned by effective risk management. Our Board recognises that climate change requires an integrated approach to managing climate-related risks and opportunities. Managing risk is what we do at QBE. We believe it is important to understand current and emerging environment, social and governance (ESG) trends that impact our stakeholders. This knowledge allows us to integrate sustainability considerations into our risk management and decision-making processes and to help our customers manage risks through our products and services. Taking a holistic, long-term view also enables us to continue creating value and ultimately protects our organisation's sustainability.

As a general insurer with a global footprint, QBE is acutely aware of the challenges presented by climate change. It is widely recognised that that continued global warming will lead to increasingly unpredictable, and potentially more severe weather events with significant economic and social consequences. For QBE, and the insurance sector more broadly, climate-related risks and opportunities constitute a key topic affecting core business. As well as the physical risks associated with climate change, we are cognisant of the potential transition risks and opportunities (e.g. legal, policy, investment) associated with the global shift towards a lower-carbon economy consistent with the 2015 Paris Agreement.

Following our review of the Final TCFD Report, we have signed the public Statement of Support and are now on a journey to implement the TCFD recommendations over the proposed three to five-year period, which will include disclosures in our Annual Report that track our climate-related management and performance.

QBE annually reports on relevant climate-related metrics for our operations as part of our Sustainability Report. This includes disclosure on water and energy consumption, waste generation, and greenhouse gas emissions. QBE also reports on efficiency ratios as emissions per unit of economic output. Multi-year emissions data has been reported for several years and is included in the most recent 2017 Sustainability Report.

QBE's corporate greenhouse gas (GHG) emissions inventory covers our global insurance activities and operations across the world. We calculate emissions using the energy content and emission factors considered most relevant to each region.

The following provides an overview of QBE's emissions inventory:

- Scope 1 direct emissions i.e. related to company car fuel consumption and mileage and natural gas heating.
- Scope 2 indirect emissions i.e. related to electricity consumption
- Scope 3 other indirect emissions i.e. related to business travel by air, car, rail and land; waste disposal, including recycling; and water consumption.

As part of our commitment to the TCFD, we have developed a roadmap and action plan to further integrate the consideration of climate-related risks and opportunities including the physical, transition and liability risks. As understanding, data analytics, and modelling of climate-related issues become more widespread disclosures can mature accordingly. As both experience and disclosures evolve in response to clearer messaging from financial markets about the information they require to measure and respond to climate change risks. We will continue to review, assess the embed the developing nature of these risks and opportunities across our core business. We are also committed to working with our customers and communities to help them in their transition to a lower-carbon economy. **C0.2**

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date		Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2017	December 31 2017	No	<field hidden=""></field>
Row 2	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>
Row 3	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>
Row 4	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>

CO.3

(C0.3) Select the countries/regions for which you will be supplying data.

Argentina

Australia

Belgium

Bermuda

Brazil

Chile

China, Hong Kong Special Administrative Region

China, Macao Special Administrative Region

Colombia

Denmark

Ecuador

Fiji

France

French Polynesia

Germany

Indonesia

Ireland

Italy

Malaysia

Mexico

New Caledonia

New Zealand

Papua New Guinea

Philippines

Puerto Rico

Singapore

Solomon Islands

Spain

Sweden
Switzerland
Thailand
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America
Vanuatu
Viet Nam
Other, please specify (Rest of world)

CO.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

CO.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Financial control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board/Executive board	The Group Board plays a significant role in QBE's Enterprise Risk Management (ERM) framework, an integrated framework through which climate-related risks are assessed and managed. The Group Board receives formal quarterly updates on our approach to managing climate-related issues. The Board is supported by the Board Risk and Capital Committee (BRCC) which met six times in 2017 and is responsible for overseeing active and appropriate management of risks according to the stated risk appetite, strategy and business plans. The BRCC also oversees and guides QBE's overall sustainability approach and initiatives and receives quarterly updates on sustainability performance and activity. The Board is also supported by the Audit Committee which oversees and reviews QBE Group's half-year and full-year reporting, including ESG and climate-related information. The Group Board has ultimate responsibility for approving the release of climate-related information in the marketplace.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate- related issues are a scheduled agenda item	Governance mechanisms into which climate- related issues are integrated	Please explain
Scheduled – some meetings	strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets	role in the ERM framework and is responsible for ensuring that an effective risk management strategy is

(C1.2) Below board-level, provide the highest-level management position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate- related issues
Chief Executive Officer (CEO) QBE's Group CEO along with the Group Executive Committee (GEC) have the highest-level of oversight of climate-related issues. The GEC receives regular updates on our approach and performance in relation to managing climate-related risks and opportunities and is responsible for overseeing decisions taken at the Board level. The Group Chief Risk Officer (CRO) and Group Chief Financial Officer (CFO) have the highest level of day-to-day oversight and responsibility for climate-related issues. The GEC is supported by a senior cross-functional Climate Change Working Group (CCWG) which is co-chaired by our Group CRO and Group Financial Controller, as a delegate of our Group CFO. The Climate Change Working Group consists of senior representatives from our Underwriting, Investments, Finance, Risk, Legal and Operations teams. We also have divisional representatives to ensure that regional impacts	Both assessing and managing climate-related risks and opportunities Supporting our GEC, including our Group CRO and Group CFO, QBE's CCWG provides an integrated view of the risks and opportunities associated with climate change. The CCWG is supported by several other governance forums responsible for managing our wider sustainability activities including our Group ESG Committee, reporting to the BRCC and is responsible for delivering the Group's overall sustainability strategy, initiatives and reporting requirements. To support both committees, we have a dedicated Group Sustainability Function providing greater coordination of external stakeholder engagement, sustainability strategy development, performance management and reporting. QBE has other internal governance forums which includes members who have the specialist skills to understand and address new and existing sustainability issues such as our Group Emerging Risk Forum and Group Underwriting Committee. In 2018, we are establishing a dedicated ESG	
are considered for our activities.	Risk team reporting to the Group CRO.	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored.

QBE's Group CEO along with the Group Executive Committee (GEC) have the highest-level of oversight of climate-related issues. The GEC receives regular updates throughout the year on our approach and performance in relation to managing climate-related risks and opportunities. The Group Chief Risk Officer (CRO) and Group Chief Financial Officer (CFO) have the highest level of day-to-day oversight and responsibility for climate-related issues. Responsibilities for climate-related issues have been assigned to our GEC as the Board has identified climate change as a significant risk for the business.

The GEC is supported by a senior cross-functional Climate Change Working Group (CCWG) which is co-chaired by our Group CRO and Group Financial Controller, as a delegate of our Group CFO. The CCWG consists of senior representatives from our Underwriting, Investments, Finance, Risk, Legal and Operations teams. We also have divisional representatives to ensure that regional impacts are considered for our activities.

The CCWG is responsible for supporting management and the Board by providing an integrated view of the risks and opportunities related to climate change and building a clear roadmap to implement the TCFD recommendations over the next three years. This includes integrating the consideration of climate-related risks and opportunities into our existing risk management framework and business strategy. The CCWG has conducted a high-level impact assessment of the physical, transition and liability risks and opportunities climate change poses across our international operations. Further detailed analysis is underway to understand the climate-related risks and opportunities for priority portfolios across the business. This analysis will support the business in further integrating the consideration of climate-related risks and opportunities across our underwriting and investments, as well as strategy.

In 2018, QBE is establishing a Group ESG Risk team reporting to Group CRO to coordinate ongoing integration of climate-related risks and opportunities across the business. The Group ESG Risk team will be responsible for the day-to-day management of climate-related risks and opportunities.

QBE's risk management strategy is at the heart of our business, and it shapes our overarching strategy and how we assess risk as part of our underwriting. The risk appetite set by the Board forms the basis upon which we set our risk management framework, including risk governance, reinsurance strategy and catastrophe modelling across the Group. QBE uses stress and scenario testing to better understand our risk profile under a range of different scenarios. Assessing the impact of extreme but plausible events helps us to better

prepare for such situations and ensures that our risk exposure is acceptable to the Board. QBE uses a range of modelling techniques to estimate potential losses, manage exposure and assist in making decisions regarding risk management and coverage. This capability is critical to managing our exposure to possible events, such as natural catastrophes and extreme weather events.

QBE operates risk forums across the Group to identify and assess the impact of existing risks which develop in new and unexpected ways, and new risks. This helps the Group analyse the potential impact and develop strategies to mitigate or exploit opportunities for these risks. Transition climate-related risks are considered in these forums.

We analyse a large catalogue of weather-related events and scenarios, including a number of extreme weather events. In 2018, we are considering the potential impact of warmer sea surface temperature and other climate factors could have on the frequency of those severe events. Our assessment of the potential impact of severe weather events is considered by the Executive and the Board. In 2018, we are incorporating the consideration of transition risks as part of our scenario testing.

We believe a coordinated approach to mitigating and adapting to climate-related risks requires multiple stakeholder input. QBE has been involved in a range of ESG initiatives over several years, which serves as a collaboration platform on issues such as climate change. These include the UNEP FI, Principles for Sustainable Insurance, Principles for Responsible Investment and ClimateWise Principles. We are also members of the Investor Group on Climate Change, Insurance Council of Australia Climate Change Action Committee, and Actuaries Institute's Climate Change Working Group.

QBE has also recently joined the UNEP FI PSI's insurer working group to pilot the TCFD recommendations, which will commence in August 2018. As part of our commitment to these global and regional sustainability-related initiatives and groups, we continue to integrate these principles into our decision-making and risk management processes. This also extends to the products and services we develop for our customers such as our Premiums4Good Initiative.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short- term	0	3	Climate-related risks and opportunities are integrated within our Group business planning process. A three-year plan is formalised annually but reviewed on a regular basis throughout the year.
Medium- term	3	8	This time horizon is aligned to our Group Emerging Risk Forum (GERF), and the equivalent divisional forum views on potential medium-term risks including climate change considerations. We define emerging risks as new risks characterised by incomplete but developing knowledge or existing risks that develop in novel or surprising ways. The GERF is designed to enhance identification, understanding, and communication of emerging risks across the Group and drive specific actions, resulting in tangible outcomes that either improve the Group's resilience to risk or enable it to take advantage of new opportunities. This helps senior management make risk-aware decisions by identifying and analysing emerging risks arising from internal and external environments.
Long- term	8		QBE's long-term time horizon considers risks and opportunities arising beyond 8 years. This is linked to the Group Emerging Risk Forum's (GERF) long-term time horizon, specifically around implementing a strategy to manage emerging risks identified and communicated to our Board. Furthermore, the long-term time horizon provides us with an opportunity to identify and manage significant longer-term risks and opportunities.

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes **C2.2a**

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	1 to 3 years	We monitor, identify and assess climate-related risks as part of QBE's Enterprise Risk Management (ERM) framework as outlined in QBE's Risk Management Strategy. This strategy is supported by frameworks for each risk class, including strategic, insurance, operational, credit, market and liquidity risks. QBE monitors and assesses climate-related risks throughout the year, specifically physical risks. In 2018, we are starting to specifically integrate the consideration of transition risks associated with climate change. QBE's Risk Management Strategy is reviewed and refreshed annually. Risks are considered up to 1 year into the future from a scenario analysis perspective and up to 3 years in the business planning process. This timeline assists with strategic planning and is used in regulatory reporting.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

QBE is fully committed to applying a disciplined approach to risk management and ensuring that our risk management practices and systems are robust, independent and aligned with global best practice. Climate-related risks are assessed and managed through QBE's integrated ERM Framework, outlined in QBE's Risk Management Strategy, and is supported by frameworks for each risk class, including strategic, insurance, operational, credit, market and liquidity risks.

There are several governance forums to support management and the Board in identifying and assessing climate-related risks and opportunities. Our senior cross-functional, cross-divisional Climate Change Working Group (CCWG), co-chaired by our Group Chief Risk Officer and Group Financial Controller, provides an integrated view of the risks and opportunities related to climate change. The CCWG has completed a high-level impact assessment with the assistance of an external consultant of our exposure to physical, transition and liability risks across the business globally. This has guided our focus of further detailed analysis of our exposures and opportunities presented by climate-related issues. The CCWG is developing a roadmap to implement the TCFD recommendations for management, transparency and disclosure.

Across our divisions, we have Emerging Risk Teams responsible for reviewing emerging risks within their operations and markets. These teams contribute to the Group Emerging Risk Forum which meets quarterly. The Forum contains representatives from both

customer-facing business units and shared services where applicable including Underwriting, Risk Management, Claims, Investments, Catastrophe Modelling, Compliance, Legal, and Reinsurance. The Forum is responsible for coordinating the Group's process for identifying, prioritising, communicating and managing emerging risks with the support and alignment of the divisional emerging risk forums. Transition risks associated with climate change such as technology, policy and legal, and market risks and opportunities are considered in this forum.

Our catastrophe risk analysts across the Group participate in the Group Aggregate Management Committee (GAMC), which is responsible for oversight of catastrophe related data quality, modelling, and analytics. The GAMC coordinates with divisional modelling teams to ensure consistent catastrophe risk assessment throughout the organisation. QBE reviews its risk management process regularly to ensure effectiveness, and introduces or revises processes to reflect significant industry-wide issues or changes in our book of business. QBE is fully committed to applying a disciplined approach to risk management and ensuring that our risk management practices and systems are robust, independent and aligned with global best practice. The GAMC also reviews established risk limits in particular areas and products, and in aggregate QBE has a clear view of limits based on a range of factors including location, potential risk and exposure.

QBE's Scenario Testing Working Group supports management and the Board in assessing the impact of unexpected, low-frequency, high-severity events, which supports QBE Group's ERM Framework. The output of the scenario analysis process is used as an input to QBE's Stress and Scenario Testing Framework. QBE assesses both Division-specific and enterprise-wide scenarios that impact at a Group-level or impact more than one Division.

In 2018, QBE is establishing a Group ESG Risk team reporting to Group Chief Risk Officer to coordinate ongoing integration of climate-related risks and opportunities across the business. Across the QBE Group, members of these governance forums continue to engage with stakeholders, attend industry conferences, follow developments of climate research, and assess scientific sources to build our knowledge base of addressing the issue of climate change.

Our Board is committed to investing responsibly, recognising that QBE is a significant investor and we take our responsibilities as a capital provider seriously. We aim to contribute broadly to wellbeing and sustainable development and believe that integrating principles of responsible investing into ownership and investment decision-making can have a positive impact on risk-adjusted financial returns. In 2017, we updated our approach to incorporating ESG considerations into our internal credit selection by introducing a new independent ESG measure to our credit analysis process. This enables us to understand and monitor a company's approach to managing ESG issues through its policies, practices and other measures. When deciding whether to appoint or allocate to an external fund manager, we also consider how much they incorporate ESG factors into their investment processes and operational areas. We further

progressed our commitment by joining the Responsible Investment Association Australasia and in 2018, we joined the Investor Group on Climate Change.

C2.2c

(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	As a global insurance group, QBE is subject to oversight by approximately 30 prudential regulatory regimes around the world, as well as extensive legal and regulatory requirements and obligations, industry codes and business and ethical standards across its business activities. To manage the regulatory and compliance risk we face as a global organisation, we combine local expertise with a globally consistent compliance framework. We continue to monitor regulatory developments in each of the markets the Group operates in. Regulatory compliance is a priority for QBE's Board. QBE closely monitors current and emerging government policy and regulation. Current regulation is relevant and always included in our consideration of climate-related risk assessments. This provides insight into whether our products are fit for purpose in the current operating environment, which drives our ability to provide insurance and reinsurance for specific products and markets. Each division has a regulatory team that monitors current and emerging regulation to support the business in integrating considerations into risk assessment processes.
Emerging regulation	Relevant, always included	As a global insurance group, QBE is subject to oversight by approximately 30 prudential regulatory regimes around the world, as well as extensive legal and regulatory requirements and obligations, industry codes and business and ethical standards across its business activities. To manage the regulatory and compliance risk we face as a global organisation, we combine local expertise with a globally consistent compliance framework. We continue to monitor regulatory developments in each of the markets the Group operates in as emerging regulation will drive current and future product coverage. Regulatory compliance is a priority for QBE's Board. QBE closely monitors current and emerging government policy and regulation. Emerging regulation is relevant and always included in our consideration of climate-related risk assessments. This provides insight into whether our products are fit for purpose in the current operating environment, which drives our ability to provide insurance and reinsurance for specific products and markets. Each division has a regulatory team that monitors current and emerging regulation to support the business in integrating considerations into risk assessment processes.
Technology	Relevant, sometimes included	Developments in technology will have ramifications for the insurance industry in the coming years. As part of our overall approach to identifying, assessing and managing transition risks, we are integrating technology considerations into our overall risk management framework and strategy. For example, the Group Emerging Risk Forum supports senior management in making risk-aware decisions by identifying and analysing emerging risks arising from internal and external environments. A few examples that QBE considers in relation to the transition risks associated with climate change include the substitution of existing products and services with lower emissions options such as insuring solar panels on roof tops or battery storage. QBE's Digital Innovation Lab explores how digital technologies can be applied in

	Relevance & inclusion	Please explain
		the insurance context. In the past year, the Lab has trialled technology to help customers reduce risk and increase safety and provide information that improves our product creation and pricing. Through QBE Ventures, we seek out partners who can provide access to differentiated technology. This corporate venture fund is focused on forming commercial relationships with start-ups that will enhance our business model, drive efficiencies and develop new growth paths.
Legal	Relevant, always included	QBE's Board of Directors is aware that climate-related risks and opportunities constitute a key topic affecting our core business. In an Australian 2016 legal opinion, climate risk was highlighted as a material financial risk and relevant to a Director's duty of care and duty of disclosure. We are aware of the legal risks associated with the global shift towards a lower-carbon economy. As a global insurance group, QBE is subject to oversight by approximately 30 prudential regulatory regimes around the world, as well as extensive legal and regulatory requirements and obligations, industry codes and business and ethical standards across its business activities. To manage the regulatory and compliance risk we face as a global organisation, we combine local expertise with a globally consistent compliance framework. We continue to monitor regulatory developments in each of the markets the Group operates in.
Market	Relevant, always included	QBE actively manages its exposures to investment, market and credit risks that arise inherently from the management of a global insurance operation, including risks generated through: • the management of a global investment portfolio • insurance activities and exposure to reinsurance counterparties • global treasury operations, including exposures to foreign exchange movements, collateral management and bank counterparty risks. Risks to earnings due to material market movements, risk concentrations and changes to credit quality are identified, measured and controlled. These are subject to risk management frameworks and oversight within defined Board-approved risk appetites that are monitored through limits structures and specific delegated authorities. QBE's liquidity risk framework is designed to ensure that QBE has sufficient high-quality liquid assets, including at times of severe stress, to meet our liabilities as they fall due. Liquidity risk is monitored against specified limits within the Board-approved risk appetite and supporting processes ensure that contingency plans are in place to address crisis situations. Market risks such as changing customer behavior and uncertainty in market signals, as well as opportunities such as access to new markets and access to new assets and locations needing insurance coverage are integrated into our overarching approach for considering transition risks and opportunities associated with climate change.
Reputation	Relevant, always included	In an environment of rapid and ongoing change, it is important that we understand current and emerging environment, social and governance (ESG) trends that impact our stakeholders. This knowledge allows us to build sustainability considerations into our risk management and decision-making processes and to help our customers manage risk through our products and services. We understand that there are increasing stakeholder expectations for how corporations manage risk and offer customer solutions. As part of the work that we have underway, we are continuing to identify further opportunities to work with our customers as they transition to a lower-carbon economy. Understanding the needs of our customers is an integral part of achieving our purpose as a business. We also meet with investors regularly to engage on a range of ESG issues including climate change. And we participate in a range of industry and broader corporate forums on climate-related issues. In the instance of a significant reputational event, the Group Crisis Management Plan would be invoked to coordinate and manage the Group's response to such an event.

	Relevance & inclusion	Please explain
Acute physical	Relevant, always included	The consideration of climate-related acute physical risks, such as increased severity of extreme weather events, is integrated into QBE's Enterprise Risk Management Framework, which is outlined in QBE's Risk Management Strategy. This shapes our overarching business strategy and how we assess the risk we will write and not write. The risk appetite set by the Board and management forms the basis upon which we set our risk management framework, including risk governance, reinsurance strategy and catastrophe modelling across the Group. QBE utilises sophisticated computer simulations of catastrophes to estimate financial and economic losses, manage catastrophe exposure and assist in making decisions regarding catastrophe risk management and coverage. QBE employs a global team of catastrophe risk analysts that form the Catastrophe Modelling Team (CMT). The CMT utilises various software tools and advanced modelling techniques at the business unit and enterprise level to review and manage catastrophe risk, enabling management and underwriters to make business decisions that keep the company within its established risk tolerance. This includes using the latest software to predict potential financial losses to QBE from possible catastrophic events, such as powerful earthquakes and major cyclones and typhoons. We use stress and scenario testing to better understand our risk profile under a range of different scenarios. Assessing the impact of extreme but plausible events helps us to better prepare for such situations and ensures that our risk exposure is acceptable to the Board. QBE uses a range of modelling techniques to estimate potential losses, manage exposure and assist in making decisions regarding risk management and coverage. This capability is critical to managing our exposure to possible events, such as natural catastrophes and extreme weather events. Routine catastrophe modelling is a vital component of QBE's ERM framework.
Chronic physical	Relevant, always included	We analyse a large catalogue of weather-related events and scenarios, including a number of extreme weather events. In 2018, we are considering the potential impact of warmer sea surface temperature and other climate factors on the frequency of those severe events. Our assessment of the potential impact of severe weather events is considered by the Executive and the Board. In 2018, we are incorporating the consideration of transition risks as part of our scenario testing. In 2017 we established QBE Ventures, a corporate venture fund focused on forming commercial relationships with startups that will enhance our business model, drive efficiencies and develop new growth paths. We seek out partners who can provide access to differentiated technology. In 2018, we invested in Jupiter Intelligence, a Silicon Valley based start-up that provides data and analytics services to better predict and manage risks from weather and sea level rise, storm intensification and changing temperatures caused by medium- to long-term climate change. Currently, the data set available is for cities based in North America. Jupiter Intelligence is focused on quantifying climate-related risks using modelling based on the ClimateScore platform, which leverages cloud computing to run and link multiple prediction models that ingest data from millions of ground-based and satellite sensors. We plan on working closely with the Jupiter team to find innovative ways to leverage their data and analytics across our business – from underwriting and pricing, to providing resiliency management and thought leadership to our clients around the globe. The overall consideration of physical climate-related risks shapes our business strategy and how we assess the risk we will write and not write. The risk appetite set by the Board and management forms the basis upon which we set our risk management framework, including risk governance, reinsurance strategy and catastrophe modelling across the Group.

	Relevance & inclusion	Please explain
ι	Relevant, always included	As a general insurance company, QBE considers upstream risks as those relating to current and emerging regulation, technology, and legal. Based on the above, upstream risk considerations are relevant and always included in our risk assessments.
	Relevant, always included	As a general insurance company, QBE considers downstream risks as those relating to our changing customer expectations, markets and reputation. Based on the above, downstream risk considerations are relevant and always included in our risk assessments.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

QBE is in the business of managing risk. The risk management strategy is at the core of our business, and it shapes our overarching strategy and how we assess the risk we will and will not write. The risk appetite set by the Board and management forms the basis upon which we set our ERM Framework, including risk governance, reinsurance strategy, and catastrophe modelling across the Group. As part of managing climate-related issues, QBE considers our exposure across the Group which operated in 36 countries as at 31 December 2107.

QBE's risk framework supports businesses across all divisions and provides a sound foundation for reducing uncertainty and volatility in business performance. QBE uses stress and scenario testing to better understand our risk profile under a range of different scenarios. Assessing the impact of extreme but plausible events helps us better prepare for such situations and ensures that our risk exposure is acceptable to the Board. QBE uses a range of modelling techniques to estimate potential losses, manage exposure and assist in making decisions regarding risk management and coverage. This capability is critical to managing our exposure to possible events, such as natural catastrophes and extreme weather events.

QBE currently uses a variety of methodologies to monitor aggregates and manage catastrophe risk. These include the use of catastrophe models from third party vendors such as Risk Management Solutions (RMS) and AIR Worldwide, Risk Frontiers, the Lloyd's realistic disaster scenarios (RDS) and Group Aggregate Methodology. QBE uses sophisticated computer simulations of catastrophes to estimate financial and economic losses across our portfolio, manage catastrophe exposure and assist in making decisions regarding catastrophe risk management and coverage.

Models are routinely updated to incorporate the latest scientific knowledge and up-to date climate data. The catalogues of natural catastrophes incorporate the impact of the last hundred years of climate change already experienced as described in historical events, the changing severity and frequency of events, and hundreds of thousands of hypothetical events that are possible based on latest scientific knowledge and climatology. For example, we consider cyclone paths impacting Australia further south than historically experienced which is one of the potential impacts of climate change.

We assess potential claims against a large catalogue of catastrophic events including cyclones and several types of severe weather events. We model all locations QBE insures to manage the portfolio level risk and to inform pricing. To predict a potential loss, models first capture with specificity the location of each insured asset or property. Taking into account historical data and scientific estimates of possible event impact, the models simulate thousands of catastrophe scenarios to estimate potential damage specific to each event. Catastrophe models then apply specific terms such as limits and deductibles to calculate and aggregate claim amounts to reflect QBE's exposure to each event. Computer simulations are also used to assess the likely frequency of catastrophe events.

In 2018, we partnered with Jupiter, a Silicon Valley based start-up that provides data and analytics services to better predict and manage risks from weather and sea level rise, storm intensification and changing temperatures caused by medium- to long-term climate change. Currently, Jupiter's data is focused on climate-related risk assessment and management for select North American cities, however global expansion is underway. We plan on working closely with the Jupiter team to find innovative ways to leverage their data and analytics across our business – from underwriting and pricing, to providing resiliency management and thought leadership to our clients around the globe.

As QBE is in the business of managing risk, the Group's ability to satisfy customers' risk management needs is central to what we do. QBE aims to generate wealth and maximise returns for shareholders by pursuing opportunities that involve risk. QBE aims to use its ability to properly manage risk to provide more certainty and improved outcomes for all stakeholders.

As an insurer, we are one of the first ports of call for our customers when customers are affected by a disaster. We aim to respond quickly, to be caring, and to deliver on our commitment to customers. We understand that the impact of acute and chronic physical risks associated with climate change will have flow on impacts on the claims process. Claims volumes are at the peak in the aftermath of a catastrophe. At QBE, we've developed pre- and post- catastrophe processes to ensure that customers receive the response they require, even when we are handling a high number of claims.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Customer

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact driver

Increased insurance premiums and potential for reduced availability of insurance on assets in "high-risk" locations

Company- specific description

The increasing frequency and severity of weather-related events and associated losses has been identified with the potential to have substantive financial or strategic impact on the business. QBE's Scenario Testing Working Group supports management and the Board in assessing the impact of unexpected, low-frequency, high-severity events, which supports QBE Group's ERM Framework. The output of the scenario analysis process is used as an input to QBE's Stress and Scenario Testing Framework. QBE assesses both Division-specific and enterprise-wide scenarios that impact at a Group-level or impact more than one Division. Our catastrophe risk analysts across the Group participate in the Group Aggregate Management Committee (GAMC), which is responsible for oversight of catastrophe related data quality, modelling, and analytics. The GAMC coordinates with divisional modelling teams to ensure consistent catastrophe risk assessment throughout the organisation. QBE reviews its risk management process regularly to ensure effectiveness, and introduces or revises processes to reflect significant industry-wide issues or changes in our book of business. QBE is fully committed to applying a disciplined approach to risk management and ensuring that our risk management practices and systems are robust, independent and

aligned with global best practice. The GAMC also reviews established risk limits in particular areas and products, and in aggregate QBE has a clear view of limits based on a range of factors including location, potential risk and exposure.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Potential financial impact

Explanation of financial impact

In recent years, the Group has managed the risk of increased frequency and/or severity of natural (and man-made) catastrophes through a combination of traditional reinsurance protection supplemented by a Group-wide whole account aggregate reinsurance treaty. Together, these limit the net cumulative cost of all claims greater than \$2.5 million in 2017 at \$1.15 billion or around 9.5% of net earned premium in all but the most extreme scenarios.

Management method

Our catastrophe risk analysts across the Group participate in the Group Aggregate Management Committee (GAMC), which is responsible for oversight of catastrophe related data quality, modelling, and analytics. The GAMC coordinates with divisional modelling teams to ensure consistent catastrophe risk assessment throughout the organisation. QBE reviews its risk management process regularly to ensure effectiveness, and introduces or revises processes to reflect significant industry-wide issues or changes in our book of business. QBE is fully committed to applying a disciplined approach to risk management and ensuring that our risk management practices and systems are robust, independent and aligned with global best practice. The GAMC also reviews established risk limits in particular areas and products, and in aggregate QBE has a clear view of limits based on a range of factors including location, potential risk and exposure. Recognising the importance of an industry-aligned approach to climate scenario analysis, we have also joined the UNEP FI PSI's insurance sector working group to pilot the TCFD recommendations which will commence in August 2018.

Cost of management

Comment

The cost of managing this risk is embedded into business planning and budgeting approach as it is integrated into our day-to-day risk management approach. Based on business plans and our financial results, we make strategic business decisions such as those to either grow, stabilise or retract from different markets.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Customer

Risk type

Physical risk

Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

Type of financial impact driver

Increased insurance premiums and potential for reduced availability of insurance on assets in "high-risk" locations

Company-specific description

Increasing urbanisation, with the potential greater concentration of population in cities with increasing exposure to climate-related events, has been identified with the potential to have substantive financial or strategic impact on the business. Across our divisions, we have Emerging Risk Teams responsible for reviewing emerging risks within their operations and markets. These teams contribute to the Group Emerging Risk Forum which meets quarterly. The Forum contains representatives from both customer-facing business units and shared services where applicable including Underwriting, Risk Management, Claims, Investments, Catastrophe Modelling, Compliance, Legal, and Reinsurance. The Forum is responsible for coordinating the Group's process for identifying, prioritising, communicating and managing emerging risks with the support and alignment of the divisional emerging risk forums. Transition risks associated with climate change such as technology, policy and legal, and market risks and opportunities are considered in this forum. QBE uses stress and scenario testing to better understand our risk profile under a range of different scenarios. Assessing the impact of extreme but plausible events helps us to better prepare for such situations and ensures that our risk exposure is acceptable to the Board. QBE uses a range of modelling techniques to estimate potential losses, manage exposure and assist in making decisions regarding risk management and coverage. This capability is critical to managing our exposure to possible events, such as natural catastrophes and extreme weather events.

Time horizonMedium-term

Likelihood

Very likely

Magnitude of impact

High

Potential financial impact

Explanation of financial impact

This risk is integrated into QBE's business planning process. Our risk appetite forms the basis of QBE's ERM framework and represents the level of risk that the Board and management are prepared to accept in pursuit of the organisation's objectives. Risk appetite is aligned to, and is considered in, all strategic and business planning decisions QBE makes and we monitor our exposures against this risk appetite on an ongoing basis. One of the key tools used to ensure achievement of business plans is to identify mechanisms to manage likely scenarios impacting the plan year based on events that have occurred or risks identified since plans were set. We assess how these scenarios would impact return on equity (ROE) forecasts and develop and implement bridging actions to drive plan achievability.

Management method

QBE manages underwriting risk by appropriately setting and adjusting underwriting approach, risk selection and pricing practices throughout the underwriting cycle. QBE's underwriting approach aims to diversify and limit the type of insurance risks accepted and reduce the variability of the expected outcome. The underwriting strategy is implemented through QBE's annual business planning process, supported by minimum underwriting standards and delegated authorities. Pricing of risks, such as the increasing frequency of weather related losses, is controlled by the use of in-house pricing models relevant to specific portfolios and the markets in which QBE operates. Underwriters and actuaries maintain pricing and claims analysis for each portfolio, combined with a knowledge of current developments in the respective markets and classes of business. QBE has recently partnered with Jupiter, a Silicon-Valley based start-up providing data and analytics services to better predict and manage risks from weather and sea level rise, storm intensification and changing temperatures caused by medium- to long-term climate change. We plan on working closely with the Jupiter team to find innovative ways to leverage their data and analytics across our business – from underwriting and pricing, to providing resiliency management and thought leadership to our clients around the globe.

Cost of management

Comment

The cost of managing this risk is embedded into business planning and budgeting approach as it is integrated into our day-to-day risk management approach. Based on business plans and our financial results, we make strategic business decisions such as those to either grow, stabilise or retract from different markets.

Identifier
Risk 3
Where in the value chain does the risk driver occur?
Customer
Risk type
Transition risk

Primary climate-related risk driver

Policy and legal: Exposure to litigation

Type of financial impact driver

Other, please specify (Potential increased GWP)

Company- specific description

Ecological damage and the associated environmental impairment and liability issues has been identified with the potential to have substantive financial or strategic impact on the business. This can potentially lead to increases in gross written premium and decisions around availability of insurance capacity for "high-risk" occupations.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

High

Potential financial impact

Explanation of financial impact

This risk is integrated into QBE's business planning process. Our risk appetite forms the basis of QBE's ERM framework and represents the level of risk that the Board and management are prepared to accept in pursuit of the organisation's objectives. Risk appetite is aligned to, and is considered in, all strategic and business planning decisions QBE makes and we monitor our exposures against this risk appetite on an ongoing basis. One of the key tools used to ensure achievement of business plans is to identify mechanisms to manage likely scenarios impacting the plan year based on events that have occurred or risks identified since plans were set. We assess how these scenarios would impact return on equity (ROE) forecasts and develop and implement bridging actions to drive plan achievability.

Management method

QBE manages underwriting risk by appropriately setting and adjusting underwriting strategy, risk selection and pricing practices throughout the underwriting cycle. QBE's underwriting approach aims to diversify and limit the type of insurance risks accepted and reduce the variability of the expected outcome. The underwriting strategy is implemented through QBE's annual business planning process, supported by minimum underwriting standards and delegated authorities. Pricing of risks, such as the increasing frequency of weather related losses, is controlled by the use of in-house pricing models relevant to specific portfolios and the markets in which QBE operates. Underwriters and actuaries maintain pricing and claims analysis for each portfolio, combined with a knowledge of current developments in the respective markets and classes of business. QBE has recently partnered with Jupiter, a Silicon-Valley based start-up providing data and analytics services to better predict and manage risks from weather and sea level rise, storm intensification and

changing temperatures caused by medium- to long-term climate change. We plan on working closely with the Jupiter team to find innovative ways to leverage their data and analytics across our business – from underwriting and pricing, to providing resiliency management and thought leadership to our clients around the globe.

Cost of management

Comment

The cost of managing this risk is embedded into business planning and budgeting approach as it is integrated into our day-to-day risk management approach. Based on business plans and our financial results, we make strategic business decisions such as those to either grow, stabilise or retract from different industries/markets.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

0pp1

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of climate adaptation and insurance risk solutions

Type of financial impact driver

Increased revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services)

Company- specific description

QBE recognises the opportunity to develop new insurance products to respond to new industry opportunities, specifically those associated with the transition to a lower-carbon economy. For example, we are exploring product development opportunities arising

from the shift towards electric and autonomous vehicles. QBE's Australian and New Zealand Operations is working with Tesla and Marsh Advantage to underwrite policies issued in Australia under the InsureMyTesla program, a comprehensive motor vehicle insurance program for Tesla owners.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium-high

Potential financial impact

Explanation of financial impact

QBE recognises climate change presents opportunities in the products, services, and solutions we offer our customers. This considers changes in industry sectors, changes in technology, new policies and regulation, and increasing stakeholder expectations for how corporations manage risk and offer customer solutions. We review the structuring of our insurance products on an ongoing basis in line with market expectations and developments, legislation and claims trends.

Strategy to realize opportunity

Opportunities associated with climate-related issues are consistently included in business planning processes including for insurance and reinsurance products. We review the structuring of our insurance products on an ongoing basis in line with market expectations and developments, legislation and claims trends. Through our products and services, we are able to assist our customers to address sustainability issues such as climate change. For example, through our European Operations, QBE is an underwriter to Lumos Global, a Dutch company offering clean and affordable solar power to a market of 1.3 billion potential customers who live off the electricity grid. Lumos Global seeks to enable people in some of the poorest countries in the world to replace hazardous and expensive kerosene generators and lanterns with modern solar electricity that can power lights, cell phones and small electronic devices. Lumos Global offers home and small businesses a simple and affordable way to pay for clean electricity in small instalments using their mobile phones. We are also exploring product development opportunities arising from the shift towards electric and autonomous vehicles. QBE's Australian & New Zealand Operations is working with Tesla and Marsh Advantage to underwrite policies issued in Australia under the InsureMyTesla program, a comprehensive motor vehicle insurance program for Tesla owners.

Cost to realize opportunity

Comment

In 2018, we are establishing a Group ESG Risk team reporting to Group Chief Risk Officer to coordinate ongoing integration of climate-related risks and opportunities across the business. The Group ESG Risk team will be responsible for the day-to-day management of climate-related risks and opportunities, and will work with the business to implement these opportunities. We also continue to work

with our stakeholders including government, regulators, customers, employees, and business partners on climate-related issues. We offer events, seminars, publications that help clients and brokers build their risk management knowledge and sustainability awareness. We continue to collaborate and participate in a range of ESG and climate-related discussions as part of our membership of the Investor Group on Climate Change, Insurance Council of Australia Climate Change Action Committee, and Actuaries Institute's Climate Change Working Group.

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted	As a global insurance company, our portfolio is diverse in terms of geography and product mix. Climate change presents a range of risks and opportunities impacting our products, services, and solutions we offer our customers. Effective risk management is at the core of our business. By taking an active approach to all risks, however complex, and listening closely to customer needs, we strive to delivery individually-tailored solutions. We review the structuring of our insurance products on an ongoing basis in line with market expectations and developments, legislation and claims trends. Through our products and services, we are able to assist our customers to address sustainability issues such as climate change. For example, through our European Operations, QBE is an underwriter to Lumos Global, a Dutch company offering clean and affordable solar power to a market of 1.3 billion potential customers who live off the electricity grid.
Supply chain and/or value chain	Impacted	Our value chain and/or supply chain are impacted by risks and opportunities resulting from climate change. We are committed to conducting our operations in a responsible and sustainable manner, and understand that our purchasing decisions affect our performance, reputation, and risk profile as well as the economy, environment and communities in which we operate. As part of our broader approach to sustainability, we seek to engage with our suppliers and partners who share this understanding and commitment, and who can work with us to achieve our objectives. Our Supplier Sustainability Principles demonstrate our commitment to working with our suppliers on issues such as environmental management. We understand that there are opportunities to collaborate and educate our suppliers on climate-related issues, which will help build the resilience of our supply chain.
Adaptation and mitigation activities	Impacted	Climate change presents the opportunity to develop climate adaptation and insurance risk solutions. We are exploring further opportunities to work with our customers as they also transition to a lower-carbon economy. For example, our Global Risk Solutions Practice is a global community of risk engineers, risk management consultants and scientists providing a variety of services to customers including risk profiling and evaluation, accident investigation, business continuity, risk assessment, supply chain analysis, environmental management, client awareness forums and training materials. By taking an active approach to all risks, however complex, and listening closely to customer needs, we strive to deliver individually-tailored solutions.
Investment in R&D	Impacted	Developments in technology and data science will have enormous ramifications for the insurance industry in the coming years and at QBE we know that we need to innovate faster than ever before. In 2017 we made significant progress in

	Impact	Description
		building our internal data science capability and forming our first two partnerships with technology start-ups that have developed solutions directly relevant to our business, both involving the application of artificial intelligence. In 2018, we invested in Jupiter, a Silicon Valley based start-up that provides data and analytics services to better predict and manage risks from weather and sea level rise, storm intensification and changing temperatures caused by medium- to long-term climate change. Currently, Jupiter's data is focused on climate-related risk assessment and management for select North American cities, however global expansion is underway. We plan on working closely with the Jupiter team to find innovative ways to leverage their data and analytics across our business – from underwriting and pricing, to providing resiliency management and thought leadership to our clients around the globe.
Operations	Impacted	Our operational excellence is impacted by the risks and opportunities associated with climate change. For example, as an insurer, we are one of the first ports of call for our customers when customers are affected by a disaster. We aim to respond quickly, to be caring, and to deliver on our commitment to customers. We understand that the impact of acute and chronic physical risks associated with climate change will have flow on impacts on the claims process. Claims volumes are at the peak in the aftermath of a catastrophe. At QBE, we've developed pre- and post- catastrophe processes to ensure that customers receive the response they require, even when we are handling a high number of claims. In addition, we continue to manage our operational environmental footprint including greenhouse gas emissions, energy, waste, and water consumption from our global operations.
Other, please specify	Please select	

(C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.

	I	Description
Revenues	Impacted	QBE's revenue is impacted by the risks and opportunities associated with climate change, which are factored into our business planning process. QBE's risk appetite is aligned to, and is considered in, all strategic and business planning decisions we make, and we monitor our exposures against the risk appetite on an ongoing basis. Our integrated ERM framework embeds the consideration of the physical risks associated with climate change. We are also cognisant of the transition risks associated with climate change such as policy, legal, technical or market changes, and we will continue to integrate these considerations into our ERM framework. QBE's underwriting approach aims to diversify and limit the type of insurance risks accepted and reduce the variability of the expected outcome. The underwriting approach is implemented through QBE's annual business planning process, supported by minimum underwriting standards and delegated authorities. These authorities reflect the level of risk that the Group is prepared to take with respect to each permitted insurance class. We set financial targets in the context of business plans that have been appropriately stress-tested by the Group Chief Risk Officer. We continue to explore climate-related opportunities, such as working with our customers and communities to develop tailored solutions for climate adaptation and mitigation. This provides the potential to develop insurance risk transfer products and solutions, and new revenue streams.
Operating costs	Impacted	Our operating costs are impacted by the risks and opportunities associated with climate change. Being an insurance company, claims incurred form a significant portion of QBE's expenses. Risks associated with climate change are factored into planning claims losses across several classes of business and portfolios. Our planned claims expenses are informed by historical experience in terms of frequency and severity of natural perils. In addition, we model our exposure to aggregation of claims associated with major natural peril events, which also informs part of our claims expense plan. In our European Operations division, utility costs for electricity and gas are impacted by the Climate Change Levy introduced by the government in 2013. Annually, this levy increases with inflation and impacts the operating costs of our office operations.
Capital expenditures / capital allocation	Impacted	Capital management is a key component of QBE's integrated ERM framework and aims to achieve the appropriate balance between our risk appetite and the amount of capital required to support each of our businesses. QBE uses several capital management tools to support the assessment of risk and allocation of capital including our internal Economic Capital Model, analysis of regulatory and rating agency capital models, and a number of bespoke risk assessment tools. Another key capital management tool is QBE's Internal Capital Adequacy Assessment Process (ICAAP) which is supported by both our Economic Capital Model and scenario analysis process. As climate-related risks and opportunities are embedded into QBE's ERM framework, capital expenditures and allocation are impacted by climate-related risks and opportunities.
Acquisitions and divestments	Impacted	Climate-related risks and opportunities are integrated as part of our acquisitions and divestments. For example, we seek out partners who can provide access to differentiated technology. In 2017, we established QBE Ventures, a corporate venture fund focused on forming commercial relationships with startups that will enhance our business model, drive efficiencies and develop new growth paths. In 2018, as part of our QBE Ventures, we acquired Jupiter Intelligence, a

	Relevance	Description
		Silicon Valley based start-up that provides data and analytics services to better predict and manage risks from weather and sea level rise, storm intensification and changing temperatures caused by medium- to long-term climate change. Currently, Jupiter's data is focused on climate-related risk assessment and management for select North American cities, however global expansion is underway. We plan on working closely with the Jupiter team to find innovative ways to leverage their data and analytics across our business – from underwriting and pricing, to providing resiliency management and thought leadership to our clients around the globe.
Access to capital	Impacted	As a global insurance company, our financial strength and long-term sustainability is underpinned by effective risk management. We acknowledge that our access to capital could be impacted by the effective management of ESG risks across our business, including climate-related risks.
Assets	Impacted	Our Board is committed to investing responsibly, recognising that QBE is a significant investor and we take our responsibilities as a capital provider seriously. We aim to contribute broadly to wellbeing and sustainable development and believe that integrating principles of responsible investing into ownership and investment decision-making can have a positive impact on risk-adjusted financial returns. QBE manages assets internally and through external fund managers. In 2017, we updated our approach to incorporating ESG considerations into our internal credit selection by introducing a new independent ESG measure to our credit analysis process. This enables us to understand and monitor a company's approach to managing ESG issues through its policies, practices and other measures. When deciding whether to appoint or allocate to an external fund manager, we also consider how much they incorporate ESG factors into their investment processes and operational areas.
Liabilities	Impacted	As an insurance company, our liabilities may be impacted by climate-related risks and opportunities. We have observed higher inflation of property claims due to a number of reasons as the economy is adapting to a changing environment. At each balance date, the Group assesses net premium liabilities to determine whether the amount provided is sufficient to pay future claims. Our liabilities may be impacted by the changing frequency and severity of natural catastrophes. We factor in costs associated with future liabilities and reinsurance costs as part of our annual business planning process. As trends emerge, such as urbanisation, we have the ability to reprice our policies annually or more frequently. This also takes into account strengthening community resilience to issues such as flooding, storms, bush fires, and other natural perils.
Other	Please select	perns.

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?

Yes, qualitative and quantitative

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

The 2015 Paris Agreement has influenced government policy and regulation internationally, with the aim of strengthening the global response to climate change by keeping temperature rise this century well below 2 degrees Celsius above pre-industrial levels. QBE operates in a number of these jurisdictions and therefore closely monitors government policy and regulation. Our Board of Directors has identified climate risk as an area of increasing focus for the Board, management and our industry. We are aware that for QBE, and the insurance sector more broadly, climate-related risks and opportunities constitute a key topic affecting our core business.

The Paris Agreement has also influenced the Financial Stability Board's view of climate risk, resulting in the TCFD recommendations. This has significantly impacted institutional investor and regulatory expectations around management and disclosure. Since the release of the TCFD recommendations in June 2017, there has been significant interest from companies, including ourselves, in implementing these recommendations. QBE believes that the TCFD recommendations set a strong and consistent framework for improving climate-related management and disclosure. We signed the Statement of Support earlier this year and have committed to increasing the level of disclosure on managing climate-related risks and opportunities in our Annual Reporting, starting our 2018 Annual Report.

2017 was the costliest year on record for natural catastrophes, resulting in net cost to the global insurance and reinsurance industry of \$135 billion. In 2018, one of our strategic priorities is focused on underwriting, pricing and claims. These are the 'basics' of what we do as a business, and our focus is on doing each of these brilliantly. To deliver the 2018 plan, we are focused on driving rigorous performance management through detailed cell reviews, which are a forensic approach to assessing current performance, risk exposure, and underwriting plans across the portfolio including our property, marine, and crop businesses.

We are also focused on building for the future, recognising the need to be innovative and customer-focused while delivering on a clear technology roadmap. Our commitment to the TCFD recommendations is aligned to our focus on the future. We understand the importance of managing climate-related risks and opportunities.

In 2018, we partnered with Jupiter, a Silicon Valley based start-up that provides data and analytics services to better predict and manage risks from weather and sea level rise, storm intensification and changing temperatures caused by medium- to long-term climate change. Currently, Jupiter's data is focused on climate-related risk assessment and management for North American locations, however global expansion is underway. We plan on working closely with the Jupiter team to find innovative ways to leverage their data and analytics across our business – from underwriting and pricing, to providing resiliency management and thought leadership to our clients around the globe.

Our focus on these strategic priorities means that we consistently incorporate the consideration of climate-related risks and opportunities across our markets and products. This extends to leveraging information from catastrophe models consistently and effectively across all property insurance pricing decisions to facilitate the management of the acute physical risks associated with climate change.

In the first half of 2018, we conducted further internal analysis of the Group's exposure to climate-related risks. This included completion of a high-level impact assessment to guide the focus of future analysis of our exposures and opportunities. This has helped inform the development of a TCFD action plan. We are testing the impact of climate-related risks on our business strategy and undertaking more detailed analysis of our exposures to climate risk in various products and markets, ensuring our risk management processes incorporate the various physical and transition risks we see emerging, and identifying further opportunities to assist our customers as they work through how they manage this issue.

Our Board is committed to investing responsibly, recognising that QBE is a significant investor and we take our responsibilities as a capital provider seriously. We aim to contribute broadly to wellbeing and sustainable development and believe that integrating principles of responsible investing into ownership and investment decision-making can have a positive impact on risk-adjusted financial returns. In 2017, we updated our approach to incorporating ESG considerations into our internal credit selection by introducing a new independent ESG measure to our credit analysis process. This enables us to understand and monitor a company's approach to managing ESG issues through its policies, practices and other measures. When deciding whether to appoint or allocate to an external fund manager, we also consider how much they incorporate ESG factors into their investment processes and operational areas.

In addition, we continue to integrate ESG considerations into the products and services we develop for our customers, such as our Premiums4Good initiative. This pioneering initiative which launched in 2015 allows customers to allocate a proportion of their premium to invest in securities with an additional social or environmental objective, such as social impact bonds, social bonds, green bonds and investments in infrastructure projects with environmental benefits.

There are a wide range of views across industry, civil society, governments and other stakeholders on how to best address climate change. Therefore, we believe a coordinated approach to mitigating and adapting to climate-related risks requires multi-stakeholder input. Integrating climate-related issues into our business objectives and strategy has driven our external engagement and collaboration with stakeholders to help inform our business strategy.

These include the UNEP FI, Principles for Sustainable Insurance, Principles for Responsible Investment and ClimateWise Principles. We are also members of the Investor Group on Climate Change, Insurance Council of Australia Climate Change Action Committee, and Actuaries Institute's Climate Change Working Group. Recognising the importance of an industry-aligned approach to climate scenario analysis, we have also joined the UNEP FI PSI's insurance sector working group to pilot the TCFD recommendations which will commence in August 2018. As part of our commitment to these global and regional sustainability-related initiatives and groups, we continue to integrate these principles into our decision-making and risk management processes.

C3.1d

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- 1	1 1 3 1 d l	l Provide details of i	Mill organization	's lise of climate-re	lated scenario analys	CIC
- (Collu	I I O VIUC uctuiis oi	oui oiganizacion	3 use of climate re	iated section to among	J13.

Climate- related scenarios	Details
Other, please specify	QBE uses stress and scenario testing to better understand our risk profile under a range of different scenarios. Assessing the impact of extreme but plausible events helps us to better prepare for such situations and ensures that our risk exposure is acceptable to the Board. QBE uses a range of modelling techniques to estimate potential losses, manage exposure and assist in making decisions regarding risk management and coverage. This capability is critical to managing our exposure to possible events, such as natural catastrophes and extreme weather events. QBE operates risk forums across the Group to identify and assess the impact of existing risks which develop in new and unexpected ways, and new risks. This helps the Group analyse the potential impact and develop strategies to mitigate or exploit opportunities for these risks. Transition climate-related risks are considered in these forums. We analyse a large catalogue of weather-related events and scenarios, including a number of extreme weather events. We consider the potential impact of warmer sea surface temperature and other climate factors on the frequency of those severe events. Our assessment of the potential impact of severe weather events is considered by the executive and the Board. As part of our implementation of the TCFD recommendations, we are incorporating more explicitly the consideration of transition risks as part of our scenario testing.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

No target

C4.1c

(C4.1c) Explain why you do not have emissions target and forecast how your emissions will change over the next five years.

	Primary reason	Five-year forecast	Please explain
Row 1	Important but not an immediate business priority	QBE annually reports on relevant climate-related metrics for our operations as part of our Sustainability Report. This includes disclosure on water and energy consumption, waste generation, and greenhouse gas emissions. QBE also reports on efficiency ratios as emissions per unit of economic output. Multi-year emissions data has been reported for several years and is included in the most recent 2017 Sustainability Report. We anticipate that over the next five years our operational greenhouse gas emissions will reduce as a result of leasing more efficient office spaces, implementing resource efficiency measures, and exploring opportunities to further reduce our footprint. Although implementing an emissions reduction target is not an immediate priority, we acknowledge that our operational environmental footprint is important for us to measure and manage. As part of our TCFD action plan, we are working through a program of work to develop climate-related metrics and targets that are relevant for our business.	As part of QBE's commitment to the TCFD, we have work underway to further integrate the consideration of climate-related risks and opportunities across our business, including our underwriting and investment portfolios, operations, and strategy. This includes reviewing our exposure to physical, transition and liability risks associated with climate change. While we currently measure and manage our operational environmental footprint, we note that developing an operational emissions reduction target or renewable energy target are not of the highest priority for the business. As part of our TCFD roadmap and action plan, we will evaluate and disclose metrics and targets for assessing climate-related risks and opportunities that are in line with strategy and risk management processes.

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*	1	349
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Activity type

Energy efficiency: Building services

Description of activity

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

349

Scope

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)

50502

Investment required (unit currency – as specified in CC0.4)

Payback period

Please select

Estimated lifetime of the initiative

Ongoing

Comment

Across our major offices in North America, Australia and Europe, we converted lighting to energy-efficient LED lighting and occupancy sensors to reduce energy consumption.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	Across our office locations, where possible, we have converted lighting to energy-efficient LED lighting and installed occupancy sensors to reduce energy consumption. For any new leases, premises have to meet certain minimum environmental performance standards, including energy efficiency ratings. For example, our Group Head Office in Sydney is a 6-star Green Star rated commercial office building. One of our main offices in QBE North American Operations is LEED Gold Certified.
Employee engagement	We engage in several awareness-building initiatives for employees across our regions. For example, staff are encouraged to minimise waste to landfill by re-using and recycling. For example, our Plantation Place office in London now recycles all waste, avoiding landfill completely. We also continue to promote the use of electronic documents, to reduce storage and paper waste. Across a number of our operations, there have been employee-led initiatives to reduce the use of single use-plastic such as coffee cups, plastic bags, plastic straws, etc. This employee-driven initiative has seen the reduction in waste to landfill which we will continue to monitor across our operations. We will also look to implement similar initiatives across our other regions.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/Group of products

Sustainability considerations are integrated as part of our underwriting and investment activities. Notably, in April 2017 we issued \$300 million in fixed-rate senior notes under a new QBE Green Bond Framework - the first green bond to be issued by a global insurance company. The proceeds were materially invested in areas such as renewable energy, low-carbon transportation, sustainable forestry, water efficiency, waste management and pollution control. We are starting to measure the impact being created as part of our commitment to this green bond.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions Other, please specify (Green Bond Principles from ICMA)

% revenue from low carbon product(s) in the reporting year

Comment

QBE recognises that we have responsibilities not only towards our customers, employees and shareholders, but also the countries and communities in which we operate. This means understanding and managing the impact we have on society and the environment, and investing in the future of our employees and the communities we serve. QBE seeks a balance of economic, social and environmental factors by following good international practices on environmental and social risks. Furthermore QBE recognises and supports the move to a low-carbon economy, which will help reduce climate change and benefit communities in the longer term. QBE's Green Bond Framework represents a further step in supporting investors to meet their objectives whilst supporting insurance clients to realise opportunities in the fast developing low-carbon economy. QBE's Green Bond Framework is consistent with the current Green Bond

Principles as held by ICMA, and reflects guidance by the investor groups. The proceeds of any QBE Green Bond(s) will be allocated towards financing/refinancing investment in our green bond portfolio. This portfolio may invest in labelled green bonds that are eligible based on outlined criteria.

Level of aggregation

Group of products

Description of product/Group of products

In 2015, QBE launched the pioneering initiative Premiums4Good. This allows targeted customers to allocate a proportion of their premium to investment in securities with an additional social or environmental objective, such as social impact bonds, social bonds, green bonds and investments in infrastructure projects with environmental benefits. This is a free project feature with no risk for the customer - all the investment risk is assumed by QBE. Through this initiative, we are stimulating the development of new investment products that offer appropriate risk-adjusted returns, as well as supporting beneficial social outcomes. QBE's Premiums4Good offering continued to grow in 2017. As at 31 December 2017, we invested \$455 million in 26 different investments as part of the Premiums4Good initiative, this includes investments which are low-carbon or use of proceeds are directed to support avoided emissions. Investments which are part of the Premiums4Good program are reviewed for reporting, verification and impact with the Classification of Social Investments (COSI) Committee, which is comprised of three QBE representatives and three external impact investment experts. They classify and review investments for an 'additional social or environmental objective' and verify their positive impact. The Committee continues to support QBE in iterating and improving the approach we take to classifying investments by level of impact.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions Other, please specify

% revenue from low carbon product(s) in the reporting year

Comment

QBE believes that buying insurance is not just about business. To help us support the communities and environment where we operate, we offer customers the chance to make a difference with their premiums. Premiums4Good is a unique global initiative that enables a customer to use a portion of their premium to invest in securities with an additional social or environmental objective, such as social impact bonds, social bonds, green bonds, and investments in infrastructure projects with environmental benefits. Premiums4Good was launched at Lloyd's of London in March 2015. It is now offered to selected customers of our North American, European and Australian & New Zealand Operations. Through this initiative, we are stimulating the development of new investment products that offer appropriate risk-adjusted returns, as well as supporting beneficial social outcomes. Social impact bonds (SIBs), known in the United States as pay-

for-success (PFS) contracts, are an important part of our Premiums4Good investment portfolio because they are a high-impact, results-based investment. Social investment seeks both a social and a financial return, and QBE supports this approach as a means of attracting more capital to global social and environmental issues. In 2014, we announced QBE's intention to invest up to \$100 million in suitable SIB opportunities across our global investment portfolio. Since then, we have built relationships and investment in multiple SIBs and PFS projects in Australia, Canada, the US and the UK. Our current SIB investments cover longer-term social projects ranging from three to eight years and at various stages from launch to maturity. As at 31 December 2017, we invested \$455 million in 26 different investments as part of the Premiums4Good initiative. In 2017, we reviewed our Premiums4Good impact areas in the context of the United Nations Sustainable Development Goals (SDGs). We plan to help customers align their involvement in Premiums4Good with their commitment to the SDGs. Premiums4Good won two awards in 2017: the British Insurance Awards – Business Sustainability/Corporate Social Responsibility Initiative of the Year and The International CSR Excellence Awards Winner 2017.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

8686

Comment

QBE's financial year ending 2016 is selected as the base year as this was the first year limited assurance was obtained on the greenhouse gas emissions data.

Scope 2 (location-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

22324

Comment

QBE's financial year ending 2016 is selected as the base year as this was the first year greenhouse gas emissions data was audited.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

Australia - National Greenhouse and Energy Reporting Act

Defra Voluntary 2017 Reporting Guidelines

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

US EPA Climate Leaders: Direct Emissions from Stationary Combustion

Other, please specify (Refer to C5.2a)

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

In addition to the above list, our reporting on environmental data also follows the guidelines outlined in the Global Reporting Initative (GRI) Standards' requirements for Emissions Disclosures 305-1, 305-2 and 305-3.

QBE Group's greenhouse gas emissions reporting is driven by our global insurance operations across the world. We calculate emissions using the energy content and emission factors considered most relevant to each region, based on information sourced from:

- Australian Government Department of Environment and Energy's National Greenhouse Account Factors, 2017;
- UK Government's Department of Environmental Food and Rural Affairs (DEFRA) and Department of Energy & Climate Change's (DECC) Greenhouse Gas Reporting: Conversion Factors, 2017;

- US Environmental Protection Agency's (EPA) Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources, 2016;
- US EPA's eGRID database, 2017;
- International Energy Agency's CO2 Emissions from Fuel Combustion, 2017.

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Row 1

Gross global Scope 1 emissions (metric tons CO2e)

7754

Comment

Scope 1 emissions are direct emissions related to company car fuel consumption and mileage, and natural gas heating.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

Comment

We report on indirect scope 2 emissions associated with electricity consumption across our global operations. To note, QBE Group operates in 36 countries, and our reported scope 2 emissions reporting is driven by our global insurance operations across the world.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Row 1

Scope 2, location-based

20828

Scope 2, market-based (if applicable)

<Field Hidden>

End-year of reporting period

<Field Hidden>

Comment

We report on indirect scope 2 emissions associated with electricity consumption across our global operations. To note, QBE Group operates in 36 countries, and our reported scope 2 emissions reporting is driven by our global insurance operations across the world.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

13

Emissions calculation methodology

Estimated volume of office paper purchased for the year multiplied by DEFRA's emissions factors.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

Data on volume of office paper purchased is provided by third party suppliers.

Capital goods

Evaluation status

Please select

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Upstream transportation and distribution

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

179

Emissions calculation methodology

Emissions from general waste to landfill and recycled waste. Waste is estimated for a number of our premises based on volume of waste bins collected monthly multiplied by the DEFRA's emissions factors. Total waste disposed multiplied by DEFRA emissions factor by waste type. We have used UK Government's Department of Environmental Food and Rural Affairs (DEFRA) and Department of Energy & Climate Change's (DECC) Greenhouse Gas Reporting: Conversion Factors, 2017.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

16

Explanation

Emissions from general waste to landfill and recycled waste. Waste is estimated for a number of our premises based on volume of waste bins collected monthly multiplied by the DEFRA's emissions factors. Only our North American Operations was able to source waste information from shredding reports provided by waste collection contractors. The remaining divisions estimated operational waste based on volume of paper purchased during the year and volume of waste bins. Total waste disposed multiplied by DEFRA emissions factor by waste type. We have used UK Government's Department of Environmental Food and Rural Affairs (DEFRA) and Department of Energy & Climate Change's (DECC) Greenhouse Gas Reporting: Conversion Factors, 2017.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

20030

Emissions calculation methodology

Business travel in kilometres includes air, bus, rail and rental car/taxi travel. Data on air, bus and rail business travel are sourced from travel management companies. Rental car and taxi travel are sourced from the general ledger. Emissions are calculated by applying DEFRA's emissions factors to KM travelled. The DEFRA emissions factors used includes the required distance uplift and radiative forcing for air travel.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

90

Explanation

The reporting boundary of scope 3 emissions sources is for QBE's global activities and operations. Business travel includes travel by air, rail and land by QBE employees. This is the most material source of scope 3 emissions for QBE, contributing to 98% of our scope 3 emissions. As a global company, we note that our Group Board travels for Board meetings and other Board commitments. Business travel in kilometres includes air, bus, rail and rental car/taxi travel. Data on air, bus and rail business travel are sourced from travel management companies. Rental car and taxi travel are sourced from the general ledger. Emissions are calculated by applying DEFRA's emissions factors to KM travelled. The DEFRA emissions factors used includes the required distance uplift and radiative forcing for air travel.

Employee commuting Evaluation status Metric tonnes CO2e **Emissions calculation methodology**

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Upstream leased assets

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Downstream transportation and distribution

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Processing of sold products

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Use of sold products

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

End of life treatment of sold products

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Downstream leased assets

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Franchises

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Investments

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Other (upstream)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

230

Emissions calculation methodology

Emissions from water consumption. Water consumption (cubic metre) is sourced from water invoices where possible, otherwise estimated based on number of employees in each office location. Emissions are calculated by applying DEFRA's emission factors to cubic metre of water consumption.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

44

Explanation

The reporting boundary of scope 3 emissions sources is for QBE's global activities and operations. As a general insurance company, our predominant footprint is with our office buildings. Operational water consumption is one of the key contributors of greenhouse gas emissions from typical office buildings. Water data is sourced from utility providers as invoices where possible. This represented 44% of the data collected in 2017. The remaining data was estimated based on the number of employees in each office location.

Other (downstream)

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations. Intensity figure

1.98

Metric numerator (Gross global combined Scope 1 and 2 emissions)

28582

Metric denominator

unit total revenue

Metric denominator: Unit total

14446

Scope 2 figure used

Location-based

% change from previous year

6.2

Direction of change

Decreased

Reason for change

The decrease in Scope 1 emission is mainly due to a change in boundary of measuring KM travelled related to company vehicles in one of our region and an overall reduction in number of company vehicles. The decrease in Scope 2 emissions is mainly due to resource efficiency initiatives across a number of regions including: (i) converting major offices in North America, Australia and Europe to energy efficient LED lighting and implementing occupancy sensors to reduce energy consumption. (ii) consolidating major office spaces across regions.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?

No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Australia	845
New Zealand	218
Asia, Australasia	196
North America	5884
Latin America (LATAM)	302
Europe	308

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide. By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

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Business division	Scope 1 emissions (metric ton CO2e)				
Australian Operations	845				
New Zealand Operations	218				
Asia Pacific Operations	196				
North American Operations	5884				
Latin America Operations	302				
European Operations	308				

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location- based (metric tons CO2e)	Scope 2, market- based (metric tons CO2e)	Purchased and	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Australia	7157		8546	
New Zealand	39		318	
Asia, Australasia	1610		2758	
North America	9378		16112	
Latin America (LATAM)	1209		3577	
Europe	1396		4268	
Other, please specify (Bermuda)	39		112	

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide. By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

(3 · · · · ·) = · · · · · · · · · · · · ·					
Business division		Scope 2, market-based emissions (metric tons CO2e)			
Australia	7157				
New Zealand	39				
Asia Pacific	1610				
North America	9378				
Latin America	1209				
Europe	1396				
Other - Equator Re in Bermuda	39				

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them

specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)		Emissions value	Please explain calculation
Change in renewable energy consumption		<field Hidden></field 		
Other emissions reduction activities	802	Decreased	2.6	Emissions from electricity consumption decreased by 802 metric tons in 2017 (2.6% decrease relative to total Scope 1 and Scope 2 emissions) compared to 2016. This was due to energy efficiency initiatives implemented across a number of our regions including the conversion of major offices in North America, Australia and Europe to energy-efficient LED lighting and occupancy sensors to reduce energy consumption.
Divestment		<field Hidden></field 		
Acquisitions		<field Hidden></field 		
Mergers		<field Hidden></field 		
Change in output		<field Hidden></field 		
Change in methodology	118	Decreased	0.4	Decrease due to improved data quality in 2017 compare to 2016 in relation to electricity consumption.
Change in boundary	626	Decreased	2	Change in boundary in relation to Scope 1 emissions to exclude private-use vehicles in one of our regions.
Change in physical operating conditions	245	Decreased	0.8	Reduction in electricity consumption due to reduction in office space occupancy in one country.
Unidentified	334	Decreased	1.1	Unidentified reason for reduction in electricity consumption

		Direction	Emissions value (percentage)	Please explain calculation
Other	303	Decreased	1	Total of other reduction in Scope 1 and Scope 2 emissions that are not material on an individual basis.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	No
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

(MWh from MWh from non-			
	Heating value	renewable sources	renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>
Consumption of purchased or acquired electricity	<field hidden=""></field>		35692	35692
Consumption of purchased or acquired heat	<field hidden=""></field>		6230	6230
Consumption of purchased or acquired steam	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>
Consumption of purchased or acquired cooling	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>

	Heating value	MWh from renewable sources	MWh from non- renewable sources	Total MWh
Consumption of self-generated non-fuel renewable energy	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>	<field hidden=""></field>
Total energy consumption	<field hidden=""></field>		41922	41922

C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

Verification/assurance status			
Scope 1	Third-party verification or assurance process in place		
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place		
Scope 3	Third-party verification or assurance process in place		

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.

Scope

Scope 1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

CDP 2018 survey - QBE Independent limited assurance report.pdf

Page/ section reference

Pages 31 and 32 of the QBE 2017 Sustainability Report (in attachment)

Relevant standard

Other, please specify (ASAE 3410)

Proportion of reported emissions verified (%)

100

Scope

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

CDP 2018 survey - QBE Independent limited assurance report.pdf

Page/ section reference

Pages 31 and 32 of the QBE 2017 Sustainability Report (in attachment)

Relevant standard

Other, please specify (ASAE 3410)

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope

Scope 3- all relevant categories

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Attach the statement

CDP 2018 survey - QBE Independent limited assurance report.pdf

Page/section reference

Pages 31 and 32 of the QBE 2017 Sustainability Report (in attachment)

Relevant standard

Other, please specify (ASAE 3410)

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)? No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period? No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes. our customers

Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Other, please specify (Supplier Sustainability Principles)

Details of engagement

Please select

% of suppliers by number

% total procurement spend (direct and indirect)

% Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

QBE's Supplier Sustainability Principles outlines our minimum expectations of suppliers doing business with QBE in relation to environmental considerations, human rights, workplace diversity and community engagement. We understand that our purchasing decisions don't only affect our performance, reputation and risk profile, they affect the economy, environment and communities in which we operate. As part of our broader approach to sustainability, we seek to engage suppliers and partners who share this understanding and commitment, and who can work with us to achieve our objectives. QBE's global procurement function is committed to conducting our operations in a responsible and sustainable manner, in accordance with the guidelines of ISO 20400, the new global standard for sustainable procurement. We plan to fully comply to this standard by 1 January 2020. As part of our commitment to sustainable procurement, we are starting to engage with our supply chain partners on opportunities associated with managing climate change and operational environmental management. For example, we are beginning discussions with our property suppliers on how they can assist us in reducing our operational energy footprint. Our Supplier Sustainability Principles outlines our commitment to working with our suppliers on environmental management including: • Implementing and maintaining an industry appropriate Environmental Management System and/or relevant processes to support compliance with any applicable environmental protection laws, regulations and/or standards. • Setting measurable targets to manage and reduce material environmental impacts of your operations, products and services (e.g. greenhouse gas emissions, energy use, water, waste) where appropriate. • Sustainably sourcing primary materials or commodities through appropriate certifications.

Impact of engagement, including measures of success

Our Supplier Sustainability Principles were released in early 2018. As we continue to engage our suppliers, we will continue to monitor the impact of our engagement with our supply chain.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Other, please specify (Premiums4Good Program)

Details of engagement

<Field Hidden>

Size of engagement

% Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

Premiums4Good is a unique global initiative that enables a customer to use a portion of their premium to invest in securities with an additional social or environmental objective, such as social impact bonds, social bonds, green bonds and investments in infrastructure projects with environmental benefits. This a free product feature with no risk for the customer – all the investment risk is assumed by QBE. Premiums4Good was launched at Lloyd's of London in March 2015. It is now offered to customers of our North American, European and Australian & New Zealand Operations. Through this initiative, we are stimulating the development of new investment products that offer appropriate risk-adjusted returns, as well as supporting beneficial social outcomes. QBE is transparent about our commitment to invest in line with the Premiums4Good mandate and work with the Classifications of Social Investments Committee (COSI) to support its governance. The independent Committee comprises three QBE representatives and three independent impact experts. They classify and review investments for an 'additional social or environmental objective' and verify their positive impact. The Committee continues to support QBE in iterating and improving the approach we take to classifying investments by level of impact. Our Premiums 4Good offering continued to grow in 2017, with the number of investments increasing to 26, representing an investment of \$455M in qualifying securities as at 31 December 2017. We reviewed our Premiums4Good impact areas in 2017 in the context of the United Nations' Sustainable Development Goals (SDGs). We plan to help customers align their involvement in Premiums4Good with their commitment to the SDGs. In 2017, there were a total of 12 investments in the environment impact area including in sustainable energy and resource, efficiency, recycling, reuse and conservation. These impact investments are across our different regions of operation.

Impact of engagement, including measures of success

The number of investments has increased to 26 in 2017, representing an investment of \$455 million in qualifying securities, with a total of 12 investments in the environment impact area.

C12.1c

(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.

We work with our employees, customers, and business partners to raise awareness of sustainability issues, manage risks and develop solutions. We offer events, seminars and publications that help clients and brokers build their risk management knowledge and sustainability awareness. We also build awareness in other ways including our:

• Global Risk Solutions Practice which is a global community of risk engineers, risk management consultants and scientists providing a variety of services to customers including risk profiling and evaluation, accident investigation, business continuity, risk assessment, supply chain analysis, environmental management, client awareness forums and training materials.

- Risk Culture Profiling Tool (RCPT) in the United Kingdom that brings together risk culture theory and extensive claims insights to help businesses become more resilient and successful.
- Ongoing involvement with risk management bodies in local regions encouraging employees to be individual members and actively participate in leadership opportunities.
- QBE Underwriting Academy which helps current and aspiring underwriters to develop their skills and expertise. By incorporating sustainability risk topics, it positions graduates to better engage with clients and broker partners on these issues.

Through our products and services, we assist our customers to address sustainability issues. For example:

- Since 2005, QBE and Pan American Underwriters have been offering a Wine Industry Property and Liability insurance package that includes a premium credit for Californian winegrowers who have completed the Sustainable Winegrowing Program or equivalent and adopted a standard of continual improvement.
- Through our European Operations, QBE is an underwriter to Lumos Global, a Dutch company offering clean and affordable solar power to a market of 1.3 billion potential customers who live off the electricity grid. Lumos Global seeks to enable people in some of the poorest countries in the world to replace hazardous and expensive kerosene generators and lanterns with modern solar electricity that can power lights, cellphones and small electronic devices. Lumos Global offers home and small businesses a simple and affordable way to pay for clean electricity in small instalments using their mobile phones.
- We are exploring product development opportunities arising from the shift towards electric and autonomous vehicles. QBE's Australian & New Zealand Operations is working with Tesla and Marsh Advantage to underwrite policies issued in Australia under the InsureMyTesla program, a comprehensive motor vehicle insurance program for Tesla owners.

We also engage and work with government, regulators, and other stakeholders on a range of sustainability issues. Examples include working attending and speaking at business roundtables, seminars and events on sustainability topics including climate change, sustainable communities and sustainable finance. For example, in November 2017, PSI and Munich Re held the inaugural PSI event in the US. As a PSI signatory, QBE employees attended the event which focused on the North American sustainable insurance agenda including action around building resilient and sustainable communities and economies. Following the two-day conference, we are exploring opportunities to contribute to coastal resiliency and helping communities to plan for the impacts of climate change.

In addition, QBE attended the 2017 Accounting for Sustainability (A4S) Summit at St James's Palace in London, an invitation-only event hosted by HRH The Prince of Wales. The annual summit brings together CFOs, investors and other senior members of the finance community to explore practical approaches to exploit opportunities arising from major social and environmental trends, and effectively manage risks. In addition to discussing recent A4S CFO Leadership Network guidance on social and human capital, a key focus of the

2017 summit was climate change and the need for companies to disclose how they are governing and managing climate-related risk. Following the summit, QBE invited Jessica Fries, A4S Executive Chairman, to present to the finance team of our European Operations.

In 2018, we continue to engage and collaborate with industry on climate change through our networks and memberships such as the Investor Group on Climate Change, Insurance Council of Australia Climate Change Action Committee, and Actuaries Institute's Climate Change Working Group. We also continue to engage with A4S and in 2018 we have attended various TCFD workshops as well as invited Jessica Fries, A4S Executive Chairman, to present to our Group and Australian Operations finance and risk teams. Our Group Financial Controller is part of the A4S trans-Tasman Circle of Practice, and our Group Head of Sustainability has been an expert Panel member since January 2017.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position		Proposed legislative solution
Adaptation or resilience Establishment of the National Resilience Taskforce within the Department of Home Affairs (Commonwealth of Australia)	Support	The objective of the Taskforce is to consider how the Commonwealth Government's annual contribution to state and territory mitigation activities (which is cost-shared by the states) could be more effectively targeted towards physical mitigation activities that materially reduce risk. The insurance industry, including QBE, have long advocated for a greater focus on building the resilience of Australian communities to future natural disasters. As such, we are broadly supportive of the Taskforce's mandate. We are engaging directly with Taskforce members through meetings, and an employee of QBE participated in a three-day strategy workshop in June 2018.	This does not presently involve legislation, as it is a policy initiative. The funding in question is administered through an agreement between the Commonwealth Government, and all states and territories.

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Other, please specify (Affordability) Cost of insurance in areas of high natural disaster risk (Commonwealth of Australia)	Neutral	In Australia, at the Commonwealth level, there is an ongoing focus on the cost of insurance in areas of high natural disaster risk, especially Far North Queensland, which is subject to frequent tropical cyclones. This has been the subject of a number of Government reviews, which have found that the high cost of insurance reflects the underlying risk, and that the only sustainable way to address legacy risk is through resilience-building activities including mitigation.	This does not presently involve legislation.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Insurance Council of Australia

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Our position is broadly consistent with that of the ICA. The ICA recognises the existence of climate change, and represents the industry in efforts to: - Maintain prudential foundations so insurers are able to respond to future large-scale events - Provide practical and innovative risk-transfer solutions - Increase community resilience to extreme weather events - Reduce vulnerability and exposure through sensible planning controls and local mitigation - Ensure that risk-based pricing delivers competitive price signals and informs policy responses - Assist policy-makers to understand the long-term implications of climate risk

How have you, or are you attempting to, influence the position?

The ICA is currently developing terms of reference for a new committee to drive industry focus on climate change. QBE is actively participating in this process and will join the committee once formed.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

As outlined in our Group Code of Ethics and Conduct, we will engage with governments on public policy and legislative issues that affect our business. We will contribute useful information and share our experiences to contribute to the development of policy and legislation where relevant to our business.

As we continue to work through our climate change strategy and approach to managing climate-related risks and opportunities for our business, this will include consideration of our direct and indirect activities that influence policy across the regions in which we operate.

As there are a wide range of views across industry, civil society, governments and other stakeholders on how to best address climate change, we will continue to engage with our stakeholders on this issue. We believe a coordinated approach to mitigating and adapting to climate-related risks requires multi-stakeholder input. Integrating climate-related issues into our business objectives and strategy has driven our external engagement and collaboration with stakeholders to help inform our business strategy.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status

Complete

Attach the document

QBE 2017 Sustainability Report.pdf

Content elements

Emissions figures

Other metrics

Publication

In mainstream reports in accordance with TCFD recommendations

Status

Underway – this is our first year

Attach the document

Content elements

Governance

Strategy

Risks & opportunities

C14. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Group Chief Executive Officer	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm below

I have read and accept the applicable Terms