

Excellence in climate change reporting

A review of leading UK companies

Building Public Trust
November 2021

Foreword from Jon Williams



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Financial Disclosures
(TCFD)

This year marks the second year in which PwC has reviewed company reporting on climate change as part of our Building Public Trust Awards. Following last year's initial review, we doubled the number of companies in consideration to over 300, extending analysis to leading reporters in the FTSE 250 for the first time. This year also saw the inclusion of an international cohort of companies, to examine compliance with the recommendations of TCFD at a global level.

Despite the challenges faced by companies over the last 12 months, corporate action on climate change continues at pace, with TCFD's [2021 Status Report](#) revealing that over 2,600 companies now officially support the recommendations, as well as over 120 regulators and government entities. This also includes 1,085 financial institutions responsible for assets of \$195 trillion.

Government action too is accelerating, capped this year by efforts announced at COP26 in Glasgow. The introduction of mandatory reporting legislation in the UK means that from April of next year, over 1,300 of the largest UK-registered companies and financial institutions will have to disclose climate-related financial information on a mandatory basis.

Similarly, new requirements announced by the Chancellor that UK companies must set out by 2023 their transition plans to a low-carbon economy will further aid an understanding of how companies intend to meet their net zero commitments.

These announcements have been supported by HMT's recently published Greening Finance Roadmap, which sets out to align sustainability disclosure requirements with the existing TCFD requirements.

Overall, we are encouraged to see in our analysis greater implementation of the recommendations of TCFD, which aligns with the findings of the latest Status Report.

Our review has been categorised, in line with TCFD, into 'Governance,' 'Strategy,' 'Risk Management' and 'Metrics and Targets.' In each section we have provided an analysis of the quality of the reporting, tips for how to make your reporting more effective, and illustrated examples of best practice. A spotlight on international climate reporting is also featured later in the report.

We hope that through this report, we can provide the insights and expertise which will help your company to progress on the journey towards better climate change reporting.

Executive summary and key messages

Governance

Company disclosure against the governance of climate change has improved since last year, with almost 90% of companies now allocating board-level responsibility for climate change. However board-level expertise on climate-related issues is still lacking across the FTSE 350, with less than a fifth of companies identifying the climate-related competencies of board members or referencing any plan for training on climate change. At the executive level, almost three quarters of companies now have assigned responsibility for climate change, and almost a quarter of companies link climate-related objectives with executive remuneration.

Strategy

In keeping with the findings of the TCFD 2021 Status Report, there is widespread compliance with the recommendation to disclose information on climate-related risks and opportunities, with almost 90% of companies identifying multiple examples. However, less than 40% of companies are going the step further and linking these risks to quantified financial impacts. More than half of companies now disclose that they have performed climate scenario analysis.

Net Zero

In the run-up to COP26 in Glasgow, there has been renewed attention and demand for corporate commitment to reaching net zero emissions in a timeframe that is aligned with the Paris Agreement. This year we have seen that **70% of the FTSE 350** companies included in our analysis have made a commitment to net zero, which is an increase from **55%** last year.

A spotlight on international climate reporting

To complement our assessment of FTSE 350 climate reporting, we have extended our analysis to a cohort of international companies that represent a variety of countries and industries, in order to gain insight into the level of compliance with the recommendations of TCFD at a global level. The quality of reporting in this cohort across all four pillars of TCFD remains consistently below that of the FTSE 350, with the most significant divergences observed under the Governance and Strategy pillars.

Risk management

The risk management of climate change remains a challenging area for companies. Almost all companies now report that climate change is recognised as a current or emerging risk, and encouragingly, two fifths demonstrate that the management of climate risk is integrated into their risk management processes. However less than 20% of companies provide disclosure on the assessment and management of the financial implications of climate risk.

Metrics and targets

The metrics and targets section is the one companies perform most strongly against, with the vast majority of companies reporting on their Scope 1, 2 and 3 emissions. There is still a persistent tendency to report on simple climate-related metrics, with only a fifth of companies reporting sophisticated metrics that assess the full scope of their value chain and links metrics to financial performance. Encouragingly, over a third of companies now report science-based emissions reduction targets.

About this report

This report contains the results of our analysis, expert guidance to improve your reporting and a selection of leading examples that we at PwC have identified following our review of annual reports, sustainability reports and associated websites of the FTSE 350. The report is structured as follows:

- A summary of what should be reported and why, set in the framework of the TCFD guidance
- Basic, intermediate and advanced tips for improving your reporting
- A quantitative analysis of the performance of the companies scored as a part of this review
- An in-depth exploration of company performance for each of the 4 categories, with each sub-divided into further sections. Each subsection includes:
 - Key findings and analysis by industry
 - Results summary including reporting tips
 - Annotated best practice examples

If you would like more personalised advice on your own reporting, do get in touch with us – our contact details are on the back page. You can also find more examples of good practice by visiting our [website](#).



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Good practice climate reporting based on TCFD guidance

		What	Why
Governance	Board-level knowledge and training	Provide details of the current competencies of board members in relation to climate change, and any past or future training on the subject matter.	This allows the reader to understand the level of climate-related expertise at board-level, as well as the proactiveness of the board to upskill themselves.
	Board oversight on climate change	Document the governance structure regarding board-level responsibility for climate change. If relevant, disclose that climate change is on the agenda at board meetings and examples are provided for how climate-related risks/opportunities have affected strategic decisions.	This enables the reader to understand how and by whom climate change is considered at board-level, and shows them how this is affecting decision making.
	Management oversight on climate change	Explain the responsibility for climate change at executive level and if applicable, disclose that executive remuneration is linked to climate-related objectives.	This enables the reader to understand how and by whom climate change is considered at an executive level and demonstrates to them how seriously the issue is being taken by linking climate-related objectives to executive remuneration.
Strategy	Identification of material risks and opportunities	Identify and disclose physical and transitional risks and opportunities, and do so with an associated time horizon.	This provides detail on the specific impacts of climate change on your business and contextualises them in the short, medium and long-term.
	Disclosure of impacts on and by the business	Identify the impacts of climate-related risks and opportunities on the organisation's business, strategy and financial planning and furthermore, disclose the impact of the organisation on the climate.	This makes it clear what the impact of climate-related risks and opportunities could be, and also to what extent the organisation itself is contributing to climate change.
	Business resilience to climate-related risks and opportunities	If applicable, disclose the organisation's commitment to net zero and describe the scenario analysis performed.	This illustrates the organisation's commitment to fighting climate change and also shows its preparedness in considering its resilience under multiple future scenarios.
Risk Management	Risk identification, assessment and management	Describe the process for identifying, assessing and managing climate-related risk and impact. Provide details of the mitigation/management techniques used.	This allows the reader to understand the process behind the disclosures your company has made with regards to strategy and risk. The management techniques enable the reader to understand how the organisation is mitigating the risks it is presented with.
	Engagement with stakeholders	Document engagement with stakeholders beyond the organisation's operations regarding the climate change agenda.	This demonstrates to the reader that a holistic approach is being taken with regards to tackling the issue of climate change, and the extent to which the organisation is looking beyond its own operations.
	Integration with current risk process	Disclose how the climate-related risk (CRR) management process is integrated into the overall risk management process.	This illustrates how the issue of climate risk is now considered an integral part of the overall risk management process.
Metrics and Targets	Disclosing climate-related metrics	Disclose a range of climate and sustainability-related metrics, including GHG emissions.	This will provide the reader with the quantitative detail of the company's impact on the environment and climate, as well as showing how this has changed through time.
	Setting climate-related targets and reporting on performance	Disclose the targets (and related progress) the company uses to manage climate-related risks and opportunities.	This will provide the reader with information on how proactive the company is being with regards to reducing its climate impact, and whether they are set to reach their targets.

Tips to make your reporting more effective

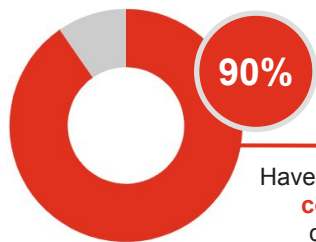
	Basic reporting tips	Intermediate reporting tips	Advanced reporting tips
G	Briefly mention board member climate-related competencies, and state that future training is required.	Outline a more detailed training plan with a timeline and, if applicable, discuss previous training completed	Provide an extensive narrative concerning board member competency in relation to climate change.
	Mention board-level responsibility for climate change and state that it is included as an agenda item in board meetings.	Provide detail on the individual/committee responsible for climate change at board level. Disclose the number and frequency of board meetings with climate change on the agenda, and exemplify how this has affected strategic decisions.	Provide multiple detailed examples of how the assessment of climate-related risks/opportunities have affected strategic decisions at board level.
	Document how climate-related responsibilities have been assigned to executive-level committees or individuals.	Explain the associated organisational structure and how management reports to the board on these matters. Mention that executive remuneration is linked to climate-related objectives.	Provide detailed disclosure on how executive remuneration is linked to climate-related objectives e.g. carbon emissions targets, KPIs, time frames etc.
S	Disclose the physical and transition risks and opportunities and associate them with different time horizons.	Provide a materiality assessment of the risks and opportunities identified and ensure that the associated time frames align with the long-term nature of climate change (i.e. consider time frames >10 years).	Detail the financial impact (i.e. in terms of cost) and align the time horizons considered with the Paris Agreement i.e. 2030 and 2050.
	Identify climate-related impacts and provide a brief discussion over the impact of the organisation on the climate.	Provide a detailed discussion on the impact of the organisation on the climate.	Link the climate-related impacts identified to financial performance indicators e.g. costs, revenue, liabilities, assets.
	Disclose that the organisation has made a net zero commitment.	Explain the detail of the net zero strategy. Disclose the consideration of, and the resilience of the organisation to, one possible scenario.	Disclose the consideration of, and the resilience of the organisation to, at least 2 different scenarios, one being <2 degrees C and one being a stressed scenario.
RM	Disclose how the identification, assessment and management of risks and impacts is conducted for your direct operations. Provide details on how these risks are mitigated.	Ensure that the discussion over identification, assessment and management of risks and impacts covers the entire value chain.	Discuss how addressing the financial impact of climate-related risks and opportunities is built into your impact assessment process. Ensure that the financial impacts of the mitigation methods are captured.
	Provide disclosure of engagement with at least one type of stakeholder.	Show that multiple stakeholders have been engaged with.	Improve the narrative to provide high levels of detail concerning the initiatives which have been disclosed.
	If applicable, disclose the operational linkage of climate-related risk management into the overall risk management process.	Include a narrative explaining how this integration took place.	If applicable, ensure that it is detailed that there is full integration into the overall risk management process, including on a financial level.
M&T	Report predominantly straightforward metrics such as Scope 1 and 2 emissions and those relating to the direct operations of the company.	Increase the sophistication of the metrics reported by providing comparatives, normalised metrics and Scope 3 emissions data.	Incorporate metrics concerning the wider supply chain and provide a financial context, for example, by using cost-related metrics.
	Produce targets accompanied by a qualitative description of progress.	Include targets set over different timeframes, provide quantitative progress and add accompanying analysis.	Ensure that any GHG emissions reduction targets are science-based (and therefore in line with the Paris Agreement). Extend the accompanying narrative.

Overview of analysis

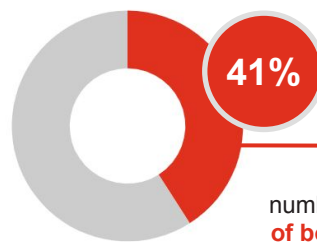
Our analysis of FTSE 350 companies yielded the following statistics across the range of criteria considered by the Climate Change reporting award.

1. Governance

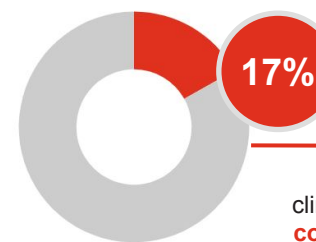
Of the FTSE 350 companies we reviewed:



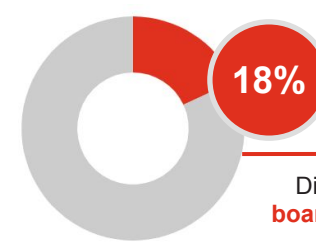
Have a **board-level committee** with climate change oversight



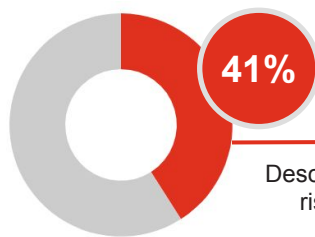
Disclose the number/ **frequency of board meetings** with climate change on the agenda



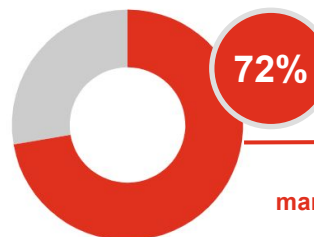
Describe the climate change **competencies** of board members



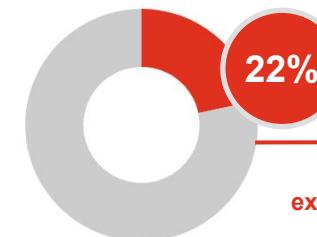
Disclose that **board training** has taken place



Describe how climate risks/opportunities affect **strategic decisions** made at board level



Describe how **management** reports to the board on climate-related responsibilities



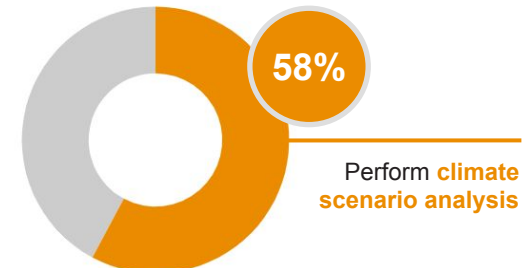
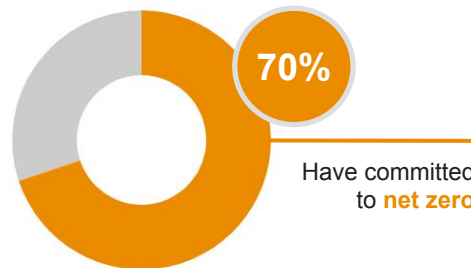
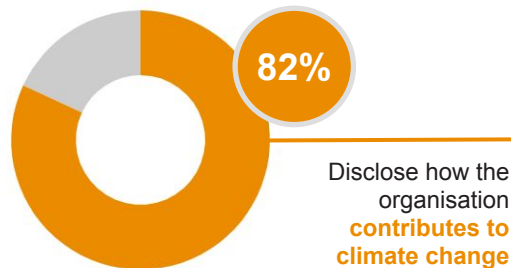
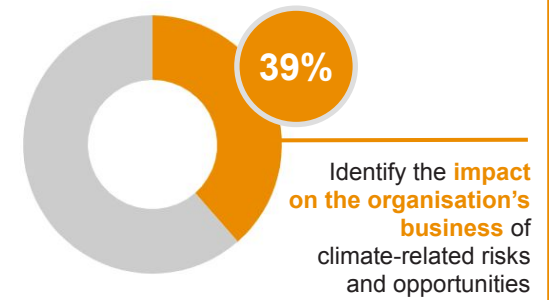
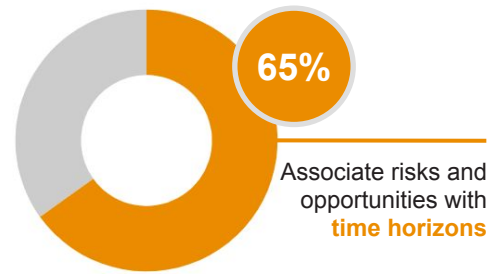
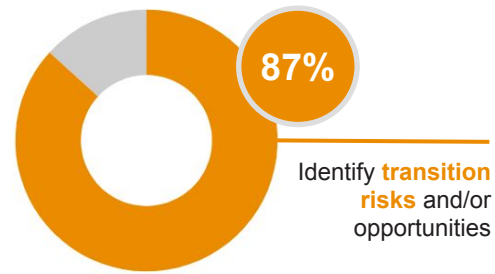
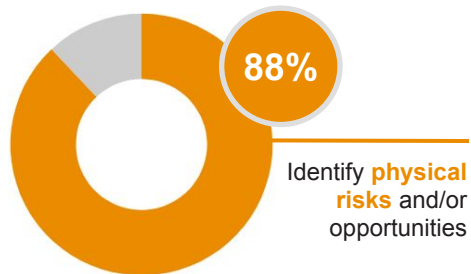
Describe how **executive remuneration** is linked to climate-related objectives

Overview of analysis

Our analysis of FTSE 350 companies yielded the following statistics across the range of criteria considered by the Climate Change reporting award.

2. Strategy

Of the FTSE 350 companies we reviewed:

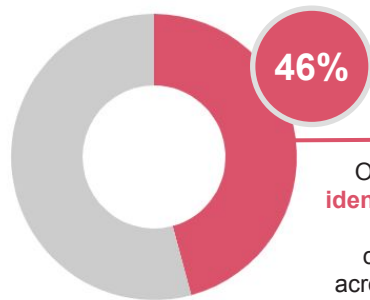


Overview of analysis

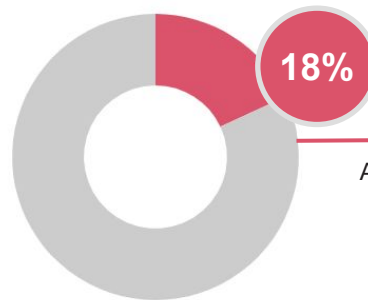
Our analysis of FTSE 350 companies yielded the following statistics across the range of criteria considered by the Climate Change reporting award.

3. Risk Management

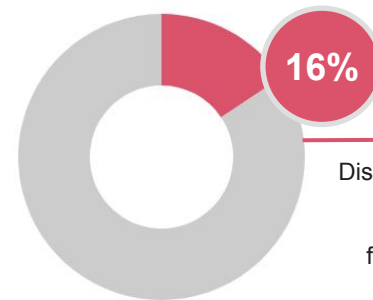
Of the FTSE 350 companies we reviewed:



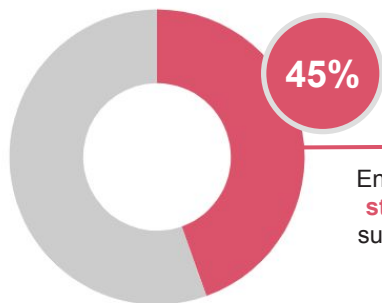
Outline a process for **identifying, assessing and managing** climate-related risks across the entire value chain



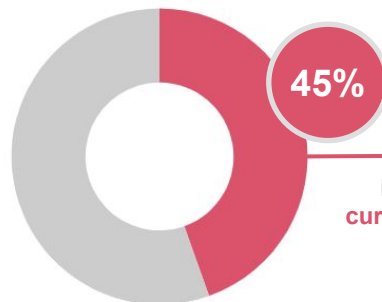
Assess the **financial impact** of climate-related risks



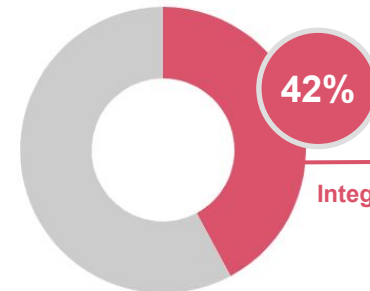
Disclose the process of **mitigation of risks**, linked to financial implications



Engage with **multiple stakeholders** on the subject of climate risk



Identify climate as a **current/emerging risk**



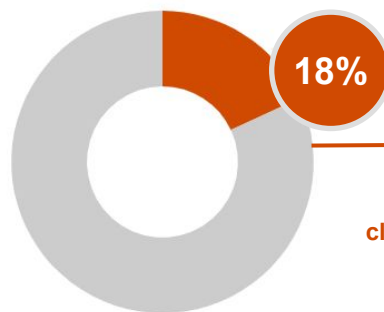
Integrate climate-related risk into the overall risk-management process

Overview of analysis

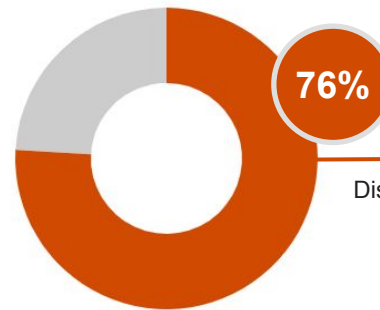
Our analysis of FTSE 350 companies yielded the following statistics across the range of criteria considered by the Climate Change reporting award.

4. Metrics and targets

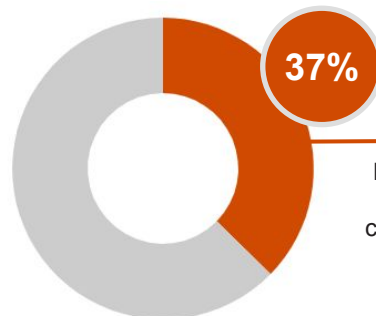
Of the FTSE 350 companies we reviewed:



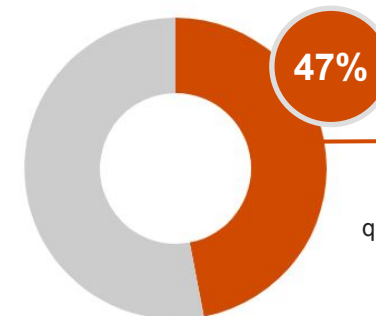
Report sophisticated **non-emission climate-related metrics**, including supply-chain, comparatives, financial metrics



Disclose **scope 1, 2 and 3 emissions**



Disclose science-based **targets** linked to climate-related risks and opportunities



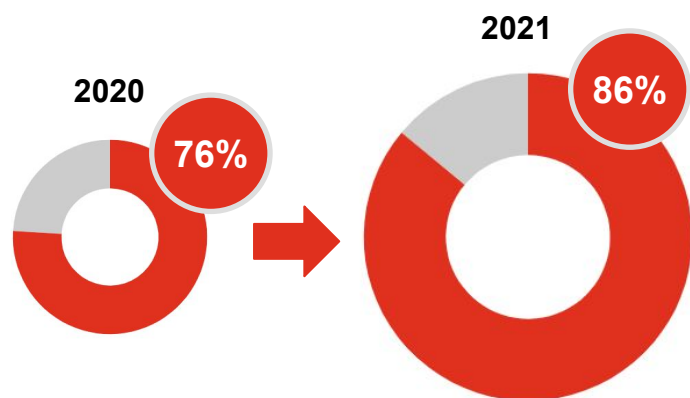
Disclose **performance** against targets using quantitative comparatives

Progression in the FTSE 100

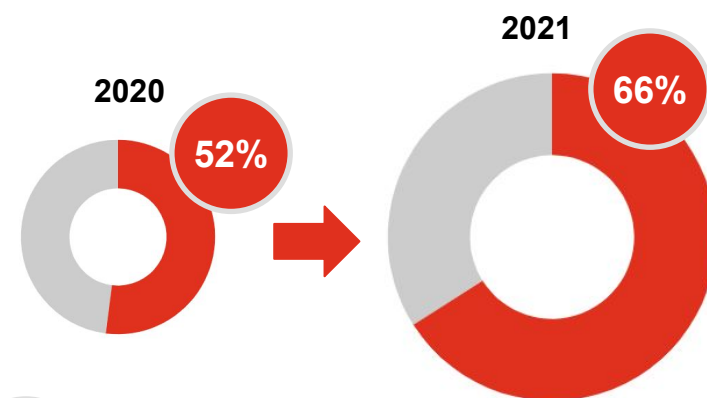
Last year's report looked exclusively at leading FTSE 100 company reporting on climate change. The selection of this year's results below offers a snapshot of how progress is being made in each area of TCFD.

1. Governance

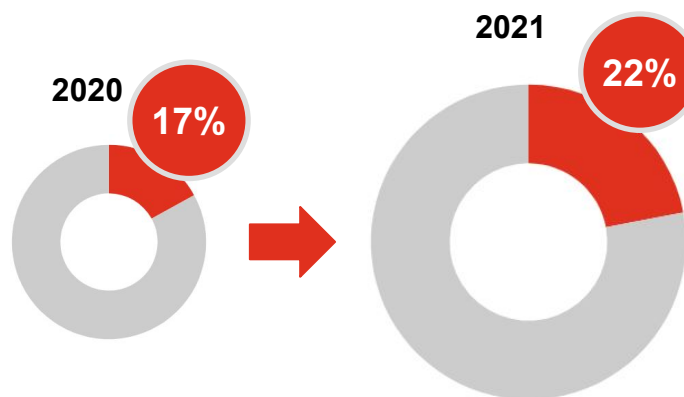
Of the FTSE 100 companies we reviewed:



Have a **board-level committee** with climate change oversight



Describe how **management** reports to the board on climate-related responsibilities



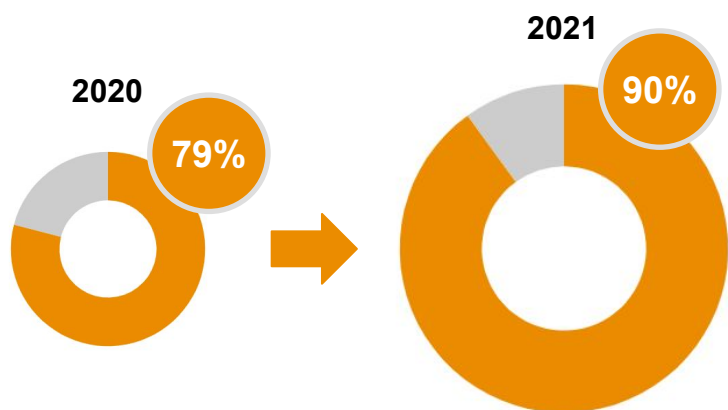
Disclose that **board training** has taken place

Progression in the FTSE 100

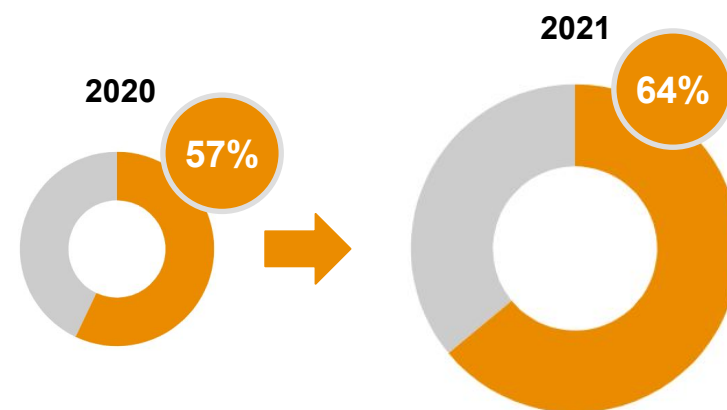
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2. Strategy

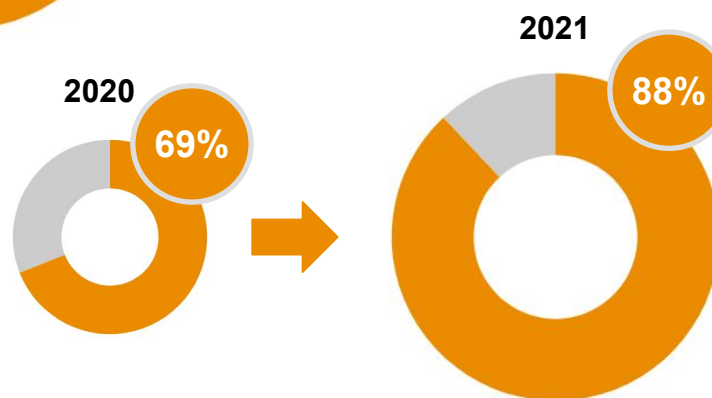
Of the FTSE 100 companies we reviewed:



Identify **physical risks**
and/or opportunities



Perform **climate
scenario analysis**



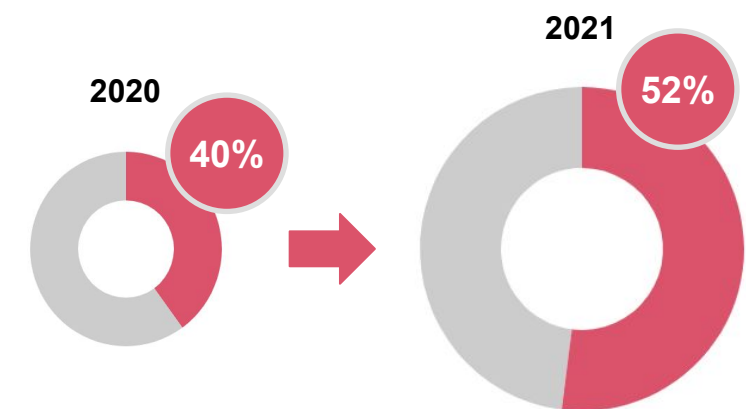
Identify **transition risks**
and/or opportunities

Progression in the FTSE 100

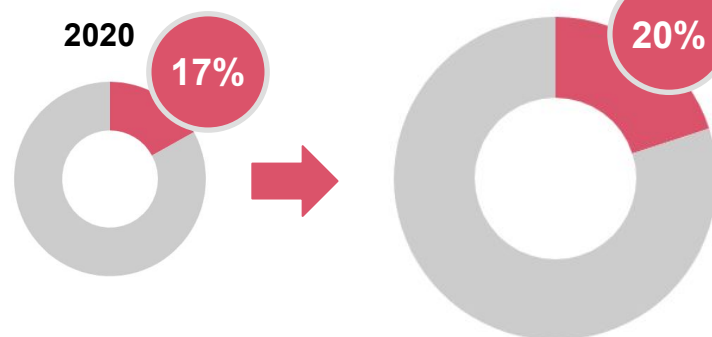
Last year's report looked exclusively at leading FTSE 100 company reporting on climate change. The selection of this year's results below offers a snapshot of how progress is being made in each area of TCFD.

3. Risk Management

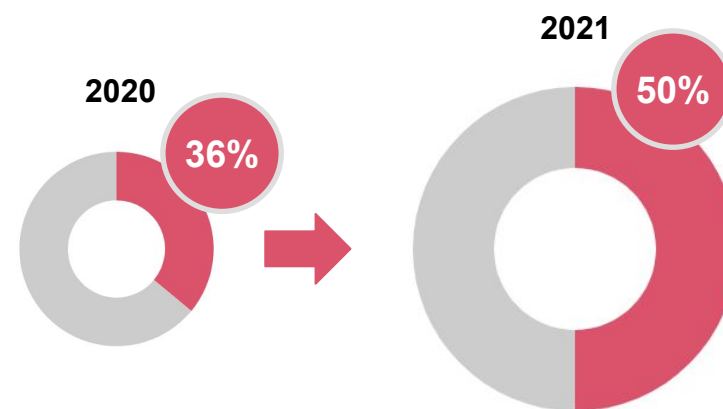
Of the FTSE 100 companies we reviewed:



Outline a process for **identifying, assessing and managing** climate-related risks across the entire value chain



Assess the **financial impact** of climate-related risks



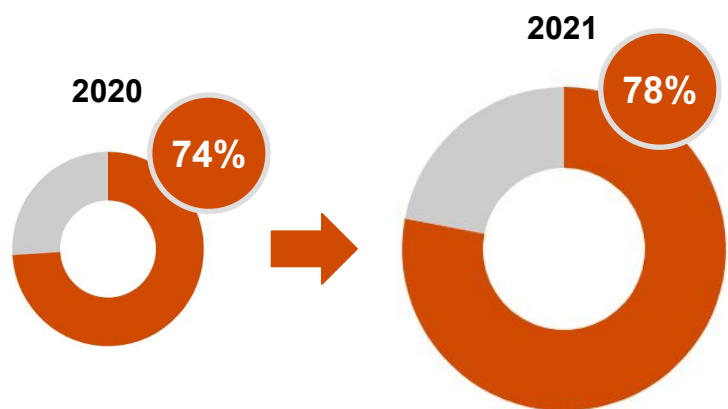
Integrate climate-related risk into the overall risk-management process

Progression in the FTSE 100

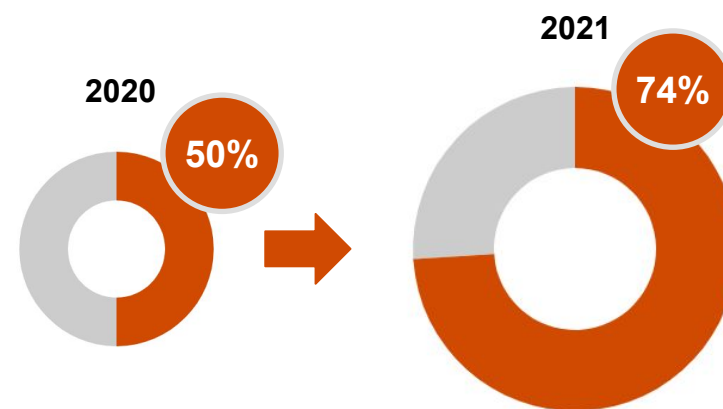
Last year's report looked exclusively at leading FTSE 100 company reporting on climate change. The selection of this year's results below offers a snapshot of how progress is being made in each area of TCFD.

4. Metrics and Targets

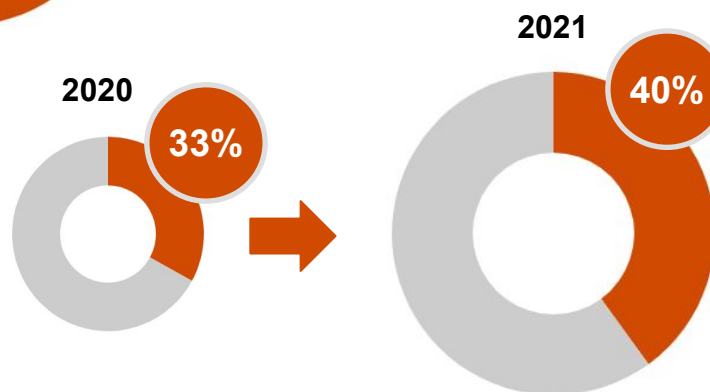
Of the FTSE 100 companies we reviewed:



Disclose **scope 1, 2 and 3 emissions**



Disclose **performance** against targets using quantitative comparatives



Disclose science-based **targets** linked to climate-related risks and opportunities

1

Governance

Key findings from Governance scoring

In 2017, the TCFD recommended that companies disclose the organisation's governance around climate-related risks and opportunities.

Of the FTSE 350 companies that we assessed, the vast majority of companies allocate board-level responsibility for climate change, however less than a fifth reference the climate-related competencies of board members or any plan that training on climate change has taken or will take place. Almost three quarters of companies indicate responsibility for climate change at executive level, but few include details on how remuneration is linked to climate-related objectives.

Board-level knowledge and training



Of the FTSE 350 companies we assessed:

- **17%** described the competencies of one or more board members in relation to climate change
- **Just under a fifth** carried out training for board members on climate change and related issues
- Best performing industry group: **Energy**
- Worst performing industry group: **Transportation**

Board oversight on climate change



Of the FTSE 350 companies we assessed:

- Almost **90%** mentioned a board-level committee with climate change oversight
- **41%** disclosed the frequency of board meetings where climate change is on the agenda
- **Over two fifths** give multiple examples of how climate-related risks and opportunities affect strategic decisions made at board level
- Best performing industry group: **Energy**
- Worst performing industry group: **Agriculture, Food, and Forest Products (including FMCG)**

Management oversight on climate change



Of the FTSE 350 companies we assessed:

- **Almost three quarters** described management's climate-related responsibilities and how management reports to the board
- **22%** mentioned executive remuneration linked to climate-related objectives
- Best performing industry group: **Agriculture, Food, and Forest Products (including FMCG)**
- Worst performing industry group: **Materials and Buildings**

Board-level knowledge and training

Provide details of the current competencies of board members in relation to climate change, and any past or future training on the subject matter.

This allows the reader to understand the level of climate-related expertise at board level, as well as the proactiveness of the board to upskill themselves.

Tips to make your reporting more effective:

Basic

Briefly mention board member climate-related competencies, and state that future training is required.

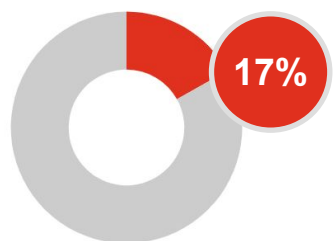
Intermediate

Outline a more detailed training plan with a timeline and, if applicable, discuss previous training completed.

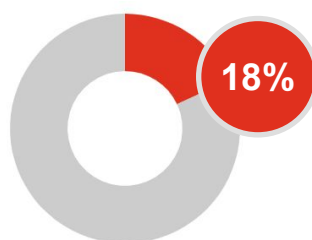
Advanced

Provide an extensive narrative concerning board member competency and training in relation to climate change.

Of the FTSE 350 companies we reviewed:



Describe the climate change **competencies** of board members



Disclose that **board training** has taken place



Standard Chartered has disclosed that the Group Board has received dedicated training sessions, with one-to-one training for the Chairman. Similarly the Boards of the Group's subsidiaries have received specific training on climate risk.

Standard Chartered TCFD Report 2020, pg. 10

Training and awareness building

Ensuring robust understanding of climate-related risks and opportunities is crucial for employees at all levels of the organisation.

As a new risk type, skills and expertise in managing climate-related risk and opportunity across the industry are in the early stages. We are committed to rapidly developing the necessary expertise with support from external partners and subject matter experts.

The Group Board received initial dedicated training on climate risk in 2019 and the Chairman has undergone one-to-one training. During 2020, the Boards of the Group's subsidiaries across Asia, Africa and the Middle East were provided with in-depth, targeted training on topics including climate risk, sustainability strategy, sustainability regulation and environmental and social risk management, delivered by internal subject matter experts. Several MT members have also completed the Climate Risk Foundation course, developed and delivered with Imperial College London.

"Really well assembled course – that has tremendous impact for a key leg of CCIB's strategy."

Simon Cooper
CEO, CIB and CB, Europe & Americas

Board Skills Matrix									
Topics	Kevin Beeston	James Bowling	John Coghlan	Olivia Garfield	Christine Hodgson	Sharmila Nebhrajani	Dominique Reiniche	Philip Remnant	Angela Strank
Strategy	●	●	●	●	●	●	●	●	●
M&A	●	●	●	●	●	●	●	●	●
Corporate finance/Treasury	●	●	●	●	●	●	●	●	●
Accounting	●	●	●	●	●	●	●	●	●
Regulation	●	●	●	●	●	●	●	●	●
Technology/ Innovation/Cyber	●	●	●	●	●	●	●	●	●
Customer	●	●	●	●	●	●	●	●	●
Brands	●	●	●	●	●	●	●	●	●
Engineering	●	●	●	●	●	●	●	●	●
Utility sector	●	●	●	●	●	●	●	●	●
Science	●	●	●	●	●	●	●	●	●
Sustainability, including climate change	●	●	●	●	●	●	●	●	●
People management	●	●	●	●	●	●	●	●	●
Commercial procurement	●	●	●	●	●	●	●	●	●
Construction/ Infrastructure delivery	●	●	●	●	●	●	●	●	●
Large capital programmes	●	●	●	●	●	●	●	●	●
Political affairs	●	●	●	●	●	●	●	●	●



Severn Trent provide a comprehensive skills matrix for all of its board members, which includes climate change expertise.

Board oversight on climate change

Document the governance structure regarding board-level responsibility for climate change. If relevant, disclose that climate change is on the agenda at board meetings and examples are provided for how climate-related risks/opportunities have affected strategic decisions.

This enables the reader to understand how climate change is being considered at board level, and by whom, showing them how it affects strategic decision making.

Tips to make your reporting more effective:

Basic

Mention board-level responsibility for climate change and state that it is included as an agenda item in board meetings.

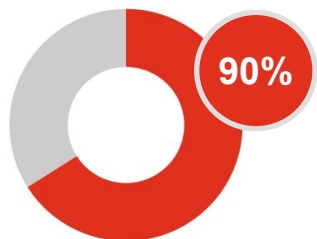
Intermediate

Provide detail on those responsible for climate change at board level. Disclose the number and frequency of board meetings with climate change on the agenda, and exemplify how this has affected strategic decisions.

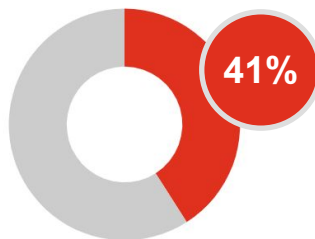
Advanced

Provide detailed examples of how the assessment of climate-related risks/opportunities have affected strategic decisions at board level.

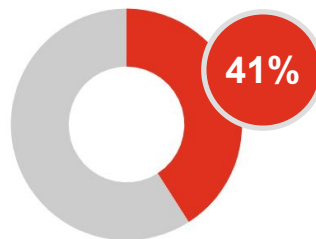
Of the FTSE 350 companies we reviewed:



Have a **board-level committee** with climate change oversight



Disclose the number/**frequency of board meetings** with climate change on the agenda



Describe how climate risks/opportunities affect **strategic decisions** made at board level



We liked how Tullow Oil disclosed the recognition by the Board of climate change as a strategic risk, along with tangible examples of decision-making as a result e.g. Tullow's decarbonisation plans, emission reduction targets, and carbon offset approach.

Board

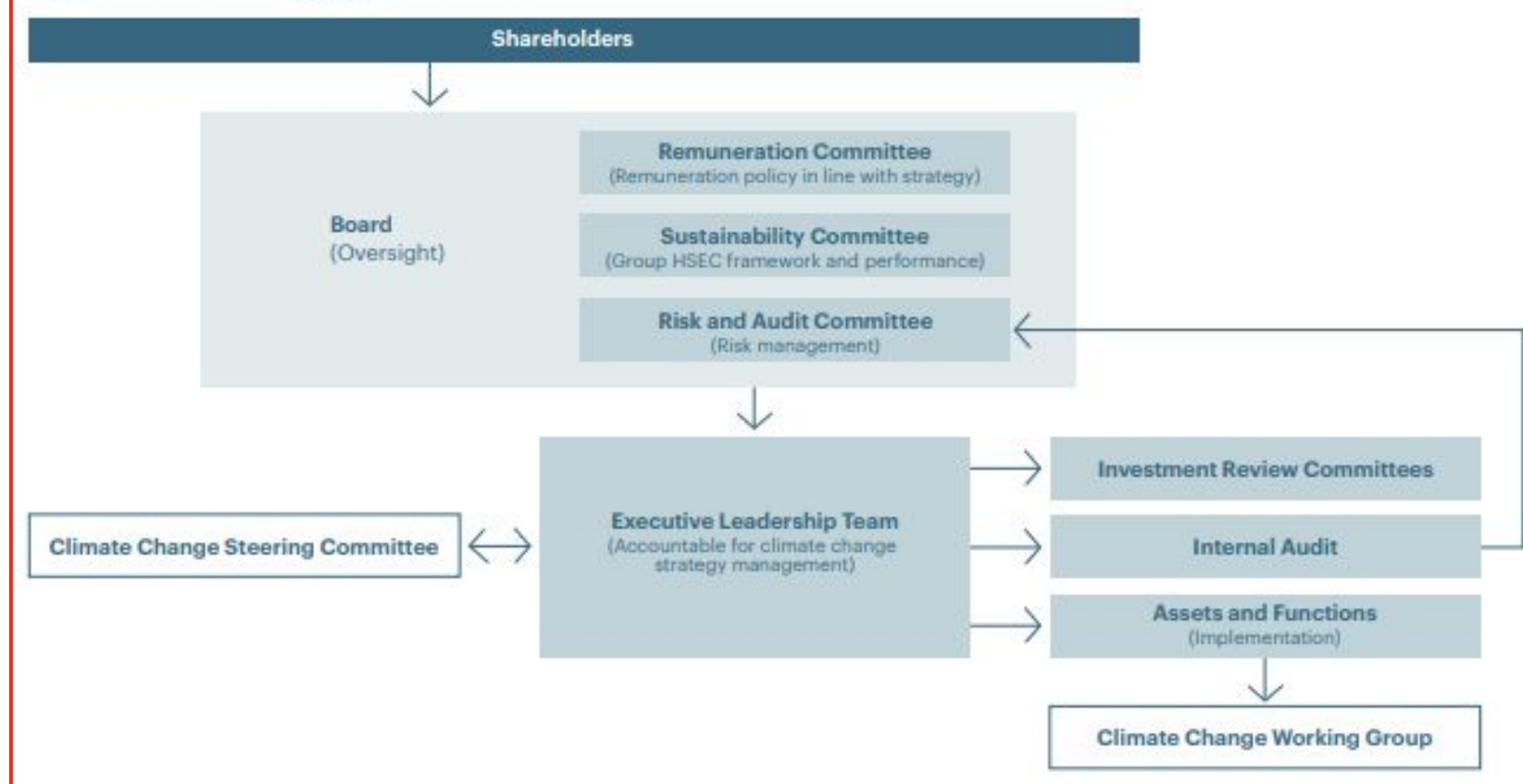
The Board oversaw the development of Tullow's decarbonisation plans and carbon offset approach and provided final sign off. The Board has delegated the duty of overseeing the ongoing plans to embed the decarbonisation initiatives and execution of the carbon offset strategy to the Safety and Sustainability Committee.

Tullow Oil Climate Risk & Resilience Report 2020, pg. 3 - 4

The Board recognises that climate change and the decarbonisation of the global economy represent fundamental strategic risks to Tullow. Climate-related risks have been designated as an enterprise level risk and a distinct principal risk category, with the Board as a whole assuming direct responsibility for overseeing the identification and assessment of, and response to, these risks.

from shifts in investor sentiment towards the oil and gas sector, related to climate change. The Board will agree Tullow's carbon management and performance, including targets for emissions reductions. In addition, the Board will receive updates relating to host governments' Nationally Disclosed Contributions in support of the Paris Agreement.

Figure 1. Climate change governance at BHP



“BHP clearly illustrates the role of the Board and management in the governance of climate change at the company. Multiple committees are identified that report to senior staff on the issue, including the Climate Change Steering Committee, Climate Change Working Group, and Sustainability Committee.

Management oversight on climate change

Explain the responsibility for climate change at executive level and if applicable, disclose that executive remuneration is linked to climate-related objectives.

This enables the reader to understand how and by whom climate change is considered at an executive level and demonstrates to them how seriously the issue is being taken by linking climate-related objectives to executive remuneration.

Tips to make your reporting more effective:

Basic

Document how climate-related responsibilities have been assigned to executive-level committees or individuals.

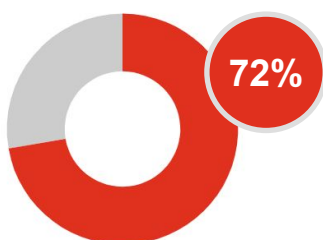
Intermediate

Explain the organisational structure and how management reports to the board on these matters. Mention that executive remuneration is linked to climate-related objectives.

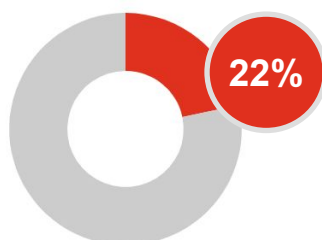
Advanced

Provide detailed disclosure on how executive remuneration is linked to climate-related objectives e.g. carbon emissions targets, KPIs, time frames etc.

Of the FTSE 350 companies we reviewed:



Describe how **management** reports to the board on climate-related responsibilities



Describe how **executive remuneration** is linked to climate-related objectives



We liked how Smurfit Kappa disclosed the weighting given climate metrics, specifically carbon reduction targets, in their incentive framework.

Smurfit Kappa Annual Report 2020, pg. 77

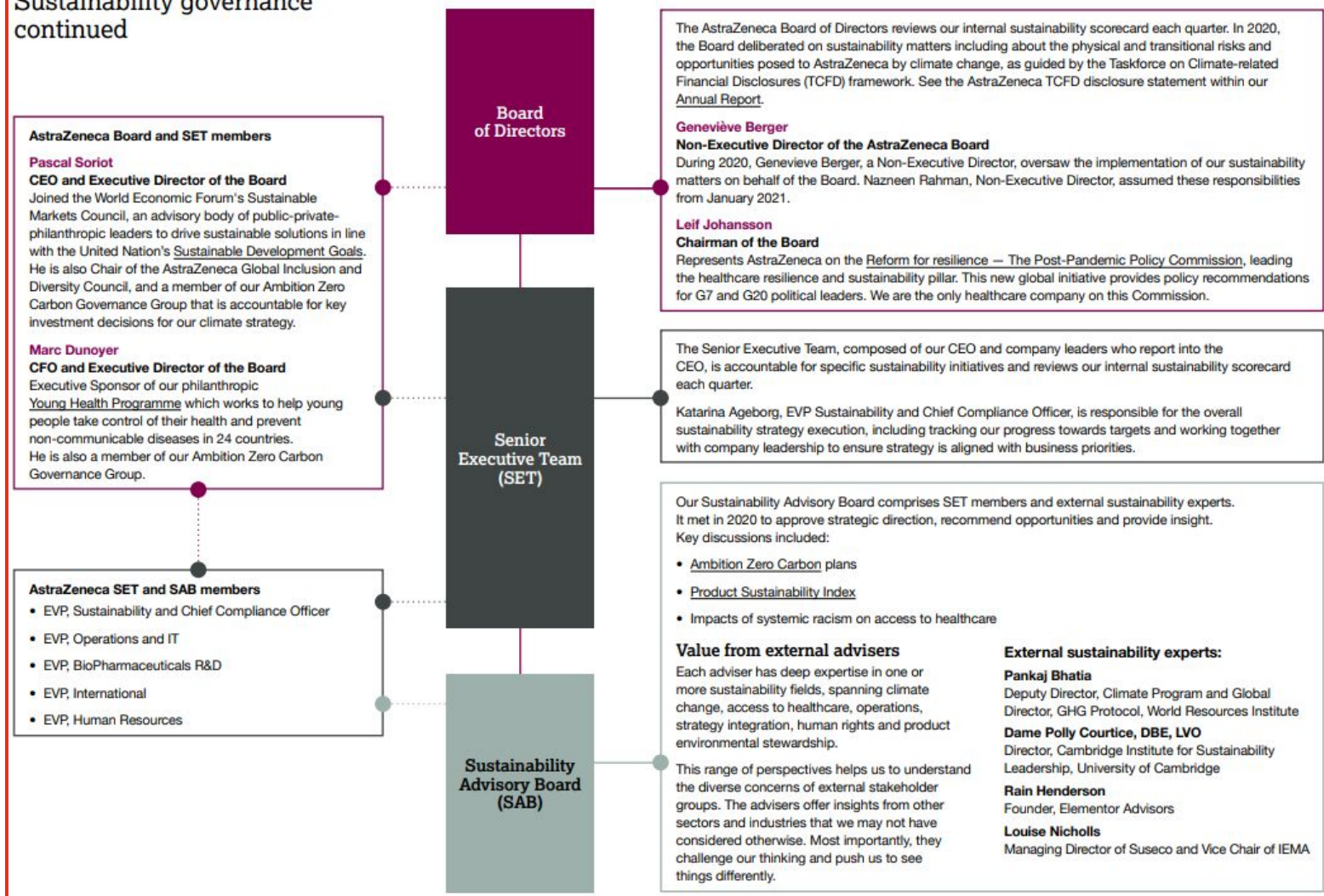
Link to Sustainability

Under the current approach, the incentive arrangements for the executives are primarily focused on financial metrics (Earnings before Interest and Tax ('EBIT'), ROCE and Free Cash Flow for the annual bonus and EPS, ROCE and Total Shareholder Return ('TSR') for the LTIP).

As a business, however, in addition to the above, we have always seen the environment, the personal development of employees and our respect for local communities and the environment as being inseparable from our goal of creating value for our shareholders. With the events of 2020 demonstrating the ever increasing importance of maintaining this focus, the Remuneration Committee has agreed that metrics linked to the key strategic sustainability and corporate social responsibility pillars: 'People', 'Planet', and 'Impactful Business' should be embedded within the remuneration framework.

Key Pillar	Inclusion Within the Incentive Framework	Key Metrics for Measurement
People	Annual bonus – initial weighting of 10% <i>Included in annual bonus as it allows targeted actions to be taken and rewarded over the short to medium-term.</i>	<ul style="list-style-type: none"> • People development/ leadership • Employee engagement • Inclusion and Diversity • Ethics – Speak Up <i>Metrics to be reviewed annually</i>
Planet	PSP – initial weighting of 15% (may be increased over time) <i>Included within the long-term incentive plan as it recognises that this is a long-term commitment.</i>	<i>Equally weighted, metrics measured over three years:</i> <ul style="list-style-type: none"> • Water reduction • CO₂ reduction • Waste reduction
Impactful Business	Currently captured in multi-faceted way through personal/strategic goals in the annual incentive and ultimately financial performance metrics – therefore no changes proposed.	

Sustainability governance continued



Incentivising environmental, social and governance delivery

As reflected in our 2019 Directors' Remuneration Report, AstraZeneca recognises the importance of ESG factors in operating a sustainable business and has made a number of clear commitments in this area. I am delighted to confirm that, from 2021, a metric focusing on the delivery of our Ambition Zero Carbon commitments will be included in our executive incentive arrangements for the PSP, to underline the importance we place on eliminating our Scope 1 and Scope 2 greenhouse gas emissions by 2025. Targets and assessment of performance against this metric will be determined in line with the World Resources Institute/World Business Council for Sustainable Development GHG Protocol methodology for accounting and reporting of our emissions footprint. In selecting this metric, the Committee considered a range of alternatives, covering Environmental Protection, Access to Healthcare, and Ethics and Transparency, the three pillars of AstraZeneca's sustainability strategy. As set out on pages 141 and 142, the full breadth of achievements in relation to ESG performance is taken into account when considering the individual performance of Executive Directors for bonus purposes.

“ We liked how AstraZeneca visually demonstrate responsibility for climate change at an executive level through the Senior Executive Team (SET) and also show how this links in with the Board. AstraZeneca also report on the inclusion of metrics related to their 'Ambition Zero Carbon' in executive remuneration.

2

Strategy

Key findings from strategy scoring

In 2017, the TCFD recommended that companies disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.

Of the FTSE 350 companies that we assessed, the vast majority identified multiple material climate-related risks and opportunities and categorised them as physical and transition risk-related. Most companies aligned these risks and opportunities with time horizons associated with global climate goals however few linked them to quantified financial impacts.

Identification of material risks and opportunities



Of the FTSE 350 companies we assessed:

- Slightly more companies identified **physical risks** than identified **transition risks**
- Almost **two thirds** of companies are associating risk and opportunities with different **time horizons**
- Best performing industry group – **Financial Services**
- Worst performing industry group – **Agriculture, Food, and Forest Products (including FMCG)**

Disclosure of impacts on and by the business



Of the FTSE 350 companies we assessed:

- **Nearly 40%** of companies link climate impacts to financial performance in some way
- **82%** of companies discussed the impact of the organisation on the climate
- Best performing industry group – **Agriculture, Food, and Forest Products (including FMCG)**
- Worst performing industry group – **Materials and Buildings**

Business resilience to climate-related risks and opportunities



Of the FTSE 350 companies we assessed

- **70%** have disclosed commitments to reaching net zero
- **Over half** have performed scenario analysis and described the resilience of strategy in each scenario
- Best performing industry group – **Energy**
- Worst performing industry group – **Transportation**

Identification of material risks and opportunities

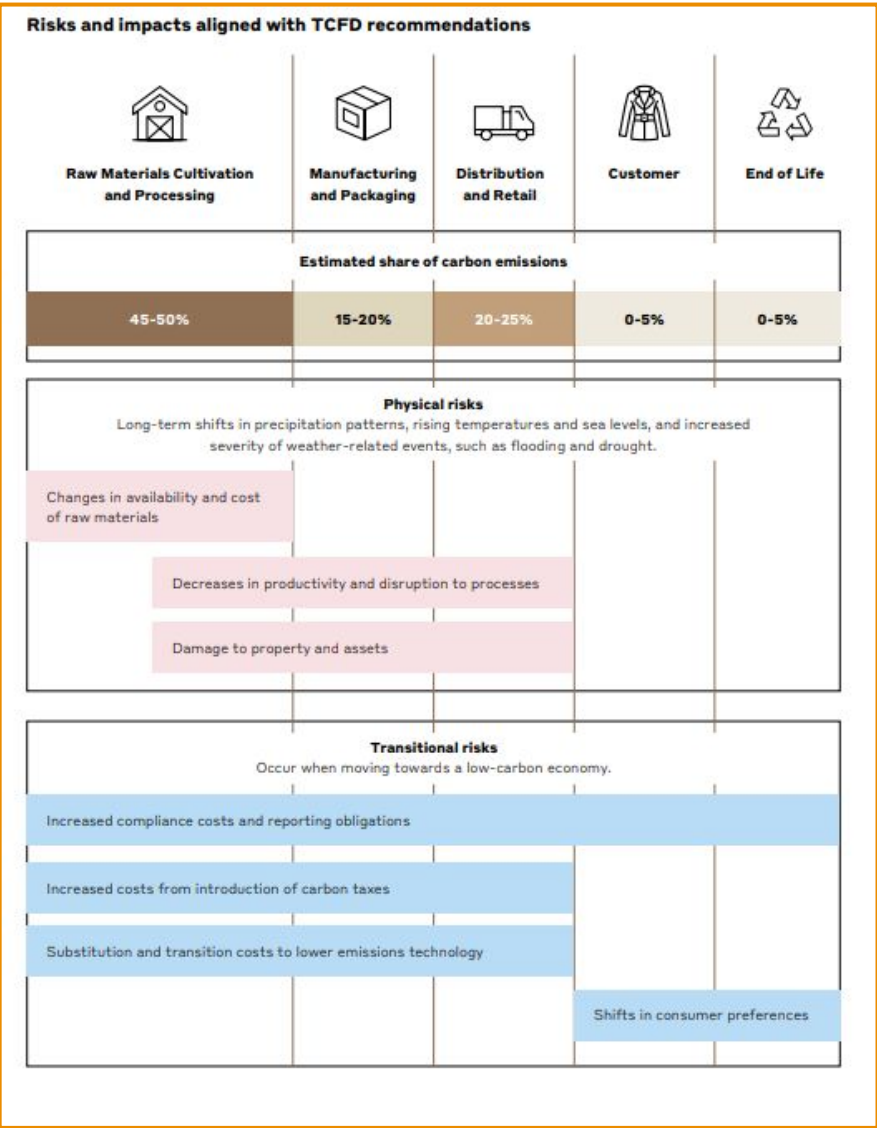
Identify and disclose physical and transitional risks and opportunities, and do so with an associated time horizon.

This provides detail on the specific impacts of climate change on your business and contextualises them in the short, medium and long-term.

Tips to make your reporting more effective:

Basic	Intermediate	Advanced
<p>Disclose physical and transition risks and opportunities and associate them with different time horizons.</p>	<p>Provide a materiality assessment of the risks and opportunities identified and ensure that the associated time frames align with the long-term nature of climate change (i.e. consider time frames >10 years).</p>	<p>Detail the financial impact (i.e. in terms of cost) and align the time horizons considered with the Paris Agreement i.e. 2030 and 2050.</p>

Of the FTSE 350 companies we reviewed:



“ Burberry identified multiple physical and transition-related risks, contextualising them throughout their value chain and with an estimated share of carbon emissions for each stage.

Significance and relevance
of climate-impact

No	VL	L	M	H	VH

Risk/ Opportunity area	Risk/Opportunity sub areas	Operations	Business Functions			
			Information services	Post Trade services LCH	Capital markets	Technology services
Transition	Policy and legal risk	M 1	M	L	H 5	L
	Market and economy risk	VL	M 3	L	M 3	L
	Technology risk	M 1	L	L	L	L
	Reputational risk	VL	M 6	M 6	M 6	M 6
Physical	Acute physical risk	H 2	VL	L	VL	VL
	Chronic physical risk	M 2	VL	L	VL	VL
Opportunity	Resource efficiency	M	VL	L	VL	VL
	Energy efficiency	M	VL	L	VL	VL
	Product and service efficiency	No	H 4	L	H 4	L
	Market opportunity	No	L	L	M 7	L

1 Medium transition risk to the operations of the business with stronger carbon regulations and greater technology risk such as energy efficiency measures.

2 Physical risk is most material at an operational level but will have knock-on impacts for each of the business functions.

3 Medium market risks to capital markets and information services given trends towards a greater climate focused risk or investors switching benchmark if LSEG doesn't have the capability or ambition to include a climate aspect on the benchmark.

4 The most material opportunities exist within information services where there are opportunities to develop low carbon indexes and capital markets business units where there are opportunities to promote green products.

5 High regulatory risk to capital markets as greater disclose requirements may discourage companies from listing altogether.

6 Reputational risk is relevant at a Group level and therefore impacts all business units.

7 Market opportunities to capitalise on new structure of business within the economy.

“

LSEG identifies multiple physical and transition-related risks and opportunities, and ranks them on their significance and relevance to the business. Financial impacts of climate risk are quantified with values for the annual expected costs to operations disclosed.

Findings of Quantification Modelling Exercise:

Building on the Climate risk scenario analysis and heatmap validation work, the Group developed preliminary quantification models to facilitate the risk assessment of climate-related risks. The two models developed cover Physical Risks for Operations and Transition Risks for one of the Group's business units. The Operations model has focused on three main pathways:

- the impact of climate events on our operations and resultant foregone revenue,
- the business disruption and repair costs for uninsurable buildings and equipment,
- the rising insurance costs

The associated preliminary output of the quantification of the financial risk for our Operations ranges between the probable values of £395,000 and £690,000 of likelihood-weighted annual costs over the next 10 to 30 years.

We will use and further expand the new Climate Change Physical Risk quantification model to inform Operations' future strategic decisions and footprint planification. Further, we plan to build on the Climate Change Transition Risk quantification model and apply it to other Business Units as well as to the overall Group.

Disclosure of impacts on and by the business

Identify the impacts of climate-related risks and opportunities on the organisation's business, strategy and financial planning and furthermore, disclose the impact of the organisation on the climate.

This makes it clear what the impact of climate-related risks and opportunities could be, and also to what extent the organisation itself is contributing to climate change.

Tips to make your reporting more effective:

Basic

Identify climate-related impacts and provide a brief discussion on the impact of the organisation on the climate

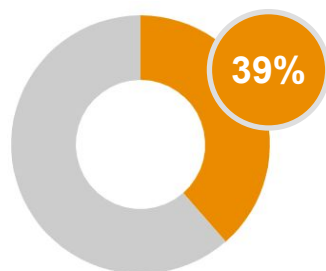
Intermediate

Provide a detailed discussion on the impact of the organisation on the climate.

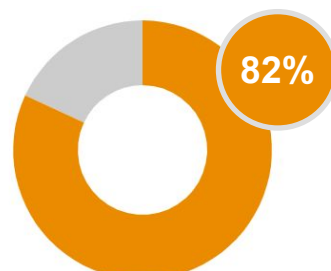
Advanced

Link the climate-related impacts identified to financial performance indicators e.g. costs, revenue, liabilities, assets.

Of the FTSE 350 companies we reviewed:



Identify the **impact on the organisation's business** of climate-related risks and opportunities



Disclose the **impact on the climate** of the organisation

Lloyds Banking Group Annual Report 2020, pg. 23

Table 1. Lending¹ to customers in sectors at increased risk from the impacts of climate change

		Lending to Commercial Banking customers (£m) ²		% of total Group loans & advances to customers ³	
		Dec 2020	Dec 2019	Dec 2020	Dec 2019
Commercial Banking sector⁴					
Energy use in buildings	Real estate (inc housing associations)	25,426	27,124	5.04%	5.44%
Agriculture	Agriculture, forestry & fishing ⁵	7,464	7,219	1.48%	1.45%
Transport	Passenger transport	1,135	1,120	0.22%	0.22%
	Industrial transport	1,374	1,674	0.27%	0.34%
	Automotives ⁶	1,485	1,272	0.29%	0.26%
Energy use in industry	Housebuilders	870	1,168	0.17%	0.23%
	Construction ⁷	1,210	1,179	0.24%	0.24%
	Cement, construction materials, chemicals & steel manufacture	317	391	0.06%	0.08%
	General manufacturing	1,301	1,285	0.26%	0.26%
Energy supply	Food manufacturing and wholesalers	1,312	1,844	0.26%	0.37%
	Oil & Gas ⁸	1,099	1,393	0.22%	0.28%
	Utilities	1,638	1,779	0.32%	0.36%
	Coal mining	8	21	0.002%	0.004%
Total		44,639	47,469	8.85%	9.53%
		Loans & advances to customers (£m)		% of total Group loans & advances to customers ³	
		Dec 2020	Dec 2019	Dec 2020	Dec 2019
Retail division areas⁹					
UK Mortgages		294,806	289,198	58.42%	58.04%
UK Motor Finance		15,201	15,976	3.01%	3.21%
Total		310,007	305,174	61.44%	61.25%

1. Commercial Banking and Retail divisions only. Excludes Insurance and Wealth division.
2. Commercial Banking division only, excludes Commercial Finance. Drawn lending is gross of significant risk transfers. Excludes Business Banking lending, which sits within Retail division. 2019 restated on a consistent basis with 2020.
3. Percentages calculated using total Group loans and advances to customers on a statutory basis, before allowance for impairment losses (£504,603 million at 31 December 2020 and £498,247 million at 31 December 2019 - see page 316).
4. Commercial lending classified using ONS SIC codes at legal entity level.
5. Agriculture lending includes Agricultural Mortgage Corporation (AMC) based on loans and advances to customers £4,186 million (2019: £3,998 million).
6. Includes Automotive manufacture, retail & wholesale trade, rentals and parts but excludes finance captives and securitisations.
7. Construction excludes 41100 Development of building projects (included within Real Estate) and 41202 Construction of domestic buildings (reported separately as Housebuilders).
8. Excludes Commodity Traders.
9. Based on loans and advances to customers within Retail Division.



We liked how Lloyds Banking Group details its exposure across various sectors vulnerable to the impacts of climate change, including Agriculture, Transport, Oil & Gas and Coal mining.

Rio Tinto Climate Change Report 2020, pg. 23 - 27

2020 Scope 1 & 2 emissions by operations (equity basis)

Total 31.5Mt CO₂e



Iron Ore: 10%.

Emissions from our iron ore Pilbara operations are mostly related to the natural gas used to generate power for the mines and processing plants, and from the diesel consumed by our mining and rail fleet.

Copper & Diamonds: 9%.

Diesel for trucks and electricity are the main sources of emissions in our copper business. Our Kennecott copper mine in the US purchases renewable electricity certificates, and Escondido in Chile is starting to transition to renewable power in 2021. The Oyu Tolgoi mine in Mongolia is currently supplied by coal-fired power from China.

Energy & Minerals: 11%.

Our titanium dioxide business is energy intensive and sources hydropower in Canada but relies on coal-fired power at Richards Bay Minerals in South Africa. The titanium smelting process also consumes carbon electrodes and heat for the furnace at Iron Ore Company of Canada (IOC) is produced from fossil fuels.

Aluminium (Atlantic): 17%.

Even when supplied with 100% renewable power, the aluminium smelting process produces emissions from the use and degradation of carbon anodes.

Bauxite & Alumina: 20%.

The two main sources of emissions in the alumina refining process are from the coal and natural gas used for heat and calcination.

Aluminium (Pacific): 32%.

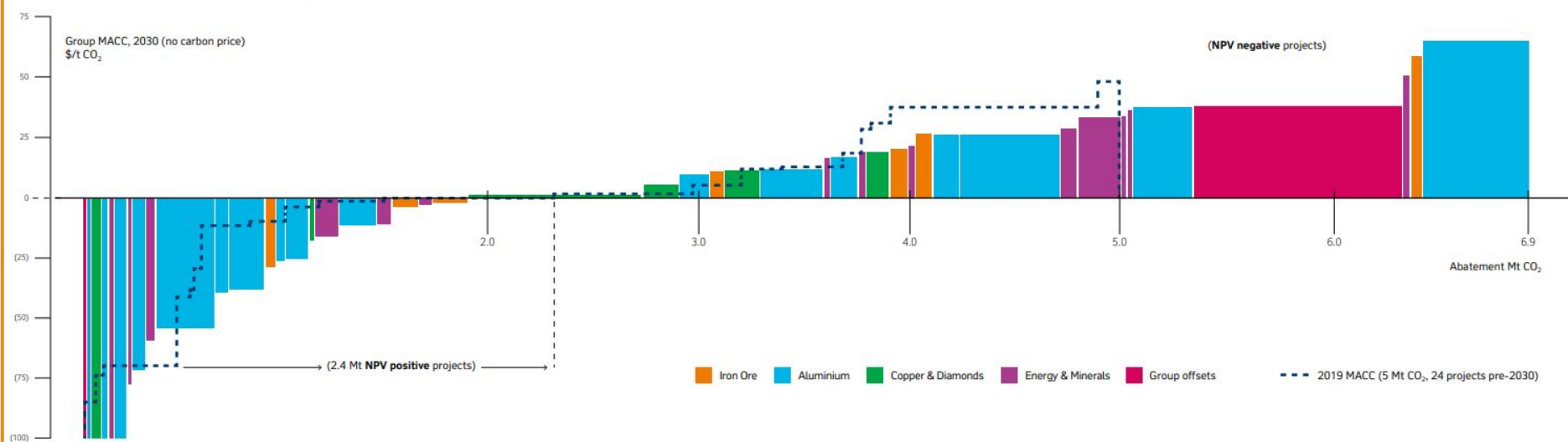
In addition to the process emissions from the degradation of carbon anodes, the Boyne and Tomago aluminium smelters in Australia are both supplied by coal-fired power generators.



Throughout the reporting of Rio Tinto there is a focus on climate-related impacts on the business and conversely, Rio Tinto's contribution to climate change. We liked the inclusion of a Marginal Abatement Cost (MAC) for reaching the company's 2030 climate targets.

Largely because of the high energy intensity of the aluminium business, our consumption of electricity is about four times that of other global diversified mining majors. However, our share of renewables – 75% across our managed operations – is more than eight times that of our peers. Given the progress already made to decarbonise the electricity we use, a large share of our emissions can be described as 'hard to abate'. This includes emissions from our use of diesel in our mining and rail fleet, the combustion of anodes and reductants in aluminium smelters and titanium dioxide furnaces and the burning of fossil fuels to generate the steam and heat required in processing plants such as our alumina refineries.

Group Marginal Abatement Cost Curve to Deliver our 2030 Emissions Reduction Targets



Business resilience to climate-related risks and opportunities

If applicable, disclose the organisation's commitment to net zero and describe the scenario analysis performed.

This illustrates the organisation's commitment to fighting climate change and also shows its preparedness in considering its resilience under multiple future scenarios.

Tips to make your reporting more effective:

Basic

Disclose that the organisation has made a net zero commitment.

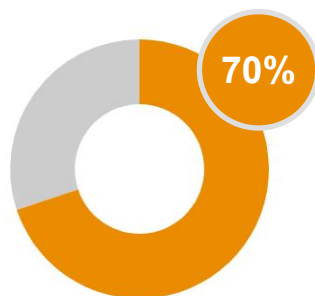
Intermediate

Explain the detail of the net zero strategy. Disclose the consideration of, and the resilience of the organisation to, one possible scenario.

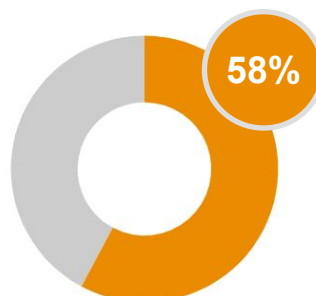
Advanced

Disclose the consideration of, and the resilience of the organisation to, at least 2 different scenarios, one being <2 degrees C and one being a stressed scenario.

Of the FTSE 350 companies we reviewed:



Have committed to **net zero**



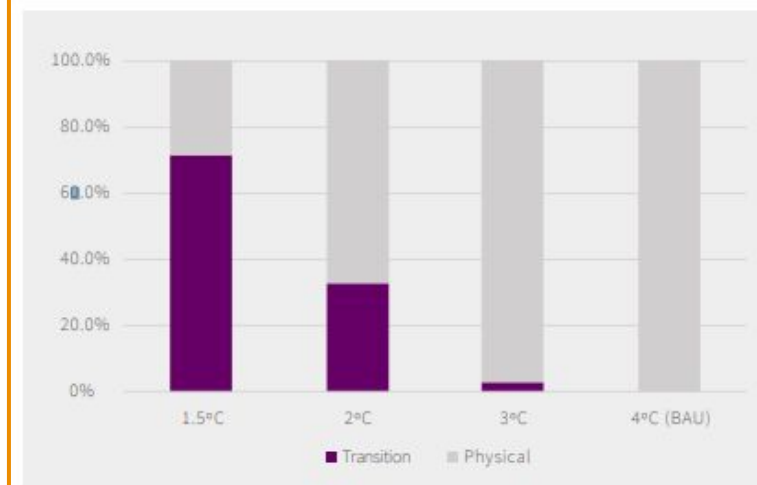
Perform **climate scenario analysis**



Scenario analysis has been carried out by Aviva on 4 scenarios (1.5°C, 2°C, 3°C and 4°C), and a detailed quantitative portfolio assessment has been disclosed. Details are provided on the development of Aviva's Climate VaR metric, which has been used to assess the resilience of the business and strategy for chosen scenarios.

Aviva TCFD Report 2020 pg. 20 - 22

Figure 15: Transition versus physical risks by scenario for Aviva's shareholder funds (credit, equities and real estate) as at 31/12/2020. Source: Aviva



Aviva's Climate VaR measure

Climate-related risks and opportunities have the potential to affect insurers' balance sheets as well as the long-term business model. Traditional approaches based largely on backward looking analysis may need to be refined or enhanced to capture these risks going forward. In order to address this challenge, Aviva has developed a Climate VaR measure, in conjunction with the UNEP FI investor pilot project and Carbon Delta³³ as well as Elseware³⁴ to assess the resilience of our business and strategy to different climate scenarios. This measure enables the potential business impacts of future climate-related risks and opportunities to be assessed in different IPCC scenarios and in aggregate (see Appendix for more details of our Climate VaR methodology and MSCI model) as well as providing an indication of the resilience of our strategy.

To support this initiative, an inter-disciplinary team has been created with representation from across the business and an expert panel has been set-up to review and challenge the main assumptions made in the selection, development and modelling of the scenarios.

No single pathway can define how individual economies and the world will transition. These scenarios describe a range of potential outcomes dependent on the rate at which transition policies are implemented. We use each of these scenarios to test the resilience of our portfolio.

Three scenarios:

Scenario 1

Current Pathway:
Adopting the IEA's Stated Energy Policies Scenario (STEPS), which the IEA describes, "STEPS is designed to take a detailed and dispassionate look at the policies that are either in place or announced in different parts of the energy sector. It takes into account long-term energy and climate targets only to the extent that they are backed up by specific policies and measures." The Current Pathway has been assessed as being consistent with global temperatures rising on average

Scenario 2

Rapid Transition:
Adopting the IEA's Sustainable Development Scenario (SDS). The SDS is based on the same economic outlook as STEPS but works backwards from climate, clean air and energy access goals, examining what actions would be necessary to achieve those goals. The IEA's description: This Rapid Transition delivers the goals of the Paris Agreement through accelerated adoption of renewables delivering global net zero emissions in 2070 and limiting the rise of global temperatures to 1.5°C by the end of the century.

Scenario 3

Radical Transformation:
Adopting the IEA's Net Zero Emissions by 2050 Scenario (NZE2050), which the IEA states, "sets out what additional measures would be required over the next ten years to put the world as a whole on track for net zero emissions by mid-century.

Achieving this goal would involve a significant further acceleration in the deployment of clean energy technologies together with wide-ranging behavioural changes." This Radical Transformation would place the world on a pathway consistent with delivering global net zero emissions in 2050 and limiting the rise of global temperatures to 1.5°C by the end of the century.

In 2019, the global energy mix was dominated by fossil fuels, which provided just over 80% of primary energy demand. With governments having announced investment support

“Glencore include in their climate change reporting a comprehensive section on climate scenario analysis, and have included details of three scenarios chosen. We liked how the impacts of each scenario were modelled for each section of the business, including those that are considered financially immaterial.

Commodity businesses (2021 illustrative EBITDA contribution)	Scenario	Outlook	Scenario impacts
Copper (40%)	Current Pathway	↑	Growth in renewables power generation capacity, EV sales and associated infrastructure to underpin our forecasted 15% increase in copper demand by 2025 on 2019 levels. The Current Pathway is projected to increase demand by 45% by 2035 and 95% by 2050.
	Rapid Transformation	↑ ↑	The required greater acceleration in investments to decarbonise economies under the Rapid Transition and Radical Transformation could further drive copper demand and support rises of 50% and 100% on 2019 levels in 2035 and 2050 respectively.
	Radical Transition	↑ ↑	
Ferroalloys (not financially material)	Current Pathway	→	In South Africa, rising electricity prices and carbon taxes will exacerbate the pressure currently felt in ferrochrome smelting, leading to potential plant closures with associated job losses. Continuing demand for chrome will support the ongoing operation of ferrochrome mines in South Africa.
	Rapid Transformation	→	The accelerated adoption of renewable technologies such as solar and wind power generation, which depend on chrome and vanadium, amongst other metals, for the generation, transmission and storage of low-carbon energy underpins demand growth for our ferroalloys business (good for mining activities) in the Rapid Transition and Radical Transformation, balanced by pressures on ferrochrome smelting in South Africa.
	Radical Transition	→	

Portfolio Resilience

Using scenario testing in planning
The scenarios provide for a range of outcomes in relation to energy demand, the energy mix, metals demand and climate. We continuously assess our business against these scenarios as part of our decision-making processes.

Incorporating carbon prices
Carbon pricing will enable and support the transition to a lower emissions world. Glencore successfully operates in a number of jurisdictions with a price on carbon, either explicitly in the form of tax, or as levies on imported products. Increases to carbon pricing, together with enhanced local regulation and policies, will drive investment to lower emissions technologies. The IEA provides a range of carbon prices that support the Current Pathway and Rapid Transition:

3

Risk management

Key findings from risk management scoring

In 2017, the TCFD recommended that companies disclose how they identify, assess and manage climate-related risks.

Of the FTSE 350 companies that we assessed, almost all companies recognised climate change as a current and/or emerging risk. Many integrated climate-related risks into high-level assessment of other risks. However few companies go on to identify the potential financial impacts and disclose mitigation measures around these.

Risk identification, assessment and management



Of the FTSE 350 companies we assessed:

- **Almost half** outline a process for identifying, assessing and managing climate-related risks **across the entire value chain**
- **Fewer than a fifth** provide disclosure on the assessment and management of **the financial implications** of climate risk
- Best performing industry group: **Materials and Buildings**
- Worst performing industry group: **Other (Telecommunications, Media and Entertainment, Pharma and Life Sciences)**

Engagement with stakeholders



Of the FTSE 350 companies we assessed:

- **Almost half** described engagement with multiple stakeholders (including suppliers, customers, industry groups or policy makers)
- Best performing industry group: **Energy**
- Worst performing industry group: **Transportation**

Integration with current risk process



Of the FTSE 350 companies we assessed:

- **42%** demonstrate that the management of climate risk is fully integrated into their risk management process
- Best performing industry group: **Financial Services**
- Worst performing industry group: **Transportation**

Risk identification, assessment and management

Describe the process for identifying, assessing and managing climate-related risks and impacts. Provide details of the mitigation/management techniques used.

This allows the reader to understand the process behind the disclosures your company has made with regards to strategy and risk. The management techniques enable the reader to understand how the organisation is mitigating the relevant risks it faces.

Tips to make your reporting more effective:

Basic

Disclose how the identification, assessment and management of risks and impacts is conducted. Provide details on how these risks are mitigated.

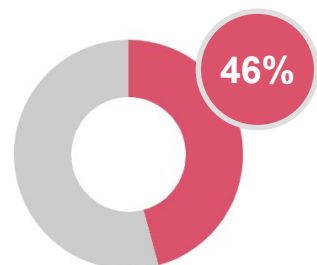
Intermediate

Ensure that the discussion over identification, assessment and management of risks and impacts covers the entire value chain.

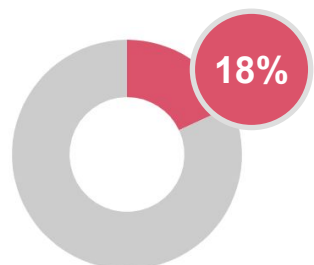
Advanced

Discuss how addressing the financial impact of climate-related risks and opportunities is built into your impact assessment process. Ensure that the financial impacts of the mitigation methods are captured.

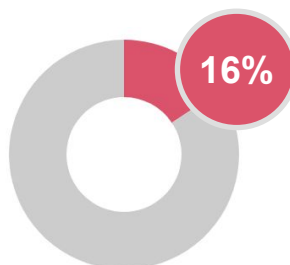
Of the FTSE 350 companies we reviewed:



Outline a process for **identifying, assessing and managing** climate-related risks across the entire value chain



Assess the **financial impact** of climate-related risks



Disclose the process of **mitigation of risks**, linked to financial implications

Legal & General Group TCFD Report 2020, pg. 18 - 24

Table 2. Total portfolio impacts

	BAU		Well below 2°C	
	2030	2050	2030	2050
Physical	-0.7%	-1.0%	-0.1%	-0.2%
Transition	-	-	-1.4%	-3.1%
Total	-0.7%	-1.0%	-1.5%	-3.3%

Table 3. Equity only impacts

	BAU		Well below 2°C	
	2030	2050	2030	2050
Physical	-0.5%	-1.7%	-0.4%	-0.5%
Transition	-	-	-5.6%	-8.0%
Total	-0.5%	-1.7%	-5.9%	-8.5%

Managing transition risks

In the Strategy section, we highlighted our focus on climate risk in connection with our investment assets and the required energy transition. Our mitigation strategy integrates carbon controls into the investment process, through the following key control processes:

- Portfolio carbon intensity targets.
- Climate stock exclusions.
- High carbon escalation.
- Corporate engagement.
- Implementing high energy efficiency standards into our directly owned commercial property and housing businesses.

Opportunities from clean energy infrastructure and technology investments also form part of this risk management strategy. See Strategy section for further detail on how we support investments in these areas.

Portfolio carbon intensity targets

We measure the contribution of our investments to global CO₂e emissions and have set reduction targets to align with the 'Paris' objective. We calculate portfolio carbon emission intensities at both the Group level and the key business areas. This year we have set a commitment to reduce our Group balance sheet portfolio carbon emission intensity by half by 2030, starting with a target reduction of 2% in 2021.

In addition, our retirement (institutional and retail) businesses have committed to reduce their portfolio's carbon emission intensity by 18.5% by 2025.

These targets are overseen and monitored by the Group Environment Committee and there is further detail on our progress against them in the Carbon metrics and targets section.



Legal and General Group quantify the estimated financial impacts of climate-related risks on both their total portfolio and equity-only portfolio to 2030 and 2050, detailing the measures they are taken to mitigate against these impacts materialising.

Risk type		Potential financial impact (-)	Likelihood	Mitigation Strategy	Mitigation in action	Financial impact post control (-)
Market	Significant shifts on consumer preferences	Reduced revenue from decreased demand for products	4	<ul style="list-style-type: none">Enhance communication of our ESG credentialsDistribution teams ensure we understand clients' needsOur in house ESG score integrates ESG criteria into our fundsWe are developing products to meet the growing demand for low carbon solutions	<p>ESG is a core component of our growth strategy – we ensure we are meeting clients' expectations by integrating ESG criteria into our funds and providing products with a specific focus on sustainability and low carbon or Net Zero outcomes.</p> <p>To complement our bottom-up House ESG Score we have also developed macro ESG, climate policy and gender equality indices that are being integrated into a growing range of macro investment processes.</p> <p>Our climate change investment approach is detailed on page 19.</p>	2
	Climate-related risks impact the market	Abrupt and unexpected market impacts reduce the value of AUM, impacting the customer and reducing investment management revenue	4	<p>There are a number of ways in which we protect our clients' investments from negative climate-related impacts:</p> <ul style="list-style-type: none">Diversified portfoliosEmbedded scenario analysis into our investment processEmbedded carbon footprintingEngagementThematic notes disseminated across all investmentESG house score in our fund analysisResearch led thematic notes for investment desks	<p>Our scenario analysis suggests that the impact on aggregate global equities is modest in the near to medium term. There will be micro or stock specific impacts but these are focused on specific sectors and companies. We integrate the results of our scenario analysis and carbon footprinting data into our investment process using the Power BI tool (Page 31).</p> <p>We have regular engagement with high emitting companies, and those assessed as being more at risk to better understand risk exposure and steer companies to address potential issues.</p> <p>Our ESG Investment Team and Research Institute provide high quality thematic notes covering regulatory and societal changes, which are shared across all investment desks to inform investment decisions. We conduct policy assessments and our on-desk analysts produce and consider policy insights. This agenda is governed by a suite of steering groups that ensure that research is properly coordinated, prioritised and overseen.</p> <p>We also ensure our portfolios are well diversified to avoid exposure to carbon intensive industries' impact on the current fair value of most aggregate equity indices.</p>	2

Rating	LOW HIGH													
Likelihood	1. 0-10% chance of occurrence in next 12 months (1 in 10 year event)		2. 11-30% chance of occurrence in next 12 months (1 in 5 year event)		3. 31-60% chance of occurrence in next 12 months (1 in 2 year event)		4. 61-100% chance of occurrence in next 12 months (1 in 1 year event)							
Financial impact	1.		2.		3.		4.							
	UK adviser and consumer market		Growth in Asia		Technology		Private markets		Solutions		Investing responsibly		Client ecosystems	



We liked how Abrdn has identified a range of both physical and transition risks and opportunities, links them to potential financial impacts and discloses comprehensive mitigation / realisation strategies for each risk and opportunity identified.

Engagement with stakeholders

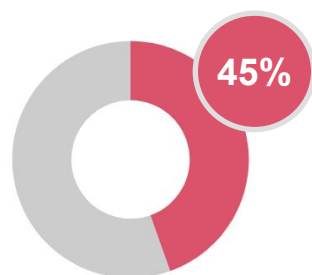
Document engagement with stakeholders beyond the organisation's operations regarding the climate change agenda.

This demonstrates to the reader that a holistic approach is being taken with regards to tackling the issue of climate change, and the extent to which the organisation is looking beyond its own operations.

Tips to make your reporting more effective:

Basic	Intermediate	Advanced
Provide disclosure of engagement with at least one type of stakeholder.	Show that multiple stakeholders have been engaged with.	Improve the narrative to provide high levels of detail concerning the initiatives which have been disclosed.

Of the FTSE 350 companies we reviewed:



Engage with **multiple stakeholders** on the subject of climate risk



We liked how NatWest Group provides a detailed summary of the various climate-related initiatives in which it participates and engages to varying degrees, including PCAF, CDP and as a principal partner to COP26.

NatWest Group TCFD Report 2020, pg. 21

NatWest Group is a signatory to a number of voluntary sustainability commitments and standards.	
<p>UN Climate Change Conference of the Parties (COP26)</p> <p>NatWest Group is the principal banking partner of COP26, underscoring our determination to be a leading bank in addressing climate change.</p> <p>The 2021 United Nations Climate Change Conference, also known as COP26, is the 26th United Nations Climate Change conference. It is scheduled to be held in Glasgow, Scotland, in November 2021 under the presidency of the United Kingdom.</p>	
<p>United Nations Environment Programme Finance Initiative (UNEP FI) Principles for Responsible Banking (PRB)</p> <p>NatWest Group is one of the Founding Signatories of PRB, committing to strategically align its business with the Sustainable Development Goals and the 2015 Paris Agreement on Climate Change.</p> <p>The Principles for Responsible Banking provide the framework for a sustainable banking system that responds to and drives today's expanding global sustainable development economy, and guide the banking industry to align itself with society's goals as expressed in SDGs and the 2015 Paris Agreement.</p> <p>We are also part of the PRB Biodiversity sub-group which is focusing on developing indicators, metrics and methodologies for target setting on biodiversity.</p> <p>We have also signed up to the United UNEP FI Collective Commitment to Climate Action (CCCCA). The CCCC sets out how banks will align their services and lending with the objectives of the Paris Agreement.</p>	
<p>PCAF</p> <p>NatWest Group is the first major UK bank to sign up to PCAF. PCAF is a global partnership of financial institutions that work together to develop and implement a harmonized approach to assess and disclose the GHG emissions associated with their loans and investments.</p>	
<p>CDP</p> <p>NatWest Group achieved a score of A- in the 2020 CDP Climate Change Survey.</p> <p>CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their climate and environmental impacts.</p>	
<p>Principles for Responsible Investment (PRI)</p> <p>Coutts signed up to the Principles for Responsible Investment, an independent organisation supported by the United Nations, which encourages investors to use responsible investing to enhance returns and better manage risks.</p>	<p>Signatory of:</p>
<p>Banking Environment Initiative (BEI)</p> <p>The Banking Environment Initiative (BEI) is a group of global banks committed to pioneering actionable pathways towards a sustainable economy. The BEI co-produces horizon scanning applied research, develops leadership tools and convenes academic and industry collaborations. It is a member-led, not-for-profit group convened by CISL and initiated in 2010 with the support of The Prince of Wales.</p> <p>NatWest Group is part of the overall BEI working group and has participated in projects including: Soft Commodities Compact, a voluntary initiative led by BEI and The Consumer Goods Forum; and BEI Financial Risks arising from Biodiversity Loss and Land Degradation.</p>	



Trade and industry associations

Key concerns
Energy policy, reputation of energy sector, reputation of biomass sector, Health & Safety best practice.

Why we engage
Active membership of a wide range of trade and industry associations allows us to keep track of best practice in our sector and other industries.

How we engage
We engage directly with trade bodies focusing on energy and sustainable forestry. For example, Drax is an active member of Energy UK, Biomass UK and the CBI.



Non-governmental organisations (NGOs)

Key concerns
Biomass sustainability, coal and gas, climate change, Carbon price support.

Why we engage
Engagement with NGOs helps us to challenge and enhance our practices on behalf of the wider society. We warmly welcome engagement with NGOs and

How we engage
We engage directly with NGOs on a wide range of topics from biomass sustainability through to carbon pricing. For example, our new Responsible Sourcing Policy for woody biomass addresses stakeholder issues and was developed following a series of roundtable discussions.



Regulators and network operators

Key concerns
Targeted Charging Review, smart meter installation, energy trading compliance, environmental compliance, Health & Safety compliance, compliance with biomass sustainability policy, system support and ancillary services markets, ROC compliance, and business ethics compliance, including data protection.

How we engage
We engage directly with stakeholders and through industry associations. For example, we engage with relevant teams at Ofgem and National Grid on the growing need for stable markets and appropriate support mechanism to provide system support services to the grid.

“ We liked the thorough section Drax included in their reporting on stakeholder engagement on climate change and related issues.

“ We like the variety and range of initiatives engaged in by Tesco on climate-related issues. Their reporting is complemented by extensive detail provided on the website.

Tesco Website, Indices and Benchmarks

CDP

Over the past 15 years CDP has engaged investor and business audiences on environmental issues, providing analysis and scoring of companies. Tesco participates in the annual CDP surveys relating to climate change and forests. In the latest 2020 assessment, we improved our climate change score to an ‘A-’ rating and within the Forests survey we achieved a ‘B’ rating for timber, palm oil and soy.

TCFD

The Taskforce for Climate-related Financial Disclosures (TCFD) has developed a framework to help public companies and other organisations more effectively disclose climate-related risks and opportunities through their existing reporting processes. We have been implementing the recommendations since becoming a signatory in 2017 and report within our Annual Report and Financial Statements

World Benchmarking Alliance

The World Benchmarking Alliance has identified seven transformations that need to take place to put society and the worldwide economy on a more sustainable path to achieve the SDGs. The Food and Agriculture Benchmark assesses 350 keystone companies across the entirety of the food system, from farm to fork. It covers three dimensions where transformation is needed: nutrition, environment and social inclusion. In the 2021 Benchmark we ranked 7th and first of the food retailers assessed.

SASB

The Sustainability Accounting Standards Board (SASB) has developed a set of globally applicable, industry-specific sustainability standards. These identify financially material topics and associated metrics, in order for companies to communicate their sustainability approach and performance to investors. We report against the metrics contained within the Food Retailers & Distributors industry standard.

Greenpeace

Greenpeace undertakes an annual assessment of the UK’s largest supermarkets and their contribution to plastic waste. From the 10 supermarkets analysed, Tesco was ranked in 6th place in 2020.

Integration with current risk management process

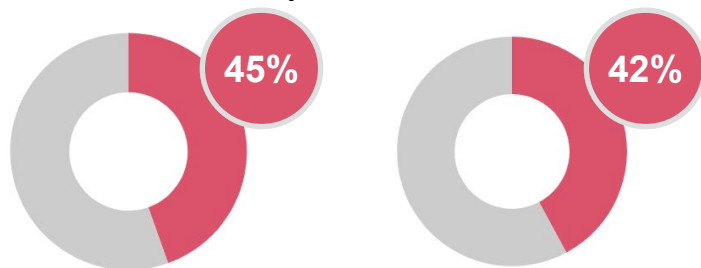
Disclose how the climate-related risk (CRR) management process is integrated into the overall risk management process.

This illustrates how the issue of climate risk is now considered an integral part of the overall risk management process.

Tips to make your reporting more effective:

Basic	Intermediate	Advanced
If applicable, disclose the operational linkage of climate-related risk management into the overall risk management process.	Include a narrative explaining how this integration took place.	If applicable, ensure that it is detailed that there is full integration into the overall risk management process, including on a financial level.

Of the FTSE 350 companies we reviewed:



Identify climate as a **current/emerging risk**

Integrate climate-related risk into the overall risk-management process

Experian Annual Report 2021, pg. 54 & 73

In FY21, we strategically reviewed existing and future climate change risks and opportunities with a multi-disciplinary group of stakeholders across the business, representing each geographic region we operate in. The output of this was to:

- 1 Identify and assess climate-related risks and opportunities to our business arising from climate change
- 2 Conduct climate scenario analysis to help understand the long-term impacts of climate change on our business model
- 3 Ensure climate-related risks are fully incorporated into our established risk assessment framework
- 4 Identify risk owners to develop the capability in the management team for assessing and managing the identified risks.

We have reviewed our climate risks and opportunities that exist across our business lines, and across the regions in which we operate, by engaging with key internal stakeholders. This process has enabled us to create a comprehensive climate risk and opportunity register identifying a wide range of physical and transitional climate-related risks and opportunities across short (one to two years), medium (two to five years) and long-term (five or more years) timeframes. This climate-specific risk and opportunity register has been developed in accordance with the Global Risk Management framework to ensure this was performed as a fully integrated process.



Experian's climate reporting includes an explanation of the work undertaken this past year to fully integrate climate-related risks into the existing Global Risk Management framework.

Governance	Enterprise Risk Management Framework (ERMF)				
	Climate Change Standard	Climate Change Financial Risk and Operational Risk Policy			
	Reputation risk	Credit risk	Market risk	Treasury and capital risk	Operational risk
Responsibilities	<ul style="list-style-type: none"> Outline minimum requirements and controls for Reputation risk management relating to client relationships or transactions. Outline the expected business behaviours in relation to these issues. Outline the approach to enhanced due diligence. 	<ul style="list-style-type: none"> Review individual obligors' exposure using Climate Change Lens. Consider climate change risk appetite in relevant countries and portfolios. Include in ICAAP. Oversight by Retail and Wholesale Risk Management Committees, and Board Risk Committee. 	<ul style="list-style-type: none"> Assess and identify all risk factors affecting climate change risk. Apply stress scenarios, assess stress losses and set risk limits. Include in ICAAP. Oversight by Market Risk Committee and Board Risk Committee. 	<ul style="list-style-type: none"> Identify exposure to climate change risks. Consider key indicators and limits to support risk management. Include in ICAAP and ILAAP. Oversight by Treasury and Capital Risk Committee and Board Risk Committee. 	<ul style="list-style-type: none"> Integrate climate change across different risk categories e.g. Resilience and Premises. Include climate change within risk assessment processes including Strategic Risk Assessment.
Ownership	Global Head of Sustainability and ESG	Principal Risk Delegate	Principal Risk Delegate	Principal Risk Delegate	Principal Risk Delegate

Enterprise Risk Management Framework

The ERMF sets the strategic approach for risk management across the firm by defining standards, objectives and responsibilities for all areas of the Group. The ERMF is complemented by frameworks, policies and standards which are mainly aligned to individual Principal Risks. Within the ERMF, the Group has a Climate Change Standard that corresponds to our latest Climate Change Statement to manage reputation risk, including our exposure to sensitive energy sub-sectors. For Credit, Market, Treasury and capital and Operational risk, the Group published a 'Climate Change Financial Risk and Operational Risk Policy' in 2019.

Risks arising from climate change materialise through various channels: 1) through the financial services and support we provide to customers who may themselves be exposed to the risks of climate change; 2) the operation of our own infrastructure, business and premises which may be exposed to both transition and physical risk; and 3) through a deteriorated perception of Barclays if we do not adequately support a transition away from high-carbon activities and consequent loss of our social licence to operate.

In 2020 the bank has implemented a Financial and Operational Risks of Climate Change Plan built around three main pillars:

1. Embedding climate risk into Enterprise Risk Management Framework (ERMF), via the Climate Change Financial and Operational Risk Policy
2. Developing methodologies and including climate in stress testing (see Barclays PLC Climate-related financial disclosures 2020, Risk management section)
3. Developing a carbon methodology to assess risk within high emitting sectors (see Barclays PLC Climate-related financial disclosures 2020, Strategy section).



Barclays demonstrates clearly how climate risk is integrated into the Group-wide Enterprise Risk Management Framework (ERMF), linked to the Climate Change Standard, as well as the Climate Change Financial Risk and Operational Risk Policy.

4

Metrics and targets

Key findings from metrics and targets scoring

In 2017, the TCFD recommended that companies disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Of the FTSE 350 companies that we assessed, the majority reported on their Scope 1, 2 and 3 greenhouse gas emissions. Most companies also report performance against targets they have set. However only a fifth of companies report sophisticated climate-related metrics assessing the full scope of their value chain or linking metrics to financial performance.

Disclosing climate-related metrics



Of the FTSE 350 companies we assessed:

- **Over three quarters** reported Scope 1,2 and 3 emissions
- **One fifth** identified and reported on sophisticated climate-related metrics that were not straightforward greenhouse gas emissions
- Best performing industry group: **Financial Services**
- Worst performing industry group: **Transportation**

Setting climate-related targets



Of the FTSE 350 companies we assessed:

- **Over one third** disclosed science-based targets linked to broader goals such as Net Zero or the company's strategy
- Best performing industry group: **Agriculture, Food, and Forest Products (including FMCG)**
- Worst performing industry group: **Materials and Buildings**

Reporting on performance



Of the FTSE 350 companies we assessed:

- **Almost half** described the performance of the company on climate, using comparatives
- Best performing industry group: **Agriculture, Food, and Forest Products (including FMCG)**
- Worst performing industry group: **Transportation**

Disclosing climate-related metrics

Disclose a range of climate and sustainability-related metrics, including GHG emissions.

This will provide the reader with the quantitative detail of the company's impact on the environment and climate, as well as showing how this has changed through time.

Tips to make your reporting more effective:

Basic

Report predominantly straightforward metrics such as Scope 1 & 2 emissions and those relating to the direct operations of the company.

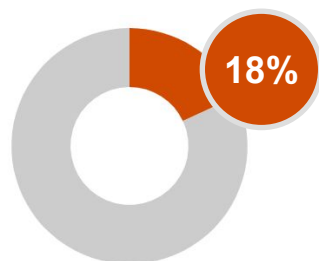
Intermediate

Increase the sophistication of the metrics reported by providing comparatives, normalised metrics and Scope 3 emissions data.

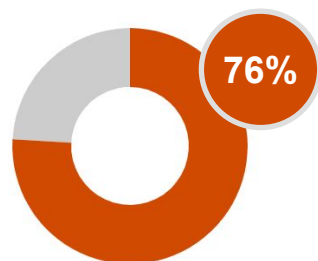
Advanced

Incorporate metrics concerning the wider supply chain and provide a financial context, for example, by using cost-related metrics.

Of the FTSE 350 companies we reviewed:



Report sophisticated **non-emission climate-related metrics**, including supply-chain, normalisations, financial metrics

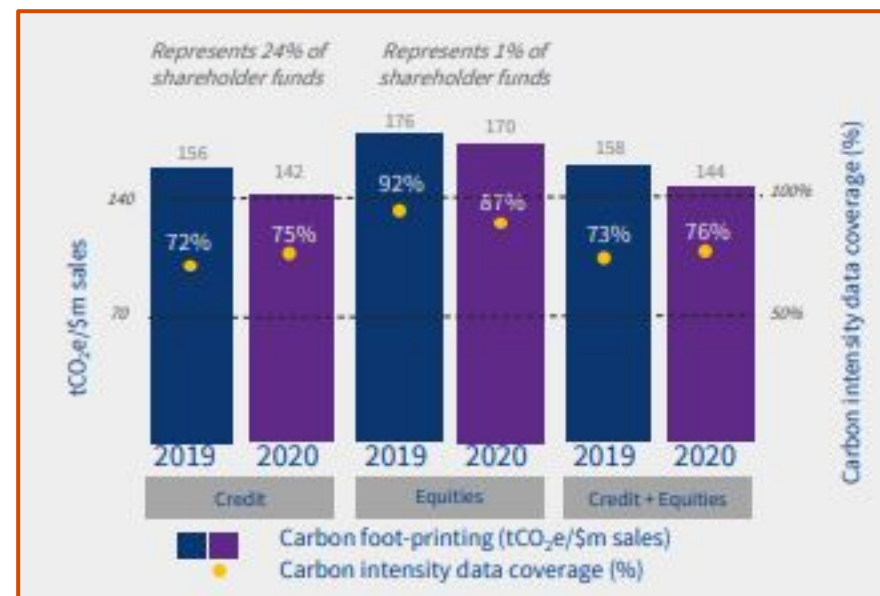


Disclose **scope 1, 2 & 3 emissions**

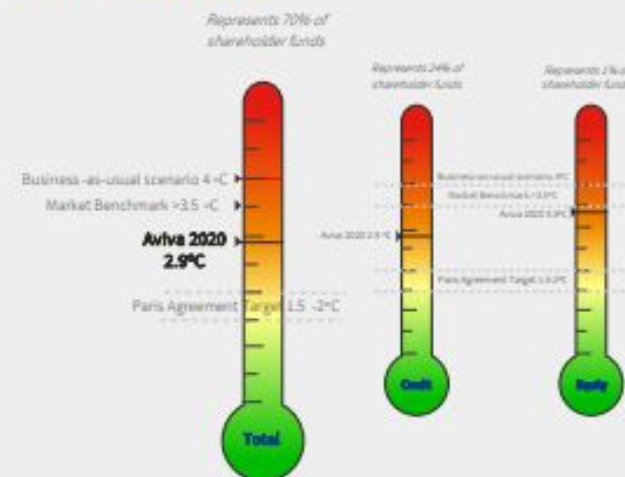


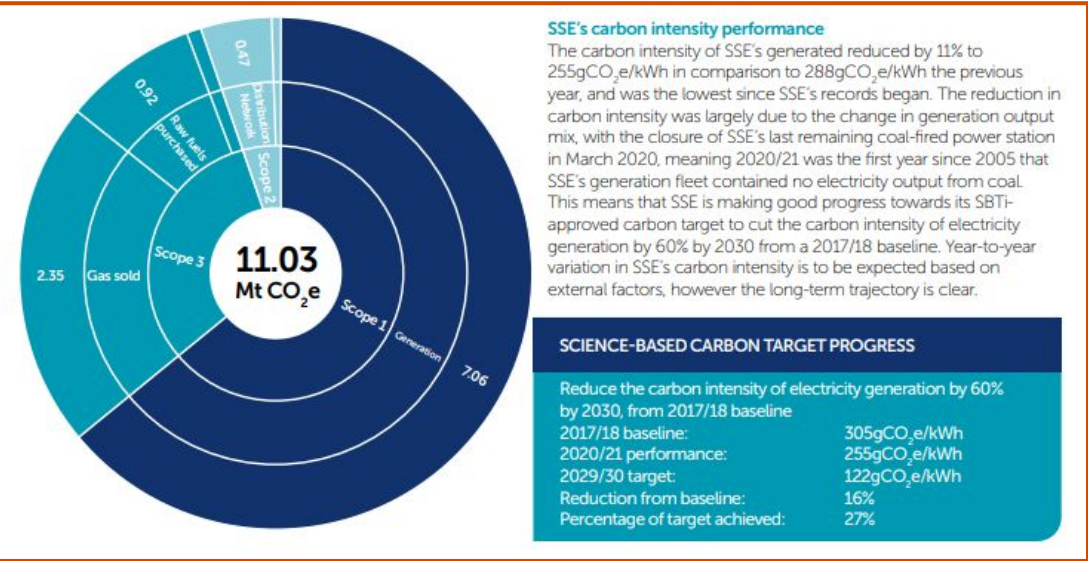
We like Aviva's use of sophisticated climate metrics throughout reporting, including having calculated a portfolio warming metric that assesses alignment with the goals of the Paris Agreement.

Aviva TCFD Report 2020, pg. 23



Aviva's Portfolio Warming Potential 2.9°C





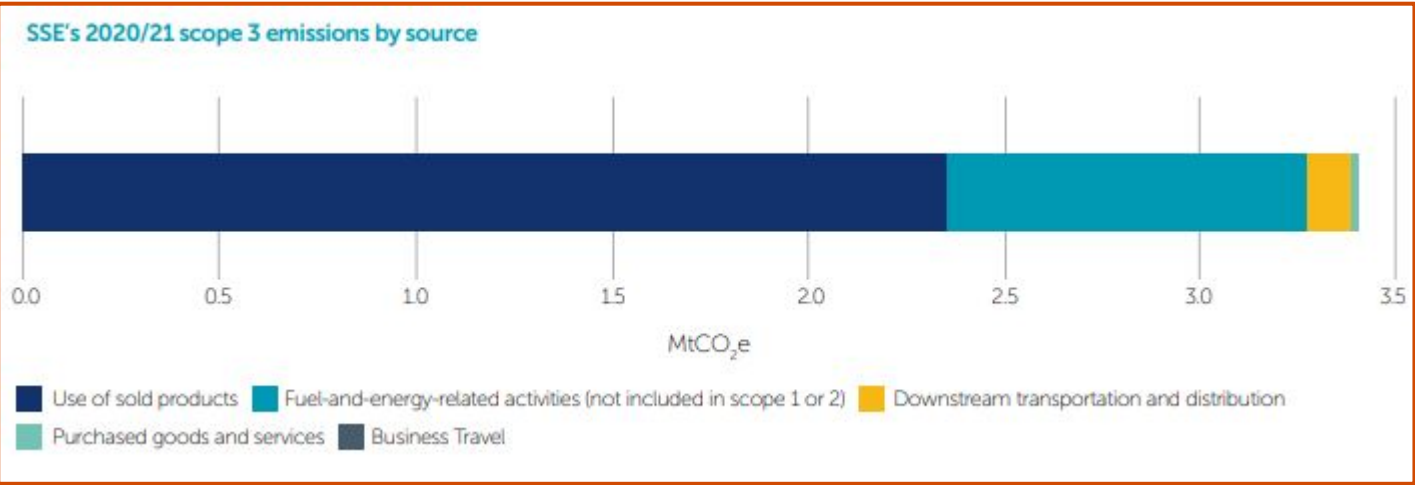
DILEMMA

THE COMPLEXITY OF ACCURATE SCOPE 3 REPORTING FROM THE SUPPLY CHAIN

Calculating and tracking scope 3 emissions is much more complex than understanding a company's scope 1 and 2 emissions. In its ambition to improve understanding and reporting of its scope 3 emissions, one of the key challenges for SSE is to understand, quantify and then manage the emissions associated with purchased goods and services and the capital goods it buys. This requires collecting reliable and consistent data from third parties, however many methodologies in this area are still being developed and refined.

Three methodologies can be used to calculate scope 3 emission sources: life cycle analysis (the embodied carbon); a supplier's own scope 1 and 2 emissions reporting; and economic assessments. All of these methods have specific challenges in terms of data collection, quality and reliability. SSE has been trialling these different methodologies across its businesses. For example, SSEN Transmission is reviewing the use of life cycle analysis and embodied carbon in its construction projects to understand how to capture carbon emissions associated with these activities. At a group level SSE has been working with CDP Supply Chain to capture scope 1 and 2 emissions of its top 100 suppliers by spend. Results of these trials are at an early stage.

Scope 3 GHG emission will continue to be a significant contributor to SSE's total carbon emissions and, in time, they may become the most significant source of emissions as SSE's businesses transition towards net zero. This means that SSE must continue to develop a clearer picture of its activities associated with its material scope 3 emissions so it can collaborate with its suppliers to reduce these emissions to net zero too.



SSE included in its reporting clear visualisations of its carbon footprint. We liked the particular focus on Scope 3 emissions and the helpful narrative included on the difficulties surrounding data availability and accuracy for calculating Scope 3.

Setting climate-related targets and reporting on performance

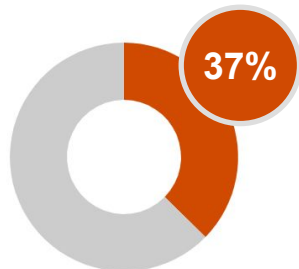
Disclose the targets (and related progress) the company uses to manage climate-related risks and opportunities.

This will provide the reader with information on how proactive the company is being with regards to reducing its climate impact, and whether they are set to reach their targets.

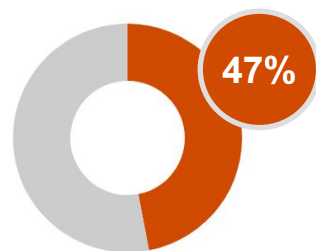
Tips to make your reporting more effective:

Basic	Intermediate	Advanced
Produce targets accompanied by a qualitative description of progress.	Include targets set over different timeframes, provide quantitative progress and add accompanying analysis.	Ensure that any GHG emissions reduction targets are science-based (and therefore in line with the Paris Agreement). Extend the accompanying narrative.

Of the FTSE 350 companies we reviewed:



Disclose science-based **targets** linked to climate-related risks and opportunities



Disclose **performance** against targets using quantitative comparatives

Tate & Lyle Annual Report 2021, pg. 62

PROGRESS AGAINST 2030 TARGETS

By 2030, we'll have delivered a 30% absolute reduction in our Scope 1 and 2 greenhouse gas emissions, with an ambition to reach a 20% reduction by 2025.¹



By 2030, we'll have delivered a 15% absolute reduction in our Scope 3 greenhouse gas emissions.¹



¹ Approved as science-based targets by the Science Based Targets initiative, meaning they are in line with the goals of the Paris Agreement on Climate Change.

PERFORMANCE AGAINST 2020 TARGETS

Energy use¹ Gigajoules

2020 ²	36,444,000
2019 ²	37,643,000
2018 ²	37,254,000
2008	37,459,000

Energy use intensity³ Gigajoules per tonne of production

2020	4.94
2019	4.96
2018 ²	4.87
2008	5.10



We liked Tate & Lyle's inclusion of a baseline in their historical performance and how their 2030 targets are science-based.

Reducing environmental impact	Target	2020	2019	2018
Greenhouse gases Target: Halve the greenhouse gas impact of our products across the lifecycle (from the sourcing of the raw materials to the greenhouse gas emissions linked to people using our products) by 2030 (greenhouse gas impact per consumer use; 2010 baseline) ^{(c)(d)}	(50%)	(10%)	(8%) ^{(b)(d)}	(3%) ^(b)
Target: By 2020 CO ₂ emissions from energy from our factories will be at or below 2008 levels (≤145.92) despite significantly higher volumes (reduction in CO ₂ from energy in kg per tonne of production since 2008)*	≤145.92	36.94 [†]	50.76 [‡]	70.46 [‡]

Our Climate Targets

Unilever has three principal targets that guide our actions:*

- a **Short-term Emissions Reduction Target**: to reduce in absolute terms our operational (Scope 1 & 2) emissions by 70% by 2025 against a 2015 baseline;
- a **Medium-term Emissions Reduction Target**: to reduce in absolute terms our operational emissions (Scope 1 & 2) by 100% by 2030 against a 2015 baseline; and
- a **Long-term Net Zero Value Chain Target**: to achieve net zero emissions covering Scope 1, 2 and 3 emissions by 2039.⁺

How our targets guide our action

Our suite of targets is designed to guide our approach, which we propose will be as follows:

- In the 2020s and 2030s, our primary focus will be emissions reduction across our value chain, consistent with the 1.5-degree ambition of the Paris Agreement.
- We will not seek to meet our emissions reduction targets through the practice of purchasing and retiring carbon credits, known as offsetting.
- By 2039, and from then onwards, we will ensure that any residual emissions are balanced with carbon removals to achieve and maintain our net zero emissions target.

	2020	2019	2018
Unilever operations (Scope 1 and 2)^{(a)(b)(c)}			
Total Scope 1 and 2 (tonnes CO₂e)^(d)	778,677	1,102,925	1,652,057
Scope 1 (tonnes CO ₂ e) ^(e)	606,771	659,028	758,232
Scope 2 (tonnes CO ₂ e) ^{(d)(f)}	171,906	443,897	893,825
Reduction in Scope 1 and 2 GHG emissions from energy and refrigerant use in our operations since 2015 baseline (%)	60%	44%	16%
Upstream and downstream of Unilever operations (Scope 3)^{(a)(h)}			
Total Scope 3 (tonnes CO₂e)	60,388,592	61,020,357	62,017,585
Consumer use (tonnes CO ₂ e) ⁽ⁱ⁾	42,093,341	41,743,454	42,281,468
Ingredients and packaging (tonnes CO ₂ e) ^{(i)(j)}	14,239,918	14,897,174	15,367,491
Distribution and retail (tonnes CO ₂ e) ^(k)	4,055,333	4,379,729	4,368,626



Unilever's reporting includes comprehensive climate targets for Scopes 1, 2 and 3 across short, medium and long-term horizons. They are centred on the goal to reach operational net zero by 2030 and net zero across the full value chain by 2039. We liked that the goals have been verified by the Science Based Targets initiative (SBTi) and that performance in previous years is included throughout to demonstrate to the reader year-on-year progression.

5

Spotlight on International
Climate Change Reporting

International climate reporting



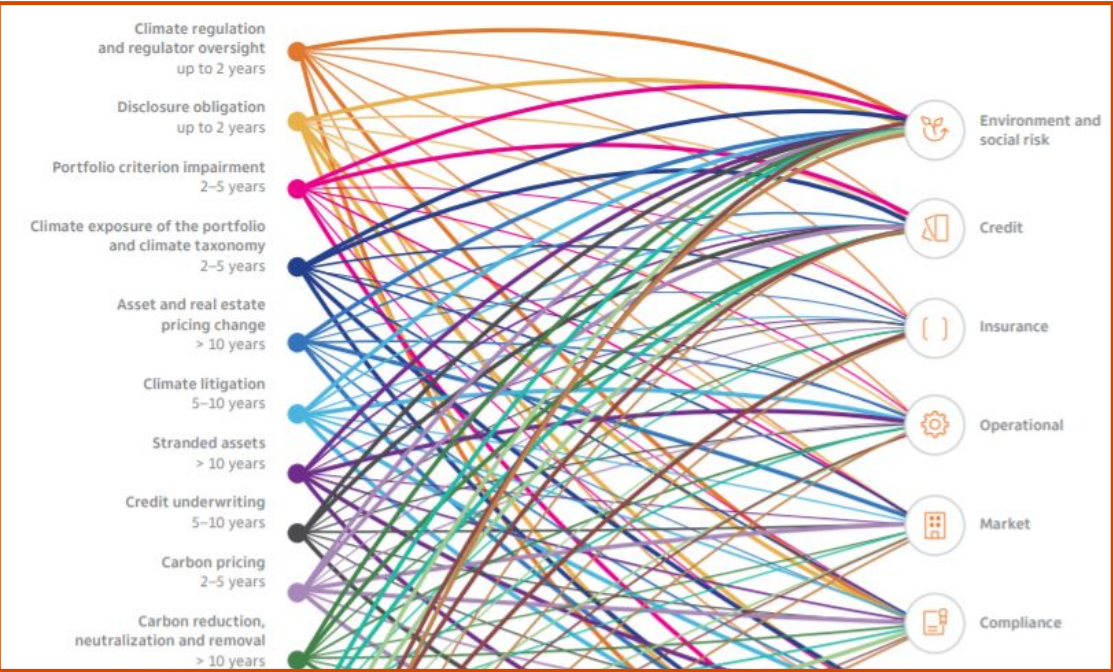
Sanofi Corporate Social Responsibility Report 2020, pg. 37

		2020 progress against:		
Environmental issue	Key Planet Mobilization commitments 2015 - 2025	2019	2015 (baseline year)	Contribution to SDGs
Climate change and carbon footprint (CO ₂ emissions)	Industrial, R&D and tertiary sites for Scopes 1 & 2 (including medical rep fleet)			SDG 13: Take urgent action to combat climate change and its impacts
	50% reduction in greenhouse gas emissions (CO ₂ equivalent) by 2025 (relative to 2015)	-15%	-27%	
	Achieve carbon neutrality in 2050 for emissions caused by our operations			

“

Sanofi clearly communicates its historical climate performance in, using comparatives at the same time as showcasing contribution towards relevant SDGs.

Itaú Unibanco ESG Report 2020, pg. 47 - 48



We have been testing a tool developed at the Working Group on Climate Risk and Green Economy of FEBRABAN to check the sensitivity of our loan portfolio to climate risks to climate change. The tool combines variables of relevance (exposure to climate risk and credit quality) and proportionality (concentration and term). Based on this sensitivity analysis, actions that are appropriate to each risk level are being developed, and methodologies of incorporation into credit models have been tested.

“

To inform its scenario analysis, Itaú Unibanco has carried out a comprehensive mapping of climate risk and its transmission pathways onto traditional banking risk disciplines. It also has conducted sensitivity analysis of its loan portfolio to climate risk.

National Australia Bank Annual Report 2020, pg. 43

Governance

The Board retains ultimate oversight for Environmental, Social and Governance (ESG) risks and issues, including climate change.

The Board receives regular reports on a range of climate change-related issues, including progress against the Group's climate change strategy, climate-related credit risk policy settings, commitments, targets and initiatives, environmental operational performance, carbon neutral status, and concerns raised by stakeholders. It also receives updates on regulatory change and greenhouse and energy reporting returns that require noting by the Board before submission to regulators. The Board Risk & Compliance Committee (BRCC) receives periodic reports on climate risk,

regulatory developments and other related matters that fall under its charter, particularly matters such as emerging risk, risk appetite, scenarios and stress testing.

In the 2020 financial year, the Board incorporated climate change into its development agenda. This training covered information about: (i) the global carbon budget; (ii) the role of transition pathways in achieving the low-carbon transition and Paris Agreement alignment; and (iii) the changing regulatory and supervisory response to climate change risk.

Risk Management

ESG risks, including climate change, are identified, measured, monitored, reported and overseen in accordance



In the last year National Australia Bank has incorporated climate training into the Board's development agenda. Areas covered include climate regulation, the global carbon budget, and Paris-aligned transition pathways.

CLP Group Annual Report 2020, pg. 151



CLP demonstrates clear integration of climate-related risk into the Group-wide Risk Management Framework.



How CLP Identifies, Assesses and Manages Climate Change Risks

Climate change risks are embedded in CLP's risk management process and risk register. CLP identifies, assesses, and manages climate change risks alongside all other types of risk as an integral part of its Group-wide Risk Management Framework.

According to the recommendations of the Task Force on Climate Related Financial Disclosure (TCFD), climate change risks can be classified into two major categories:

- **Transition Risks** – Transitioning to a lower-carbon economy may entail policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change, and may pose varying levels of financial impacts as well as reputational risk to the Group.
- **Physical Risks** – Physical risks resulting from climate change can be event-driven (acute) or longer-term shifts (chronic) in climate patterns, causing direct damage to assets and indirect impacts from supply chain disruption.

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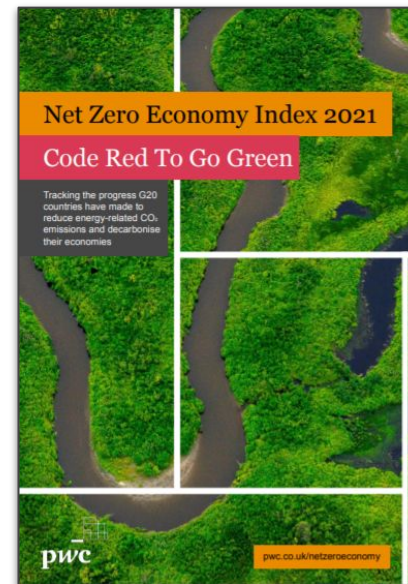
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...and refer to other relevant reporting and analysis, available online



Excellence in sustainability reporting 2021 - A review of leading UK companies

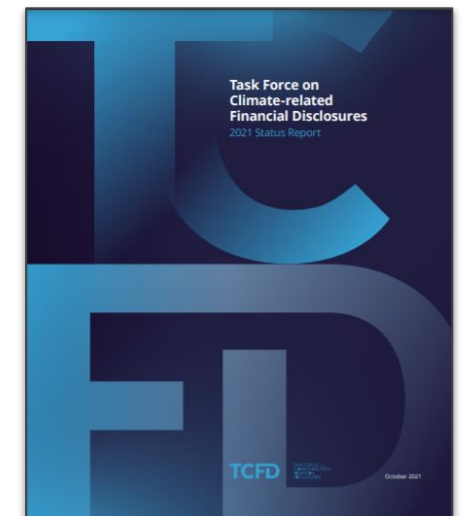


PwC Net Zero Economy Index 2021

<https://www.pwc.co.uk/sustainability-climate-change/pdf/net-zero-economy-index-2021.pdf>

TCFD 2021 Status Report

<https://www.fsb.org/wp-content/uploads/P141021-1.pdf>





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