

# Measuring year-over-year progress in SEC sustainability disclosures

# 67%

of US investors want to see the relevance of sustainability factors to the company's business model

According to PwC's 2022 US Investor Survey<sup>1</sup>

While we wait for the finalization of the SEC's climate disclosure rules, the quality of climate-related disclosures under existing securities laws continues to be a focal point for the SEC staff. Looming global ESG disclosure requirements are also inspiring a renewed corporate focus on disclosures of climate and other environmental risks amid ongoing investor demand for increased transparency to inform decision making.

Since its September 2021 issuance of a "[Dear Issuer](#)" letter highlighting climate disclosure considerations, the sufficiency of climate-related disclosures in annual filings has been one of the top areas of SEC comment. Based on publicly released data as of June 2023, 17 of the S&P 100 companies have received climate-related comments since the 2021 guidance was issued. Echoing this demonstrated interest from the SEC staff, PwC's 2022 US Investor Survey highlighted investors' requests for additional sustainability information, finding that 55% of US investors want companies to report the impact they have on the environment or society now and in the future.<sup>1</sup>

Given the continued interest from investors and the SEC staff, we wanted to see whether and how climate-related disclosures in annual reports are evolving. We updated and expanded our December 2022 analysis of climate-related disclosures among the S&P 100 to compare the results from our prior analysis of 2021 10-Ks<sup>2</sup> to the disclosures contained in the S&P 100's 2022 10-Ks.<sup>3</sup>

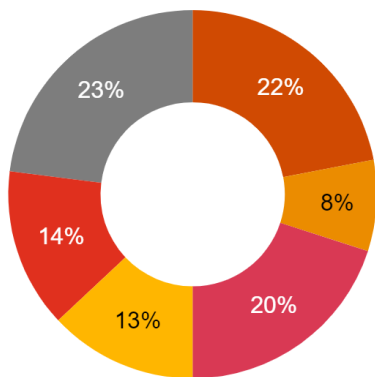
As companies look ahead to their next SEC filings, this publication provides insights into trends in disclosures so companies can assess how they measure up against other large companies and industry peers. Such a comparison can assist companies in meeting regulator and investor disclosure expectations. While every company differs, a greater understanding of how others are addressing the current requirements may be helpful in preparing disclosures.

While many of the themes in our analysis transcend industries, we have included further detail by industry in the appendix.

<sup>1</sup> [PwC's 2022 US Investor Survey](#), page 6.

<sup>2</sup> 2021 10-Ks refers to 10-Ks filed between June 1, 2021 and May 31, 2022. We have adjusted certain 2021 information from how it was presented in our December 2022 report to reflect a comparable year-over-year analysis.

<sup>3</sup> 2022 10-Ks refers to 10-Ks filed between June 1, 2022 and May 31, 2023.



Breakdown of the S&P 100 companies by industry

- Consumer markets
- Energy, utilities, and resources
- Financial services
- Health industries
- Industrial products
- Technology, media, and telecommunications

## Current climate disclosure requirements

The current requirements are the starting point for compliant disclosure. The following table summarizes the areas highlighted in the SEC's [2010 Commission Guidance Regarding Disclosure Related to Climate Change](#).

Regulation S-K Item*	Required disclosures applicable to climate-related matters
<b>Description of Business</b> — Item 101 requires a registrant to describe its business and that of its subsidiaries.	<ul style="list-style-type: none"><li>• The material effects that compliance with government regulations, including environmental regulations, may have upon the capital expenditures, earnings, and competitive position of the registrant and its subsidiaries, including the estimated capital expenditures for environmental control facilities</li><li>• Resources material to a registrant's business, such as sources and availability of raw materials</li></ul>
<b>Legal Proceedings</b> — Item 103 requires a registrant to briefly describe any material pending legal proceeding to which it or any of its subsidiaries is a party.	<ul style="list-style-type: none"><li>• Administrative or judicial proceeding arising under any Federal, State, or local provisions regulating the discharge of materials into the environment or for the purpose of protecting the environment if certain materiality thresholds are met</li></ul>
<b>Risk Factors</b> — Item 105 requires a registrant to provide a discussion of the material factors that make an investment in the registrant or offering speculative or risky.	<ul style="list-style-type: none"><li>• Does not refer specifically to environmental risks, but requires all risks to be disclosed if significant to the company or the offering</li><li>• May require disclosure regarding existing or pending legislation or regulation that relates to climate change</li></ul>
<b>Management's Discussion and Analysis (MD&amp;A)</b> — Item 303 requires disclosure known as the Management's Discussion and Analysis of Financial Condition and Results of Operations, or MD&A.	<ul style="list-style-type: none"><li>• No specific MD&amp;A requirements related to climate, but registrants must identify and disclose known trends, events, demands, commitments, and uncertainties that are reasonably likely to have a material effect on their financial condition or operating performance</li><li>• When companies voluntarily disclose environmental metrics in MD&amp;A, further information may be necessary to make the presentation of the metric not misleading. According to the SEC, adequate context for an investor to understand the disclosed metric would generally be expected to include:<ul style="list-style-type: none"><li>○ a clear definition of the metric and how it is calculated;</li><li>○ a statement indicating the reasons why the metric provides useful information to investors; and</li><li>○ a statement indicating how management uses the metric in managing or monitoring the performance of the business</li></ul></li><li>• Disclosure of the estimates or assumptions underlying the metric or its calculation may also be necessary context for the metric</li></ul>

\*While foreign private issuers are not subject to Regulation S-K, Form 20-F includes similar provisions that may require disclosures related to climate change.

In its 2010 guidance, the SEC included examples of the types of events that may require disclosure under Regulation S-K. For more on these requirements, read our publication, [Don't wait until the SEC staff asks you about climate change](#), or listen on the go to the [audio](#) version.

# 85%

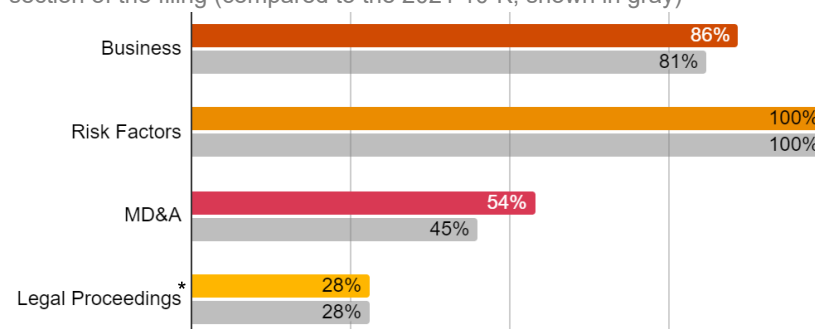
of US investors surveyed say they think corporate reporting contains unsupported sustainability claims (i.e., greenwashing)

According to PwC's 2022 US Investor Survey<sup>4</sup>

## Our findings

Our analysis focused on the climate-related disclosures in the Business, Legal Proceedings, Risk Factors, and MD&A sections of the annual report. Universally, the S&P 100 companies included some discussion of climate-related matters in the Risk Factors section of their 2022 10-Ks, reflecting the broad impact of climate change. In most cases, the annual reports also included supplemental discussion in the Business section. Just over half of the companies discussed climate in MD&A, and a quarter of the companies disclosed some type of climate-related legal action in Legal Proceedings.

Percentage of the S&P 100 that included discussion of climate topics in their 2022 10-K, by section of the filing (compared to the 2021 10-K, shown in gray)



\* Includes pending litigation consistent with the SEC's requirement, but not generic mentions of exposure to litigation risk

The nature of the disclosures as well as the level of detail varied widely by company, across industries, and even within industries. Notwithstanding these differences, we observed a clear concentration of disclosure related to climate risks, without concomitant disclosure of climate-related opportunities. According to the SEC's 2010 interpretive guidance, business opportunities resulting from climate change, or the reaction to climate change, should be disclosed with the applicable risks to provide investors with the full picture of the potential impact of climate on the company.

Companies disclosed an average of 5.4 risk factors that mentioned climate-related risks in their 2022 10-Ks, up from an average of 3.7 in 2021 10-Ks. In both years, approximately 40% of these risk factors were dedicated solely to climate. More often, climate-related risks were grouped with other topics. For example, in its 2022 annual report, a consumer markets company included climate in a disclosure of risk to customer demand alongside risks related to the economic and geopolitical environment.

Whereas climate-related disclosures in Risk Factors and MD&A tended to be more generic and bundled together with other items, disclosures within the Business and Legal Proceedings sections were generally more tailored, providing specific details about the climate-related effects to the company.

### Additional analysis of 2022 annual reports

This year we added an analysis of disclosures in the financial statement footnotes and about biodiversity. We found that 55 of the S&P 100 included climate-related or other environmental disclosures within their financial statement footnotes. Interestingly, over three-quarters of those companies cited waste and hazardous materials management, often within the discussion of commitments and contingencies.

Biodiversity-related disclosures were much less prevalent, with only 14 of the S&P 100 discussing the topic. See the analysis of biodiversity disclosures on page 8.

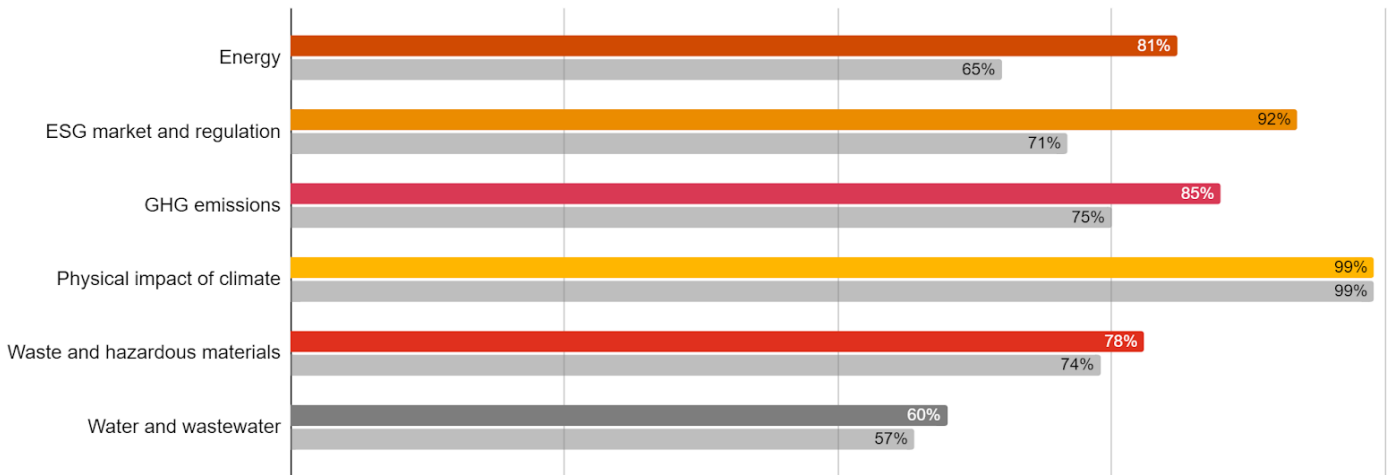
<sup>4</sup> [PwC's 2022 US Investor Survey](#), page 7.

## Topics

We analyzed the climate and environmental disclosures, which typically related to one of six general topics:

Topic	Example disclosure from 2022 10-Ks
<b>Energy</b> — Use of various forms of energy, such as electricity and natural gas. Examples include: (1) preparations to minimize or adapt to energy disruptions; (2) energy reduction targets; (3) alternative energy sources used; and (4) increased energy costs.	<p>“Our data centers depend on predictable energy and networking supplies, the cost or availability of which could be adversely affected by a variety of factors, including the transition to a clean energy economy and geopolitical disruptions.”</p> <p><i>Risk Factor, Technology, media, and telecommunications company</i></p> <p>“These laws and regulations could lead to increased environmental compliance expenditures, increased energy and raw materials costs and new and/or additional investment in designs and technologies.”</p> <p><i>Business, Industrial products company</i></p>
<b>ESG market and regulation</b> — Matters related to ESG that are not covered by another topic, such as compliance with regulatory requirements or how the company manages reputational risks related to sustainability objectives (e.g., failure to meet certain targets/goals, products that may not align).	<p>“Our efforts to meet environmental, social, and governance standards and to enhance the sustainability of our businesses may not meet investors', regulators' or customers' expectations”</p> <p><i>Risk Factor, Financial services company</i></p> <p>“Our reputation could be damaged if we do not (or are perceived not to) act responsibly with respect to sustainability matters, which could adversely affect our business, results of operations, cash flows and financial condition.”</p> <p><i>Risk Factor, Consumer markets company</i></p>
<b>Greenhouse gas (GHG) emissions</b> — Emissions-related matters, including regulations, business trends, and reduction targets and progress. Examples include: (1) a description of costs to improve facilities and purchase equipment to reduce GHG emissions to comply with regulatory limits or meet voluntary commitments; (2) the projected impact of decreased demand for products with significant GHG emissions; and (3) opportunities to develop new services or products to serve the growing demand for lower emissions.	<p>“We believe the world is in a climate crisis and that sustainability, including bold climate action, is the only way forward. We are committed to ambitious climate leadership solutions, and we're bringing the full power of [company] to help organizations achieve net zero emissions.”</p> <p><i>Business, Technology, media, and telecommunications company</i></p> <p>“[The company] plans to continue investing in wind, solar and other low-carbon generation in the future and to retire an additional 16 coal generation units between 2023 and 2030 in a reliable and cost-effective manner, thereby achieving a 50% reduction in GHG emissions from 2005 levels in 2030.”</p> <p><i>Business, Financial services company</i></p>
<b>Physical impact of climate</b> — Discussion related to the physical effects of climate, such as property damage or disruptions to operations caused by severe weather (e.g., floods, hurricanes).	<p>“[The company] experienced higher raw material, logistics, and outsourced manufacturing costs from strong end-market demand, ongoing COVID-19 and related global supply chain challenges that were further magnified by extreme weather events, such as February 2021 winter storm Uri in the U.S.”</p> <p><i>MD&amp;A, Health industries company</i></p>
<b>Waste and hazardous materials</b> — Discussion related to waste handling and disposal of materials, including their impact on the environment. Examples include: (1) additional costs to properly dispose of materials; (2) environmental remediation for previous contamination; and (3) litigation related to damage from hazardous materials.	<p>“The [company] must comply with environmental laws and regulations governing the handling and disposal of waste and releases of hazardous substances. Under these various laws and regulations, the [company] could incur substantial costs to clean up affected sites.”</p> <p><i>Financial statements, Energy, utilities and resources company</i></p>
<b>Water and wastewater</b> — Discussion related to water availability (e.g., decreased agricultural production capacity in areas affected by drought) and quality, including its impacts on the environment.	<p>“The impacts of the changing climate on water resources may result in water scarcity, limiting our ability to access sufficient high-quality water in certain locations, which may increase operational costs.”</p> <p><i>Risk Factor, Health industries company</i></p>

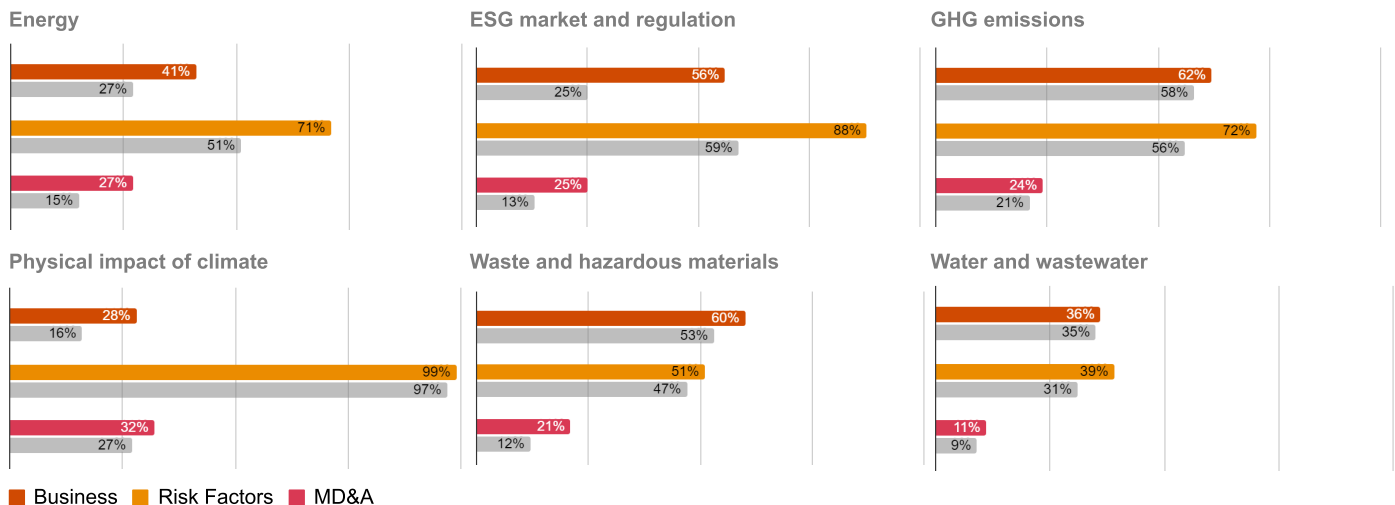
Percentage of the S&P 100 that included discussion of specific climate topics in their 2022 10-K (compared to the 2021 10-K, shown in gray)



Given the recent focus on sustainability disclosures, it is perhaps not surprising that there was a marked increase in the prevalence of disclosures in almost every category between the 2021 and 2022 10-Ks. The physical impact of climate continues to be discussed by all but one company in the S&P 100, although the discussion was typically limited to qualitative factors — only a few companies quantified the impact of the physical effects of climate on operations. Across all topics, providing additional quantification of the impacts of climate-related factors may be an opportunity for registrants in their upcoming filings as investors are increasingly asking for more data. In PwC’s 2022 US Investor Survey, for example, 72% of US investors said it is important to know the costs associated with the sustainability commitments of the companies they cover.<sup>5</sup>

Understanding not just *what*, but *where*, other companies included discussion of specific climate topics may also provide useful context as registrants consider their disclosures in 2023. As would be expected, the types of disclosure, and percentage of companies addressing specific topics, varied across the sections of a filing.

Percentage of the S&P 100 that included discussion of specific climate topics in their 2022 10-K, by section of the filing (compared to the 2021 10-K, shown in gray)



Almost all companies in the S&P 100 discussed the physical impact of climate as a tangible risk, with 99% of companies including some discussion in the Risk Factors section. Broad discussion of the physical impact of climate, however, was typically more limited in other parts of the document. Disclosure in the Risk Factors section was also the most common for other topics as well, although not by as significant of a margin. In contrast, the business discussion of waste and

<sup>5</sup> [PwC's 2022 US investor survey](#), page 6.

hazardous materials (60%) edged out the disclosure of associated risks (51%). Interestingly, disclosures of current GHG emissions were entirely qualitative, suggesting that additional work may be needed to prepare for the quantitative disclosure of GHG emissions that would be required by the SEC’s proposed rule.<sup>6</sup> Another highlight of the findings: companies were least likely to include climate-related disclosures in MD&A, perhaps reflecting closer alignment of this type of longer-term factor with the forward-looking focus of the discussion of risk factors.

Although not shown in the chart, of the 28 S&P 100 companies including a climate-related action in Legal Proceedings, 96% disclosed actions related to waste and hazardous materials, 50% related to water and wastewater, and 21% related to GHG emissions.

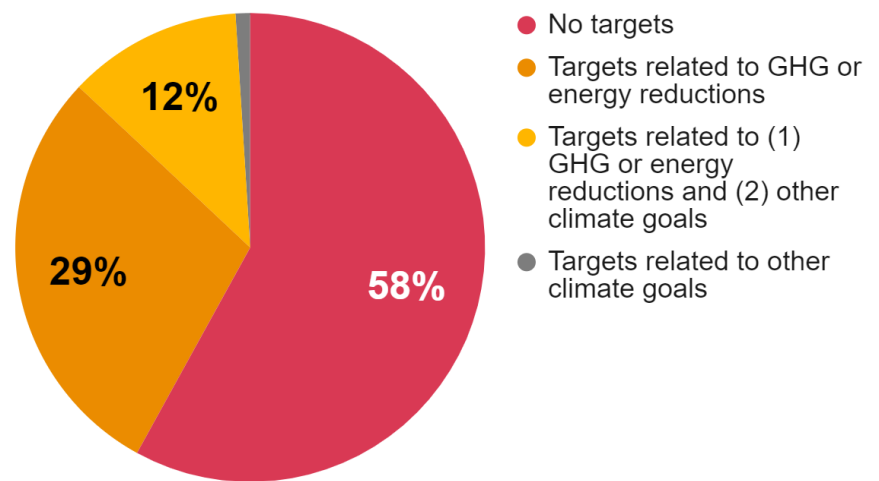
## Targets and goals

Although not currently required to do so, 42 of the companies in our analysis included climate-related or other environmental targets in their 2022 10-Ks. Of these, 41 disclosed targets related to GHG or energy reductions and about a third of those companies disclosed additional targets as well. All told, companies that disclosed targets disclosed an average of 2.7 targets each.

Between 2021 and 2022, 7 companies disclosed targets that had not previously disclosed any (6 related to GHG or energy reductions, 1 related to waste reductions). Most of the targets added were related to new targets set in 2022, while 2 were existing targets not previously included in the annual report. There were also several instances where companies eliminated a previously disclosed target from their 2022 10-K while continuing to report the target in their sustainability report.

In comparison, however, a 2023 study by the International Federation of Accountants (IFAC) found that 97% of the 100 largest exchange-listed companies in the US disclosed some form of target in one or more of their annual report, sustainability report, or website.<sup>7</sup> This suggests that many companies are disclosing targets outside their SEC filings — a gap the SEC climate-related disclosure rules may close, depending on their final form. The proposed rules would require companies to disclose “any” targets or goals related to the reduction of GHG emissions and “any” other climate-related targets or goals.<sup>8</sup>

Percentage of the S&P 100 that disclosed a climate-related target or goal in their 2022 10-K



<sup>6</sup> SEC, Proposed rule, [The Enhancement and Standardization of Climate-Related Disclosures for Investors](#), would require disclosure of scope 1 and scope 2 as well as scope 3 GHG emissions (for many companies). See proposed rule Item 1504, GHG emissions metrics, pages 469-474.

<sup>7</sup> IFAC 2023 study, [The State of Play in Sustainability Assurance](#), page 44.

<sup>8</sup> SEC proposed climate disclosure rule, pages 479-480.

# 97%

of the 100 largest exchange-listed companies in the US disclosed some form of emissions reduction target

According to a 2023 study by the International Federation of Accountants<sup>10</sup>

The proposed SEC rules would also require disclosure of scope 3 emissions for all applicable categories if material, or if the registrant discloses a target or goal encompassing scope 3 emissions.<sup>9</sup> More than half of companies with GHG targets in our analysis specifically referenced scope 3 emissions and thus would trigger disclosure under the proposed rules.

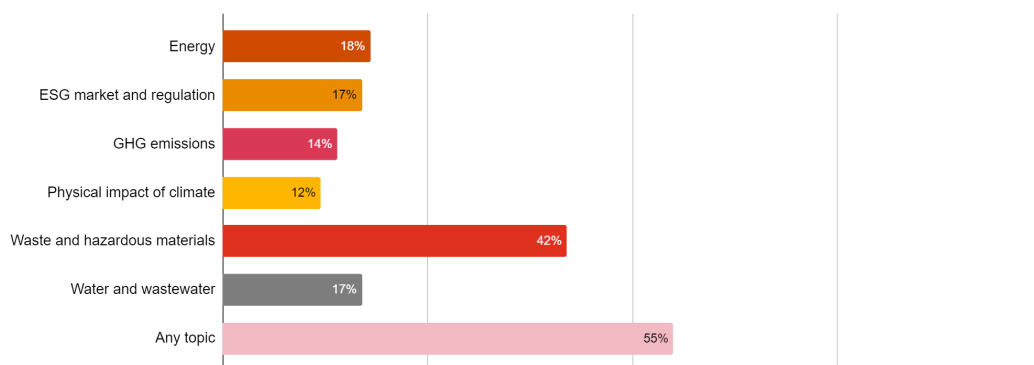
Topic	Example of disclosed target from 2022 10-Ks
Greenhouse gas or energy reductions	<ul style="list-style-type: none"> <li>• Achieve net zero emissions in operations by 2040</li> <li>• Reduce or avoid one billion tons of emissions in our value chain by 2030</li> <li>• Adopt Science Based Targets Initiative (SBTi) goals to reduce scope 1, scope 2, and scope 3 emissions in line with the Paris Agreement goals by the end of fiscal 2023</li> <li>• Reduce scope 1 and scope 2 carbon emissions by 68% (2019 baseline) by 2035</li> <li>• Source 100% renewable energy for purchased electricity by 2025</li> </ul>
Waste and hazardous materials	<ul style="list-style-type: none"> <li>• Enable 3 million metric tons of plastic to be collected, reused, or recycled annually by 2030</li> <li>• Enable 100% of packaging applications to be reusable or recyclable by 2025</li> </ul>
Water and wastewater	<ul style="list-style-type: none"> <li>• Conserve an additional 60 billion gallons of water through 2030</li> <li>• Achieve net positive water use globally by 2030</li> </ul>

## Financial statement footnote disclosures

In this year’s analysis, we evaluated the prevalence of sustainability-related disclosures in the financial statements. As proposed, the SEC’s climate-disclosure rules would require specific disclosures about the impact of severe weather and other natural conditions. Companies should consider the [2021 FASB staff educational paper](#) that discusses the intersection of a variety of sustainability matters, including climate, with existing US GAAP.

We observed that more than half of the companies in our analysis (55 of the S&P 100 companies) included climate-related or other environmental disclosures within their financial statement footnotes.

Percentage of the S&P 100 that discussed climate in their 2022 10-K financial statements



The most frequent climate-related topic discussed within financial statement footnotes was waste and hazardous materials management (42 of the S&P 100 companies), often included within commitments and contingencies or other similar disclosures.

<sup>9</sup> Securities and Exchange Commission, Proposed rule, [The Enhancement and Standardization of Climate-Related Disclosures for Investors](#), page 470.

<sup>10</sup> IFAC 2023 study, [The State of Play in Sustainability Assurance](#), page 44.

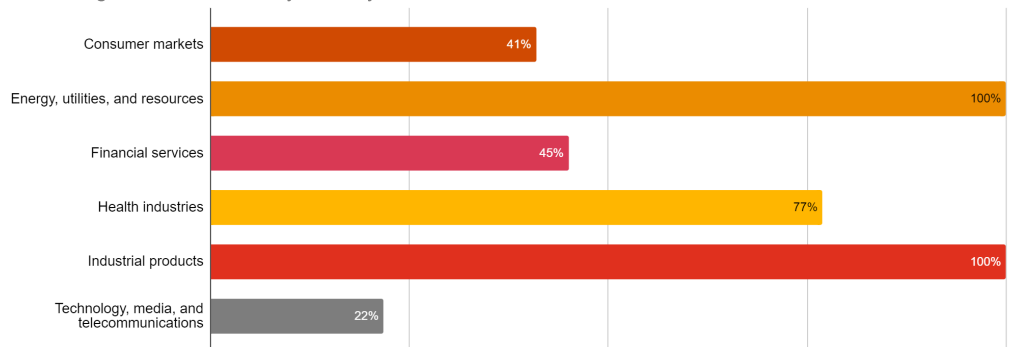
When presented, the discussion of water and wastewater was also commonly included within commitments and contingencies (17 of the S&P 100 companies).

While 99 of the S&P 100 companies discussed the physical impact of climate in other sections of their 10-K, only 12 discussed its impact in the financial statements.

Energy, ESG market and regulation, and GHG emissions were discussed in financial statements by 18, 17, and 14 of the S&P 100 companies, respectively, while being discussed elsewhere in the 10-K by 80, 92, and 84 companies, respectively. When ESG market and regulation was included in the financial statements, it was often included in relation to debt or compensation terms that are linked to ESG-related metrics or requirements.

By industry, we observed a broad range in the percentage of companies that included disclosure of climate-related topics within the financial statements. All energy, utilities, and resources companies, and industrial products companies included some level of disclosure of a climate-related topic, whereas less than a quarter of technology, media, and telecommunications companies included such a disclosure.

Percentage of the S&P 100 by industry that discussed climate in their 2022 10-K financial statements



## Biodiversity disclosures

Natural resources and biodiversity is another topic that's beginning to receive increased focus from investors, companies, and governments. Specifically, as investors and others advance their understanding of the significance of risks and impacts of biodiversity, they are increasingly focused on understanding how companies manage their biodiversity dependencies and impacts.

While the SEC has not set forth any rules that specifically address reporting on biodiversity, existing SEC rules regarding business, risk factors, MD&A, and legal proceedings disclosures could also require disclosure of material biodiversity matters. Although the SEC's 2010 [interpretive guidance](#) and the SEC Division of Corporation Finance's 2021 [sample comment letter](#) focused on climate change matters, that guidance may also provide relevant considerations relating to biodiversity topics. In addition, the 2021 FASB staff [educational paper](#) includes considerations relating to biodiversity.

Among the S&P 100, 14 companies included disclosures related to biodiversity in their 10-K. Disclosures were primarily included in the Business (6 of the S&P 100 companies) and Risk Factors (7 of the S&P 100 companies) sections of the 10-K. Some disclosures were also included in MD&A, Legal Proceedings, and the financial statements. One company disclosed a biodiversity-related target. Notably, 50% of energy, utilities, and resources companies included biodiversity disclosures, followed

**55%**  
of global GDP —  
equivalent to about  
US\$58 trillion — is  
moderately or  
highly dependent  
on nature

According to a 2023 PwC report <sup>11</sup>

<sup>11</sup> PwC 2023 report, [Managing nature risks: From understanding to action](#)



by 27% of consumer markets companies; in contrast, no industrial products or financial services companies included disclosures on this topic.

#### Example biodiversity disclosures from 2022 10-Ks

“These include initiatives to reduce system-wide greenhouse gas emissions, support deforestation free sourcing throughout the Company’s global supply chain, efficiently manage natural resources and support biodiversity, responsibly source ingredients and packaging and increase the availability of recycling in restaurants to reduce waste.”

*Business, Consumer markets company*

“Additionally, evolving expectations on various ESG matters, including biodiversity, waste and water, may increase costs, require changes in how we operate and lead to negative stakeholder sentiment.”

*Risk Factor, Energy, utilities, and resources company*

“We are working to spread regenerative practices to restore the earth across seven million acres of land, an area approximately equal to our entire agricultural footprint, sustainably source key crops and ingredients, and improve the livelihoods of more people in our agricultural supply chain.”

*MD&A, Consumer markets company*



Investors, market participants, and regulators need better data and information, including enhanced and transparent disclosures, to assess climate-related financial risks and their potential effects on the financial system.<sup>12</sup>

Financial Stability Oversight Council:  
2021 Report on Climate-Related  
Financial Risk

## Looking ahead to future filings

The observations on climate-related and other sustainability disclosures included in this publication provide a snapshot of past practice and may not reflect current expectations. Given the ongoing SEC focus on climate-related disclosures, and continued calls for increased transparency from investors, companies would be well served to re-evaluate and enhance the climate disclosures in their 10-Ks. In particular, integration of information that is currently disclosed in corporate sustainability reports and other company reports may lead to more complete disclosure. This exercise will also better position companies to respond to questions from the SEC staff, who continue to focus on the differences between public statements and what’s included in regulatory filings.

For more information about current climate-related SEC disclosure requirements and the SEC’s 2010 interpretive guidance, see our In the loop, [Don’t wait until the SEC staff asks you about climate change](#). For other sustainability-related benchmarking, see our publication, [Still early days: A review of year two of TCFD reporting](#).

To have a deeper discussion, contact your local PwC ESG specialist or:

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<sup>12</sup> Financial Stability Oversight Council 2021, [Report on Climate-Related Financial Risk](#), page 4

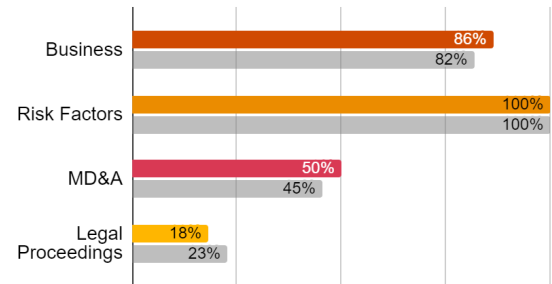
## Consumer markets

The S&P 100 includes 22 consumer markets companies, almost a quarter of the full population. As the second largest constituency, the trends in this sector have a significant impact on the overall averages within the S&P 100.

### Section of filing

On average, consumer markets companies included 6.8 risk factors that mentioned climate-related risks, a 39% increase compared to 2021 and 1.4 more than the overall S&P 100 average, perhaps reflecting a response to stakeholder demand to better understand risk exposures as well as an increased focus on the evolving regulatory landscape. Between the 2021 and 2022 10-Ks, MD&A saw the largest increase, with 11% more companies adding disclosures in this section. This could reflect a combination of an increase in weather-related events and ongoing SEC staff focus on the transparency of climate-related financial impacts. The percentage of consumer markets companies that included disclosure in Legal Proceedings was less than the broader S&P 100. The year-over-year decrease reflects the resolution of a pending litigation related to waste and hazardous materials. Involvement in litigation is facts and circumstances specific, and certain industries are more prone to climate-related litigation.

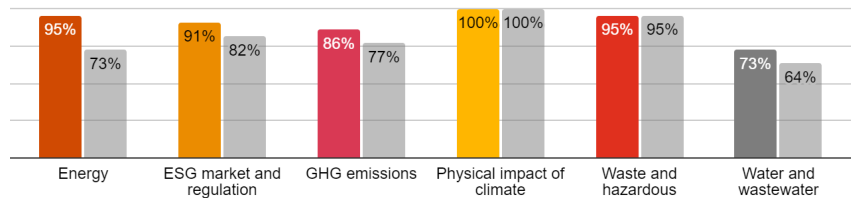
% of the S&P 100 consumer markets companies that discussed climate in the applicable section of their 2022 10-K (compared to the 2021, shown in gray)



### Topics

Among the sectors, consumer markets companies were second most likely to address energy, with 95% of companies including such disclosure. This level of disclosure is 30% higher than in the 2021 10-Ks and 20% higher than the 80% S&P 100 average, reflecting the relatively energy-intensive nature of these businesses. Between the 2021 and 2022 10-Ks, energy, ESG market and regulation, and water and wastewater all increased. This growth was consistent with trends seen across the overall S&P 100 and indicative of expanding ESG regulation and focus on sustainability disclosures. Across all topics, the level of disclosure for consumer markets companies was higher than or about equal to the S&P 100 percentages. Compared to other sectors, except for the energy, utilities, and resources sector, consumer markets companies included disclosures more consistently across all topics.

% of the S&P 100 consumer markets companies that included discussion of specific climate topics in their 2022 10-K (compared to 2021, shown in light gray)

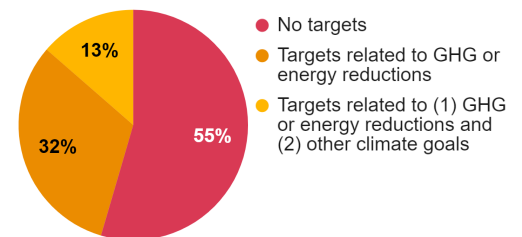


### Targets and goals

Consistent with the broader S&P 100, 45% of consumer markets companies disclosed at least one climate-related target or goal, which was the second highest among the sectors. This was an increase of 25% from 2021. Compared to 2021, 2 companies began disclosing targets. In its 2022 10-K, one company that previously disclosed both GHG and other targets removed disclosure of the other targets and now only discloses a GHG target, although its sustainability report continues to refer to the existence of the other targets.

All consumer markets companies with targets disclosed at least one related to GHG or energy reductions; over a quarter of those companies disclosed additional targets as well. Also consistent with the broader S&P 100, consumer markets companies with targets disclosed an average of 2.5 targets per company, about the same as 2021.

Percentage of consumer markets companies that disclosed a climate-related target or goal in their 2022 10-K



### Financial statements

We observed that 41% of consumer markets companies included climate-related or other environmental disclosures within their financial statements, the second lowest by industry. Consistent with the total S&P 100, the climate-related topic most commonly discussed within the financial statements was waste and hazardous materials (32%). The least likely topics to be discussed by consumer markets companies in the financial statements were energy (5%), GHG emissions (5%), and the physical impacts of climate (9%), although these topics were often included elsewhere in the 10-K.

## Energy, utilities, and resources

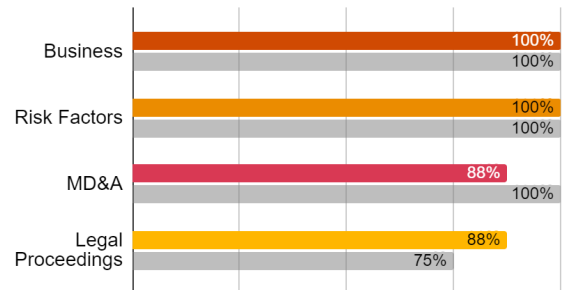
The S&P 100 includes 8 energy, utilities, and resources companies. The relatively small size of the sector in relation to the total S&P 100 means that the sector-specific results are more likely than other sectors to diverge from the overall averages, which is what we generally observed in analyzing the trends. Given this industry’s proactive engagement with stakeholders, regulators, and others on sustainability matters, the volume of disclosures and coverage in the 10-K were expected and reflect the nature of the industry. Even though they represent a small proportion of the S&P 100, the near universality of disclosures across the companies in this sector drive up the overall S&P percentages.

### Section of filing

On average, energy, utilities, and resources companies included 9.4 risk factors that mentioned climate-related risks, a 34% increase compared to 2021, 4.0 more than the overall S&P 100 average, and the most of any industry. Further, all of these companies included disclosure in Business and Risk Factors sections, which, along with industrial products, were the only industries where this was the case. There was one energy, utilities, and resources company that had a climate-related disclosure in MD&A last year, but not this year. This disclosure related to the initial impact of a new clean energy law, which now that it impacts both years, was no longer a factor that needed to be discussed in MD&A. At 88%, however, the frequency of mentions in MD&A remains the highest by industry.

The percentage of energy, utilities, and resources companies that included disclosure in Legal Proceedings increased 17% in 2022 as compared to our 2021 analysis. This is the only industry with an increase, and at 88%, the highest percentage among the industries.

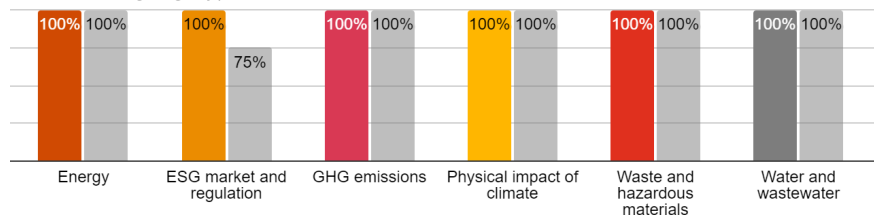
% of the S&P 100 energy, utilities, and resources companies that discussed climate in the applicable section of their 2022 10-K (compared to the 2021, shown in gray)



### Topics

All energy, utilities, and resources companies now include disclosure on every topic, the only industry where this was the case. Not surprisingly, the rate of disclosure across topics was the highest of any industry by a significant margin.

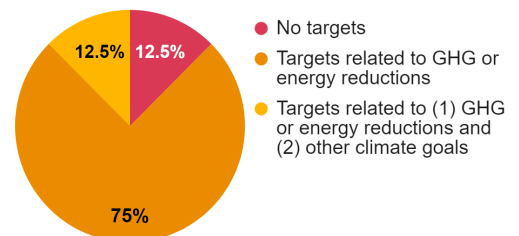
% of the S&P 100 energy, utilities, and resources companies that included discussion of specific climate topics in their 2022 10-K (compared to 2021, shown in light gray)



### Targets and goals

Almost 90% of energy, utilities, and resources companies disclosed at least one climate-related target or goal in their 2022 10-Ks, the highest by industry. All energy, utilities, and resources companies with targets disclosed at least one related to GHG reductions or energy; 15% of those companies also disclosed additional targets, consistent with 2021. Energy, utilities, and resources companies with targets disclosed an average of 4.4 targets per company, the highest by industry. All of the targets added by energy, utilities, and resources companies this year related to GHG or energy reductions. This again is not surprising given the focus in the industry on reducing emissions.

Percentage of energy, utilities, and resources companies that disclosed a climate-related target or goal in their 2022 10-K



### Financial statements

All energy, utilities, and resources companies included climate-related or other environmental disclosures within their financial statements, a feat matched only by industrial products companies. Consistent with the total S&P 100, the climate-related topic most commonly discussed within the financial statements and included by all energy, utilities, and resources companies was waste and hazardous materials. While placement of the disclosures varied, it was most often included as part of the regulatory risk disclosures. These industry results and the higher rate of disclosure within the footnotes are consistent with our observations about the prevalence of disclosures elsewhere in the 10-K.

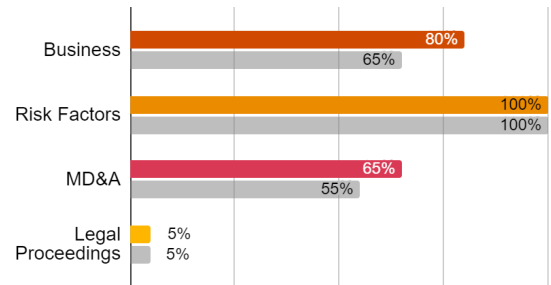
## Financial services

The S&P 100 includes 20 financial services companies, a fifth of the full population. Given its size, trends in this sector have a significant impact on the overall averages in the S&P 100.

### Section of filing

On average, 2022 10-Ks from financial services companies included 5.1 risk factors that mentioned climate-related risks, a 59% increase over 2021, bringing the average in line with the broader S&P 100. The number of financial services companies including climate related discussions within Business increased by 23% this year. While this was a larger increase than the broader S&P 100, the total percentage was the second lowest by industry. The percentage of financial services companies that included disclosure in Legal Proceedings was consistent with 2021, and it ranks among the lowest by industry. These differences may be a reflection of the less physical nature of their operations as well as the more indirect impact stemming from their business activities.

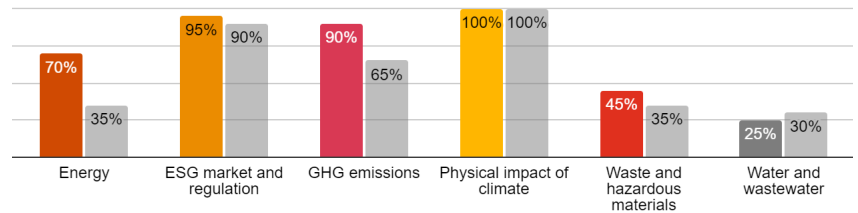
% of the S&P 100 financial services companies that discussed climate in the applicable section of their 2022 10-K (compared to the 2021, shown in gray)



### Topics

Consistent with the 2021 10-Ks, financial services companies were less likely to discuss waste and hazardous materials and water and wastewater compared to the full S&P 100. Given the nature of the industry, with a broad range of businesses that manage and invest money, the impacts of climate on these companies are generally less direct and thus the lower level of disclosure, particularly on those two topics, is not surprising. Compared to our 2021 analysis, the percentage of financial services companies including discussion of energy and GHG emissions increased 100% and 38%, respectively in 2022. The increase in energy was the largest by industry, although at 70% it remains the second lowest across all industries, likely due to the nature of the sector's operations. Separately, disclosures of ESG market and regulation increased to 95% in the 2022 10-Ks, which was the second highest across all industries. The high level of disclosure is perhaps reflective of the more regulated nature of this industry.

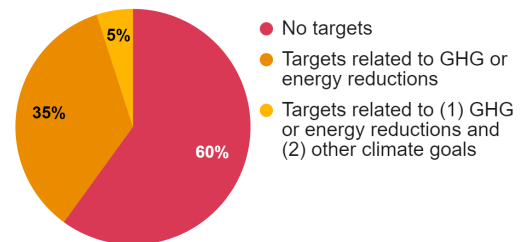
% of the S&P 100 financial services companies that included discussion of specific climate topics in their 2022 10-K (compared to 2021, shown in light gray)



### Targets and goals

Consistent with the findings for the broader S&P 100, 40% of financial services companies disclosed at least one climate-related target or goal in 2022 10-Ks, an increase of 33% compared to 2021. Compared to 2021, 2 companies began disclosing targets. All financial services companies with targets disclosed at least one related to GHG or energy reductions, and 13% of those companies disclosed additional targets as well. Financial services companies with targets disclosed an average of 1.6 targets per company, about the same as 2021 and the lowest by industry.

Percentage of financial services companies that disclosed a climate-related target or goal in their 2022 10-K



### Financial statements

At a point below the broader S&P 100, 45% of financial services companies included climate-related or other environmental disclosures within their financial statements. The climate-related topics most commonly discussed by financial services companies within the financial statements were physical impacts of climate (20%) and energy (20%), making financial services the only industry where waste and hazardous materials (10%) was not the most common financial statement topic. This is not surprising given the nature of operations. Financial services was one of only two industries (Technology, media, and telecommunications being the other) where no companies included disclosure in the financial statements related to water and wastewater, again, likely a reflection of the nature of operations.

## Health industries

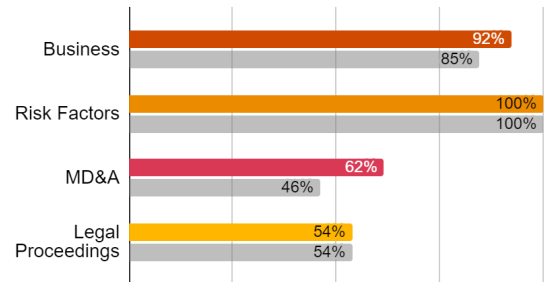
The S&P 100 includes 13 health industries companies. Like the energy, utilities, and resources sector, the relatively small size of this sector in relation to the total S&P 100 makes it more likely that the results would diverge from the overall averages.

### Section of filing

On average, health industries companies included 3.9 risk factors that mentioned climate-related risks. While this represents a 44% increase over 2021, it is still 1.5 below the overall S&P 100 average and second lowest by industry. The rate of disclosure across the 10-K, however, was generally consistent with the overall S&P 100 percentages. Between the 2021 and 2022 10-Ks, MD&A saw the largest increase, with 34% more companies including climate-related disclosure. This could reflect a combination of an increase in weather-related events and responsiveness to ongoing SEC staff and investor focus on the transparency of climate-related financial impacts.

Although unchanged from 2021 to 2022 10-Ks, the percentage of health industries companies that included disclosure in Legal Proceedings (54%) exceeds the broader S&P 100 percentage. This rate, third highest among the six industries, was triple the rate of the fourth-ranked sector (consumer markets at 18%). The extent of climate-related litigation can be company and industry-specific, and it is not surprising that it would be more common in this industry.

% of the S&P 100 health industries companies that discussed climate in the applicable section of their 2022 10-K (compared to the 2021, shown in gray)

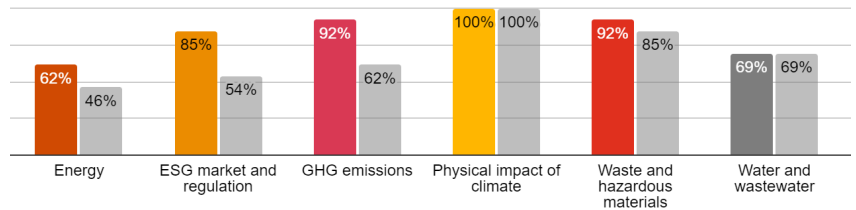


### Topics

Aside from the physical impact of climate, which is the most prevalent overall issue, health industries companies appear most impacted by GHG emissions and waste and hazardous materials, discussing these topics at a higher rate than the overall S&P 100. Between the 2021 and 2022 10-Ks, ESG market and regulation and GHG emissions had the largest increases (57% and 48%, respectively). Even at 85%, the rate of discussion of ESG market and regulation by health industries companies remains the lowest by industry.

However, the size of the increase reflects the continuing trend of enhanced sustainability regulations worldwide. Interestingly, in 2021, health industries had the lowest rates of discussion of GHG emissions by industry, but following large increases this year, it now has the third highest disclosure rate. Growing interest by investors and regulators may have driven this increase.

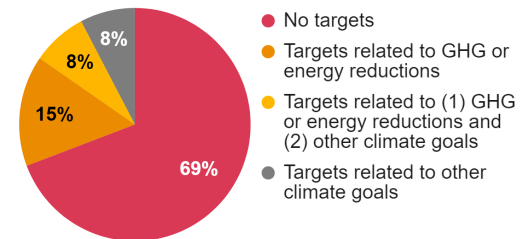
% of the S&P 100 health industries companies that included discussion of specific climate topics in their 2022 10-K (compared to 2021, shown in light gray)



### Targets and goals

The number of health industries companies with targets more than doubled compared to 2021, which represents the largest increase of any industry. Despite the large increase, only 31% of health industries companies have disclosed a target, which was the second lowest by industry. Compared to 2021, several companies added new targets, while 2 companies began disclosing targets for the first time. One of those companies added a waste reduction target, the only instance across the S&P 100 of a company having an other target without having a GHG or energy reduction target. We also noted that 1 company that previously had both GHG and non-GHG targets removed the non-GHG target from its 10-K, although based on review of its sustainability report, it remains a target for the company. Health industries companies with targets disclosed an average of 2.5 per company, which was consistent with the broader S&P 100.

Percentage of health industries companies that disclosed a climate-related target or goal in their 2022 10-K



### Financial statements

At a point above the broader S&P 100, 77% of health industries companies included climate-related or other environmental disclosures within their financial statements. Consistent with the total S&P 100, the climate-related topic most commonly discussed within the financial statements was waste and hazardous materials (77%), which is not surprising given the nature of activities carried out by this sector. Health industries was the only sector where no companies included disclosure in the financial statements related to energy, although this topic was often included elsewhere in the 10-K.

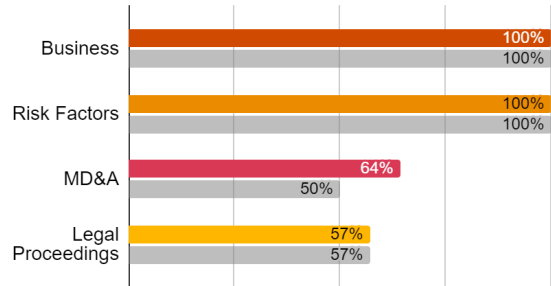
## Industrial products

The S&P 100 includes 14 industrial products companies. Like the energy and health industry sectors, the relatively small size of this sector in relation to the total S&P 100 makes it more likely that its results would diverge from the overall averages.

### Section of filing

On average, industrial products companies included 5.3 risk factors that mentioned climate-related risks, which was consistent with the broader S&P 100. This represented a 66% increase compared to 2021, the largest increase across industries, likely due at least in part to continued attention by SEC staff and investors on these disclosures. Like the energy sector, all industrial products companies in the S&P 100 included disclosure in the Business and Risk Factors sections. However, only 64% and 57% included discussion in MD&A and Legal Proceedings, respectively. While less than the energy sector, this was still among the highest across all sectors. This divergence may reflect the lower level of current regulation in this sector as compared to the energy sector.

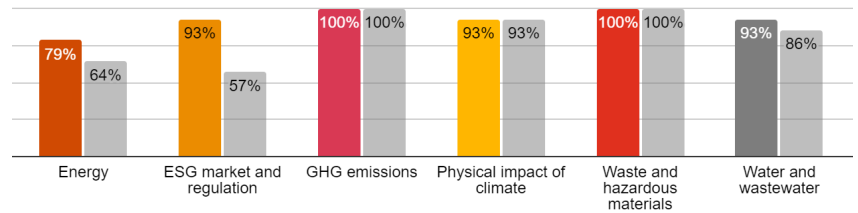
% of the S&P 100 industrial products companies that discussed climate in the applicable section of their 2022 10-K (compared to the 2021, shown in gray)



### Topics

The percentage disclosing the physical impact of climate was consistent with the results of our 2021 analysis; however, industrial products was the only industry where the participation rate was less than 100%. All industrial products companies included disclosures related to GHG emissions and waste and hazardous materials, a participation level that exceeded the average among S&P 100 companies. This level of disclosure is to be expected given the generally physical nature of the business.

% of the S&P 100 industrial products companies that included discussion of specific climate topics in their 2022 10-K (compared to 2021, shown in light gray)



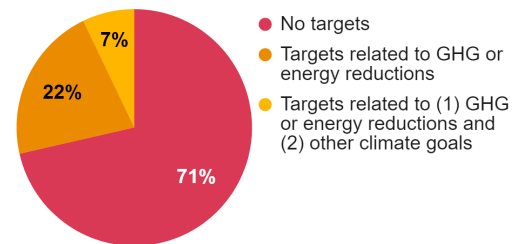
As compared to 2021, the sector's rate of disclosure of energy and ESG market and regulation topics increased 23% and 63%, respectively, bringing both percentages in line with the overall S&P 100 averages. The increase in ESG market and regulation disclosures was the highest among the industries, reflecting rapid movement across industries to 100% as sustainability regulations proliferate worldwide. Industrial products companies were second only to energy companies in the consistency of disclosures across all topics.

### Targets and goals

With no change since 2021, 29% of industrial products companies disclosed at least one climate-related target or goal. The industrial products sector had the lowest percentage of companies disclosing targets.

One company added a waste reduction target, the only industrial products company with disclosure of such a target. All industrial products companies with targets disclosed at least one related to GHG or energy reductions. Industrial products companies with targets disclosed an average of 2.3 targets per company, an increase of 0.8 since our 2021 analysis, but still the second lowest average by sector.

Percentage of industrial products companies that disclosed a climate-related target or goal in their 2022 10-K



### Financial statements

All industrial products companies included climate-related or other environmental disclosures within their financial statements, one of only two industries where this was the case (energy being the other). Consistent with the total S&P 100, the climate-related topic most commonly discussed within the financial statements was waste and hazardous materials (93%). In all but one category, industrial products companies were the second most likely to include discussion in the footnotes, consistent with the higher prevalence of disclosure discussed above. However, while the physical impacts of climate were discussed by 93% of industrial products companies elsewhere in the 2022 10-Ks, the topic was barely represented in the footnotes (7%).

## Technology, media, and telecommunications

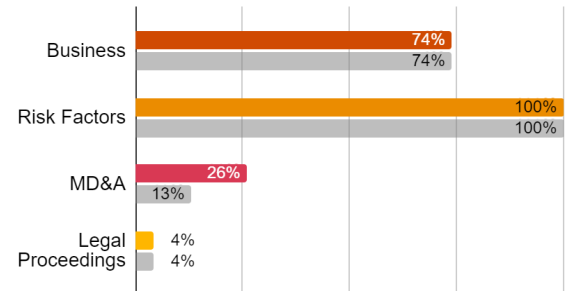
There are 23 technology, media, and telecommunications (TMT) companies included in the S&P 100, the most companies from any industry. Similar to consumer markets — the second largest industry with 22 companies — given the size of the sector, its trends have a significant impact on the overall S&P 100 results. As noted below, its results frequently depress the broader results.

### Section of filing

On average, TMT companies included 3.7 risk factors that mentioned climate-related risks, which despite a 28% increase compared to 2021, ranks last across industries and 1.7 below the overall S&P 100 average. TMT was the only industry not already at 100% that had no increase in the percentage of companies including disclosure in the Business section, and the 74% disclosure rate was the lowest by industry.

Compared to 2021, the percentage of TMT companies that included disclosure in MD&A increased by 100%, the largest increase in this category across all sectors. Despite this large increase, at 26%, TMT companies remained the least likely to mention climate in MD&A. TMT companies were also the least likely industry to mention climate in Legal Proceedings. These results were substantially lower than any other industry, and thus depressed the overall S&P 100 average. This divergence may reflect the lower level of current regulation as compared to other sectors and the less physical nature of operations for some of these companies.

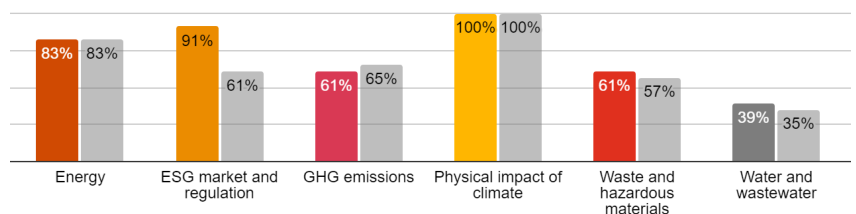
% of the S&P 100 TMT companies that discussed climate in the applicable section of their 2022 10-K (compared to the 2021, shown in gray)



### Topics

TMT companies were generally less likely than the other S&P 100 companies to discuss most of the climate-related topics, although their rate of disclosure of physical impact of climate was consistent with the broader average. The TMT industry was the only industry to experience a decline in the percentage of companies including discussion of GHG emissions when 2 companies removed their disclosure of GHG reduction targets (see Targets and goals below). Notably, however, the percentage of TMT companies to include discussion of ESG market and regulation increased 49% as compared to our 2021 analysis, bringing the disclosure rate in line with the overall S&P 100 average. This increase was not unexpected given the increased focus on sustainability regulations worldwide.

% of the S&P 100 TMT companies that included discussion of specific climate topics in their 2022 10-K (compared to 2021, shown in light gray)

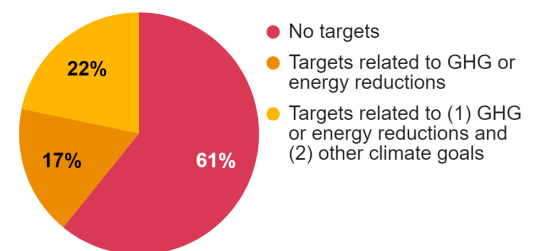


### Targets and goals

Compared to our 2021 analysis, 1 company that did not previously disclose a GHG reduction target added disclosure of such a target, while 2 companies removed their GHG or energy reduction targets from the 10-K. Of those companies that removed their targets from the 2022 10-K, 1 company met its target in the prior year, while the other continues to work towards its target; those companies continue to report those targets in their sustainability report.. As a result, TMT was the only industry where the overall number of companies disclosing a target declined.

The 39% of TMT companies disclosing at least one goal was consistent with the broader S&P 100. All TMT companies with targets disclosed one related to GHG reductions or energy; over half of those companies disclosed additional targets as well, the highest by industry. Consistent with our 2021 analysis and the broader S&P 100, TMT companies with targets disclosed an average of 2.8 targets per company, the second highest by industry.

Percentage of TMT companies that disclosed a climate-related target or goal in their 2022 10-K



### Financial statements

Compared to other sectors, TMT companies were the least likely (22%) to include climate-related or other environmental disclosures within their financial statements. With each at 9%, the only topics discussed by TMT companies in the financial statements were energy, ESG market and regulation, and waste and hazardous materials. TMT companies were the least likely industry to cover any topic, except for energy, in which health industries (0%) and consumer markets (5%) were lower. Within the financial statements, no TMT companies included discussion of GHG emissions or the physical impact of climate, the only industry where this was the case. The lower rate of disclosure within the financial statements is consistent with our observations elsewhere in the 10-K.