Towards net zero

How the world's largest companies report on climate risk and net zero transition

KPMG IMPACT
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About the lead authors

This research has been conducted by KPMG IMPACT, a newly-established initiative of KPMG firms. KPMG IMPACT brings together professionals and subject matter experts from across KPMG's global organization to support the delivery of the United Nations Sustainable Development Goals (SDGs).

The authors of this report work together as leaders of the KPMG IMPACT initiative alongside their KPMG firm roles and responsibilities.

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Foreword: What gets measured gets managed

As the old saying goes, what gets measured gets managed. Markets need the right information to operate effectively. This is particularly true as the transition to a net zero economy begins in earnest, affecting virtually every company in every sector. Now is the time to improve the quantity, quality and comparability of climate disclosures. Today's climate crisis demands that we re-allocate global capital to manage risks and seize transition opportunities across all of our economies.

The calls for comprehensive climate disclosures are growing ever louder. Climate Action 100+ (an investor group of 500 firms with over US$47tn in assets under management) recently wrote to the world's 160 largest companies, to demand they publish strategies to reduce emissions by 45 percent by 2030 and to reach net zero by 2050. This is only the latest in a long list of investor initiatives to encourage the reporting of what is widely viewed as a material risk, and will increasingly be seen as a major opportunity.

The building blocks for a future global framework are already in place. The Taskforce for Climate-related Financial Disclosures (TCFD) has gathered huge and rapidly growing international support since it was established in 2015. Supporters control balance sheets totalling over US$150 trillion and include all the world's systemically important banks, its largest asset managers, insurers and pension funds. Additionally, an alliance of the leading climate disclosure standard setters - which are already interoperable with the overarching TCFD framework – facilitated by the Impact Management Project, have come together to build the technical underpinning for a single global sustainability reporting architecture.

This timely report reveals the dramatic strides made in climate disclosure. In the 5 years since TCFD was established, more than half of the world's 250 largest companies publicly acknowledge climate change as a financial risk.

The report also exposes, however, the significant gaps that exist in reporting, particularly around scenario analysis and forward-looking metrics, and it rightly emphasises the need for rapid improvement in both the quantity and quality of disclosure.

To resolve these gaps, action is needed across the private and public spheres. First, every company needs to take action and establish (or further develop) climate reporting that aligns with all 11 of the TCFD's recommendations. There is a wealth of support available – from TCFD sector specific forums to published guidance – for companies embarking on this journey.

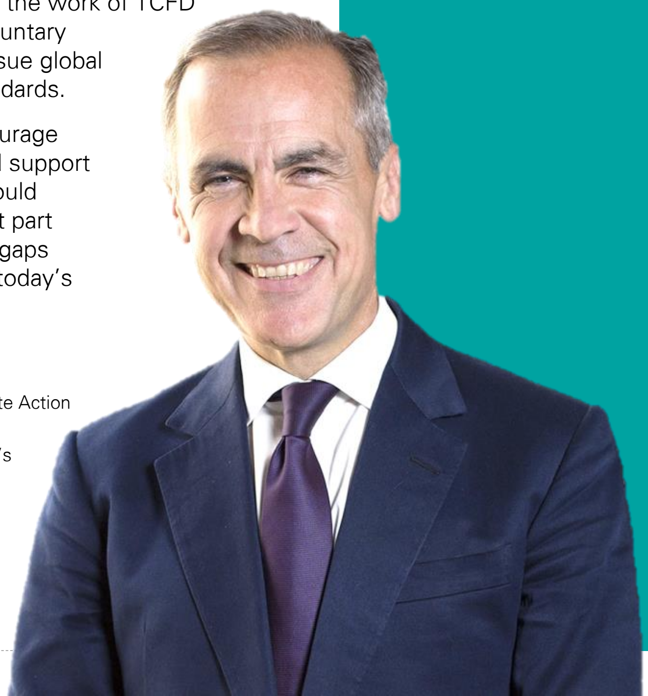
Second, professional services firms have a key role to play in encouraging and supporting rapid and broad adoption of corporate climate disclosure worldwide. This was recently underscored by IAASB guidance, which set out how auditors should consider climate risks and the adequacy of companies' climate disclosures under existing published standards.

And third, climate-related financial disclosures must be made mandatory and be designed around a core framework – ideally the TCFD – to ensure comparability. Heralding the first steps towards this goal, the International Financial Reporting Standards (IFRS) Foundation trustees recently published a consultation with proposals for a new Sustainability Standards Board, that I believe could build on the work of TCFD and the alliance of voluntary standard-setters to issue global climate reporting standards.

I would strongly encourage engagement with and support of this work, which could represent a significant part of the solution to the gaps and fragmentation in today's climate reporting.

Mark Carney
UN Special Envoy for Climate Action and Finance

UK Prime Minister Johnson's Finance Adviser for COP26



Introduction: About this study

"The world is in a race against time. The human race has only 30 years to cut global carbon emissions to net zero if we are to limit global warming to 1.5˚C and mitigate potentially catastrophic impacts of climate change.[1]

Business is not only a critical player in achieving the net zero goal; it is also at risk from the physical effects of the climate crisis and the economic impacts of transitioning to a net zero economy.

That's why companies are under pressure to disclose their exposure to climate-related risks and explain their strategies to ensure resilience and competitive advantage in a net zero world.

The importance of climate risk disclosure has been driven by the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and growing momentum towards mandatory disclosure in many jurisdictions.

This study proposes a set of quality criteria for climate-related disclosure (see Page 6) and analyzes how the world's 250 largest companies (as defined in the Fortune 500 list 2019)[2] measure up against these criteria.

1. https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/#:~:text=Global%20net%20human%2Dcaused%20emissions,removing%20CO2%20from%20the%20air.
2. https://fortune.com/global500/2019/

The results enable any company to assess its own reporting against the performance of this global leadership group.

This report is the latest in KPMG's long established series of sustainability reporting surveys and intended primarily to help corporate reporting, investor relations and sustainability professionals shape their own company's reporting. It may also help investors, lenders, insurers, asset managers and ratings agencies to understand current reporting maturity and the gaps where improvement is needed.

As Head of KPMG IMPACT, a new KPMG initiative to bring the best of KPMG together to help achieve the UN Sustainable Development Goals, I am deeply proud of this work and hope you find it insightful."

Richard Threlfall
Global Head of KPMG IMPACT and Global Head of Infrastructure, KPMG International Limited
Partner, KPMG in the UK

Readers of this study will learn

01 **What good climate risk and net zero reporting looks like**

02 **How the world's largest companies are performing**

03 **Which companies are doing it well and what they can teach others**

How to use this document

To understand what good climate risk and net zero reporting looks like, see **KPMG's 12 quality criteria**.

See page 6

For an overview of how the world's largest companies are currently performing see the **Executive Summary**.

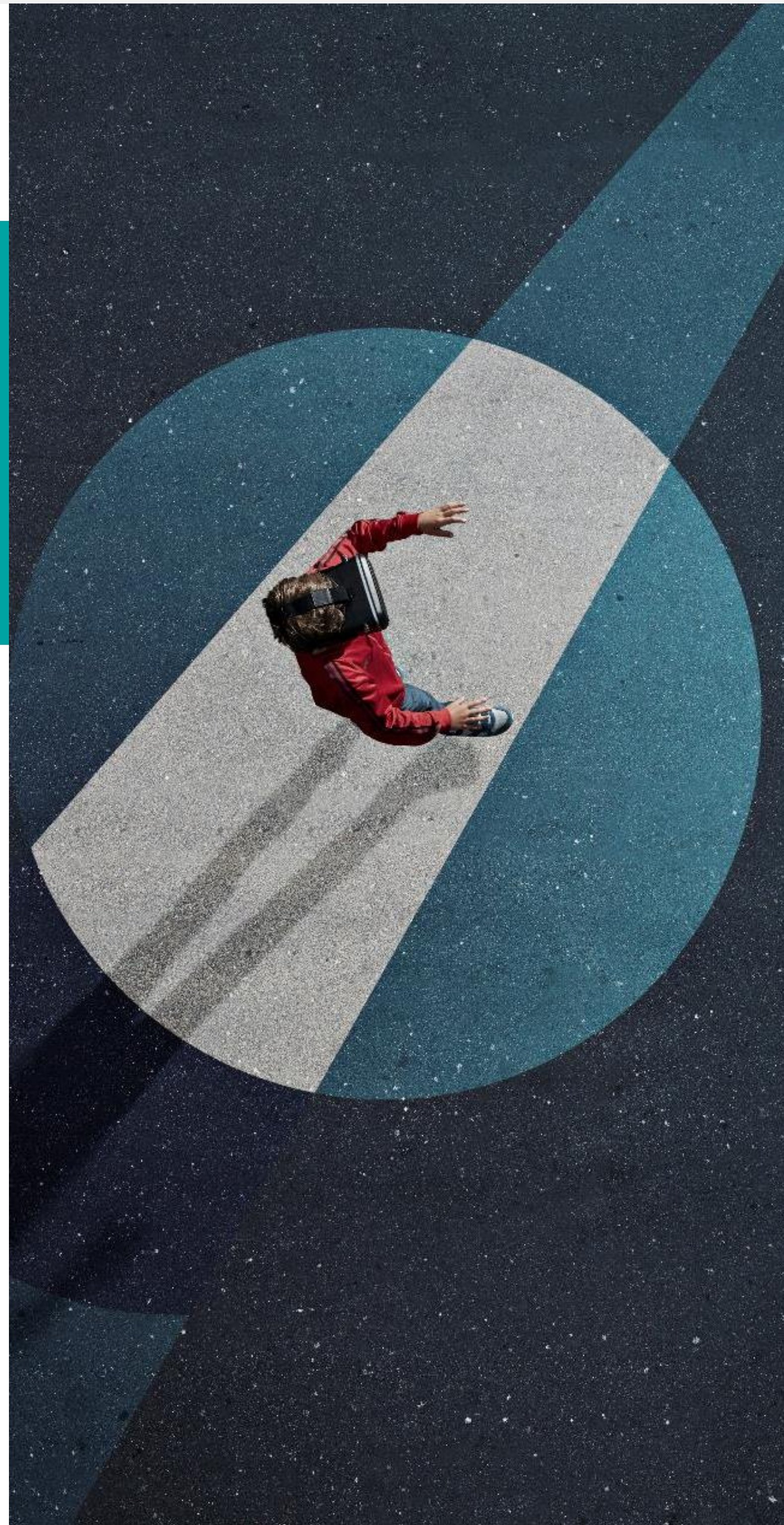
See page 9

To see a breakdown of the research sample and to understand more about the research process, see the **Methodology** section.

See page 42

This report covers four aspects of corporate reporting on climate-risk and net zero transition, each of which is covered in a separate section.

Each section offers a more detailed look at how companies are currently performing in that aspect of reporting and includes Lessons from the Leaders in the form of examples of good practice as well as KPMG's recommendations for readers.



What does good climate risk and net zero reporting look like?

For the purpose of this study, KPMG has developed 12 quality criteria for good corporate reporting on climate risk and net zero transition. KPMG firm researchers used these criteria to analyze and compare the maturity of climate risk and net zero reporting by the world's 250 biggest companies. Throughout this report, these companies are referred to as the "G250".

The quality criteria are based on the insights of climate disclosure experts at KPMG firms, combined with key elements of the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, other reporting frameworks and evolving best practice.

The Task Force on Climate-related Financial Disclosures (TCFD) was established in 2015 by the Financial Stability Board to respond to the threat of climate change to the stability of the global financial system.

The purpose of the Task Force was to improve corporate reporting on climate-related risks and enable financial stakeholders – investors, lenders and insurers – to factor climate-related risks into their decisions.

The Task Force included:

— representatives of both data preparers (companies), and

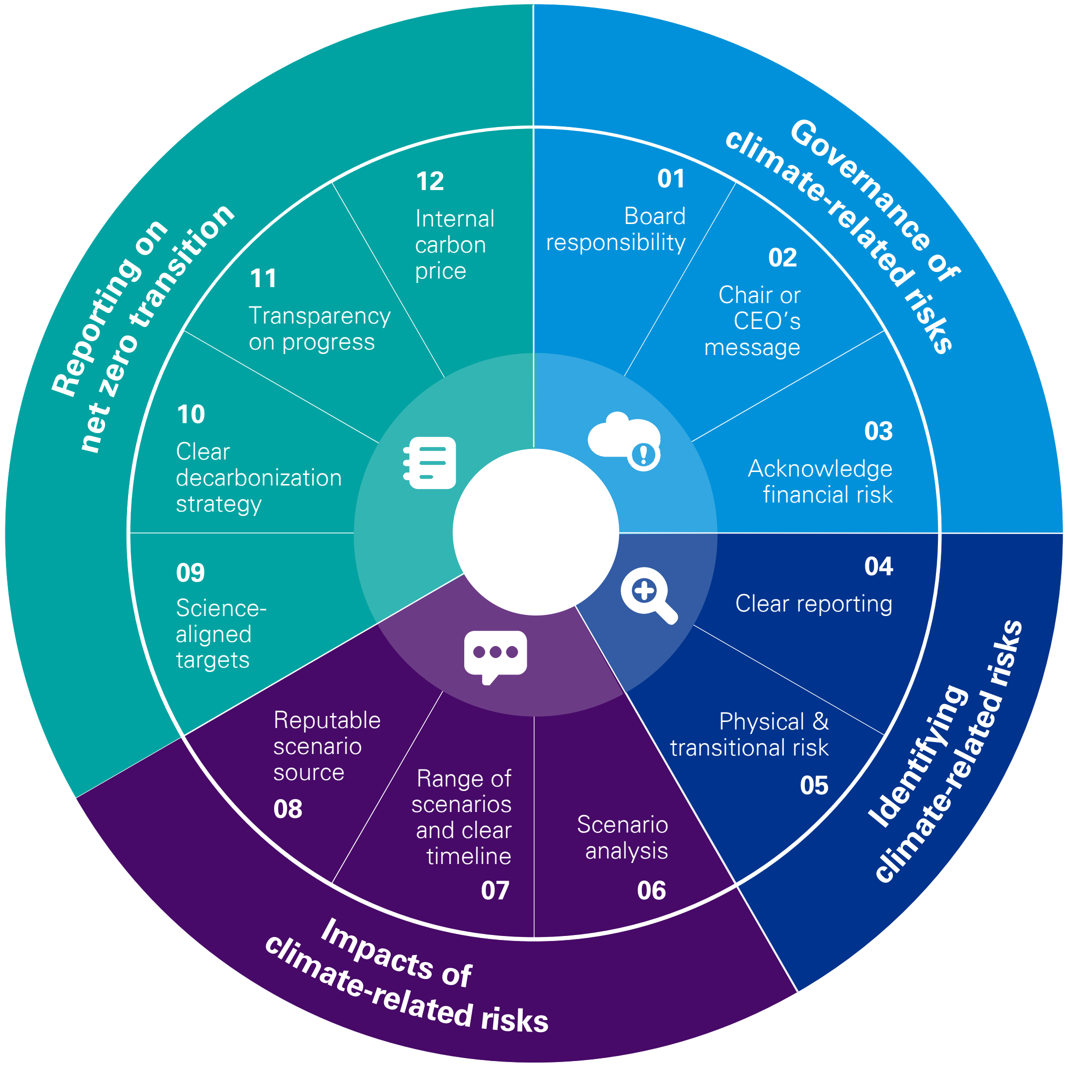
— data users (financial stakeholders).

The Task Force published its recommendations in 2017.[3]

Wim Bartels, a Partner at KPMG in the Netherlands, was one of the first members of the TCFD. KPMG firms fully support the work of the TCFD and advise clients to adopt its recommendations.

3 https://www.fsb-tcfd.org/publications/final-recommendations-report/

KPMG's 12 quality criteria for climate risk and net zero reporting



Governance of climate-related risks

01 **Reporting should confirm the company has assigned board responsibility for overseeing the company's response to climate change**

This demonstrates to investors and other stakeholders that the company is serious about understanding and addressing climate risk. Companies may choose to make the board as a whole responsible for the company's climate response, supported by a sub-committee, or may name a specific board member with responsibility.

02 **The Chair or CEO's message in the annual financial or integrated report should mention climate change and/or climate-related risks**

This signals to the company's investors that the organization's leadership acknowledges climate change as a material risk for the business. It also implies that the company's action on climate change is being driven from the top.

03 **Financial (or integrated) reporting should clearly acknowledge climate change as a potential financial risk to the company**

It is now widely acknowledged that climate change poses a potential financial risk to companies in all industry sectors. All companies should therefore clearly acknowledge in their financial reporting that climate change is potentially a financial risk to the business. They should also disclose the materiality of that risk.

Identifying climate-related risks

04 **A clear section on climate risk should be included in the company's annual financial or integrated report and/or the company should publish a stand-alone climate risk/TCFD report**

This demonstrates that the company is attempting to measure, manage, and disclose its climate-related risks and opportunities. It may give investors and other stakeholders confidence that the company is actively working to increase its resilience to the impacts of climate change.

05 **Reporting should cover both the physical and transitional risks the company faces from climate change and net zero transition**

Physical risks result from the changing climate, e.g. more frequent and severe storms, wildfires and rising sea levels. Transitional risks arise from the global shift to a net zero economy, e.g. new regulation and changing market dynamics. Corporate reporting therefore needs to cover both types of climate-related risk in order to be complete and robust.

Impacts of climate-related risks

06 **Reporting should include scenario analysis of climate-related risks**

Scenario analysis is an effective way to understand how climate-related risks might impact the business and to plan appropriate responses. It helps companies surmise how risks might evolve under different climate, economic and regulatory conditions. It also provides investors and other stakeholders with a forward-looking view on the organization's potential vulnerability or resilience to climate-related risks and is recommended by the TCFD.

07 **Reporting should include risk analysis in line with different global warming scenarios (ideally two or more) and a clear timeline**

Despite the best efforts of climate scientists, no one knows exactly how much the world will warm by and how quickly or how rapidly the world will transition to net zero. It is therefore important for companies to report on potential climate risks under a range of possible global warming scenarios. KPMG professionals typically advise clients to conduct scenario analysis under a minimum of two warming scenarios such as 1.5˚C and 2˚C (which are considered low warming scenarios and are the targets of the Paris Climate Agreement), 3˚C (considered a moderate warming scenario) and 4˚C (considered a high warming scenario).

Additionally, investors, lenders and insurers need to understand the climate risk profile of companies in the short, medium and long terms. It is therefore important that corporate reporting clearly defines the timelines used for climate risk scenario analyses and explains why those timelines were selected.

08 **Scenario analysis should be aligned with recognized climate scenarios developed by reputable sources**

Financial stakeholders need to know that the scenarios used by companies for climate-related risk assessment are robust and reliable. KPMG professionals therefore recommend that companies use recognized and respected scenarios developed by credible sources such as the Intergovernmental Panel on Climate Change (IPCC), the International Energy Agency (IEA) or the International Renewable Energy Association (IRENA). Using a combination of different scenarios from reputable sources adds depth to analysis.

Reporting on net zero transition

09 Reporting should state the company's ambition to achieve net zero carbon emissions at or before the IPCC deadline of 2050 OR should clearly explain another target such as science-based targets

Setting carbon reduction targets aligned with global decarbonization goals shows investors that the company is in step with the global shift to a net zero economy. For example, a company may choose a deadline of 2050 or sooner to achieve net zero emissions. This is in line with what the IPCC says is necessary to limit global warming to a relatively safe level (1.5˚C). Alternatively, companies might set a "science-based" carbon reduction target in line with what is needed to achieve the goals of the Paris Agreement on Climate Change. Over 1,000 companies have adopted science-based targets to date.

10 Reporting should describe the company's strategy to achieve its decarbonization targets

A company's reporting needs to explain how it will achieve its carbon reduction targets by describing the company's decarbonization strategy. A clear strategy on carbon reduction also helps the company by enabling all divisions and functions within the business to understand and deliver their own contributions to the group target.

11 Reporting should clearly communicate whether the company is on track to meet its decarbonization targets

A company can maintain or increase investor confidence if its reporting either confirms it is on track to achieve its carbon reduction targets or is open about any dilemmas and challenges that have hindered progress. A lack of transparency can have the opposite effect by diminishing investor confidence.

12 Reporting should communicate that the company uses an internal carbon price or 'shadow price'

Investors may view the use of an internal carbon price as a sign that a company is well prepared to manage climate-related risks and to navigate net zero transition. An internal carbon price can also signal that management understands the organization's exposure to potential increases in external carbon prices applied by governments and is factoring it into future investment decisions. The use of an internal carbon price is especially important in high carbon sectors such as oil and gas; metals, minerals and mining; and electric utilities which are particularly exposed to carbon reduction policies and external carbon pricing.

Executive Summary: Key findings

G250 report card

		% of G250	G250 Grade	A grade performers (jurisdiction/country/territory or sector)
Governance of climate-related risks	• Reporting confirms that the company has assigned board responsibility for overseeing the company's response to climate change	44%	C	Japan
	• The Chair or CEO's message in the annual financial or integrated report mentions climate change and/or climate-related risks	33%	C	N/A
	• Reporting clearly acknowledges climate change as a financial risk to the company	56%	B	France, Japan, US Oil & Gas, Retail
Identifying climate-related risks	• The annual financial or integrated report should contain a specific section on climate risk and/or the company publishes a stand-alone climate risk/TCFD report	31%	C	France
	• Reporting covers both the physical and transitional risks the company faces from climate change and net zero transition	47%	C	France, Japan, Germany
Impacts of climate-related risks	• Reporting includes scenario analysis of climate-related risks	22%	D	N/A
	• Reporting includes risk analysis in line with a) two or more global warming scenarios and b) with a clear timeline	12% (a) 17% (b)	D	N/A
	• Scenario analysis is aligned with recognized climate scenarios developed by reputable sources	19%	D	N/A
Reporting on net zero transition	• Reporting states the company's ambition to achieve net zero carbon emissions at or before 2050 OR explains another target	46%	C	Germany
	• Reporting clearly describes the company's strategy to achieve its carbon reduction targets	17%	D	Germany
	• Reporting clearly communicates whether the company is on track to meet its carbon reduction targets	24%	D	N/A
	• Reporting communicates that the company uses an internal carbon price or 'shadow price'	11%	D	N/A

A done by 70 percent or more of reporting companies   B done by 50 percent or more   C done by 30 percent or more   D done by less than 30 percent

Base: 245 corporate reporters

Executive Summary: What the data tells us

- At first glance, KPMG's research suggests that the world's largest companies (G250) are still some way from demonstrating good practice in reporting on climate risk and net zero transition. However, closer observation of the data shows a complex and mixed picture. These companies are doing better at some aspects of reporting than others and there are notable variations in reporting quality between companies based in different geographies and operating in different sectors.
- For example, Japanese companies perform particularly well in demonstrating good governance of climate risk in their reporting and delivering high quality scenario analysis, but they do not do so well at clearly reporting their decarbonization strategies. German companies lead the world in setting net zero decarbonization targets, but lag behind when it comes to transparent reporting of their progress toward meeting such targets.
- On a sectoral level, companies in the technology, media and telecommunications sector, for example, are out in front for acknowledging the financial risk of climate change in their reporting. Few of them, however, are using scenario analysis to model and disclose those risks.
- Readers who take an interest in this topic are therefore advised to examine this study closely in order to understand the full picture.
- Overall, the data paints a picture in which most large companies in most countries have the basics of climate risk reporting in place. They have acknowledged climate change as a financial risk and are reporting, to some extent, on both the physical and transitional climate risks their businesses face. However, only one in five is following the TCFD recommendation to apply scenario analysis to assess and disclose the potential impacts of these risks and even fewer are doing a good job of it.
- With regard to reporting on decarbonization and net zero transition, an encouraging number of companies have set carbon reduction targets that are aligned with what the climate science tell us is needed. This is a significant improvement from the situation 5 years ago when KPMG research showed that the carbon reduction targets being set by the world's biggest businesses were largely arbitrary and unexplained. On the other hand, the G250 as a group still has a lot of work to do to improve the way they report their decarbonization strategies and progress.
- As always, there are notable exceptions. The authors encourage you to read the full report, which offers examples of good practice for each of the 12 reporting quality criteria.

Executive Summary: The KPMG view

A glass half full

"When looking at this Executive Summary, it would be easy to conclude that the world's largest companies are underperforming when it comes to reporting their climate risks and decarbonization activities. The G250 report card is dominated by Cs and Ds, showing us that less than half of these companies currently satisfy the bulk of KPMG's quality criteria for good reporting. Yet we, as KPMG professionals, prefer to take a more positive 'glass half full' view of these research findings.

"It is important to view this data in its context. Corporate disclosure of climate-related risks, as we currently understand it, simply did not exist 5 years ago. It was at the UN Climate Conference of 2015 (known as COP21 and which spawned the Paris Agreement) that Mark Carney, then Chair of the Financial Stability Board, and Michael Bloomberg launched the TCFD. The reason they did so was precisely because they saw the lack of corporate disclosure of climate-related risk as a threat, not only to individual investors, lenders and insurers, but also to the stability of the global financial system in its entirety.

"When we consider this, we can see how swift and significant the progress has been. Less than 5 years later, more than half of the G250 publicly acknowledge climate change as a financial risk. Almost half have assigned board level responsibility for the company's response to climate change. As noted in the previous section, these rates are considerably higher in some countries and industry sectors.

"Similarly, the concept of net zero emissions is new to the mainstream political and business worlds. It first appeared in the text of the Paris Agreement of 2015, although the Agreement's deadline for achieving global net zero emissions was vaguely expressed as "in the second half of this century." It is only very recently that 2050 has begun to emerge as a widely adopted target date. In 2019, the UK, France, Denmark and New Zealand enshrined achievement of net zero by 2050 into national law. A net zero target at or around the same year is now either in law or on its way to becoming law in approximately 20 countries and territories.

"In this context, it is remarkable that one in five of the world's largest 250 companies already has a net zero emissions target in place. In some locations, such as Germany and Japan, the rates are even higher.

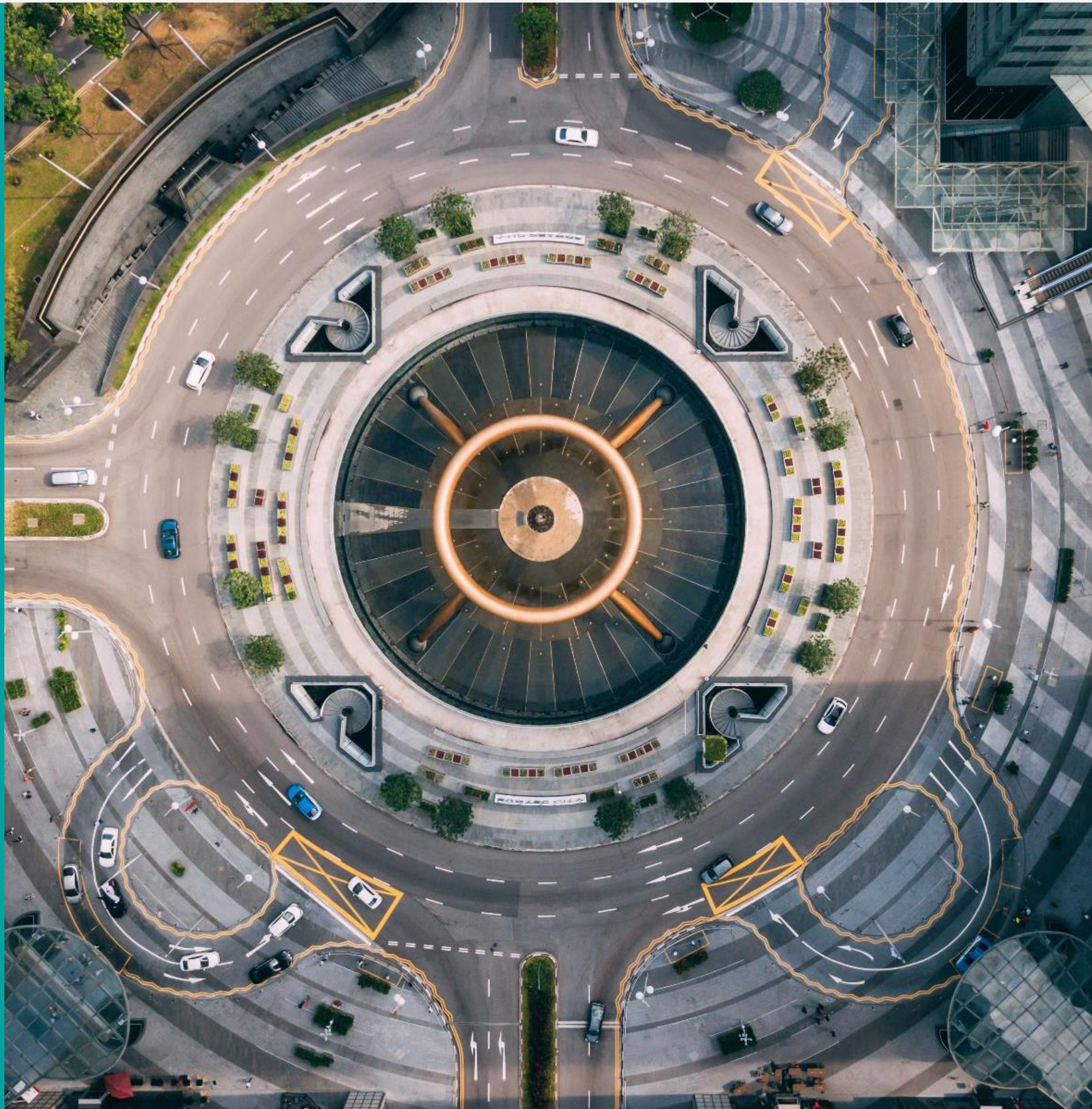
"So, while there is much yet to be done and we must always guard against complacency, there is cause for some optimism. Even though performance is patchy, rapid progress over the last few years is clearly evident. It is our hope that this report, by providing insight into the current state of play, may help to close some of the gaps and contribute to further progress."

Adrian King
Co-Chair, ESG & Sustainability Services, KPMG IMPACT
Partner, KPMG in Australia

Wim Bartels
Co-Chair, Impact Measurement, Reporting & Assurance Services, KPMG IMPACT
Partner, KPMG in Netherlands

01

Governance of climate-related risks



Governance of climate-related risks

44% of G250 companies report they have assigned board responsibility for overseeing the company's response to climate change

Japan	100%
US	42%
France	28%
China	25%
Germany	24%

Technology, Media & Telecommunications	61%
Industrials, Metals & Manufacturing	52%
Oil & Gas	50%
Financial Services	44%
Retail	41%
Automotive	38%
Healthcare	38%

Board responsibility for climate change

What the data tells us

- The global figure of 44 percent is encouraging, as it suggests a growing trend for large companies to assign responsibility for climate change at the highest levels of the organization.
- However, this statistic disguises wide disparity between countries. All 28 Japanese companies in the G250 sample have assigned board responsibility for climate change but the practice is less common in other locations.
- According to Kazuhiko Saito, Leader of Sustainability Services at KPMG in Japan, it is common for large Japanese companies to set up subcommittees under the board of directors to which they delegate the handling of key management issues, including sustainability and climate change. He says, "The subcommittee is typically chaired by a director of the board, hence creating a system where corporate decisions on climate-related issues will be supervised by the board under its responsibility."

What good looks like

BHP is an Australian-based resources company that extracts and processes minerals and oil and gas. Its products are sold worldwide. In its 2019 annual report, BHP included a specific section about the governance of climate change at the company that included the following:

"Climate change is treated as a board-level governance issue and is discussed regularly, including during board strategy discussions, portfolio review and investment decisions, and in the context of scenario triggers and signposts. The Sustainability Committee spends a significant amount of time considering systemic climate change matters relating to the resilience of, and opportunities for, BHP's portfolio."

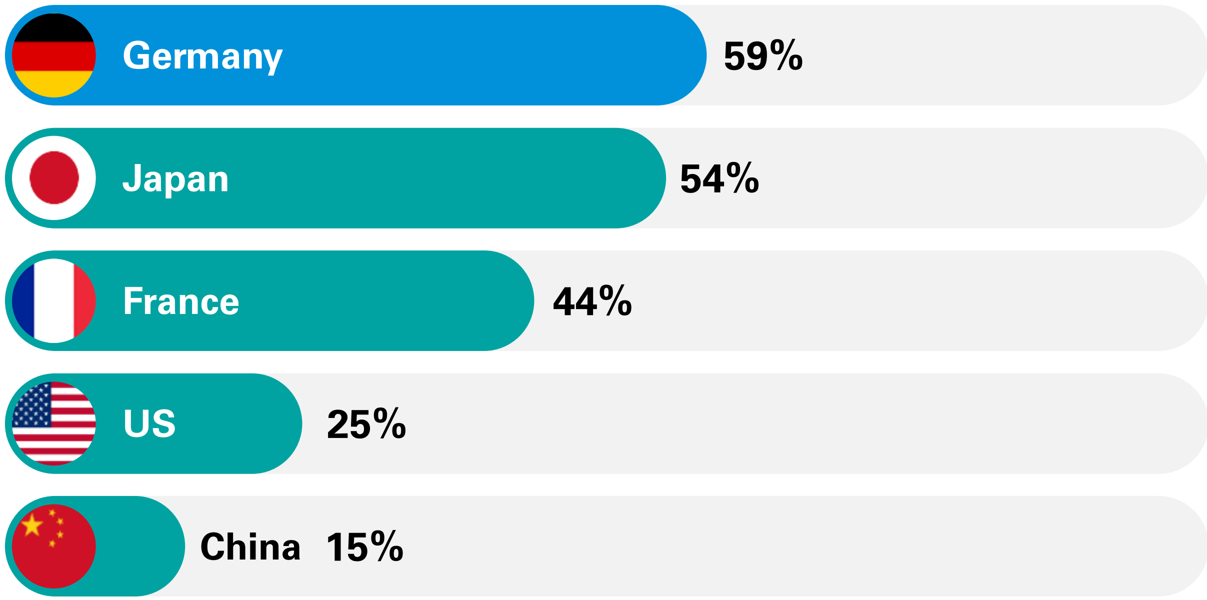
BHP's reporting also states that the Sustainability Committee responsible for considering climate change is led by a board member, that board members possess extensive experience in energy, governance and sustainability and that board decisions are informed by climate change science and expert advisers.

The KPMG view

- A company should ensure that all its board members have a basic understanding of climate change and the net zero transition and the particular risks and opportunities involved for the business. KPMG professionals recommend training for the board.
- A company should also assess the climate-related knowledge and expertise of its board members in order to identify and fill any gaps.
- Appointing a board director with specific responsibility for climate change can indicate to investors, lenders, insurers and regulators that the company is well-prepared and proactive in terms of its climate change response. There is a growing trend for investors to pressure companies to do this, especially in industries that produce or are reliant on fossil fuels. Making an appointment before investors call for it shows the company is on the front foot and can build confidence among financial stakeholders.
- While some companies have appointed climate scientists to the board as a response to investor concerns, many investors believe that it is also important to have board members with deep sector knowledge who can guide the company to success in the net zero future.

Governance of climate-related risks

33% of G250 companies mention climate change in the Chair or CEO's message in the annual financial or integrated report



Oil & Gas	57%
Industrials, Metals & Manufacturing	35%
Financial Services	32%
Technology, Media & Telecommunications	30%
Automotive	29%
Retail	18%
Healthcare	13%

The Chair or CEO's message

What the data tells us

- Leaders of companies based in Germany, France and Japan are far more likely to reference climate change or climate risk in their messages than their counterparts in the US or China. This may be driven in part by regulatory factors, such as mandatory climate reporting in France.
- This is concerning, given that China and the US together are responsible for almost 40 percent of global emissions.
- While a large majority (80 percent) of oil and gas company leaders acknowledge climate change as a core issue for their businesses, the trend is not yet seen in other high carbon sectors: automotive and industrials, metals & manufacturing.

What good looks like

Both the Chairman and the CEO of **AXA, the Paris-based global insurance and asset management company**, highlighted climate change in their messages in the company's 2019 Annual Financial Report:

"To further contribute to the fight against climate change, a major risk for insurers, AXA doubled its green investment target to €24bn, launched transition bonds as a new asset class and tightened its policies regarding coal, both as an investor and an insurer. As curbing climate change is a collective challenge, AXA joined coalitions, such as the Net Zero Asset Owner Alliance, and forged new partnerships, for instance with the C40, a group of the world's largest cities."

Denis Duverne, Chairman of the Board of Directors

"In 2019, we have further leveraged our expertise and economic strength to contribute to the fight against climate change by taking a series of new commitments to accelerate our contribution to a low-carbon and more resilient economy."

Thomas Buberl, Chief Executive Officer

The KPMG view

"Larry Fink, Chairman of the world's largest asset manager Blackrock, focused his 2020 annual letter on his belief that growing awareness of climate risk will cause 'a fundamental reshaping' of finance. He predicted a significant reallocation of capital towards climate-resilient investments 'in the near future – and sooner than most anticipate'.[4]

"The warning could not be clearer for companies. That is why highlighting your company's response to climate change in the Chairperson and/or CEO's annual report messages is particularly effective. It shows that your company's leadership has prioritized climate risk in the same way your investors have."

Adrian King
Co-Chair, ESG & Sustainability Services, KPMG IMPACT
Partner, KPMG in Australia

4. https://www.blackrock.com/au/individual/larry-fink-ceo-letter Accessed: 22 September 2020

Governance of climate-related risks

56%

of G250 companies clearly acknowledge climate change as a potential risk to the business in the annual financial (or integrated) report

France	94%
Japan	71%
US	54%
Germany	47%
China	23%

Oil & Gas	81%
Retail	70%
Technology, Media & Telecommunications	60%
Financial Services	57%
Industrials, Metals & Manufacturing	41%
Automotive	38%
Healthcare	19%

Acknowledging climate change as a financial risk

What the data tells us

- This data point refers to acknowledging climate change as a potential risk in the company's financial reporting – i.e. making it clear to financial stakeholders that the company considers climate change to be a financial issue rather than a sustainability or 'non-financial' issue.
- A majority of the G250 now acknowledge climate risk in their financial reporting – a notable, if not dramatic, increase since 2017, when less than half did so (48 percent) according to KPMG's survey.
- French and Japanese companies lead as they do in several other quality criteria. Surprisingly, a significant number of German companies still discuss the issue only in non-financial reporting.
- Public scrutiny of the role of fossil fuels in climate change is reflected in the high numbers of oil & gas companies that acknowledge climate risk in their financial reporting. Conversely, numbers are surprisingly low in the automotive sector.

What good looks like

Societe Generale, the French investment bank and financial services company, provides a good example of a company that acknowledges the financial risks of climate change in its reporting.

In 2019, the company issued a stand-alone Climate Disclosure report in line with the TCFD recommendations. In the introduction to its report, the company makes it clear that it sees climate change as a potential risk to its business:

"Climate change is one of the most defining issues of this century, alongside poverty, requiring urgent and unprecedented action...

... actions must be started without delay to avoid the most severe financial consequences in the future...

... Societe Generale supports the recommendations of the TCFD, adopts the definition of transition and physical risks, and this report presents Societe Generale's best efforts towards implementing these recommendations."

The KPMG view

"In 2015, KPMG research found that over 80 percent of the world's companies reported their carbon emissions. However, barely any acknowledged that climate change posed a financial risk to their business.

"Then, the view presented in corporate reporting was very much 'inside out' rather than 'outside in'. Companies disclosed the impact of the business on climate change, but not the impact of climate change on the business.

"There has been a remarkable change since then. Today, a company that fails to acknowledge at least the potential for climate change to affect its bottom line runs the risk of being seen by its financial stakeholders to be making a serious omission in its disclosures."

Wim Bartels
Co-Chair, Impact Measurement, Reporting & Assurance Services, KPMG IMPACT
Partner, KPMG in Netherlands

02

Identifying climate-related risks

Identifying climate-related risks

31% of G250 companies include a section on climate-related risk in the company's annual financial (or integrated) report and/or publish a stand-alone climate risk or TCFD report

France	78%
Japan	36%
US	29%
Germany	6%
China	2%

Financial Services	53%
Oil & Gas	50%
Industrials, Metals & Manufacturing	26%
Technology, Media & Telecommunications	24%
Retail	23%
Healthcare	19%
Automotive	14%

Clear reporting of climate-related financial risk

What the data tells us

- French companies lead when it comes to providing investors with information on climate risk. Almost all the 18 French companies (94 percent) in the G250 published a clearly defined climate-risk section in their annual financial or integrated report and/or a separate report on climate risk.
- According to Fanny Houlliot, leader of the Sustainability services practice at KPMG in France, France has been a pioneer in climate reporting obligations. She said: "In 2015, Article 173 of the French energy transition law obliged listed companies to report on the financial impacts of climate change – 2 years before the issuance of the TCFD recommendations."
- Higher rates among the financial services and oil & gas sectors may be due to their close involvement in the TCFD. Financial services companies played a critical role in developing the TCFD recommendations and the oil & gas sector was highlighted by the TCFD as a sector with particular exposure to climate risk.

What good looks like

Zurich Insurance Group (Zurich) is a leading Swiss-based insurer operating in more than 215 countries and territories.

The company includes a specific three-page section on climate change risk within the Risk Review chapter of its 2019 annual report. It begins the section as follows:

"Climate change is perhaps the most complex risk facing society today: it is intergenerational, international and interdependent. As a global insurer, Zurich faces risks from climate change and provides this disclosure per its commitment to adopt the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)."

The report goes on to provide its readers with information under the following sub-headings: climate strategy; climate-related physical risks; climate-related transition risks; climate-related opportunities; [climate] risk management; and [climate] metrics.

The KPMG view

"When it comes to corporate reporting, presentation matters and the presentation of climate risk information is no exception. Given the increasing attention of investors and other financial stakeholders on climate risk, it is important to signpost them clearly to the relevant information either within the primary corporate report or in a separate report.

"While only 10 percent of large companies currently issue a stand-alone report on climate risk, KPMG professionals expect this trend to grow in line with increasing investor expectation and mandatory reporting regulation around the world."

Fanny Houlliot
Partner, Sustainability Services, KPMG in France

Identifying climate-related risks

47% **of G250 companies report on both the physical and transitional risks the company faces from climate change**

France	72%
Japan	71%
Germany	71%
US	68%
China	15%

Technology, Media & Telecommunications	67%
Financial Services	61%
Oil & Gas	60%
Industrials, Metals & Manufacturing	48%
Retail	45%
Automotive	43%
Healthcare	41%

Reporting both physical and transitional risks

What the data tells us

- Globally, less than half of G250 companies report on both physical and transitional climate-related risk, but the figures are well above this level in France, Germany, Japan and the US.
- In these countries, a significant majority of large companies (two thirds or more) have understood the concept of the two different types of climate-related risk, and have accepted the need to report on both.
- Globally, marginally more companies report on physical risks than transitional risks. This suggests that some companies are less comfortable with discussing transitional risk.
- The same trend is largely reflected on a sector level. There are only three sectors in which more companies report on transitional than physical risks. These are financial services, oil & gas and automotive. The latter two are historically high carbon industries and may be more threatened than others by net zero transition.

What good looks like

Unilever is a British-Dutch multinational consumer goods company, headquartered in both the UK and The Netherlands.

In the risk section of its 2019 annual report, Unilever includes a four-page focus on climate change, which covers, among other topics, both the physical and transitional climate-related risks the company faces.

Unilever's report includes scenarios that assess the potential impact of climate change over the long term on key commodities the company uses. It also acknowledges that the company faces, *"physical climate change risks and opportunities in its supply chain and direct operations over the short and medium term – notably from the effects of extreme weather and water scarcity."*

With regard to transitional risk, the report recognizes that *"the transition to a low-carbon economy presents a number of risks, but also opportunities for Unilever over the short and medium term – notably from changing consumer preferences and future policy and regulation."*

The KPMG view

- Climate science has grown as an academic discipline since the 1970s and companies today can access a wide array of climate modelling tools and scientific partners to help them assess physical risks. However, the process can be complex and there is not yet a standardized approach.
- Transitional climate risk is a newer concept and the field of transitional risk modelling is therefore less developed and may present new challenges for some companies.
- A physical risk profile is unique to a business as it relates to the locations of operations and supply chains. Geography also influences transitional risk, due to differing policies and regulations between jurisdictions, but there are also sectoral commonalities in transitional risks. Collaborating with governments and sector peers on sectoral transitional risk models and decarbonization pathways can be helpful.

03

Impacts of climate-related risks

Impacts of climate-related risks

22% **of G250 companies include scenario analysis of climate-related risks in their reporting**

- Japan 50%
- France 39%
- Germany 29%
- US 23%
- China 1%

- Financial Services 33%
- Retail 27%
- Industrials, Metals & Manufacturing 26%
- Technology, Media & Telecommunications 24%
- Oil & Gas 10%
- Automotive 10%
- Healthcare 6%

Conducting scenario analysis of climate-related risk

What the data tells us

- Just over one-fifth of the world's largest companies now include climate-risk scenario analysis in their corporate reporting.
- Rates are especially high in Japan. KPMG in Japan's Kazuhiko Saito says, "In 2019, a private sector led TCFD Consortium was established and backed by the Japanese government. The Japanese Ministry of Environment also published a practical guide for scenario analysis. These initiatives have encouraged and accelerated Japanese companies' disclosure of climate-related scenario analysis in their reporting."
- On a sectoral level, financial services companies lead. This may be due to the sector's close involvement in developing the TCFD recommendations and pressure from many central banks exercising oversight of the sector in their countries.

What good looks like

Italian multinational energy company Enel Group included scenario analysis of both physical and transitional risk in its 2019 annual report. In the introductory text to its scenario analysis, the company says:

"The Group develops short-, medium- and long-term scenarios for the energy industry and for macroeconomic and financial conditions in order to support its strategic and industrial planning and the evaluation of investments and extraordinary corporate transactions. The role of climate change in these scenarios is increasingly important in terms of:

- *acute phenomena (heat waves, flooding, hurricanes etc.) and their potential impact on industrial assets,*
- *chronic phenomena related to structural changes in the climate such as the rising trend in temperatures, rising sea levels etc., which bring about changes in the output of generation plants and in electricity consumption profiles in the residential and commercial sectors,*
- *transition of the various industrial and business sectors towards a green economy characterized by ever lower emission levels."*

The KPMG view

"Scenario analysis is one of the key recommendations of the TCFD. Financial stakeholders need forward-looking information to help them understand what may be coming down the line for their portfolios in terms of climate-related risks and opportunities.

"Yet, detailed, longer term, forward-looking reporting has not been the norm for companies that have traditionally provided retrospective information along with short-term earnings forecasts.

"Adopting a sophisticated forward-looking view on reporting of climate risk is, therefore, a significant culture shift for many companies, most of which likely lack in-depth subject matter expertise on their teams. This is a steep learning curve that companies need to climb quickly."

Jennifer Shulman
Co-Chair, Impact Measurement, Reporting & Assurance Services, KPMG IMPACT
Partner, KPMG in Canada

Impacts of climate-related risks

12% of G250 companies report scenario analysis under two or more global warming scenarios

Japan	36%
US	15%
Germany	6%
France	0%
China	0%

Retail	27%
Industrials, Metals & Manufacturing	13%
Financial Services	11%
Automotive	10%
Technology, Media & Telecommunications	9%
Oil & Gas	7%
Healthcare	0%

Impacts of climate-related risks

17% of G250 companies report scenario analysis with clear timelines

France 39%

Japan 25%

Germany 24%

US 19%

China 2%

Financial Services 23%

Retail 23%

Technology, Media & Telecommunications 18%

Industrials, Metals & Manufacturing 13%

Oil & Gas 10%

Automotive 10%

Healthcare 6%

Using multiple climate scenarios and clear timelines

What the data tells us

- One in ten (26) G250 companies has developed a sophisticated approach to climate scenario analysis by reporting under two or more global warming scenarios. This does not mean that others are not working on it. In the experience of KPMG professionals, companies commonly spend 2 years or more developing scenario analysis before disclosure.

- A further 24 reported under just one warming scenario, while just three companies reported under three separate global warming scenarios.

- Even fewer companies are taking a long-term view of climate-related risks and opportunities. Less than 10 percent of the G250 (20 companies) reported under scenarios to 2050 or beyond.

- All but one of the companies taking a long-term view of climate change to 2050 or beyond are based in the US, Japan, France or Germany. Almost half are in the financial services sector.

What good looks like

In its 2019 Sustainability Report, **German-based insurer Allianz** included transition scenarios for a range of sectors in which it invests. It calculated a macroeconomic negative impact of nearly US$2.5 trillion over 10 years, while also identifying opportunities for a variety of sectors. The analysis used two warming scenarios – 1.5˚C and 2˚C – as well as timelines of 2020, 2025, 2030, 2035 and 2040.

Allianz has used the findings of this macroeconomic analysis for internal analysis, for example on its proprietary investment portfolio.

The KPMG view

In the past, investors have typically looked at relatively short-term horizons of financial performance. This is changing. Many industries must make major long-term investments in assets with lifecycles of 30 years or longer. These assets could become stranded economically in the transition to net zero and/or suffer physical damage as the impacts of climate change worsen. As a result, it is increasingly important for investors to understand the long-term outlook for their portfolios under scenarios to 2050 and beyond.

Global		2° C				
		2020	2025	2030	2035	2040
Energy	Integrated Oil and Gas	(M)	(M)			
Energy	Oil and Gas and Transportation					
Energy	Coal and Consumable Fuels				T,P	T,P
Materials	Fertilizers and Agricultural Chemicals	(T)	(T)	(T)	(T)	(T)
Materials	Aluminium					
Materials	Steel					
Industrials	Industrial Conglomerates					
Industrials	Airlines	(T)	P			
Consumer Discretionary	Auto Components					
Consumer Discretionary	Automobiles			P	P, T	T
Utilities	Electric Utilities	P	(M)		P	P
Utilities	Renewable Electricity				T	T

Source: Allianz 2019 Sustainability Report

Impacts of climate-related risks

19% of G250 companies report climate-risk scenario analysis aligned with recognized scenarios developed by reputable sources

Japan	43%
Germany	29%
France	28%
US	20%
China	2%

Financial Services	28%
Retail	27%
Technology, Media & Telecommunications	21%
Industrials, Metals & Manufacturing	17%
Oil & Gas	10%
Automotive	10%
Healthcare	6%

Using reputable sources for climate scenarios

What the data tells us

- Around one-fifth of G250 companies include climate scenario analysis in their reporting. Of these, almost 90 percent have referenced climate scenarios developed by reputable sources. This suggests that although reporting of climate scenario analysis is still a minority activity, the companies that are doing it are, for the most part, basing their analyses on sound scenarios.
- The most commonly used scenarios among this group were the IPCC physical climate scenarios (used by around two-thirds of G250 companies reporting scenario analysis) and the IEA transitional scenarios (used by just over half).
- Slightly more companies reported scenario analysis of physical risks than transitional risk. This may be because physical risk is arguably less complex to model under established climate science projections than transitional risks which must be modelled to a large extent on forecasts of geopolitical factors, such as global treaties and policy responses.

What good looks like

Mitsubishi Corporation (MC) is a Japanese-based global integrated business enterprise that develops and operates businesses together with its offices and subsidiaries in approximately 90 countries and regions worldwide, as well as a global network of 1,700 group companies.

The corporation operates across multiple industries, including energy and natural resources, power and utilities, automotive, and food and beverage.

In its 2019 integrated report, Mitsubishi states the sources of its climate scenarios as follows:

"Based on the demand outlook (expressed in five levels) for various scenarios (based on the World Energy Outlook and Energy Technology Perspectives of the International Energy Agency (IEA) etc.) in the main business sectors that could be affected by climate change, MC is formulating an awareness of the business environment along with related policies and initiatives."

The KPMG view

"KPMG professionals recommend the TCFD's technical supplement on the 'Use of scenario analysis in disclosure of climate-related risks and opportunities' as a key resource for companies approaching climate scenario analysis.

"Our research suggests that most of the 50 or so G250 companies currently conducting scenario analysis are following TCFD recommendations to use IPCC and IEA scenarios. IEA scenarios are typically used for transitional risk analysis. They articulate various energy and economic pathways likely to lead to particular warming outcomes (e.g. 2˚C). IPCC scenarios, on the other hand, are more widely used to analyze physical risk. They articulate likely temperatures resulting from various concentrations of greenhouse gases in the atmosphere."

Wim Bartels
Co-Chair, Impact Measurement, Reporting & Assurance Services, KPMG IMPACT
Partner, KPMG in Netherlands

04

Reporting on net zero transition

Reporting on net zero transition

46% of G250 companies report a net zero target OR science-based targets

19% report a net zero target

27% report science-based targets

	Net zero	Science-based target
Germany	76%	6%
France	44%	28%
Japan	25%	39%
US	10%	41%
China	2%	8%

Sector	Net zero	Science-based targets
Technology, Media & Telecommunications	30%	45%
Automotive	29%	38%
Industrials, Metals & Manufacturing	17%	22%
Oil & Gas	17%	20%
Financial Services	14%	21%
Retail	9%	23%
Healthcare	6%	38%

Setting net zero or science-based targets

What the data tells us

- The 2020 figure of 46 percent indicates significant progress since 2017 when KPMG's survey showed less than one-third of the G250 linked their corporate carbon reduction targets to greater climate goals.
- The leading sectors for setting net zero targets are automotive and technology, media and telecommunications. This is likely related to the progress made by these sectors in electric vehicles and renewably-powered data centers respectively.
- Germany leads with over three-quarters of its G250 companies setting net zero goals. According to Christian Hell, Leader of KPMG in Germany's Sustainability Services practice, this is because the German companies in the sample are historically seen as sustainability leaders. For them, pursuing new technologies and other innovations to make the leap towards net zero emissions is the logical next step to stay ahead of the market.

What good looks like

Spanish oil and gas major Repsol was the first in the sector to announce a net zero target to be achieved before 2050. The company's 2019 Integrated Management Report sets out the goal clearly as follows:

"In November, coinciding with the Climate Summit held in Madrid, the Board of Directors reviewed the company's role in the fight against climate change and made progress in its commitment to lead the energy transition in the industry, in line with the objectives of the Paris Summit and the United Nations' Sustainable Development Goals of reducing the increase in the planet's temperature to less than two degrees Celsius with respect to pre-industrial levels.

"Repsol will therefore focus its strategy on achieving its goal of being a company with net zero emissions by 2050, thus becoming the first in its industry to pursue this ambitious goal."

The KPMG view

"It is heartening to see large numbers of major companies setting net zero goals. However, the devil is in the detail. There are different ways to get to net zero at or before 2050.

"It is possible for a business to commit to 2050 net zero now and assume that in 30 years time, technology will be available to capture and store or utilize all their emissions. Under this scenario, a business could maintain or even increase its emissions for almost the next 30 years – which would only serve to intensify climate change and would not be in line with the goals of the Paris Agreement.

"Businesses that are serious about net zero transition will develop and implement decarbonization strategies that reduce emissions immediately and continue to do so in a sustained manner until the net zero goal is met."

Christian Hell
Partner, Sustainability
KPMG in Germany

Reporting on net zero transition

17% of G250 companies describe the company's strategy to achieve its decarbonization targets

Germany	88%
France	17%
US	14%
Japan	11%
China	0%

Automotive	38%
Technology, Media & Telecommunications	21%
Oil & Gas	17%
Financial Services	14%
Healthcare	13%
Retail	9%
Industrials, Metals & Manufacturing	0%

Reporting decarbonization strategy

What the data tells us

- The previous section paints a positive picture of large companies setting robust decarbonization targets linked to climate science. However, far fewer companies explain in their reporting how they will achieve these targets.

- German companies lead in reporting their decarbonization strategies. Christian Hell, Leader of KPMG in Germany's Sustainability Services practice, says, "German business culture plays a role here. A company will only announce ambitious targets like net zero if it is clear on how to achieve them. Coherent strategies and measurement plans are considered necessary and transparency about these helps to build credibility."

- The automotive sector leads in reporting decarbonization strategy. This is largely because the sector's decarbonization strategy is well established, namely a shift towards electric vehicles, driven partly by regulation in some countries to end the manufacture and sale of new fossil-fuelled vehicles.

What good looks like

German-based life science company Bayer clearly explains its decarbonization strategy in its 2019 Sustainability Report.

The company states a goal to achieve carbon neutral production by 2030 and describes how it intends to achieve that goal, for example:

- *"We aim to achieve an absolute reduction in emissions between 2020 and 2030 through energy efficiency measures – namely process innovations, more efficient facilities and building technology, and the implementation and optimization of energy management systems."*
- *"We want to switch our production to electricity from renewable energies worldwide by 2030."*
- *"We plan to offset unavoidable emissions through certificates from qualitative compensation projects, especially in forest conservation and agriculture ... we prefer projects that not only achieve CO2 capture, but also provide social benefit..."*

The KPMG view

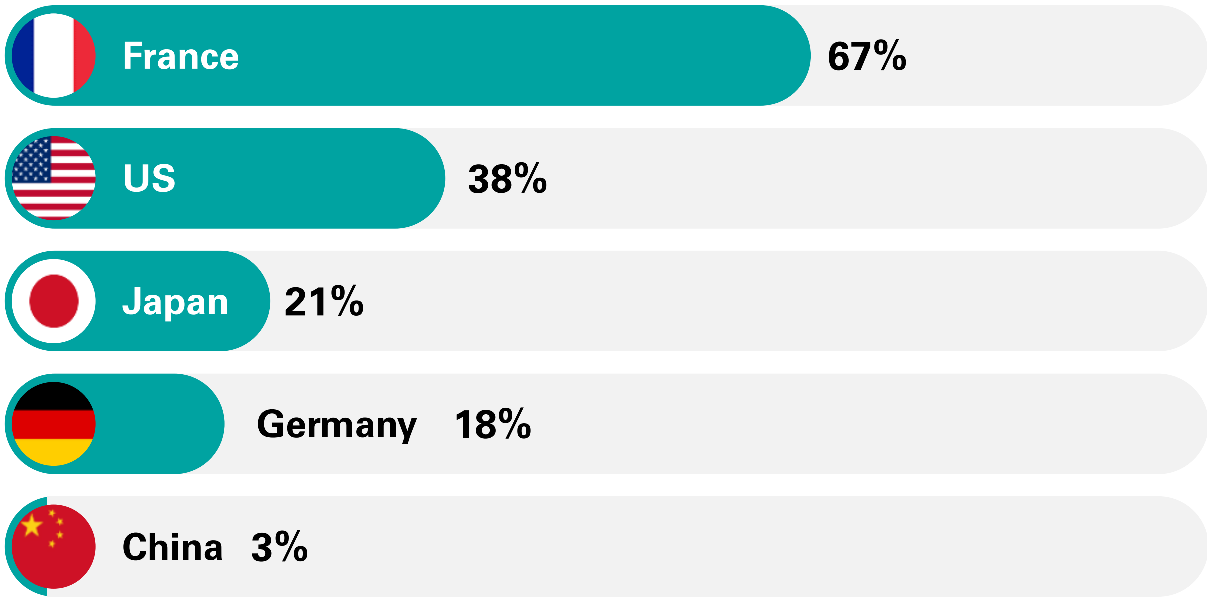
"I am not surprised that reporting on decarbonization strategy is generally low. Many companies have set bold goals, but few know how they are going to get there. Decarbonization challenges vary by sector and there are many approaches that can be employed. They include energy-efficiency, switching to (clean) electricity to generate heat, using hydrogen power and the capture and storage or utilization of carbon emissions.

"Many of these technologies are still in early stages of development. Yet, my message to companies is to set a clear direction. It can be developed and altered over time, but investors need to have confidence that businesses have a plan in place, otherwise their decarbonization goals can lack credibility."

Mike Hayes
Chair, Climate Change & Decarbonization Services, KPMG IMPACT
Partner, KPMG in Ireland

Reporting on net zero transition

24% of G250 companies clearly communicate whether the company is on track to meet its decarbonization targets



Technology, Media & Telecommunications 45%

Automotive 33%

Financial Services 23%

Healthcare 19%

Industrials, Metals & Manufacturing 13%

Oil & Gas 13%

Retail 9%

Communicating progress towards decarbonization

What the data tells us

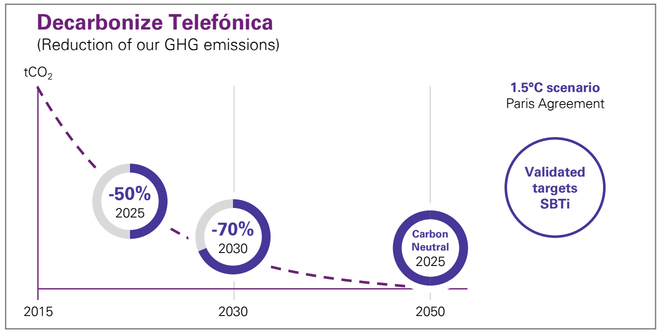
- Less than one-quarter of G250 companies perform well when it comes to clearly reporting progress toward decarbonization targets.
- The technology, media and telecomms sector performs best. This may be because decarbonization strategies in this sector can be more straightforward than in some others, focusing on product energy efficiency and clean energy for data centers.
- Decarbonization in oil & gas or industrials, metals & manufacturing, for example, is arguably more complex. Slow progress may result in reluctance to be transparent.
- Strong performance by French companies may be due to the 2018 transposition of the EU Non-financial Reporting Directive into French law. According to Fanny Houlliot, Partner at KPMG in France, "this has helped to make it standard practice for French companies to communicate progress against extra-financial objectives, including decarbonization targets."

What good looks like

In its 2019 Consolidated Management Report, **Spanish telecommunications major Telefonica** clearly communicates progress on its existing decarbonization goals as well as setting out new goals:

"In 2018, we met two years ahead of schedule, the targets we had set for 2020. Because of this and the necessary increase in ambition requested by the scientific world, led us to announce new energy and climate change targets up to 2025, 2030 and 2050 during COP25. These targets are aligned with the 1.5ºC scenario and validated by the Science Based Targets Initiative (SBTi). Meeting these targets is part of the variable remuneration of all Telefónica's employees, including the Executive Committee".

Energy and climate change targets 2025-2030-2050
On course to neutrality



Source: Telefonica 2019 Consolidated Management Report

The KPMG view

- Slower than expected progress towards decarbonization goals is not necessarily a sign of failure. It can indicate improved management of emissions, particularly those that are complex to calculate, such as upstream emissions from supply chains or downstream from the use of products.
- Research suggests that companies exhibiting higher levels of carbon transparency outperform their peers on shareholder return.[5] It is unclear whether transparency simply reflects good management or whether investors are placing a premium on companies they see as well-positioned to compete in a net zero world, or both.
- Either way, companies that are not providing transparency on their progress towards decarbonization goals should consider what signal that sends to investors and other financial stakeholders.

5. Thomson Reuters et al (2018) Transparency: the pathway to leadership for carbon intensive businesses

Reporting on net zero transition

11% of G250 companies report using an internal carbon price or "shadow price"

France	44%
US	10%
Germany	6%
Japan	4%
China	0%

Technology, Media & Telecommunications	21%
Oil & Gas	17%
Automotive	10%
Financial Services	9%
Healthcare	6%
Industrials, Metals & Manufacturing	4%
Retail	0%

Using an internal carbon price

What the data tells us

- Few large global companies report the use of an internal carbon price in their annual financial, integrated or sustainability reporting.
- Some companies may report the use of internal carbon pricing in other reporting, such as CDP sumissions, which were not covered by this survey. For maximum investor visibility, KPMG professionals recommend inclusion in primary reporting channels.
- French companies are an exception. Almost half of French G250 companies report the use of an internal carbon price. Anne Garans, Partner, Sustainability Services at KPMG in France, says, "France is one of the few countries to have both an Emission Trading Scheme and a carbon tax, and is the initiator of the upcoming EU carbon border adjustment mechanism. This creates a business environment in which companies connect with the topic of carbon and are more likely to take it a step further by using an internal price."

What good looks like

Equinor is a Norwegian-based energy company operating in over 30 countries worldwide. In its 2019 sustainability report, the company makes clear that it applies an internal carbon price to all its projects that is higher than current carbon prices. It states that this is done in order to ensure resilience to future carbon price increases:

"We require all potential projects to be assessed for carbon intensity and address emission reduction opportunities for Equinor-operated projects at every decision phase – from assessing exploration and business opportunities to project development and operations. Furthermore, we require all projects to include a carbon price of at least USD 55/tonne, to be resilient towards expected higher carbon taxes."

The KPMG view

- Many governments are committing to national net zero targets around or before 2050. They include Canada, China, France, Germany, the UK, Spain, South Korea and New Zealand as well as the US state of California.
- One of the key tools available to them to achieve their net zero ambitions is to make businesses pay, or pay more, for their carbon emissions.
- In this context, it makes sense for companies to apply an internal carbon price to calculate their exposure to potential increases in external carbon costs.
- Using corporate reporting to communicate the use of an internal carbon price is one way to show investors, banks and others that the company is well prepared for net zero transition.
- It is, therefore, surprising and somewhat concerning that so few companies currently report using the practice.

Conclusion and next steps for readers

This KPMG survey of climate risk and net zero reporting reveals remarkable progress by some of the world's largest companies in only a few years.

It is important to remember that it can take a large company 2 years or more to prepare before it is ready to publicly disclose its climate risk information. The process can be time consuming and complex, especially for companies doing it for the first time. So, the organizations that are already making public disclosures can be considered true global leaders. Recognizing that climate risk disclosure would likely become not only standard practice but ultimately a mandatory requirement for businesses, they started the journey early. They should be applauded for that, even if most disclosures are not yet complete and do not satisfy all the quality criteria set out in this report.

Through the work that KPMG firms are doing with clients, we can see further progress taking place behind the scenes. Corporate experience is growing and innovation, new ways of analyzing climate risks and improved data are emerging.

We are confident that more and deeper disclosures are on the way and that we will see a rapid ratcheting-up of both the volume and quality of information being disclosed.

As closing thoughts for companies starting out on the journey, we offer the following:

- First, reporting should be aligned and keep pace with the development of the business itself. Even the world's largest 250 companies are on a journey and don't get everything right straight away. For those starting with reporting, our advice would be to take a business lens and let the reporting follow from that. Don't be too concerned about 'ticking all the boxes'. The TCFD recommendations are not intended as a box-ticking exercise, but as a framework to inform business and investment decisions alike.
- Second, the disclosure landscape is evolving rapidly and the pressure to disclose is growing. The policy and regulatory tide in an increasing number of jurisdictions is turning towards mandatory climate risk disclosure and 2050 net zero targets. Companies that have not yet started out on their climate risk disclosure and net zero planning should begin without delay.
- Finally, be careful about misreading the recommendations of the TCFD as flexible and easy to meet. Serious implementation of them requires genuine and ongoing commitment not only from leadership but right across the business, and the appropriate resources to be made available. A light touch approach will not provide financial stakeholders with the decision-useful information they need and could result in substantial risk management issues if the company fails to fully understand and act on the impacts of climate change on its business.

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Research methodology

This research was conducted in 2020 by Sustainability Services professionals at KPMG in Germany. They reviewed corporate reporting by the world's 250 largest companies (G250) as defined by the Fortune Global 500 ranking for 2019. Reporting included annual financial or integrated reports, sustainability reports, stand-alone reports and company websites published between 1 July 2019 and 30 June 2020.

The researchers assessed reporting by the G250 against 12 quality criteria for good climate risk and net zero reporting. These criteria were developed by KPMG professionals and are explained on pages 6 to 8 of this report.

G250 research sample: National breakdown

Country where company is headquartered

Country		
US	**28%**	(69 companies)
China	**24%**	(59 companies)
Japan	**11%**	(28 companies)
France	**7%**	(18 companies)
Germany	**7%**	(17 companies)
South Korea	**3%**	(7 companies)
Switzerland	**2%**	(5 companies)
United Kingdom	**2%**	(5 companies)
Brazil	**2%**	(3 companies)
India	**2%**	(4 companies)
Italy	**2%**	(4 companies)
Spain	**2%**	(4 companies)
Australia	**1%**	(3 companies)
The Netherlands	**1%**	(3 companies)
Russia	**1%**	(3 companies)
Singapore	**1%**	(1 company)
Other	**5%**	(17 companies)

G250 research sample: Companies by sector

- **24%** Financial Services (57 companies)
- **14%** Technology, Media & Telecommunications (TMT) (33 companies)
- **12%** Industrials, Manufacturing & Metals (23 companies)
- **11%** Oil & Gas (30 companies)
- **8%** Automotive (21 companies)
- **8%** Retail (22 companies)
- **6%** Healthcare (16 companies)
- **17%** Others (each 5% or less of the total sample): Chemicals, Construction & Materials, Food & Beverage, Forestry & Paper, Mining, Personal & Household Goods, Transport & Leisure, Utilities. (48 companies)

Research methodology

Sector classifications *		
Automotive	Automobiles, Parts and Tires
Financial Services	Banks, Non-life Insurance, Life Insurance, Real Estate Investment & Services, Real Estate Investment Trusts, Financial Services, Equity Investment Instruments, Non-equity Investment Instruments
Healthcare	Pharmaceuticals & Biotechnology, Health Care Equipment & Services (Health Care Providers, Medical, Equipment, Medical Supplies)
Industrials, Manufacturing & Metals	Industrial Metals & Mining (Aluminium, Non-ferrous Metals, Iron & Steel), Aerospace & Defence, General Industrials (Containers & Packaging, Diversified Industrials), Industrial Engineering (Commercial Vehicles & Trucks, Industrial Machinery), Oil Equipment, Services & Distribution (including Pipelines), Alternative Energy (Renewable Energy Equipment, Alternative Fuels)
Oil & Gas	Oil & Gas Producers, Exploration & Production, Integrated Oil & Gas
Retail	General Retailers (Apparel Retailers, Broadline Retailers, Home Improvement Retailers, Specialized Consumer Services, Specialty Retailers), Food & Drug Retailers (and Wholesalers),
Technology, Media & Telecommunications (TMT)	Fixed Line Telecommunications, Mobile Telecommunications, Software & Computer Services (and Internet), Technology Hardware & Equipment (Computer Hardware, Electronic Office Equipment, Semiconductors, Telecommunications Equipment), Electronic & Electrical Equipment, Media (Broadcasting & Entertainment, Media Agencies, Publishing)

* The sector classifications used for this research are aligned with the Industry Classification Benchmark (ICB), a globally utilized standard for the categorization and comparison of companies by industry and sector.

Ackowledgements

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How we can help: KPMG climate risk and net zero reporting services

KPMG firms can provide bespoke services to help clients address climate-related financial risks.

Our support covers the following areas:

Assess and improve readiness for reporting:

Using advanced tools, KPMG professionals can evaluate the extent to which your business's processes, methods and disclosures currently fulfil the TCFD recommendations. We can benchmark your company's performance against industry best practice to show where you stand in the market.

Map climate-related risks:

KPMG specialists can help you to understand your company's exposure both to the physical effects of climate change and to the likely regulatory and economic impacts of the shift to a low-carbon economy. We can identify the areas of your business, as well as the countries where your operations are located, which are - or will be - most affected by climate change.

Use scenario analysis to assess resilience:

In line with the TCFD recommendations, KPMG firms can help you understand how climate-related risks and opportunities could affect your business in a variety of regulatory, economic and climate scenarios. We can explore what these scenarios would mean for your business in the short, medium and long terms and develop tools and procedures to assess and quantify the potential financial impacts.

Inform business strategy:

KPMG professionals can help you identify the climate risks that are most pressing for your company. We can provide recommendations on how to develop a robust climate resilience strategy for operations and product portfolios taking into consideration the different scenarios that could pan out in the future.

Adapt investment strategies:

KPMG specialists can work with asset owners and managers to review and adapt their investment strategies in order to reduce exposure to climate-related risk.

Manage and report on risks:

KPMG firms can help you define appropriate data collection systems, metrics and targets to monitor, manage, and report on climate-related risks in line with the TCFD recommendations. We can provide advice on how best to disclose your climate-related risks in your financial disclosures and provide good practice examples to guide your reporting.

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