THE STATE OF DISCLOSURE

An analysis of the effectiveness of sustainability disclosure in SEC filings

2017

ABOUT SASB

Founded in 2011, the Sustainability Accounting Standards Board (SASB) is the independent standard-setting organization for sustainability accounting standards that meet the needs of investors by fostering high-quality disclosure of material sustainability information. The standards focus on known trends and uncertainties that are reasonably likely to affect the financial condition or operating performance of a company and therefore would warrant disclosure under Regulation S-K. The standards are designed to improve the effectiveness and comparability of corporate disclosure on material environmental, social, and governance (ESG) factors in SEC filings, such as Forms 10-K, 20-F, 40-F, 10-Q, 8-K, S-1, and S-3. The standards are also recognized by the European Commission as a suitable framework for companies to provide information to investors pursuant to EU Directive 2014/95/EU. Following a rigorous process that includes evidence-based research and broad, balanced stakeholder participation, the SASB currently maintains provisional standards for 79 industries across 11 sectors.

ABOUT THIS REPORT

The State of Disclosure Report is an annual reference document for investors and other users of financial information who are looking to better understand the material sustainability risks and opportunities embedded in their portfolios. By presenting an overview of the quality of existing corporate disclosure on SASB topics, the report aims to provide these users with an improved understanding of how efficiently those risks and opportunities are currently being priced within an industry-specific context. Additionally, the report provides a year-on-year comparison with the previous year's disclosure analysis, providing investors and other users of this information with insight into evolving trends related to corporate disclosure practices, market pricing, and key areas to be addressed in corporate engagement and portfolio risk management.

SUSTAINABILITY ACCOUNTING STANDARDS BOARD SASB ™

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FOREWORD

The U.S. capital markets and regulatory system are the best in the world today, and I believe they will continue to be the best in the world tomorrow and well into the future. That is because our markets—and the millions of individuals who participate in them as investors, issuers and their advisers, auditors and regulators, as well as in a variety of other capacities—have with limited exceptions accepted the challenge of improving markets, accounting and other disclosure. From the market crash of 1929, which resulted in the enactment of the federal securities laws, to the lack of authoritative accounting standards, which led to the formation of the Financial Accounting Standards Board (FASB) in 1973, to more recent breakdowns, which led to improvements such as the Sarbanes-Oxley Act, to the variety of complex challenges facing our markets today, we have a proud tradition of addressing shortcomings head-on—and usually coming out on top.

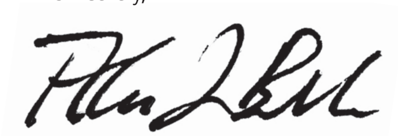
Indeed, today's challenges forecast tomorrow's solutions. And in today's rapidly changing business landscape, many market participants are exploring how we might modernize corporate disclosure practices. Guided by narrowly focused financial statements and quarterly earnings reports, investors have found it difficult to develop a robust understanding of how companies create sustainable long-term value. It has become clear that financial and other reporting must evolve to keep pace with this growing interest, among both company managers and investors, in sustainability information that is material to operations and financial performance.

The Sustainability Accounting Standards Board (SASB) was established to address this market need. The SASB's standard-setting process emphasizes the securities law concept of materiality so that its industry-specific outcomes can serve as a natural complement to traditional financial reporting and as a practical path forward for companies to provide the capital markets with more effective disclosure on material environmental, social, and governance matters.

In this report—the second annual edition—the SASB presents a detailed analysis of relevant sustainability disclosures that were included in hundreds of current Securities and Exchange Commission (SEC) filings across every major industry. As with those in last year's report, the findings can be viewed in two different ways. On the one hand, it is heartening that companies increasingly recognize the risks and opportunities involved in managing material sustainability factors and the requirements in at least some cases under our existing regulatory regime to disclose them in communications with investors. On the other, their communication to investors on these issues remains largely designed to address liability concerns, and are thus ineffective in providing meaningful and comparable information. So much work remains to be done.

Note that this report provides an assessment of corporate disclosure—not of corporate performance, which is the market's job. However, higher-quality sustainability information—as opposed to the boilerplate language that prevails, as demonstrated in this report—would help the market do that job more efficiently and more effectively. The suggestion is that the market can rise to meet this challenge just as it has met others, and the report offers some examples of how that might be achieved. In producing this report, the SASB's goal is to provide a starting point for an ongoing dialogue with the broad spectrum of market stakeholders regarding sustainability disclosure and how it might be improved to the benefit of investors, issuers, and the markets at large.

Sincerely,



Alan L. Beller
SASB Foundation Board of Directors
Former Director of the Division of Corporation Finance, U.S. Securities and Exchange Commission

EXECUTIVE SUMMARY

The soundtrack to the summer of 2017 was a steady drumbeat of demand from investors for high-quality sustainability information. In June, Bank of America Merrill Lynch research found sustainability factors to be strong indicators of future volatility, earnings risk, price declines, and bankruptcies.[1] In July, the Human Capital Management Coalition, a group of institutional investors collectively managing $2.8 trillion in assets, petitioned the SEC to require corporate issuers to disclose information regarding their management of human capital.[2] In August, Vanguard, one of the world's largest investment management companies with $4.4 trillion in assets, issued an open letter calling on public companies to "embrace the disclosure of sustainability risks that bear on a company's long-term value creation prospects" using a suitable framework like the SASB standards.[3]

As the beat goes on, the question is no longer whether certain sustainability information is materially important to a variety of mainstream investors. The question is how companies are responding.

In this report, the Sustainability Accounting Standards Board (SASB), which aims to improve the effectiveness of Securities and Exchange Commission (SEC) reporting with standardized sustainability disclosure, presents the findings of its second annual analysis of existing sustainability disclosure. In this analysis, the SASB reviewed the latest-available Form 10-K or 20-F filings for up to the top 10 companies in each of 79 industries, categorizing disclosures on the most crucial, industry-specific sustainability topics according to their quality. The SASB's analysis uncovered the following major points:

- Most companies address most SASB disclosure topics—and many address all—in SEC filings: Overwhelmingly, companies have recognized the existence of, or the potential for, material impacts related to the sustainability topics included in the SASB's Provisional Standards. Indeed, 73 percent of companies in the analysis reported on at least three-quarters of the sustainability topics included in their industry standard, and 42 percent provided disclosure on every SASB topic. Both figures are slightly higher than one year ago (69 and 39 percent, respectively).

- Company reporting demonstrates broad agreement with the materiality of the SASB disclosure topics: In all, across all industries and topics, 83 percent of possible entries[4] included some form of disclosure, representing a slight increase from 81 percent in fiscal year (FY) 2015. This is a clear indication that companies acknowledge the majority of the sustainability factors identified in the SASB standards are currently having—or are reasonably expected to have—material impacts on their business.

- However, most sustainability disclosure consists of boilerplate language, which is largely useless to investors: The most common form of disclosure across the majority of industries and topics was generic boilerplate language, which is inadequate for investment decision-making. Such vague, non-specific information was used more than 50 percent of the time when companies addressed a SASB topic, which is a slight improvement over FY 2015, when it was used in about 53 percent of available disclosures.

- Sustainability performance metrics are rarely disclosed and lack comparability when they are: Companies used metrics—obviously more useful to investment analysis—in around 29 percent of the cases in which a disclosure occurred. Importantly, even in these cases, the metrics were non-standardized and therefore lacked comparability from one firm to the next. This represents a

1 Bank of America Merrill Lynch, "Equity Strategy Focus Point—ESG Part II: A Deeper Dive" (June 15, 2017), available at https://www.bofaml.com/content/dam/boamlimages/documents/articles/ID17_0028/equityStrategyFocusPointADeeperDive.pdf.

2 Human Capital Management Coalition, letter to the SEC, dated July 6, 2017, available at https://www.sec.gov/rules/petitions/2017/petn4-711.pdf.

3 Vanguard, "An Open Letter to Directors of Public Companies Worldwide," a letter from Chairman and CEO F. William McNabb III, dated August 31, 2017, available at https://about.vanguard.com/investment-stewardship/governance-letter-to-companies.pdf.

4 The analysis searched SEC filings for disclosures related to the topics included in the industry-specific SASB standards. The more than 4,110 possible entries were then categorized as "No Disclosure," "Boilerplate," "Company-Tailored Narrative," or "Metrics." Of the possible entries, a total of 3,397 included relevant disclosures (i.e., all possible entries minus those categorized as "No Disclosure").

modest uptick from last year's findings (about 24 percent of available disclosures used metrics in FY 2015), which may be at least partially attributable to methodological changes.

- Important differences exist among sectors and industries, including notable year-over-year improvements: Although aggregate results were similar to last year's, incremental trends are encouraging, and noteworthy differences exist at sector and industry levels. For example, the use of metrics improved or remained constant in 10 out of the 11 sectors, with significant improvements in the "Infrastructure" and "Non-Renewable Resources" sectors. Meanwhile, the use of boilerplate disclosures decreased or remained constant in seven of the sectors, with notable improvements in the "Financials" and "Non-Renewable Resources" sectors.

- Large-cap firms in Europe appear to be leading the charge toward more effective sustainability disclosure: In general, foreign private issuers (20-F filers) produced more—and higher-quality—disclosures than did domestic issuers (10-K filers). This was largely driven by practices in Europe, where companies—especially large-cap firms—addressed more issues and used more performance metrics than their counterparts in other regions.

- Company disclosure is more effective under regulatory scrutiny, and less effective when addressing factors related to innovation: The analysis generally found more—and better—disclosure in highly regulated sectors, such as "Financials," "Non-Renewable Resources," and "Infrastructure." Lesser disclosure was observed in highly innovative sectors, such as "Technology & Communications," "Renewable Resources," and "Resource Transformation."

These findings, among all others contained in this report, demonstrate that, by and large, companies continue to take a minimally compliant approach to sustainability disclosure, providing the market with information that is inadequate for efficient pricing and effective decision making. The SASB exists to solve this problem by providing a materiality-focused market standard for sustainability disclosure to ensure more detailed and comparable disclosure that is decision-useful for investors and cost-effective for companies. This analysis serves as a verification tool in the SASB's standard-setting process. Through evaluation of the quantity and quality of disclosure on each industry-specific topic, the SASB can monitor changes over time that may indicate an evolving understanding of materiality or emerging considerations related to a particular topic. The analysis also helps the SASB to determine the best, most commonly used, and/or most appropriate performance metrics to include in the standards.

This report highlights a wide variety of trends and patterns related to the effectiveness of sustainability disclosure, including how it differs across industries, sectors, topics, market capitalization, and geographical regions. It therefore provides a tool for investors to use in identifying and assessing the risks and opportunities they face, and in developing a deeper understanding of where in their portfolio those risks are most likely to be uncompensated. Furthermore, as the second in an annual series of analyses, the report supplies investors with insights into evolving trends related to corporate disclosure that have implications for market pricing, and to key matters they may wish to address in both portfolio management and corporate engagement.

INTRODUCTION

In 1576, the English playwright George Pettie wrote, "So long as I know it not, it hurteth mee not," which today is the earliest known example of the now familiar proverb "What you don't know can't hurt you." The sentiment has endured nearly four and a half centuries, in part because of its arch humor, but also because in certain contexts a willfully maintained oblivion may provide comforting psychological refuge. It should go without saying, however, that financial markets are not one of those contexts. Indeed, although ignorance may be bliss, it's a terrible risk management strategy.

In recent years, providers of financial capital have become increasingly attuned to the material risks and opportunities embedded in the handful of key "known unknowns" that drive sustainability: environmental, social, and governance (ESG) factors. On an almost daily basis, new headlines tell the tale: data breaches, oil spills, bailouts, product recalls, foodborne illnesses, and emissions scandals eat into earnings, increase costs, and—almost overnight—ruin reputations that took years to build.

Nevertheless, although investor interest in such matters has skyrocketed—globally, more than one out of every four dollars under professional management is invested using sustainable strategies[5]—the quality of corporate disclosure related to ESG performance has not kept pace. Companies have begun to disclose more information about how they manage key sustainability issues, particularly in stand-alone "corporate social responsibility" (CSR) reports, but such reporting has done little to illuminate the connection between a company's sustainability performance and its financial statements. (See "The World's Best ESG Performer" sidebar.) Furthermore, such reports tend to exhibit a strong positive bias; for example, an analysis of highly rated sustainability reports revealed that 90 percent of known negative events went undisclosed.[6] This communication breakdown has created a challenge for investors who need to better understand the material risks and opportunities they face in allocating financial capital.

5 Global Sustainable Investment Alliance, *2016 Global Sustainable Investment Review* (2016).

6 Olivier Boiral, "Sustainability Reports as Simulacra? A Counter-Account of A and A+ GRI Reports," *Accounting, Auditing & Accountability Journal 26*, no. 7 (2013): 1036–71, available at http://www.emeraldinsight.com/doi/pdfplus/10.1108/AAAJ-04-2012-00998.

The World's Best ESG Performer

Boilerplate disclosures—generic statements that are not specifically tailored to the individual company and the risks it faces—are inadequate for investment decision-making. In the absence of a market standard against which to compare such disclosures, some courts have viewed certain vague, optimistic statements that may appear in disclosures as mere "puffery" that is "too untethered to anything measurable … to communicate anything that a reasonable person would deem important to a securities investment decision."[7] For example, consider the following hyperbolic statements contained in FY 2016 filings:

- A company in the "Engineering & Construction Services" industry addressed workforce health and safety by saying: "One of our core values and a fundamental business strategy is our constant pursuit of safety. The maintenance of a safe and secure workplace is a key business driver for us and our clients. In the areas in which we provide our services, we strive to deliver excellent safety performance."
- A biotech company, discussing the issue of employee recruitment, development, and retention, stated: "We believe that we have been successful in attracting and retaining skilled and experienced scientific personnel."
- On the topic of energy and fleet fuel management, a processed foods firm stated: "We consider compliance with environmental regulations and environmental sustainability to be our responsibility as a good corporate citizen and a key strategic focus area."
- Finally, a chemicals manufacturer, discussing product design for use-phase efficiency, said: "We are seeking a strong position in the technological development of chemicals from renewable resources and/or using production processes that generate fewer emissions by investing in research, development and technological innovation."

Such vague "corporate optimism" does little for the investor. Rather, researchers have found that investors and analysts are better able to assess fundamental risk when firms' disclosures are more detailed and avoid vague or abstract language.[8] Further, another study found that comparability not only lowers the cost of acquiring information but also helps analysts forecast earnings more accurately.[9]

Importantly, courts have found that such statements were not actionable in prior cases because they "lacked a standard against which a reasonable investor could expect them to be pegged." Therefore, establishing a market standard for the disclosure of sustainability information—something measurable against which performance can be pegged—is likely to improve the quality and comparability of sustainability information.

7 399 F.3d 651 (6th Cir. 2005).

8 Ole-Kristian Hope, Danqi Hu, and Hai Lu, "The Benefits of Specific Risk-Factor Disclosures," February 26, 2016, Rotman School of Management Working Paper No. 245704, Singapore Management University School of Accountancy Research Paper No. 2015-35.

9 Gus de Franco, S.P. Kothari, and Rodrigo S. Verdi, "The Benefits of Financial Statement Comparability," Journal of Accounting Research 49, no. 4 (2011): 895–931.

Of course, market infrastructure already exists to provide investors, lenders, and other economically motivated decision makers with the information they need. In the U.S., for example, corporate disclosure requirements are set forth in the provisions of the federal securities laws and the regulations of the Securities and Exchange Commission (SEC). As SEC guidance has made clear, sustainability topics, when material, are covered by its existing disclosure requirements. (See "Materiality and Sustainability" sidebar.) Although such disclosure has become increasingly prevalent, its quality—for example, much of it consists of boilerplate language—has left investors wanting. As a result, shareholders frequently seek such information outside normal channels, including through questionnaires and shareholder proposals, which creates information asymmetry, raises red flags with regulators over fair disclosure, and results in unpriced risks.

Materiality and Sustainability

According to the U.S. Supreme Court, information is material if there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."[10] This legal concept recognizes that some information is important to investors in making investment and voting decisions, while other information is not, and thus materiality underpins the rationale for corporate disclosures in the U.S. This is why the SASB uses materiality to guide its standard-setting process. Although the SASB does not prescribe what constitutes a material disclosure for any company or industry, its process serves to establish a basis for standard-setting that is aligned with existing U.S. federal securities laws.

A duty to disclose material sustainability information may arise under the requirements of Regulation S-K, which establishes the specific non-financial-statement disclosure requirements associated with Form 10-K and other SEC filings. Item 303 (Management's Discussion and Analysis), for example, requires that companies describe known trends, events, and uncertainties that are reasonably likely to have material impacts on their financial condition or operating performance. The SEC's interpretive guidance on disclosure requirements related to climate change and cybersecurity highlight the applicability of other Form 10-K sections to sustainability-related disclosure, namely the description of business (Item 101), and Risk Factors (Item 503c).[11] It further reminds registrants that they are required to disclose, in addition to the information expressly required by regulation, "such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading."[12]

10 TSC Industries v. Northway, Inc., 426 U.S. 438, 449 (1976)

11 SEC, Commission Guidance Regarding Disclosure Related to Climate Change (February 2010); and CF Disclosure Guidance: Topic No. 2 Division of Corporation Finance guidance regarding disclosure obligations relating to cybersecurity risks and cyber incidents (October 2011)

12 17 C.F.R. §230.408 and §240.12b-20, additional information.

The SASB published the first analysis of material sustainability disclosure in 2016. This report is the second annual edition, a follow-up analysis showing that while the disclosure of such information is slowly becoming more commonplace and more effective, much improvement is still needed.

Along with financial statement information, investors need sustainability information that is decision-useful. Research shows that more detailed disclosures enhance analysts' understanding and impact investors' decision making. One study, which focused on Form 10-K risk-factor disclosures—those required by Item 503(c) of Regulation S-K, which are included in this analysis—found that analysts are better able to assess fundamental risk when firms' risk-factor disclosures are detailed and avoid vague, abstract, or "boilerplate" language. It also found that the market more readily incorporates detailed information into stock prices, suggesting that such non-financial disclosures help investors better assess firms' financial statements.[13]

13 Ole-Kristian Hope, Danqi Hu, and Hai Lu, "The Benefits of Specific Risk-Factor Disclosures," February 26, 2016, Rotman School of Management Working Paper No. 245704, Singapore Management University School of Accountancy Research Paper No. 2015-35.

Standardized sustainability metrics, such as those included in the provisional standards developed by the SASB, add material information to the investor's economic calculus for pricing risk, comparing performance and allocating financial capital. This report is intended to better enable investors to identify where uncompensated risks and opportunities exist in their portfolios.

Note on Disclosure Examples

For illustrative purposes, this report includes many examples of corporate disclosure on key sustainability issues. However, these examples represent only a small portion of what is available in the Disclosure Intelligence Tool on the SASB Navigator. The tool enables users to search thousands of 10-K, 20-F, and 40-F filings from multiple fiscal years to pull up any disclosure by any company on any SASB topic. For more information on the Disclosure Intelligence Tool, see "The Future of Sustainability Reporting Analysis."

D. R. Horton, Inc. **Form 10-K for FY ending September 30, 2016**	**CalAtlantic Group, Inc.** **Form 10-K for FY ending December 31, 2016**	**Meritage Homes Corporation** **Form 10-K for FY ending December 31, 2016**
A health and safety incident relating to our operations could be costly in terms of potential liabilities and reputational damage. Building sites are inherently dangerous, and operating in the homebuilding industry poses certain inherent health and safety risks. Due to health and safety regulatory requirements and the number of projects we work on, health and safety performance is critical to the success of all areas of our business. Any failure in health and safety performance may result in penalties for non-compliance with relevant regulatory requirements, and a failure that results in a major or significant health and safety incident is likely to be costly and could expose us to liability that could be costly. Such a failure could generate significant negative publicity and have a corresponding impact on our reputation, our relationships with relevant regulatory agencies or governmental authorities, and our ability to attract customers and employees, which in turn could have a material adverse effect on our financial results and liquidity.	A major safety incident relating to our business could be costly in terms of potential liabilities and reputational damage. Building sites are inherently dangerous, and operating in the homebuilding industry poses certain inherent health and safety risks. Due to health and safety regulatory requirements and the number of projects we own, health and safety performance is critical to the success of all areas of our business. Any failure in health and safety performance may result in penalties for non-compliance with relevant regulatory requirements, and a failure that results in a major or significant health and safety incident or injury could expose us to liability that could be costly. Such a failure could generate significant negative publicity and have a corresponding impact on our reputation, our relationships with relevant regulatory agencies or governmental authorities, and our ability to attract customers, which in turn could have a material adverse effect on our business, financial condition and operating results.	A major safety incident relating to our operations could be costly in terms of potential liabilities and reputational damage. Building sites are inherently dangerous, and operating in the homebuilding industry poses certain inherent health and safety risks. Due to health and safety regulatory requirements and the number of projects we work on, health and safety performance is important to the success of our development and construction activities. Any failure in health and safety performance may result in penalties for non-compliance with relevant regulatory requirements, and a failure that results in a major or significant health and safety incident is likely to be costly and could expose us to claims resulting from personal injury. Such a failure could generate significant negative publicity and have a corresponding impact on our reputation, our relationships with relevant regulatory agencies or governmental authorities, and our ability to attract customers and employees, which in turn could have a material adverse effect on our business, financial condition and operating results. We and our subcontractors carry insurance that covers some of these risks.

Consider, for example, the preceding disclosures from a handful of companies in the "Home Builders" industry. These excerpts, which are taken from actual SEC filings for FY 2016, suggest that these companies recognize the inherent occupational health and safety risks in their daily operations; however, investors working with this information would be unable to properly price workforce health and safety risks into their decision-making. Nothing in these disclosures allows for users of such information to differentiate company performance; in fact, barring a few different words, these disclosures seem exactly the same.

As the second annual edition, this report also uses last year's findings as a baseline, allowing investors to see how trends in disclosure reflect the evolution of a company, an industry, or a sector's approach to specific sustainability issues. In sum, the aim of this analysis is to shine a light on hidden risks and opportunities and to help investors surface unknowns.

ANALYZING THE CURRENT STATE OF DISCLOSURE

For the second year in a row, the SASB has analyzed the current state of disclosure on the set of 434 provisional disclosure topics included in each of its industry-specific provisional standards. The analysis, the findings of which are highlighted in this report, identifies and categorizes the disclosure practices of the top 10 companies, by revenue,[14] in each of the 79 industries in the SASB's Sustainable Industry Classification System™ (SICS™). Overall, 731 annual SEC filings were analyzed, covering disclosure for FY 2016, and representing 695 unique companies.[15] The SASB performed this analysis between May and September 2017.

The analysis identified relevant disclosures in the latest available Form 10-K and Form 20-F (see Table 1 for the sections of SEC filings covered in the scope of the analysis). Using the definitions below and the decision tree illustrated in Figure 1, it then classified each disclosure based on the following categories:[16]

TABLE 1. Scope of Analysis

This analysis covers disclosures in the following sections of Forms 10-K and 20-F:

Regulation S-K	10-K	20-F	Name
§229.101	1	4B	Business
§229.503(c)	1A	3D	Risk Factors
§229.103	3	8A7	Legal Proceedings
§229.303	7	5	Management Discussion and Analysis (MD&A)
§229.305	7A	11	Quantitative and Qualitative Disclosures about Market Risks
§229.1010	8	8	Financial Statements

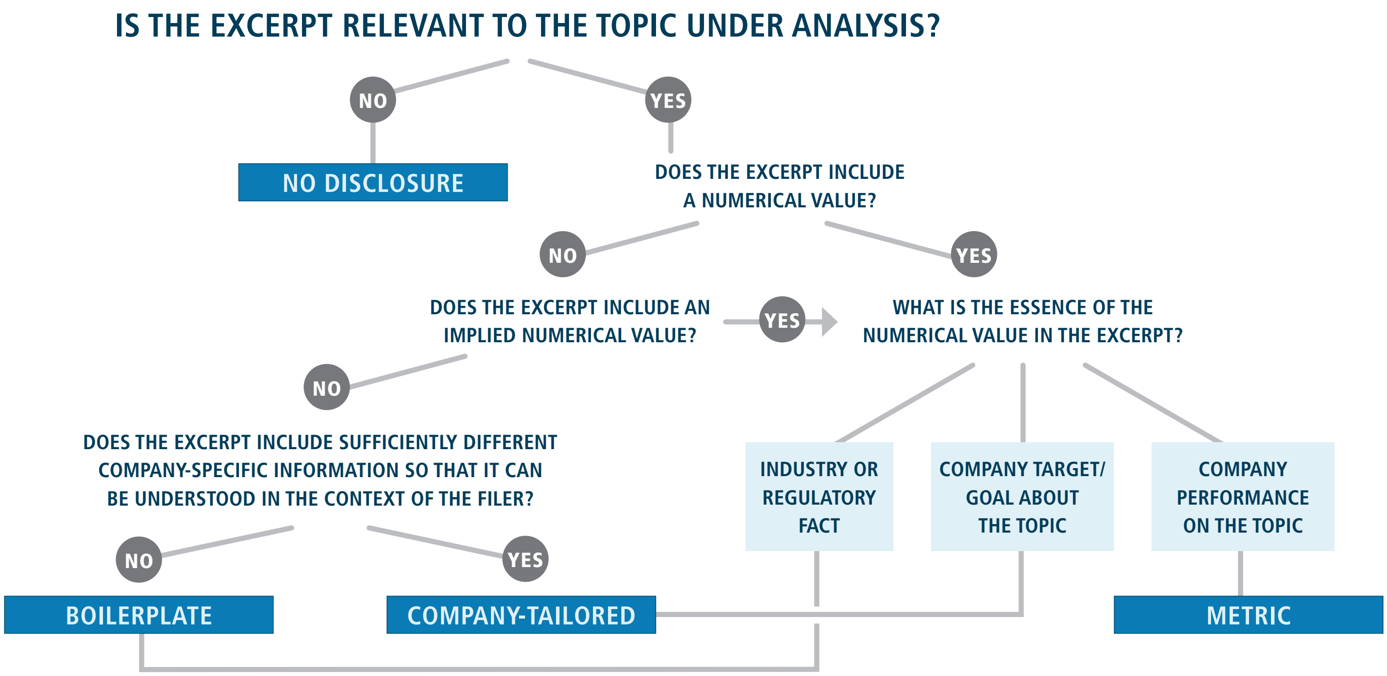
- No Disclosure: The company does not provide disclosure that is relevant to the topic under analysis.
- Boilerplate: The company provides disclosure using generic language that can be applicable to most, if not all, issuers in the industry. Such disclosure has not been sufficiently tailored to reflect the company's specific and unique circumstances, including, but not limited to, its past performance, future targets, and individual risk/opportunity management strategies. The disclosure thus does not provide the reader with sufficient and significant information to differentiate between the company and most, if not all, of its peers. Boilerplate disclosure may include industry-level generic language, such as descriptions of regulations affecting the company/industry, and company-level generic language, such as the use of words like "we," "our company," etc.
- Company-Tailored Narrative: The company provides disclosure using specific language that can only be understood in the context of the issuer. Such disclosure has been sufficiently tailored to reflect the company's specific and unique circumstances, including, but not limited to, its past performance, future targets, and individual risk/opportunity management strategies. The disclosure thus provides the reader with sufficient and significant information to differentiate between the company and most, if not all, of its peers; if analyzed outside the context of the company, such disclosure would not be applicable to other issuers. However, such disclosure may not provide information allowing for quantitative comparisons between companies.
- Metrics: The company provides disclosure using quantitative performance indicators, which, by their nature, can be understood only in the context of the issuer. This excludes non-performance figures, such as a company's goals and/or targets. (See "Company-Tailored Narrative," above.)

14 Due to industry composition, the following industries had fewer than 10 companies to analyze: Health Care Distributors (7 companies), Security & Commodity Exchanges (4), Automobiles (8), Car Rental & Leasing (4), Rail Transportation (7), Education (8), Cruise Lines (4), Cable & Satellite (7), Tobacco (4), Drug Retailers & Convenience Stores (4), Appliance Manufacturing (6), Wind Energy (4), Fuel Cells & Industrial Batteries (8), Forestry & Logging (7), and Real Estate Services (9).

15 Twenty-seven companies were analyzed for more than one industry; these companies were considered "representative" for industries that are not their primary SICS industry. This included 21 companies that were analyzed for one additional "representative" industry; 3 companies that were analyzed for two additional "representative" industries (Wells Fargo & Company, Comcast Corporation, and Tesla, Inc.); and 3 companies that were analyzed for three additional "representative industries" (Bank of America Corp., Citigroup Inc., and JPMorgan Chase & Co.).

16 Generally speaking, disclosure effectiveness tends to improve with specificity. However, sometimes the use of metrics alone is insufficient without context provided by discussion and analysis. This is why many SASB metrics include a combination of both quantitative and qualitative disclosures. As appropriate—and consistent with Rule 12b-20—when disclosing information related to a sustainability topic, companies should consider including a narrative description of any material factors necessary to ensure completeness, accuracy, and comparability of the data reported.

Figure 1. Disclosure analysis methodology



The following excerpts from SEC filings illustrate each category of disclosure. The examples address the topic of water management in the "Metals & Mining" industry.

BOILERPLATE:

"Climate change, climate change legislation or regulations and greenhouse effects may adversely impact our operations and markets … The potential physical impacts of climate change on the Company's operations are highly uncertain, and will be particular to the geographic circumstances. These may include changes in rainfall patterns, shortages of water or other natural resources, changing sea levels, changing storm patterns and intensities, and changing temperature levels. These effects may adversely impact the cost, production and financial performance of our operations."

Source: Alcoa Corporation, Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE:

"Our mining operations depend on the availability of secure water supplies … Our mining operations require physical availability and secure legal rights to significant quantities of water for mining and ore processing activities, and related support facilities. Most of our North and South America mining operations are in areas where competition for water supplies is significant. Continuous production at our mines is dependent on many factors, including our ability to maintain our water rights and claims, and the continuing physical availability of the water supplies. In Arizona, where our operations use both surface and ground water, we are a participant in an active general stream adjudication in which the Arizona courts have been attempting, for over 40 years, to quantify and prioritize surface water claims for the Gila River, one of the state's largest river systems, which primarily affects our Morenci, Safford and Sierrita mines … Water for our Cerro Verde operation in Peru comes from renewable sources through a series of storage reservoirs on the Rio Chili watershed that collects water primarily from seasonal precipitation. As a result of occasional drought conditions, temporary supply shortages are possible that could affect our Cerro Verde operations. In January 2016, the Peruvian government declared a temporary state of emergency with respect to the water supply in the Rio Chili Basin because of drought conditions. As a result, the Cerro Verde water rights from the Rio Chili were temporarily decreased during February 2016."

Source: Freeport-McMoRan, Inc., Form 10-K for FY ending December 31, 2016.

METRICS:

"Business Strategy … Commitment to sustainability … We are committed to promoting sustainable development, which means generating value for our shareholders and other stakeholders, and simultaneously improving health and safety of our workers, enhancing the well-being of the communities surrounding our operations and protecting the environment. This can be achieved through conscious and responsible management, corporate voluntary actions and cross-sectorial partnerships. Below is a list of measures illustrating our commitment to sustainability … We are also committed to reducing water use in our activities by investing in technologies and initiatives to control total water withdrawal, especially by promoting water reuse. In 2016, we withdrew a total of 426.3 million cubic meters of water, and used 394.3 million cubic meters in our operations (including discontinued operations), with the balance being allocated to third parties. From the total volume of water used in 2016, 80% or 1.6 billion cubic meters was reused."

Source: Vale SA, Form 20-F for FY ending December 31, 2016.

In all, more than 4,110 entries were categorized according to this four-tiered labeling system. Out of this number, a total of 3,397 entries included relevant disclosures: all possible entries minus those categorized as "No Disclosure." When a given company provided multiple disclosures on a single topic—for example, addressing the topic once in the Risk Factors section of its 10-K and again in the Management Discussion and Analysis (MD&A) section—only the highest-quality disclosure was considered in the presentation of this report's results. In other words, each entry corresponds to the highest-quality disclosure provided by any given company on any given topic.

HOW TO USE THIS REPORT

The following sections present a variety of tables, rankings, and excerpts intended to provide readers with a detailed overview of how public companies are currently reporting material sustainability information in mandatory filings with the SEC. This analysis is intended to help investors identify whether they are—or are not—making informed decisions with respect to key sustainability factors. In so doing, they will develop a more nuanced understanding of the risk-return profile of their holdings.

For example, when a given SASB topic is characterized by a preponderance of boilerplate disclosure, or none at all, an investor can assume that any risks or opportunities associated with the topic are not being accurately reflected in company stock prices within the industry. Investors who adopt a more fundamental, bottom-up approach to portfolio construction may wish to compare the disclosure practices of specific companies to these industry benchmarks. Further, the prevalence of such low-quality disclosure across all topics within an industry or sector may indicate significant risk exposure for investors, particularly those using a top-down, sector-based approach. (See "Interpreting the Results," below.)

Additionally, in using this report and the information it contains, asset owners and managers may wish to consider how they can use their influence to help improve the quality of the material sustainability information being disclosed to the capital markets. For example:

- Investors might join a SASB Advisory Group or engage with the SASB's sector analysts to help improve the relevance and decision-usefulness of the standards.

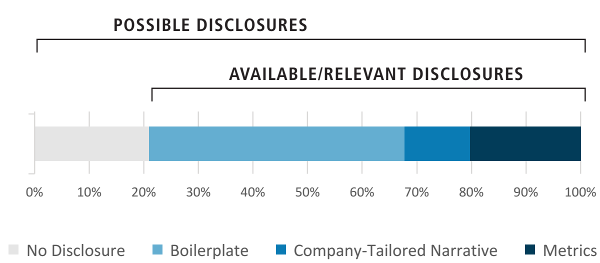
- Investors might encourage their portfolio companies to practice more effective disclosure of material sustainability information by incorporating SASB standards into their SEC filings.

INTERPRETING THE RESULTS

This report uses a variety of statistics, charts, tables, comparative analysis, and technically specific terminology to present its findings. To ensure this information is accurately interpreted, certain clarifications are necessary.

First, it is important to define the key terminology used in the report. A precondition of assessing the effectiveness of existing sustainability disclosure is determining where such disclosure is available and where it is not. In reviewing SEC filings, the SASB considered all ***possible disclosures***. (In Figure 2, this is represented by the entire bar, including the gray and blue areas.) For example, the provisional SASB standard for the "Auto Parts" industry includes six disclosure topics, meaning each company in the industry has six opportunities to provide disclosure. If a company reports information relevant to four of those topics (and provides no disclosure on the remaining two topics), those four represent the ***available, or relevant, disclosures***.[17] (In Figure 2, the available disclosures are represented by the blue areas of the bar.)

Figure 2. Illustration of key terminology

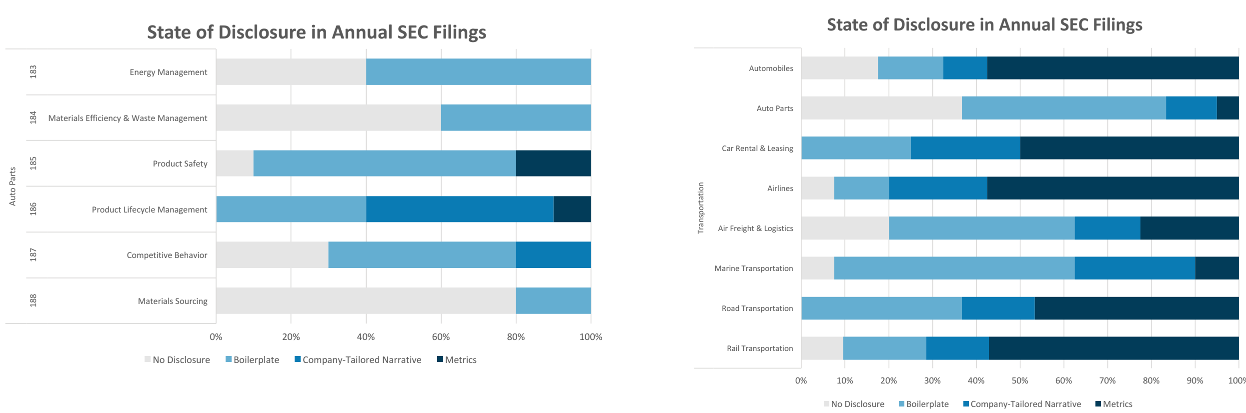


After identifying the available disclosures, the SASB then assesses each one for its degree of effectiveness (i.e., boilerplate, company-tailored narrative, or metrics). This represents the ***disclosure quality***. Thus, the percentages cited in the sections of this report that discuss "disclosure quality" use available disclosures as their denominator. In this way, disclosure quality differs from ***disclosure level***, which simply captures the percentage of possible disclosures that resulted in available disclosures. For instance, building on the example above, the auto parts manufacturing company's disclosure level would be 66.7 percent because it provided disclosure on four of six industry topics. Thus, the percentages cited in the sections of this report that discuss "disclosure levels" use possible disclosures as their denominator.

Secondly, it is important to note that the report presents its findings using two different types of bar charts. There are important differences in how the two types of charts should

17 In some sections of this report, the term "relevant disclosures" is used synonymously with "available disclosures."

Figure 3. Differences between topic-level vs. aggregated data bar charts



Topic-Level Bar Charts

(e.g., in the Appendices)

Topic-level bar charts represent the percentage of companies providing disclosure on each topic that fall into each category of disclosure quality.

For example, from the graph above, we can conclude that 30 percent of companies in the Auto Parts industry do not provide disclosure on the "Competitive Behavior" topic; whereas 20 percent of companies provide disclosure in the form of metrics for the "Product Safety" topic.

Aggregated Data Bar Charts

(e.g., in the Overview and Sector Overviews sections)

Aggregated data bar charts represent the percentage of possible disclosures analyzed across all topics that fall into each category of disclosure quality.

For example, from the graph above, we can conclude that, across all companies and topics in the "Auto Parts" industry, around 36 percent of possible disclosures were categorized as "No Disclosure," whereas only 5 percent were labeled as "Metrics."

be interpreted, which are summarized in Figure 3. At the most granular level, the appendices of this report present an analysis of each industry-level disclosure topic. The data included in these topic-level bar charts represent the percentage of companies in the industry providing disclosure in each category of quality (including "no disclosure"). Meanwhile, the bar charts included in other sections of the report, such as the Overview and Sector Overviews sections, aggregate data across multiple topics, industries, and/or sectors. In these aggregated data bar charts, the percentages represent the share of all possible disclosures that fall into each category of disclosure quality (including "no disclosure"). Note that this is not equivalent to the percentage of companies providing disclosure in each quality category.

Finally, although this analysis is an annual exercise and therefore represents a continuation of the 2016 report (which analyzed disclosure practices for FY 2015), readers must exercise caution in drawing conclusions regarding comparative analyses over time. Each year's findings represent an analysis of the disclosure practices for the largest companies in each industry for that year. Therefore, the analysis will not necessarily cover the same set of companies from one year to the next, given competitive forces that affect industry composition as well as market activity (such as mergers, acquisitions, de-listings, etc.). As mentioned, this year's report includes an analysis of 731 annual SEC filings, representing the largest companies in each of the 79 industries in SICS; of that number, 588 filings (80 percent) were also analyzed for the same industry in last year's report. For the most part, the results presented in the "Year-on-Year Comparison" sections below don't necessarily show how disclosure practices have changed for the same set of companies over time; rather, they show how disclosure practices for the largest companies in each industry have shifted. Underlying reporting differences—that is, those from the same sample of companies analyzed in last year's report—are occasionally discussed but in less detail.

OVERVIEW

Although this report aims to supply insight to all investors, those who employ a top-down approach to portfolio construction are most likely to benefit from the big-picture takeaways summarized in this section.

OVERALL TRENDS

At the highest level of aggregation across the entire economy—including all sectors, industries, and topics—the SASB's FY 2016 analysis found that both disclosure levels and quality were very similar to those in FY 2015. Overall results for FY 2016 are presented in Figure 4.

Such incremental change is consistent with expectations. For a variety of reasons, including strict deadlines, exacting processes, and important liability considerations, companies' financial reporting in annual filings—especially in the sections included in this analysis—is not typically a dynamic and changing practice from year to year. For example, many companies include the same risk factors in the same order with the same explanation from one year to the next.

Significant year-over-year changes are more likely in the following cases:

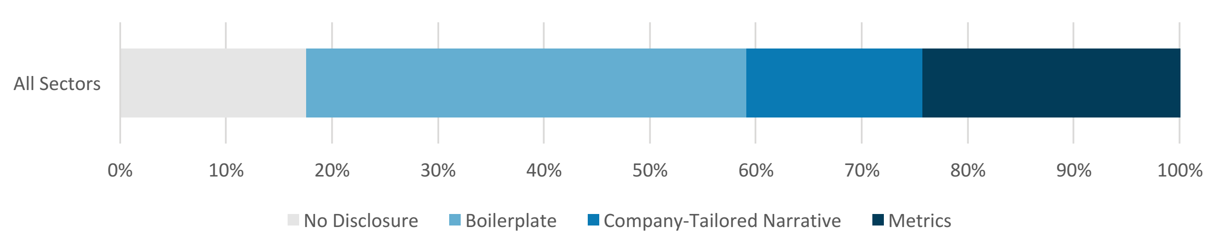
- New legislation, regulations, and/or agreements focusing on specific sustainability topics are enacted. For example, disclosure on greenhouse gas emissions changed in FY 2016 relative to FY 2015, likely because of, at least in part, nationally determined contributions related to the signing of the Paris Agreement drafted at the Conference of the Parties of the United Nations Framework Convention on Climate Change in December 2015.
- Operational threats emerge, rapidly evolve, or materialize. Improvements in disclosure tend to be reflective of reactive, rather than proactive, initiatives. Consider, for example, the following disclosure on data security from Yahoo, Inc. (see following page). The improvement in disclosure was a result of cybersecurity breaches materializing, rather than a proactive effort by the company to provide better disclosure. After revealing a high-profile security breach in 2016, the company's disclosure on the topic (which had consisted of boilerplate language the year before) included metrics detailing the number of affected user accounts and contingent costs to date.

DISCLOSURE LEVELS

The SASB's analysis for FY 2016 found that 82.5 percent of possible entries analyzed, across all sectors and topics, included some type of disclosure. Furthermore, across all sectors, 73 percent of companies reported on at least three-quarters of the sustainability topics included in their industry's SASB standard, and 42 percent provided disclosure on every SASB topic. Again, both figures are slightly higher than they were one year ago (69 and 39 percent, respectively). These figures clearly indicate that companies across every sector of the economy continue to acknowledge that the majority of the sustainability factors identified in the SASB's provisional standards are reasonably likely to have material impacts on their business.

Figure 4. Sustainability disclosure in SEC filings for FY 2016

(All disclosure topics in 79 industries across 11 sectors—4,118 possible disclosures)



Yahoo, Inc., Form 10-K for FY ending December 31, 2015

If our security measures are breached, our products and services may be perceived as not being secure, users and customers may curtail or stop using our products and services, and we may incur significant legal and financial exposure.

Our products and services involve the storage and transmission of Yahoo's users' and customers' personal and proprietary information in our facilities and on our equipment, networks and corporate systems. Security breaches expose us to a risk of loss of this information, litigation, remediation costs, increased costs for security measures, loss of revenue, damage to our reputation, and potential liability. Outside parties may attempt to fraudulently induce employees, users, or customers to disclose sensitive information to gain access to our data or our users' or customers' data. In addition, hardware, software or applications we procure from third parties may contain defects in design or manufacture or other problems that could unexpectedly compromise network and data security. Additionally, some third parties, such as our distribution partners, service providers and vendors, and app developers, may receive or store information provided by us or by our users through applications integrated with Yahoo. If these third parties fail to adopt or adhere to adequate data security practices, or in the event of a breach of their networks, our data or our users' data may be improperly accessed, used or disclosed. Security breaches or unauthorized access have resulted in and may in the future result in a combination of significant legal and financial exposure, increased remediation and other costs, damage to our reputation and a loss of confidence in the security of our products, services and networks that could have an adverse effect on our business. We take steps to prevent unauthorized access to our corporate systems, however, because the techniques used to obtain unauthorized access, disable or degrade service, or sabotage systems change frequently or may be designed to remain dormant until a triggering event, we may be unable to anticipate these techniques or implement adequate preventative measures. If an actual or perceived breach of our security occurs, the market perception of the effectiveness of our security measures could be harmed and we could lose users and customers.

Yahoo, Inc. Form 10-K for FY ending December 31, 2016

Security Incidents … On September 22, 2016, we disclosed that a copy of certain user account information for approximately 500 million user accounts was stolen from Yahoo's network in late 2014 (the "2014 Security Incident"). The Company believes the user account information was stolen by a state-sponsored actor. The user account information taken included names, email addresses, telephone numbers, dates of birth, hashed passwords (the vast majority with the "bcrypt" hashing algorithm) and, in some cases, encrypted or unencrypted security questions and answers. Our forensic investigation indicates that the stolen information did not include unprotected passwords, payment card data, or bank account information. Payment card data and bank account information are not stored in the system that the investigation found to be affected. We have no evidence that the state-sponsored actor is currently in or accessing the Company's network.

On December 14, 2016, we disclosed that, based on our outside forensic expert's analysis of data files provided to the Company in November 2016 by law enforcement, we believe an unauthorized third party stole data associated with more than one billion user accounts in August 2013 (the "2013 Security Incident"). We have not been able to identify the intrusion associated with this theft, and we believe this incident is likely distinct from the 2014 Security Incident. For potentially affected accounts, the user account information stolen included names, email addresses, telephone numbers, dates of birth, hashed passwords (using the MD5 algorithm) and, in some cases, encrypted or unencrypted security questions and answers. The stolen information did not include passwords in clear text, payment card data, or bank account information.

In November and December 2016, we disclosed that our outside forensic experts were investigating the creation of forged cookies that could allow an intruder to access users' accounts without a password. Based on the investigation, we believe an unauthorized third party accessed the Company's proprietary code to learn how to forge certain cookies. The outside forensic experts have identified approximately 32 million user accounts for which they believe forged cookies were used or taken in 2015 and 2016 (the "Cookie Forging Activity"). We believe that some of this activity is connected to the same state-sponsored actor believed to be responsible for the 2014 Security Incident. The forged cookies have been invalidated by the Company so they cannot be used to access user accounts…

We recorded expenses of $16 million related to the Security Incidents in the year ended December 31, 2016, of which $5 million was associated with the ongoing forensic investigation and remediation activities and $11 million was associated with nonrecurring legal costs. The Security Incidents did not have a material adverse impact on our business, cash flows, financial condition, or results of operations for the year ended December 31, 2016. However, we have subsequently incurred additional expenses related to the Security Incidents to investigate and take remedial actions to notify and protect our users and systems, and expect to continue to incur investigation, remediation, legal, and other expenses associated with the Security Incidents in the foreseeable future. We will recognize and include these expenses as part of our operating expenses as they are incurred. The Company does not have cybersecurity liability insurance.

DISCLOSURE QUALITY

Despite this widespread recognition that a company's management—or mismanagement—of sustainability issues can have material impacts, the quality of corporate disclosure on such topics remains lacking in FY 2016. For example, less than a third (29.5 percent) of available disclosures contained performance metrics, while more than half (50.4 percent) used boilerplate language and an additional 20.1 percent included tailored narrative.

Legal and Compliance Considerations Related to Boilerplate Disclosure

One popular location for the disclosure of material sustainability information is the Management Discussion and Analysis (MD&A) section of SEC filings, which requires that companies address known trends, uncertainties, and events that are reasonably likely to have a material impact on the company's financial condition or results of operations. Importantly, SEC interpretive guidance on MD&A disclosure emphasizes that companies should identify and discuss key performance indicators, both financial and non-financial, used to manage the business and that would be material to investors.[18]

Additionally, boilerplate disclosure may not necessarily be the best approach from a securities law liability standpoint. For an in-depth discussion of legal liability issues, see the SASB's publication "Legal Roundtable on Emerging Issues Related to Sustainability Disclosure"[19] and a legal memorandum prepared for that roundtable by the law firm K&L Gates.[20]

18 SEC Release No. 33-8350 [68 FR 75055] (December 2003).

19 Sustainability Accounting Standards Board, "Legal Roundtable on Emerging Issues Related to Sustainability Disclosure" (2017), available at http://library.sasb.org.

20 Nicholas G. Terris, "Some Liability Considerations Relating to ESG Disclosures," K&L Gates (May 2017), available at http://www.klgates.com/some-liability-considerations-relating-to-esg-disclosures-05-01-2017.

Although boilerplate language is the most prevalent form of sustainability disclosure, certain companies are leading the way in providing comparable, decision-useful performance metrics to investors and other users of financial filings (See "Standout Reporting Demonstrates Leadership" sidebar.)

Although these findings, presented in Figure 5, indicate modest improvements in disclosure effectiveness from FY 2015 to FY 2016, they nevertheless demonstrate that many companies continue to take a minimally compliant—and arguably risky—approach to sustainability disclosure. (See "Legal and Compliance Considerations Related to Boilerplate Disclosure" sidebar.)

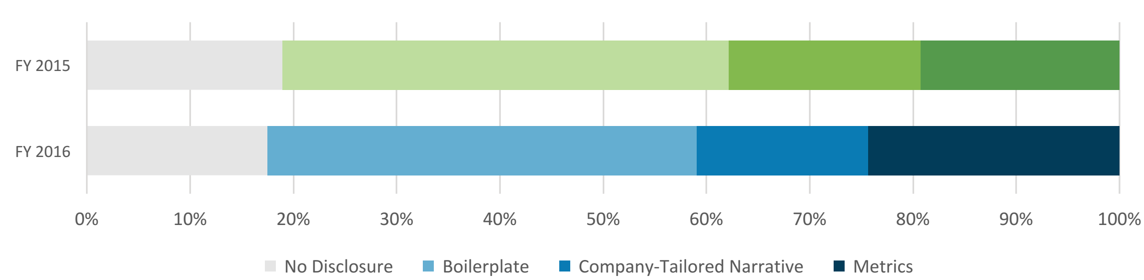
YEAR-ON-YEAR COMPARISON

Across all sectors and topics, reporting levels increased between FY 2015 and FY 2016, moving from 81 to 82.5 percent (a modest uptick of 1.5 percentage points). Additionally, disclosure quality also improved over time. Quantitative reporting—that is, the use of metrics—jumped from 23.7 percent of available disclosures in FY 2015 to 29.5 percent in FY 2016 (an increase of 5.7 percentage points). Meanwhile, the use of boilerplate decreased from 53.3 percent of available disclosures to 50.4 percent (a decrease of 2.9 percentage points).

Underlying reporting levels—that is, those from the same sample of companies analyzed in last year's report—also show an upward trend. Between FY 2015 and FY 2016, these increased by 2.1 percentage points. The aggregate improvement in disclosure effectiveness is also observable when analyzing disclosure quality for the same set of companies from last year's report. Underlying use of metrics jumped by 5.1 percentage points between fiscal years, while the underlying use of boilerplate decreased by 3.2 percentage points.

Aside from these underlying trends, the slight improvements in both reporting levels and disclosure effectiveness are likely a result of three intertwining factors: the inclusion of more large-market-

Figure 5. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015



Standout Reporting Demonstrates Leadership

This year's analysis shows that boilerplate language is the most prevalent form of sustainability disclosure. However, certain companies are leading the way in providing comparable, decision-useful performance metrics to investors and other users of financial filings.

For example, in the "Real Estate" industry, where 75 percent of possible disclosures were either non-existent or boilerplate—and where metrics represented just 12 percent of available disclosures—both Host Hotels & Resorts and Kilroy Realty Corporation reported SASB metrics for energy and water management in their 10-K filings, as seen in the following sections:

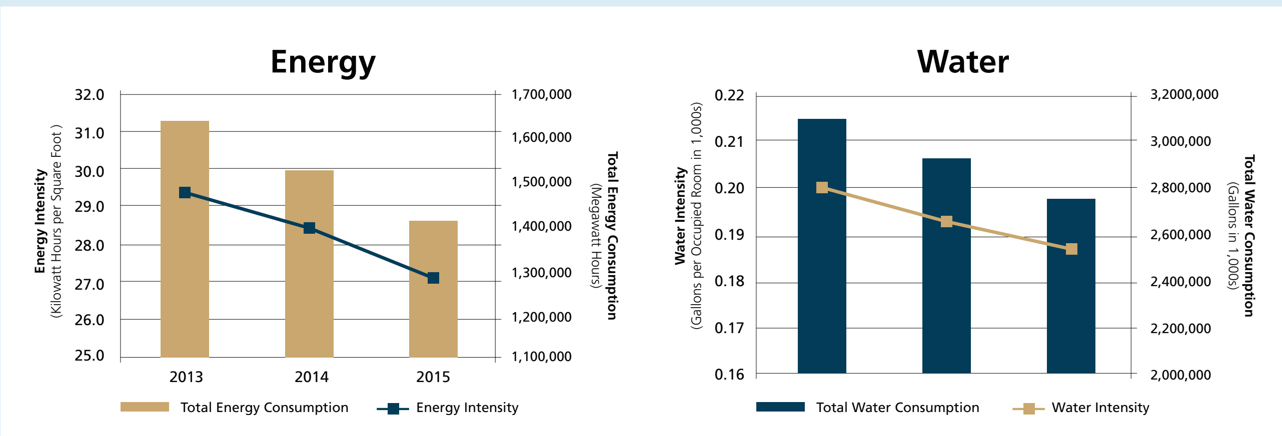
Host Hotels & Resorts, Inc., Form 10-K for FY ending December 31, 2016

Corporate Responsibility. Our corporate responsibility strategy focuses on a set of complementary objectives across three themes:

• Responsible Investment … • Environmental Stewardship … • Corporate Citizenship …

In March 2016, the Sustainability Accounting Standards Board ("SASB") issued the provisional standard, Real Estate Owners, Developers & Investment Trusts Sustainability Accounting Standard. The provisional standard outlines proposed disclosure topics and accounting metrics for the real estate industry. The recommended energy and water management metrics that best correlate with our industry include energy consumption data coverage as a percentage of floor area ("Energy Intensity"); total energy consumed by portfolio area ("Total Energy Consumption"); water withdrawal as a percentage of total floor area, or number of units (for our calculation we use occupied rooms) ("Water Intensity"); and total water withdrawn by portfolio area ("Total Water Consumption"). The energy and water data we use is collected and reviewed by third-parties who compile the data from property utility statements. These metrics enable us to track the effectiveness of water and energy reduction ROI projects.

We reference key aspects and metrics of our sustainability efforts through the Global Reporting Initiative ("GRI") Index, in accordance with the GRI framework and, beginning in 2015, contracted with a third-party to provide further verification of our energy and water consumption data. The charts below detail our Energy Intensity, Total Energy Consumption, Water Intensity and Total Water Consumption for 2013 through 2015, the last three fiscal years for which data is available (1):



(1) Energy and water metrics relate to our consolidated domestic hotels owned for the entire year presented. The water data excludes one domestic hotel in 2013, 2014 and 2015, as reliable utility data was not available.

Kilroy Realty Corporation, Form 10-K for FY ending December 31, 2016

Business and Growth Strategies

... Sustainability Strategies. We make excellence in sustainability a core competence by:

• managing our properties to offer the maximum degree of utility and operational efficiency to tenants. We offer tenant sustainability programs focused on helping our tenants reduce their energy and water consumption and increase their recycling diversion rates. Many of our assets are in zones impacted by California's drought, and as such face the risk of increased water costs and fines for high consumption. We have mitigated these risks through comprehensive, proactive water reductions throughout our portfolio, including domestic fixture upgrades, cooling tower optimizations, a comprehensive leak detection program, and irrigation systems retrofits. We also incorporate green lease language into 100% of our new leases, including a cost recovery clause for resource-efficiency related capital in full-service gross leases, which align tenant and landlord interests on energy, water and waste efficiency. Green leases (also known as aligned leases, high performance leases or energy efficient leases) align the financial and energy incentives of building owners and tenants so they can work together to save money, conserve resources and ensure the efficient operation of buildings. We were honored in 2014 to be part of the inaugural class of Green Lease Leaders, the Institute for Market Transformation's ("IMT's") program to encourage green leasing in real estate. In 2016, IMT honored us again with two Green Lease Leaders Team Transaction awards. Energy and water consumption data for the last three audited years are as follows:

Energy Consumption

	Energy Consumption Data Coverage as % of Floor Area	Total Energy Consumed by Portfolio Area with Data Coverage (MWh	% of Energy Generated From Renewable Resources	Like-for-Like Change in Energy Consumption of Portfolio Area with Data Coverage	% of Eligible Portfolio that has Obtained an Energy Rating and is Certified to ENERGY STAR
2015	92%	273,381	3%	(5) %	65%
2014	88%	267,391	4%	(2) %	56%
2013	84%	261,191	3%	(2) %	53

	Water Withdrawal Data Coverage as a % of Total Floor Area	Total Water Withdrawn by Portfolio Area (kgal)	Like-for-like Change in Water Withdrawn for Portfolio Area with Data Coverage
2015	94%	832,737	(11) %
2014	92%	950,357	(2) %
2013	89%	900,809	1 %

• building our current development projects to Leadership in Energy and Environmental Design ("LEED") specifications. All of our office development projects are now designed to achieve LEED certification, either LEED Platinum or Gold;

• actively pursuing LEED certification for approximately 1.1 million square feet of office space under construction. In addition, an analysis of energy performance is included in our standard due diligence process for acquisitions, and reducing energy use year over year is a comprehensive goal of our operational strategy. This is accomplished through systematic energy auditing, mechanical, lighting and other building upgrades, optimizing operations and engaging tenants. During the past few years we have significantly enhanced the sustainability profile of our portfolio, ending 2016 with 51% of our properties LEED certified and 69% of eligible properties ENERGY STAR certified. During 2016, the Company was recognized for our sustainability efforts with multiple industry leadership awards, including NAREIT's 2016 Office Leader in the Light Award and ENERGY STAR Partner of the Year Sustained Excellence award. The Company was also recognized by the Global Real Estate Sustainability Benchmark as the North American leader in sustainability for the third year in a row, and was ranked first among 178 North American participants across all asset types.

Similarly, and despite being part of an industry where disclosure levels across all topics are only 52 percent and use of boilerplate is commonplace, FuelCell Energy, Inc., discusses sustainability risks and opportunities in its latest available Form 10-K using the five disclosure topics identified in the SASB's Provisional Standard for its industry: "Product efficiency," "Energy management," Product end-of-life management," "Workforce health and safety," and "Materials Sourcing." Moreover, disclosure on some of these topics is provided in quantitative form.

Standout companies were not limited to industries in which disclosure is generally poor, however. For example, in the "Airlines" industry, where disclosure was abundant and relatively high-quality, one company—JetBlue—elected to augment its 10-K disclosure with a standalone report including the SASB disclosure topics and metrics for its industry. Although the SASB believes material sustainability information should be disclosed in SEC filings, it recognizes that some companies may first use the standards in reports outside such filings before incorporating them. When the SASB standards are codified in 2018, more companies are likely to use them in SEC filings.

cap companies in the sample; the inclusion of more "representative" companies relative to last year; and a methodological change in how certain disclosure excerpts were classified.

- Market capitalization: Last year's disclosure analysis found that large-cap companies—particularly Form 20-F filers—were more likely to report metrics and less likely to use boilerplate narrative in their annual SEC filings. This result supported previous research that has established a positive and significant correlation between a firm's size and the quality of its voluntary disclosures.[21] Large-market-capitalization companies represented 49 percent of all companies in the sample in last year's analysis, a figure that increased to 53 percent to this year. It follows that the inclusion of a higher share of large-cap companies would create a positive impact on this year's results, especially since, as posited before, disclosure practices are generally inelastic from year to year.

- "Representative" companies: SICS classifies every company within one of its 79 industries. However, firms are often integrated vertically or horizontally across multiple industries. This fact is reflected in reporting practices, especially as companies describe risk factors, macro trends, and evolving business opportunities. For example, in SICS, Comcast Corporation is primarily classified as a cable and satellite company; however, the company is also involved in media production and distribution activities and is the owner and operator of theme parks and other leisure facilities worldwide. To properly analyze the current state of disclosure for these non-primary industries, the SASB included so-called representative companies into the analysis. Last year, 21 such companies were included, and each was analyzed for an additional secondary industry. This year, the analysis includes 27 representative companies, 21 of which were analyzed for one additional industry; three of which were analyzed for two additional industries; and another three of which were analyzed for three non-primary industries. While the change might seem small, this difference adds up when considering the number of topics in each of the non-primary industries. Companies that operate across industries tend to be conglomerates with large market capitalizations; therefore, the inclusion of more representative companies in this year's analysis has similar impacts to those described above.

- Methodology: A methodological change in how certain excerpts were classified in last year's analysis versus this year's is likely behind the increase in the share of observed quantitative reporting. The SASB's Provisional Standards include several discussion and analysis guidelines that suggest companies should provide a tailored description of "strategies or plans to manage sustainability issues"—such as reduction targets for greenhouse gas emissions—and "an analysis of performance against those targets." Last year, disclosure examples that comply with this definition were categorized as "Company-Tailored Narrative" because they were part of the universe of discussion and analysis (qualitative) guidelines. This year, however, these excerpts were categorized as "Metrics" because, in addition to providing detailed narrative on a company's sustainability management strategies, they also include performance (quantitative) information against their sustainability goals.

21 M. Lang and R. Lundholm, "Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures," Journal of Accounting Research 31, no. 2 (1993): 246–71.

DIFFERENCES AMONG SECTORS AND INDUSTRIES

The broad trends described above apply to the majority of industries across every sector. However, significant differences were found to exist between (and within) sectors. For example, both disclosure levels and quality varied considerably across sectors and industries, particularly in the use of boilerplate language and metrics. (See Figure 6.)

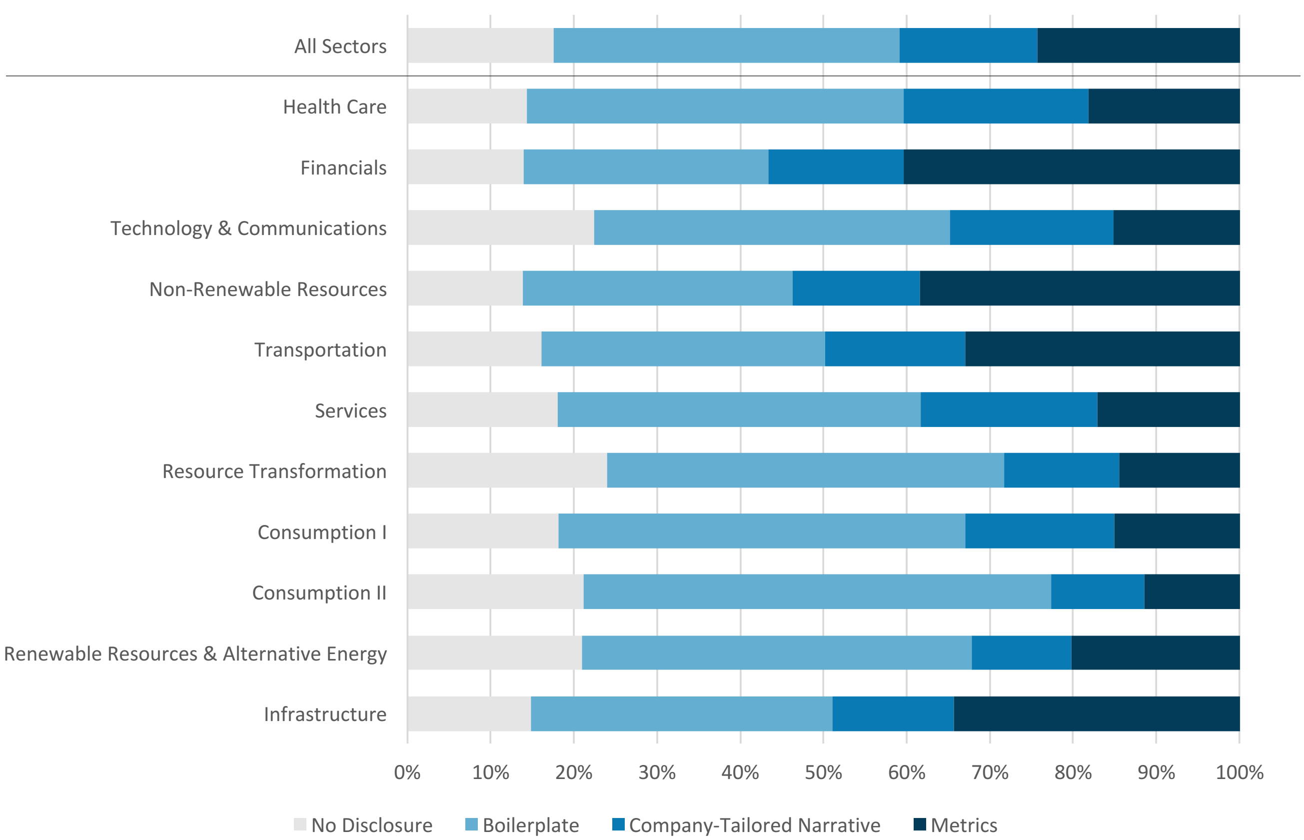
The trends summarized below—and others—will be covered in greater detail in the following sections of this report, along with a ranked list of all 79 SICS industries and overviews providing key insights into each sector.

DISCLOSURE LEVELS

The SASB's analysis generally found higher levels of disclosure in sectors characterized by high levels of regulatory oversight, including "Health Care," "Financials," "Non-Renewable Resources," and "Infrastructure," all of which had reporting levels of about 85 to 86 percent. Meanwhile, disclosure was generally less common in highly innovative sectors, such as "Resource Transformation" (76 percent), "Technology & Communications" (78 percent), and "Renewable Resources & Alternative Energy" (79 percent).

Generally speaking, higher disclosure levels came from customer-facing industries with strong brand reliance, and lower disclosure levels came from upstream, business-to-business (B2B) industries. (See "Industry Rankings" section.) However, this is not always apparent at the sector level because aggregate results can obfuscate industry-level results. Within sectors, disclosure practices often varied considerably from one industry to the next as well as among firms within the sector. (See Table 2). For example, although disclosure levels for the "Services" sector as a whole (82 percent) were slightly lower than the economy-wide average (83 percent), more than half (53 percent) of companies in the sector provided disclosure on every topic included in their indus-

Figure 6. Sustainability disclosure in SEC filings for FY 2016 (by sector)



try standard—much higher than the 42 percent of companies across all sectors.

Table 2. Company coverage of SASB topics in SEC filings for FY 2016 (by sector)

% of companies analyzed that provide disclosure on:	ALL disclosure topics in industry's SASB standard	At least 75% of disclosure topics in industry's SASB standard
All Sectors	42.1%	72.8%
Health Care	40.4%	71.9%
Financials	51.6%	84.4%
Technology & Communications	25.0%	76.7%
Non-Renewable Resources	43.8%	78.8%
Transportation	55.1%	84.1%
Services	52.8%	65.2%
Resource Transformation	16.0%	54.0%
Consumption I—Food & Beverage	43.8%	73.4%
Consumption II—Consumer Goods & Retail	38.6%	68.6%
Renewable Resources & Alternative Energy	36.7%	63.3%
Infrastructure	45.6%	74.7%

DISCLOSURE QUALITY

Although the big-picture trends noted above were found to hold across nearly all sectors and most industries, the SASB's analysis generally found that sustainability disclosure tended to be of somewhat higher quality overall in highly regulated sectors such as "Financials," "Non-Renewable Resources," and "Infrastructure." For example, 47 percent of available disclosures in the "Financials" sector used metrics, along with 45 percent in the "Non-Renewable Resources" sector—the only two sectors whose use of metrics outpaced their use of generic boilerplate. At the other end of the spectrum, disclosure in the "Consumption II—Consumer Goods & Retail" sector was characterized by a high prevalence of boilerplate language (71 percent of available disclosures) and very few metrics (15 percent). This result was also observed in the "Resource Transformation" sector, where 63 percent of available disclosures were boilerplate, compared with only 19 percent metrics; and the "Consumption I—Food & Beverage" sector, where 60 percent of available disclosures were boilerplate and only 18 percent were metrics. (See Table 3).

Again, disclosure effectiveness was generally found to be higher among business-to-customer industries than their upstream counterparts. In addition, disclosure effectiveness at the industry and sector level was strongly influenced by the type of sustainability issues they face. (See "Differences among Sustainability Dimensions" section.)

Table 3. Quality of available sustainability disclosure in SEC filings for FY 2016 (by sector)

% of Available Disclosures	Boilerplate	Tailored Narrative	Metrics
All Sectors	50.4%	20.1%	29.5%
Health Care	53%	26%	21%
Financials	34%	19%	47%
Technology & Communications	55%	25%	20%
Non-Renewable Resources	38%	18%	45%
Transportation	41%	20%	39%
Services	53%	26%	21%
Resource Transformation	63%	18%	19%
Consumption I—Food & Beverage	60%	22%	18%
Consumption II—Consumer Goods & Retail	71%	14%	15%
Renewable Resources & Alternative Energy	59%	15%	26%
Infrastructure	42%	17%	40%

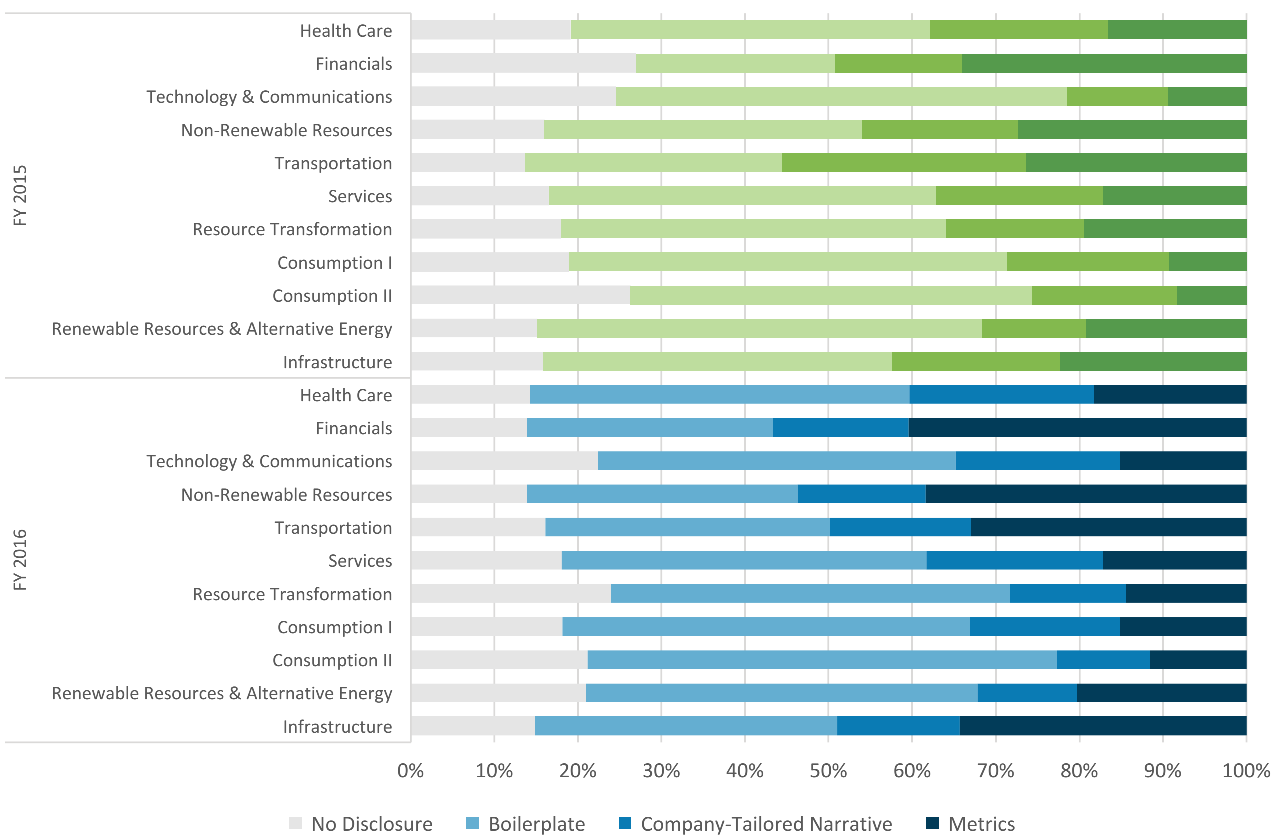
YEAR-ON-YEAR COMPARISON

Although the overall findings of the analysis—at the highest level of aggregation—resulted in very similar findings from FY 2015 to FY 2016, a number of differences in both disclosure levels and quality were revealed at the sector level. (See Figure 7.)

Reporting levels in the "Financials" sector improved the most from last year (increasing from 73 to 86 percent). This result is mainly driven by the inclusion of more "representative" companies in the sector. Diversified banks such as Bank of America Merrill Lynch, Citigroup, Wells Fargo, and JPMorgan Chase—whose disclosure practices were analyzed against only one industry's topics in last year's analysis—were analyzed for multiple industries this time around. The "Consumption II—Consumer Goods & Retail" and "Health Care" sectors also showed improved levels of reporting, albeit to a lesser magnitude. On the other hand, disclosure levels dropped the most for the "Resource Transformation" and "Renewable Resources & Alternative Energy" sectors. (See the "Sector Overview" section for additional information.)

In terms of disclosure quality, the use of metrics remained constant or improved in all sectors between FY 2015 and FY 2016, except for the "Resource Transformation" sector. In line with what has already been discussed, the most notable improvements came from highly regulated sectors such as "Infrastructure," where quantitative reporting increased from 27 to 40 percent of available disclosures, and "Non-Renewable Resources," where the use of metrics rose from 33 to 45 percent of available disclosures. Overall, transportation and technology and communication companies also showed smaller improvements. This general uptick in the use of metrics was accompanied by a decrease in boilerplate reporting in almost all sectors, most notably in the "Technology & Communications" sector. A higher prevalence of boilerplate reporting was observed in the following sectors: "Resource Transformation," "Consumption II—Consumer Goods & Retail," and "Transportation." These year-over-year differences are discussed in further detail in the "Sector Overviews" section.

Figure 7. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (by sector)



DIFFERENCES AMONG SUSTAINABILITY DIMENSIONS

Beyond the key differences found between sectors and industries, the SASB's analysis also identified interesting patterns (see Figure 8) related to its five broad sustainability dimensions:[22]

1. Environment
2. Social Capital
3. Human Capital
4. Business Model and Innovation
5. Leadership and Governance

DISCLOSURE LEVELS

In general, companies most commonly address the SASB topics related to social capital: reporting levels for topics centered on social considerations stand at 90 percent. Disclosure on topics related to the management of environmental risks and opportunities from daily operations are also relatively high, at 83 percent. Meanwhile, companies much less frequently address the SASB topics related to business model and innovation; reporting levels for these topics are 72 percent. These findings echo last year's results and provide additional insight into why certain sectors and industries outperform others in terms of disclosure levels: the nature of the sustainability risks and opportunities faced by each sector or industry drive reporting levels.

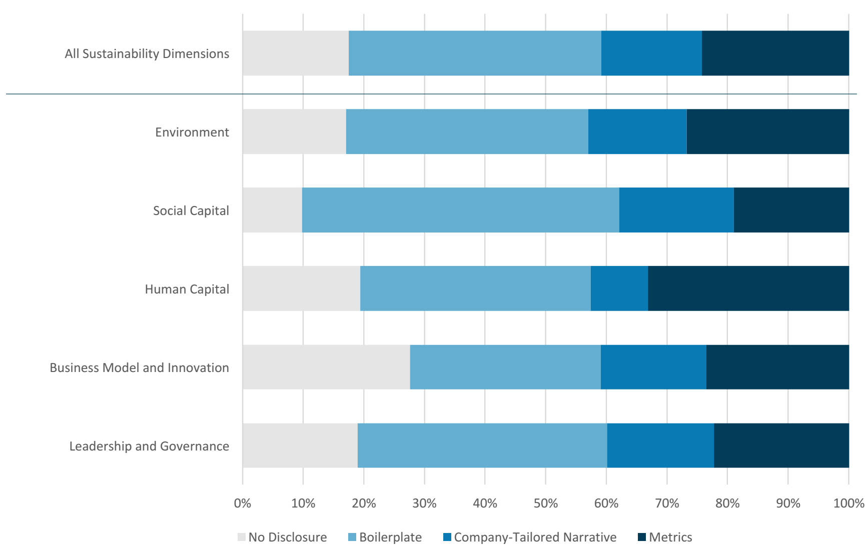
Several factors are likely driving these results. On the one hand, local, state, national, and global regulations aimed at reducing negative environmental and/or social externalities—such as those focused on curbing greenhouse gas emissions, managing hazardous waste, and minimizing product safety incidents, among others—are commonplace in multiple industries. These regulatory forces drive companies to include relevant narrative in their annual SEC filings. On the other hand, novel business practices and product innovation initiatives are not always driven by changes in regulations and are a result of internal corporate strategies that companies may choose to keep to themselves for competitive reasons. (Notably, a market standard would level the playing field and alleviate such concerns.)

DISCLOSURE QUALITY

Nevertheless, as the analysis found more broadly, quantity does not necessarily yield quality. As with the FY 2015 results, boilerplate language was the most common form of disclosure across all sustainability dimensions. (See Table 4.) Interestingly, although social capital topics were more frequently addressed, they were also most often characterized by lower-quality disclosure: 58 percent of available disclosures used boilerplate language, and only 21 percent used metrics. (See "Cross-Cutting Issues: Data Security" sidebar.) On the other hand, while disclosures relating to "Business Model & Innovation" were less frequent, they tended to be of somewhat higher quality, with 33 percent of available disclosures using metrics and 43 percent consisting of boilerplate. Finally, human capital disclosures tended to be of the highest quality, with 41 percent of available disclosures using metrics—much more than was found in the other dimensions. Intuitively, these results make sense. While regulations aimed at reducing negative social externalities arguably drive reporting on such topics, the market has normally found it more difficult to quantify these risks than, say, environmental and human capital risks. Relatively speaking, social key performance indicators are less prevalent than more established environmental and human capital metrics—such as greenhouse gas emissions, water use,

22 These five dimensions of sustainability are defined in more detail in the SASB's Conceptual Framework, available at https://www.sasb.org/approach/conceptual-framework-2/.

Figure 8. Sustainability disclosure in SEC filings for FY 2016 (by sustainability dimension)



waste generation, injury rates, and employee diversity and inclusion. Similarly, while reporting levels for innovation topics may be lower than for any other sustainability dimension, it is likely that when companies do provide disclosure on these topics, such information will be more tailored to a company's unique product-driven innovation strategies.

Table 4. Quality of available sustainability disclosure in SEC filings for FY 2016 (by sustainability dimension)

% Relevant Disclosures	Boilerplate	Tailored Narrative	Metrics
All Sustainability Dimensions	50.4%	20.1%	29.5%
Environment	48%	20%	32%
Social Capital	58%	21%	21%
Human Capital	47%	12%	41%
Business Model and Innovation	43%	24%	33%
Leadership and Governance	51%	22%	28%

YEAR-ON-YEAR COMPARISON

These findings proved highly stable from 2015 to 2016. Disclosure levels remained constant or improved only slightly for all sustainability dimensions, except for a small drop in human capital reporting levels (83 percent in FY 2015 to 81 percent in FY 2016). Disclosure levels for social and innovation-related topics improved the most, relative to the other categories.

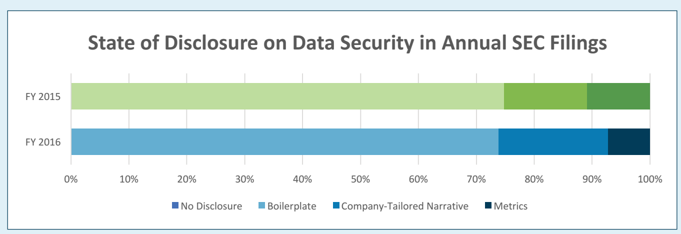
Changes in disclosure effectiveness were also positive. The use of metrics increased across all sustainability dimensions. The biggest improvements came in quantitative reporting on topics related to leadership and governance (from 19 percent of available disclosures to 28 percent), and on environmental risks (from 25 to 32 percent). These results were also accompanied by a decrease in boilerplate reporting; for leadership and governance topics, boilerplate use decreased from 55 to 51 percent of available disclosures; whereas for environmental topics, generic reporting dropped from 53 to 48 percent of available disclosures.

A comparison of results for the same set of companies analyzed in last year's report shows similar trends. Underlying reporting levels also increased for topics in all sustainability dimensions, except for "Human Capital." The increased use of metrics across all sustainability dimensions is also observable with same-company data. As with the overall results, topics under the "Leadership & Governance" dimension show the highest improvement; however, the uptick in the use of metrics for environmental topics is slightly lower.

Cross-Cutting Issues: Data Security

The SASB's standard-setting process is evidence-based, market-informed, and validated through research and quantitative analysis focused on determining whether performance on a given topic would affect the financial condition and operating performance of a company in a specific industry. Every topic that appears in a SASB Standard is subject to this industry-specific bottom-up process, and although this is intended to surface the industry-specific impacts of sustainability issues, many of those issues are identified as being reasonably likely to have material impacts in more than one industry—in other words, their effects cut across a variety of sectors and industries.

These "cross-cutting issues" are included in many of the SASB Provisional Standards and addressed by many companies in their SEC filings. Where last year's report highlighted disclosure practices with respect to climate risks—broken down in three main types of impacts: physical, transitional, and regulatory—this year's report features data security. "Data security" refers to the technologies, processes, and practices that companies employ to protect networks, computers, programs, digital products, and data from external attacks, damage, or unauthorized access. Data security risks are included in the Provisional Standards of 12 industries in SICS. The results below suggest all companies in each of these industries recognize the operational and reputational risks from more frequent and sophisticated cyber-attacks; in other words, disclosure levels on this topic are 100 percent. This result is true for both fiscal years for which data is available. However, most reporting—almost three-quarters of available disclosures in both fiscal years—is provided using generic language, which, as posited earlier, is not particularly useful for investment decision-making.



Such "horizontal" analyses of issues—as opposed to "vertical" analyses of sectors and industries, like those presented elsewhere in this report—can prove useful to a variety of investors. In particular, they may be especially helpful to those investors who employ "thematic" strategies that involve a top-down approach to portfolio construction based on forward-looking trends, such as long-term headwinds or tailwinds. For example, in the context of data security, a variety of risks and opportunities go hand-in-hand with the approach of "smart grid" technologies and the "Internet of things." Therefore, investors are likely to benefit from assessing their exposure to the issue as a way to inform portfolio-level decision-making and corporate engagement efforts.

The SASB issued a technical bulletin on climate risk[23] last year and plans to release additional bulletins regarding other cross-cutting issues, such as cybersecurity and human capital, in 2018.

23 Sustainability Accounting Standards Board, *Climate Risk Technical Bulletin* (October 2016). Available at https://library.sasb.org/climate-risk-technical-bulletin.

DIFFERENCES BETWEEN DOMESTIC AND FOREIGN DOMICILED FILERS

The analysis also found considerable differences in reporting practices between Form 10-K filers and Form 20-F filers. (See Figure 9.) In general, foreign private issuers (20-F filers) provided more—and higher quality—disclosures than did domestic issuers (10-K filers). These differences are likely due to a variety of factors, including the following:

- Impending European regulation: Many foreign corporations listed on U.S. exchanges operate in the European Union, where Directive 2014/95/EU of the European Parliament and the Council of the European Union aims to increase transparency and performance on sustainability matters. Although companies have until 2018 to fully comply, many have likely already begun incorporating these disclosures into their reporting cycle.

- Differing views of governance: At U.S.-based firms, boards of directors often view maximization of shareholder value as the number one priority of their fiduciary duty. Meanwhile, companies in other parts of the world, most significantly in Europe, typically consider the interests of a broader group of stakeholders, including employees and clients. As a result of this difference, such companies may be more culturally attuned to their sustainability impacts and more likely to disclose relevant information.

- The "integrated reporting" movement: Many foreign companies, particularly those in Europe, Latin American, and South Africa, have begun to produce "integrated reports," which are designed to communicate how a firm uses all its resources, financial and non-financial, to create value over the short, medium, and long term. Thus, such companies are more likely to address many of the SASB topics in their annual reports, which sometimes are incorporated as exhibits and cross-referenced in certain sections of their Forms 20-F.

DISCLOSURE LEVELS

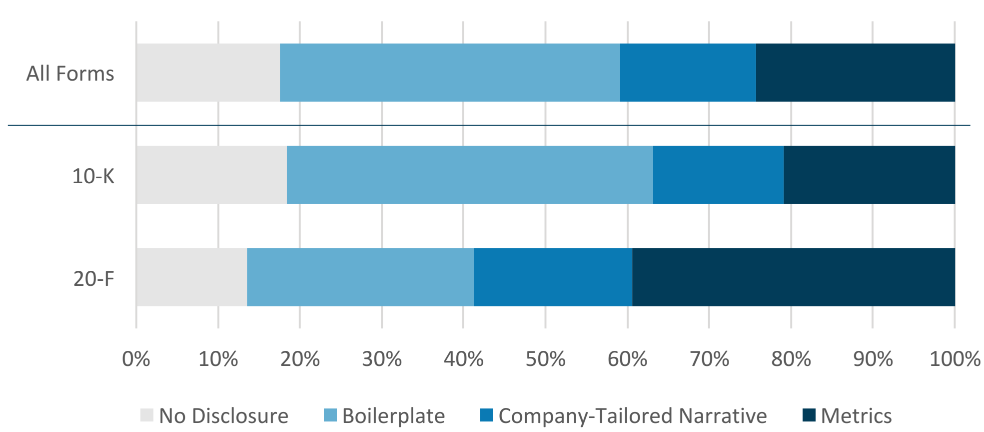
In general, foreign private issuers (20-F filers) produced more disclosure than did domestic issuers. For example, 20-F filers had a disclosure level of 87 percent, compared with 82 percent for 10-K filers. This trend appears to be regional, which may be due to jurisdictional differences in regulation, cultural norms, and/or listing requirements for companies on multiple exchanges. (See Figure 10.) For example, companies domiciled in Europe and the "Americas—Emerging" region (basically Latin America) were ahead of the curve, with disclosure levels of 90 and 85 percent, respectively. Meanwhile, companies in the "Americas—Developed" region (basically the U.S.) performed better in aggregate than companies domiciled only in emerging Asian markets in terms of disclosure levels (82 percent versus 70 percent).

DISCLOSURE QUALITY

Likewise, 20-F filers generally produced sustainability disclosure of higher quality than their domestic counterparts. For example, 20-F filers used metrics far more frequently than did 10-K filers (46 percent of available disclosures versus 26 percent). Meanwhile, boilerplate reporting was prevalent in Form 10-Ks; in fact, more than half of all relevant disclosures identified in this year's analysis (55 percent) were labeled as such (compared with 32 percent from 20-F filers).

Again, many of these trends appear to be regional. Most notably, European-domiciled companies tended to outperform those from other regions, possibly a reflection of strengthening regulations and the rise of "integrated reporting." These European firms used metrics more than companies in any other region (just under 50 percent of available disclosures). To a somewhat lesser extent, companies in the "Americas—Emerging" and "Asia Pacific—Developed" regions also performed relatively well in their use of metrics (both about 38 percent of available disclosures). Boilerplate language is the most common form

Figure 9. Sustainability disclosure in SEC filings for FY 2016 (by type of filing)



of disclosure in all regions except Europe and—by a very small margin—developed Asian markets.

YEAR-ON-YEAR COMPARISON

Disclosure levels improved slightly for both Form 10-K and 20-F filers between fiscal years. This uptick, however, was higher for foreign private issuers with reporting levels increasing from 84 to 86 percent (compared with an increase from 80 to 81 percent for 10-K filers). Changes in disclosure quality were also positive, with quantitative reporting improving and generic disclosure decreasing for both types of filers. Interestingly, these trends were more notable for foreign private issuers. The use of metrics by 20-F filers increased from 34 to 46 percent of available disclosures—a jump of more than 10 percentage points—compared to an increase from 21 to 26 percent for 10-K filers. Meanwhile, the use of boilerplate decreased from 41 to 31 percent of available disclosures for 20-F filers (compared with a drop from 57 to 55 percent for 10-K filers). These results suggest that the disclosure levels and disclosure effectiveness gaps between 10-K and 20-F filers identified in last year's report are widening.

Last year's results pointed to considerable differences in reporting practices based on geographical region, with Latin American and European companies having considerably higher levels of reporting than their U.S.-domiciled counterparts. These regional results extend to disclosure effectiveness as well. The use of metrics increased more for European companies (38 to 50 percent of available disclosures) and Latin American companies (29 to 38 percent) than for American companies (from 21 to 26 percent). At the other end of the spectrum, the use of boilerplate decreased across all regions.

The improvements in reporting levels were also observed in the underlying, same-company data. Disclosure levels for 20-F filers increased by 3.1 percentage points, while those for 10-K filers jumped by 1.8 percentage points. These results continue to suggest that there is a widening gap in terms of disclosure availability, even when the analysis considers only the same sample of companies in both fiscal years. This widening gap also exists in terms of disclosure effectiveness. The underlying use of metrics increased by 8.3 percentage points for 20-F filers and 4.3 percentage points for 10-K filers. Meanwhile, underlying boilerplate use decreased by 5.2 percentage points for 20-F filers and 2.7 percentage points for 10-K filers.

Figure 10. Sustainability disclosure in SEC filings for FY 2016 (by region)

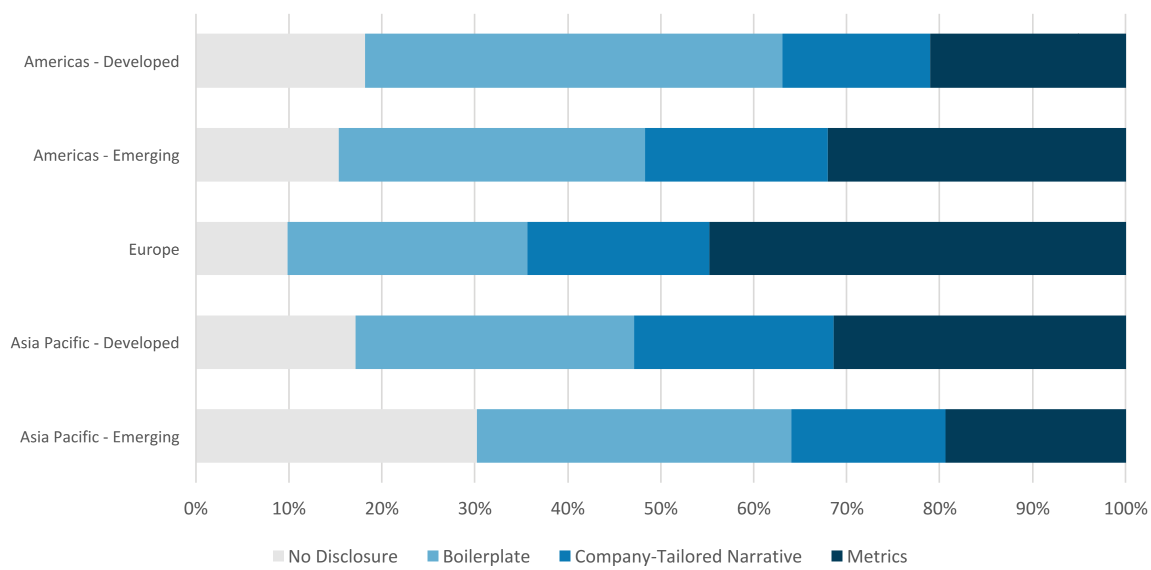
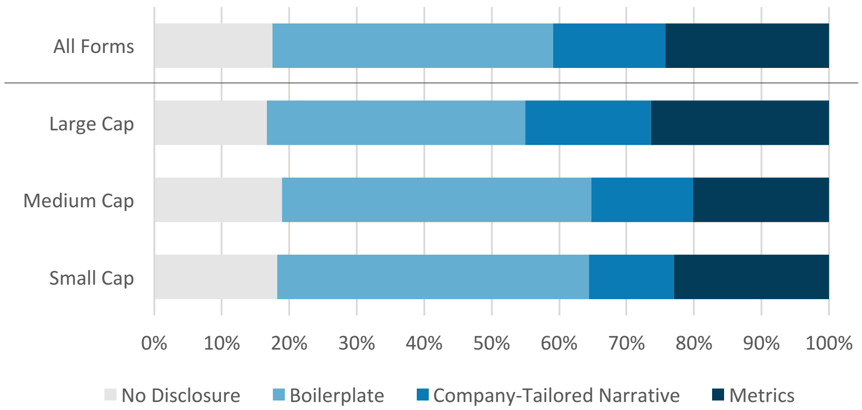


Figure 11. Sustainability disclosure in SEC filings for FY 2016 (by market capitalization)



DIFFERENCES BY MARKET CAPITALIZATION

The SASB's analysis covered SEC filings made by 695 unique issuers, including 356 large-cap firms (more than $10 billion), 181 medium-cap firms ($2 billion to $10 billion), and 158 small-cap firms (less than $2 billion).[24] As Figure 11 suggests, the analysis identified differences in reporting practices—especially in disclosure effectiveness—based on company size.

DISCLOSURE LEVELS

No significant differences were found in terms of disclosure levels; all three groups provided some form of reporting for 81 to 83 percent of all possible disclosures. However, a more detailed analysis reveals possible sector-level and regional differences. (See Figure 12.) For example, large-cap companies had higher levels of disclosure than their smaller peers in the following sectors: "Infrastructure," "Consumption I—Food & Beverage," "Consumption II—Consumer Goods & Retail," and "Services." Regionally, large-cap 20-F filers significantly outperformed all other segments in terms of disclosure levels (88 percent, compared with 82 percent for all segments of 10-K filers). Meanwhile, within the group of 10-K filers, large-cap companies only slightly outperformed small- and medium-cap companies in terms of disclosure level (82 to 81 percent of possible disclosures).

DISCLOSURE QUALITY

More significant differences were found in terms of disclosure effectiveness. As mentioned earlier, previous research has established a positive and significant correlation between a firm's size and the quality of its voluntary (i.e., not line-item) disclosures.[25] In line with the findings of previous researchers, when the entire sample of filings was considered, large-cap companies were more likely to use metrics (32 percent of available disclosures) and considerably less likely to use boilerplate language (46 percent of available disclosures) than were small- (28 percent metrics and 57 percent boilerplate) and medium-cap (25 percent metrics and 57 percent boilerplate) issuers.

Again, these findings may be attributable to sectorial and regional influences. The findings suggest that large-cap companies in six sectors have a higher use of metrics than their smaller peers,[26] while the use of boilerplate is lower by large-cap companies in seven sectors.[27] Regionally, disclosure practices of 20-F filers strongly impact the aggregate results. For example, large-cap 20-F filers considerably outpaced other segments in the use of metrics (53 percent of available disclosures for large-cap 20-F filers, compared with levels ranging from 23 to 35 percent for all other categories of filers). Meanwhile, contrary to previous research, large-cap 10-K filers lagged behind their small-cap counterparts on at least one measure of disclosure quality: the use of metrics (26 to 29 percent of available disclosures).

YEAR-ON-YEAR COMPARISON

Disclosure levels remained basically unchanged for both small- and medium-cap companies, while improving only slightly for large-cap firms (jumping from 81 to 83 percent). This suggests a small but widening gap in disclosure availability between the large firms and their smaller peers.

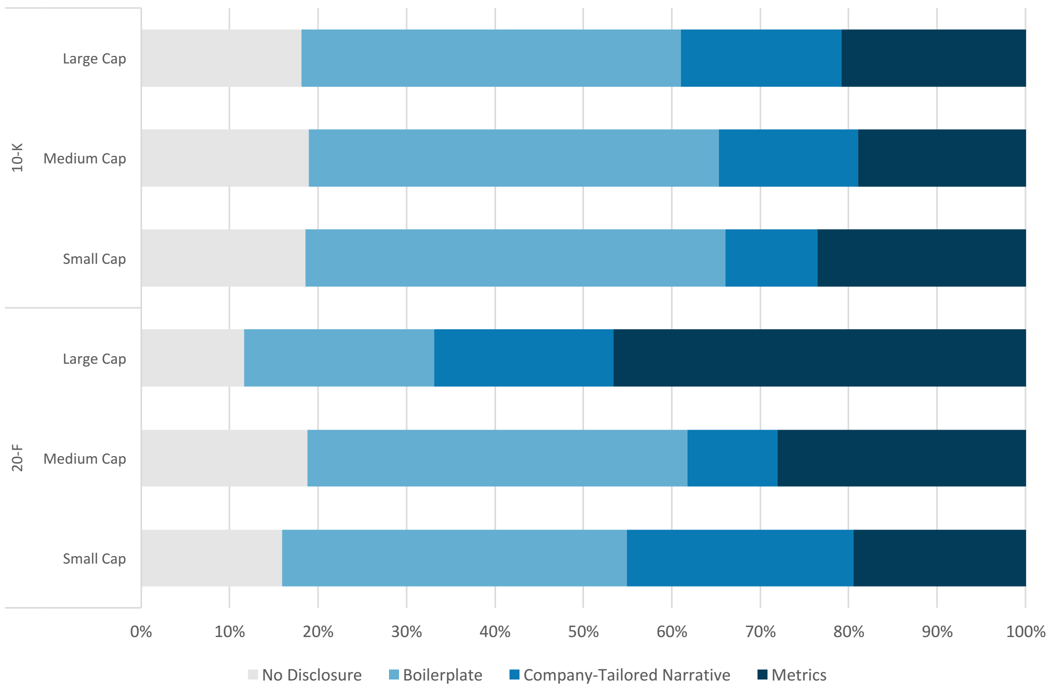
24 Market capitalization figures calculated as of April 2017.

25 M. Lang and R. Lundholm, "Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures," Journal of Accounting Research, 31, no. 2 (1993): 246–71.

26 Sectors where the use of metrics by large-market-capitalization companies is higher than by smaller companies include "Financials," "Non-Renewable Resources," "Transportation," "Consumption I—Food & Beverage," "Consumption II—Consumer Goods & Retail," and "Infrastructure."

27 Sectors where the use of boilerplate by large-market-capitalization companies is lower than by smaller companies include "Financials," "Non-Renewable Resources," "Transportation," "Resource Transformation," "Consumption I—Food & Beverage," "Consumption II—Consumer Goods & Retail," and "Infrastructure."

Figure 12. Sustainability disclosure in SEC filings for FY 2016 (by market capitalization and type of filing)



In terms of disclosure effectiveness, large-cap companies also showed the highest uptick in quantitative reporting: the use of metrics by this group increased from 25 to 32 percent of available disclosures. While small- and medium-cap companies also showed improvements on this front, the increase was smaller (from 22 to 28 percent, and from 22 to 25 percent of available disclosures, respectively). Meanwhile, the use of boilerplate decreased for all types of companies, with larger cap companies also showing bigger changes than their smaller peers.

Data from the same sample of companies analyzed in last year's report show similar trends. Companies with large market capitalizations show the highest uptick in reporting levels: an increase of 3.2 percentage points from last year's baseline. This supports the idea of a widening gap in terms of disclosure availability. Same-company changes in underlying disclosure effectiveness also show a higher use of metrics and lower use of boilerplate for all types of companies. However, unlike the overall results, these improvements are more notable for smaller-cap firms.

SECTOR OVERVIEWS

Sustainability has no one-size-fits-all definition. Rather, each industry has its own unique sustainability profile. Industries may use different resources to create goods and services to meet societal needs, and they may have different impacts on the environment and society at large. Therefore, the key dimensions of sustainability—and the underlying risks and opportunities that need to be managed to create and protect value—also vary from industry to industry.

In its standards, the SASB addresses the most crucial sustainability considerations for each business sector and industry by leveraging SICS. Where other traditional classification systems take either a supply-side, production-oriented approach or a demand-side, market-oriented approach to classifying companies, SICS uses a methodology focused on impacts, which can have implications for either side. Thus, it builds on and complements traditional classification systems by grouping issuers into sectors and industries in accordance with a fundamental view of their business model, their resource intensity and sustainability impacts, and their sustainability innovation potential.

Although diversification is the golden rule of investment strategy, most equity allocations within portfolios are diversified on the basis of such factors as market capitalization (small, medium, large), valuation (value, growth, blend), and geography (domestic, foreign). These factors remain highly valuable, but there is increasing evidence to support that a sector-based diversification strategy can lead to more manageable portfolio risk and still yield high portfolio returns.[28] By adapting traditional industry classification systems to reflect the unique sustainability profiles of sectors and industries, SICS provides the building blocks for a more precise portfolio construction that takes into account the impact of sustainability on the risk-return profile and correlation of industries and sectors.

Just as sustainability risks and opportunities differ from one industry and sector to the next, so do the levels and quality of disclosure on these topics—as seen at the sector-level in Figure 6, in the "Differences among Sectors and Industries" section. The charts that follow aggregate disclosure practices at the industry and sector levels, which can be useful, particularly from a "macro" perspective, to investors who favor a top-down approach to portfolio construction, in the following ways:

- Investors can develop a deeper understanding of the impact of sustainability-related trends at the industry and sector levels, thus enabling better peer-to-peer comparisons in terms of sustainability performance;
- Investors can analyze sector and/or industry contributions to a portfolio's risk-return profile;
- Investors can consider how sector-based allocation might enable sustainability-related thematic investment strategies; and
- Investors can reduce inter-sector correlation based on uncompensated sustainability risk.

Additionally, in last year's publication, the SASB showcased disclosure examples for 22 important cross-cutting sector topics. To provide additional insights into current disclosure practices for a wider variety of topics, this year's report will showcase disclosure examples for a different pair of topics per sector, as described in Table 5. (See the "Topic Spotlight Year-on-Year Comparisons" appendix for a summary of the changes in reporting made by some companies for the topics included in last year's report.)

28 State Street Global Advisors, *The Rising Tide of Sector and Industry Investing*, 2016. See also, Fidelity, "Equity Sectors: Essential Building Blocks for Portfolio Construction," June 2013.

Table 5. Disclosure topic spotlights for FY 2016 and FY 2015

Topic Spotlight Sections			
FY 2016		FY 2015	
Consumption I—Food & Beverage			
Water management	Environmental and social impacts of supply chains	Food safety	Health and nutrition
Consumption II—Consumer Goods & Retail			
Product safety	Energy management in manufacturing, distribution, and/or retail operations	Data privacy and security	Supply chain management and materials sourcing
Financials			
Environmental risk exposure	Integration of ESG factors in advisory, underwriting and brokerage activities	Integration of ESG factors in core operations (several industries)	Employee incentives and risk-taking
Health Care			
Employee recruitment, development, and retention	Ethical marketing	Affordability and pricing transparency	Counterfeit drugs
Infrastructure			
End-use efficiency and demand-side management	Workforce health and safety	Greenhouse gas emissions	Resource-use efficiency
Non-Renewable Resources			
Reserves valuation and capital expenditures	Operational and occupational safety	Water management	Greenhouse gas emissions
Renewable Resources & Alternative Energy			
Climate-related risks	Workforce health and safety	Environmental and social impacts of project development	Air quality
Resource Transformation			
Hazardous waste management	Health, safety and emergency management	Energy management	Product design for resource-use efficiency
Services			
Workforce diversity and inclusion	Nutritional content	Fair labor practices	Energy management
Technology & Communications			
Employee diversity, inclusion, recruitment, development, and retention	Data privacy	Supply chain management and materials sourcing	Data security
Transportation			
Accidents and safety Management	Materials efficiency and recycling	Safety of automobiles	Environmental footprint of fuel use

CONSUMPTION I—FOOD & BEVERAGE

The sector's sustainability profile is characterized by generally higher levels of impacts associated with the environment and social capital, both in direct operations and along the supply chain. Important environmental topics across the sector include those related to land use and resource efficiency—energy, water, and waste management—during the production and sourcing of crops, animal protein, and processed foods. Social topics that industries in the sector must grapple with are generally focused on customer health, safety, and wellbeing and the responsible marketing and labeling of products.

Table 6. Consumption I—Food & Beverage sector disclosure practices

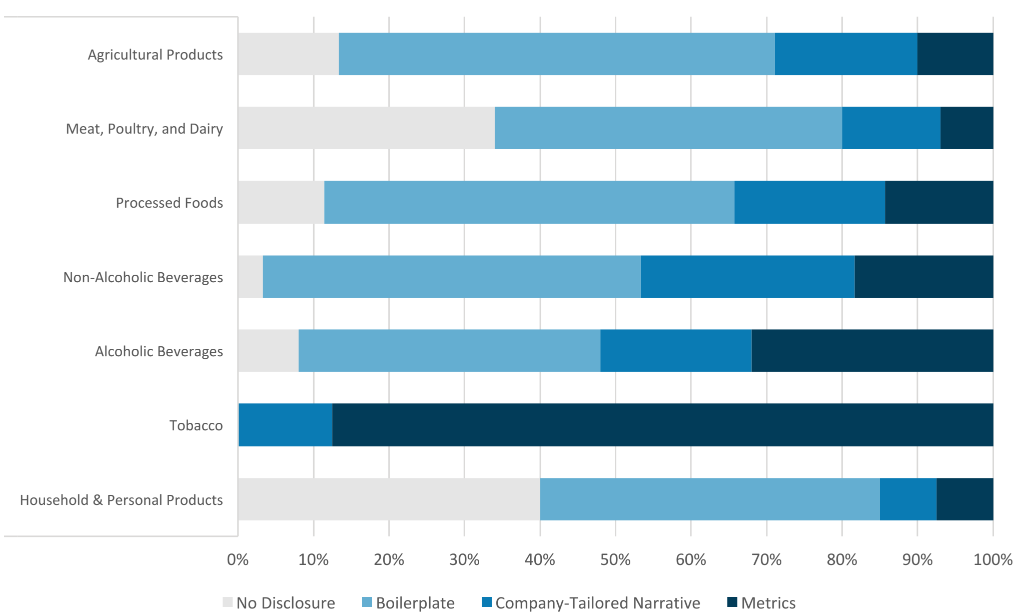
	FY 2016		FY 2015	
Disclosure Levels	82%		81%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	18%	-	19%	-
Boilerplate	49%	60%	52%	65%
Tailored-Narrative	18%	22%	20%	24%
Metrics	15%	18%	9%	11%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: The sector shows reporting levels (82 percent) similar to those of the overall economy (83 percent). However, there are important differences at the industry-level. On the one hand, and perhaps as a result of being part of a highly regulated industry, tobacco product manufacturers provide disclosure on all the topics included in their industry standard, achieving reporting levels of 100 percent. High disclosure levels were also identified for both non-alcoholic and alcoholic beverage manufacturers (97 and 92 percent, respectively). On the other hand, companies in the "Household & Personal Products" and "Meat, Poultry & Dairy" industries show below-average levels of reporting (60 and 66 percent, respectively). The low levels of reporting by manufacturers of household and personal goods are mainly driven by scant disclosure on the regulatory and reputational risks from the environmental impacts of packaging and sourcing of controversial ingredients such as palm oil. Meanwhile, animal protein producers provide limited disclosure on animal welfare risks, societal concerns around the use of antibiotics for animal production, and certain environmental impacts, such as greenhouse gas emissions and management of energy and water.

- Disclosure quality: Overall, when disclosure is provided, the sector's use of metrics (18 percent of available disclosures) is below the economy average (29 percent of available disclosures). This is the second-lowest figure of all sectors, topping only the "Consumption II—Consumer Goods & Retail" sector. Disclosure practices using boilerplate language are also higher than the economy average (60 percent versus 50 percent of available disclosures). Industry-level results, however, show that the "Tobacco" industry was a

Figure 13. Sustainability disclosure in SEC filings for FY 2016 (Consumption I sector)



standout not only in terms of levels of disclosure but also in terms of the quality of reporting: 88 percent of available disclosures were provided in the form of metrics, by far the highest figure of any industry in the sector. The second-highest figure for quantitative reporting (35 percent of available disclosures) belongs to the "Alcoholic Beverages" industry. Again, it seems probable that regulatory forces, as well as societal pressures, are driving disclosure effectiveness in both industries. At the other end of the spectrum, the use of boilerplate language is most common for household and personal product manufacturers (75 percent of available disclosures), producers of animal protein (70 percent), and growers and distributors of agricultural products (67 percent).

YEAR-ON-YEAR COMPARISON

- Disclosure levels: Levels of reporting across the sector remained basically unchanged from last year (82 percent versus 81 percent). For the most part, industries within the sector also exhibited minor changes in disclosure levels, except for the "Household & Personal Products" industry, which increased its level of reporting from 47 to 60 percent, and the "Meat, Poultry and Dairy" industry, which decreased its reporting levels from 72 to 66 percent.

- Disclosure quality: Use of quantitative reporting increased at the sector level. While all industries except for "Household & Personal Products" showed higher levels of metrics use, the aggregate uptick was mainly driven by companies in the "Tobacco," "Alcoholic Beverages," and "Processed Foods" industries. Use of a company-tailored narrative mostly remained unchanged, so it follows that most of the increase in the use of metrics came at the expense of boilerplate reporting. However, industry-level differences remain. Despite showing the highest increase in reporting levels, most of the additional disclosure from household and personal product manufacturers was provided using boilerplate narrative; this type of disclosure increased from 68 to 75 percent of available disclosures within the industry. A slight increase in boilerplate reporting was also identified for the "Agricultural Products" industry. All other industries reduced their boilerplate disclosure levels.

TOPIC SPOTLIGHT

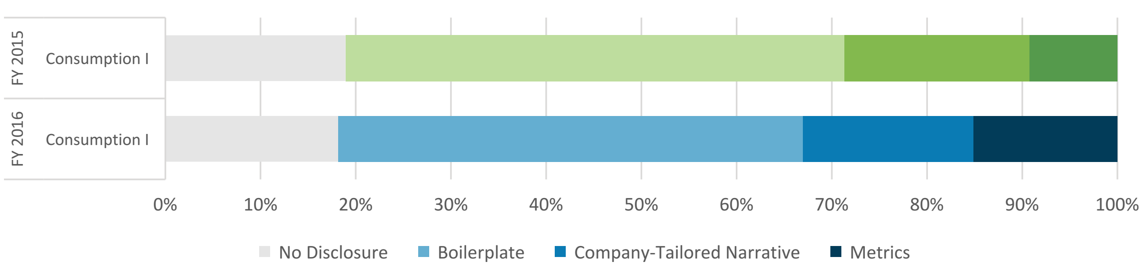
Water Management

Water-related topics are included in the Provisional Standards for six industries in the sector: "Agricultural Products," "Meat, Poultry & Dairy," "Processed Foods," "Non-Alcoholic Beverages," "Alcoholic Beverages," and "Household & Personal Products." Although agricultural water withdrawal varies depending on climate and on the importance of agriculture in the economy, the Food and Agricultural Organization of the United Nations estimates that agricultural activities such as irrigation and livestock watering and cleaning account for approximately 70 percent of global water withdrawals.[29] Note that this figure does not take into account water use during the manufacture of processed food and beverage products, so the actual figure is likely to be much higher. While many companies in the "Consumption I—Food & Beverage" sector have procedures in place to improve water-use efficiency, the expected increase in demand for food worldwide, as well as the potential physical impacts of climate change on regional water resources, present an important challenge for companies along the different links of the food value chain. Disclosure levels indicate that this risk is recognized by most companies in the aforementioned industries: more than three-quarters of companies in the analysis provided disclosure on the topic. However, when disclosure is available, more than half of these companies use boilerplate language to describe these risks. The analysis shows that quantitative disclosures are provided by only 17 percent of companies in these industries. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Non-Alcoholic Beverage" industry:[30]

29 Food and Agriculture Organization of the United Nations, AQUASTAT Facts and Figures, http://www.fao.org/nr/water/aquastat/didyouknow/index2.stm, accessed on October 12, 2017.

30 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: CN0201-03: (1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress; and, CN0201-04: Discussion of water management risks and description of management strategies and practices to mitigate those risks

Figure 14. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Consumption I sector)



BOILERPLATE

"Weather, climate change legislation and the availability of water could adversely affect our business ... We may be faced with water availability risks. Water is the main ingredient in substantially all of our products. Climate change may cause water scarcity and a deterioration of water quality in areas where we maintain operations. The competition for water among domestic, agricultural and manufacturing users is increasing in the countries where we operate, and as water becomes scarcer or the quality of the water deteriorates, we may incur increased production costs or face manufacturing constraints which could negatively affect our business and financial performance. Even where water is widely available, water purification and waste treatment infrastructure limitations could increase costs or constrain our operations."

Source: Dr Pepper Snapple Group, Inc., Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Water quality and quantity is an issue that requires our Company's sustained attention and collaboration with other companies, suppliers, governments, nongovernmental organizations and communities where we operate. Water is a main ingredient in substantially all of our products, is vital to the production of the agricultural ingredients on which our business relies and is needed in our manufacturing process. It also is critical to the prosperity of the communities we serve. Water is a limited natural resource facing unprecedented challenges from overexploitation, increased food demand, increasing pollution, poor management and the effects of climate change. Our Company regularly assesses the specific water-related risks that we and many of our bottling partners face and has implemented a formal water risk management program. Mitigation of water risk forms the basis of our water stewardship strategic framework. This strategy is executed at the local level where we operate and includes the following elements: water use efficiency and wastewater treatment in manufacturing operations; shared watershed protection efforts; engaging local communities; and addressing water resource management in our agricultural ingredient supply chain. Such efforts are conducted in collaboration and partnership with others and are intended to help address local needs. Many of these efforts help us in achieving our goal of replenishing the water that we and our bottling partners source and use in our finished products. We are also collaborating with other companies, governments, nongovernmental organizations and communities to advocate for needed water policy reforms and action to protect water availability and quality around the world. Through these integrated programs, we believe that our Company can leverage the water-related knowledge we have developed in the communities we serve—through source water availability assessments and planning, water resource management, water treatment, wastewater treatment systems and models for working with communities and partners in addressing water and sanitation needs. As demand for water continues to increase around the world, we expect continued action on our part to help with the successful long-term stewardship of this critical natural resource, both for our business and the communities we serve."

Source: The Coca-Cola Company, Form 10-K for FY ending December 31, 2016.

METRICS

"We have been developing consistent measures and consolidated reporting for key nonfinancial performance indicators … We are currently focused on developing a new set of sustainability commitments and targets which will enable us to respond to the social and environmental issues we face, meet our stakeholders' expectations and drive value for our business. This work is being undertaken in partnership with The Coca-Cola Company and will result in a refreshed sustainability strategy for the Coca-Cola system in Western Europe … We also aim to minimise water impacts in our value chain and establish a water sustainable operation. We are reducing the amount of water we use in our manufacturing operations by becoming more water efficient and investing in water-saving technology. In 2016, we used 1.61 litres of water per litre of product produced."

Source: Coca-Cola European Partners PLC, Form 20-F for FY ending December 31, 2016.

TOPIC SPOTLIGHT

Environmental and Social Impacts of Supply Chains

Topics related to the environmental and social impacts of sourcing foodstuffs for animal and/or human consumption and other applications are included in the Provisional Standards for six industries in the sector: "Agricultural Products," "Meat, Poultry & Dairy," "Processed Foods," "Non-Alcoholic Beverages," "Alcoholic Beverages," and "Household & Personal Products." Companies in the sector use a significant amount of agricultural inputs whose production can have substantial regional environmental and social impacts. These vary widely from region to region given factors such as local water-stress levels, land use restrictions, environmental regulations, animal welfare standards, and farmers' working conditions. Environmentally friendly and ethical sourcing practices and certifications have the potential to offer companies opportunities to capture growing demand from increasingly conscious consumers while securing a steady supply of key ingredients. A considerable share of companies in these industries provides disclosure on this front: levels of reporting for this topic stand at around 86 percent. However, the use of metrics to characterize the risks and opportunities presented by supply chain issues is low, at 12 percent of available disclosures. Most of the reporting on this issue is provided using boilerplate language (75 percent of available disclosures). The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Processed Food" industry:[31]

BOILERPLATE

"Any damage to our reputation could have a material adverse effect on our business, financial condition, and results of operations. Maintaining a good reputation globally is critical to selling our products … The failure to maintain high standards for product quality, safety, and integrity, including with respect to raw materials and ingredients obtained from suppliers ... may reduce demand for our products or cause production and delivery disruptions. Our reputation could also be adversely impacted by any of the following, or by adverse publicity (whether or not valid) relating thereto: the failure to maintain high ethical, social, and environmental standards for all of our operations and activities; … or our environmental impact, including use of agricultural materials, packaging, energy use, and waste management … Damage to our reputation or loss of consumer confidence in our products for any of these or other reasons could result in decreased demand for our products and could have a material adverse effect on our business, financial condition, and results of operations, as well as require additional resources to rebuild our reputation."

Source: ConAgra Brands, Form 10-K for FY ending May 29, 2016.

COMPANY-TAILORED NARRATIVE

"Strategic Imperatives … Elevating Trust through Real Food, Transparency and Sustainability … Our focus is to strengthen the trust of our consumers and customers that our products are real food made with desirable ingredients and crafted using ethical sourcing and sustainable practices. We continue to do this by changing recipes or removing ingredients from our food, such as artificial flavors and colors. Our www.whatsinmyfood.com website promotes transparency by providing consumers with a wide range of details about how many of our foods and beverages are made and the choices behind the ingredients we use in those products. This site includes all of our major products in the U.S. and Canada, with designs to expand globally over the next two fiscal years."

Source: Campbell Soup Company, Form 10-K for FY ending July 31, 2016.

METRICS

"A key strategic goal for us is to Grow our Impact, and we seek to do that in part by sourcing our products sustainably, reducing the environmental impact of our operations and packaging, and being mindful of the limited resources available around the world. We continue to leverage our global operating scale to secure sustainable raw materials and work with suppliers to drive meaningful social and environmental changes, focusing on where we can make the most impact. For example, we have taken direct accountability for building a sustainable cocoa supply with our $400 million Cocoa Life program. And we're improving sustainability in our wheat supply by working with farmers in North America and through our Harmony program in Europe. We have been recognized for our ongoing economic, environmental and social contributions and this year were listed again on the Dow Jones Sustainability Index ('DJSI')—World and North American Indices. The DJSI selects the top 10% of global companies and top 20% of North American companies based on an extensive review of financial and sustainability programs within each industry. We improved our overall score to reach the 95th percentile of our industry and achieved perfect scores in health and nutrition, raw material sourcing and water-related risks."

Source: Mondelez International, Inc., Form 10-K for FY ending December 31, 2016.

31 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: CN0103-19: Percentage of food ingredients sourced from regions with High or Extremely High Baseline Water Stress; CN0103-20: Percentage of food ingredients sourced that are certified to third-party environmental and/or social standards, by certification scheme; CN0103-21: Suppliers' social and environmental responsibility audit conformance: (1) major non-conformance rate and associated corrective action rate and (2) minor non-conformance rate and associated corrective action rate; and, CN0103-22: List of priority food ingredients and discussion of sourcing risks due to environmental and social considerations.

CONSUMPTION II—CONSUMER GOODS & RETAIL

The sector's sustainability profile is characterized by generally higher levels of impact associated with environmental and social capitals, both in direct operations and along the supply chain. Important environmental topics across the sector include those related to the efficient use of energy resources in manufacturing, distribution, and/or retailing operations. Key social topics include product safety considerations as well as data privacy and security. Many industries in the sector also are materially affected by environmental, health, and social issues related to product sourcing.

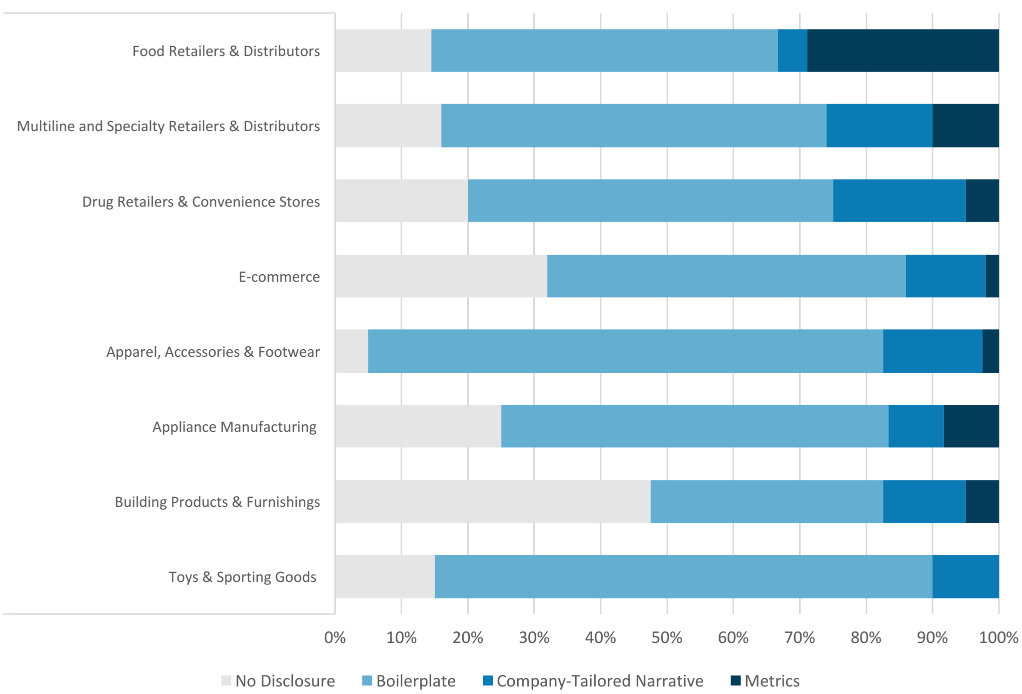
Table 7. Consumption II—Consumer Goods & Retail sector disclosure practices

	FY 2016		FY 2015	
Disclosure Levels	79%		74%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	21%	-	26%	-
Boilerplate	56%	71%	48%	65%
Tailored-Narrative	11%	14%	17%	24%
Metrics	12%	15%	8%	11%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: Average reporting levels for the sector (79 percent) are below those of the overall economy (83 percent), and in fact are the third lowest of any sector in the analysis. However, industry-level differences exist, with some industries outperforming others in terms of availability of relevant disclosures. The "Apparel, Accessories & Footwear" industry shows the highest levels of disclosure for any industry in the sector, with reporting levels of 95 percent. Toys and sporting goods manufacturers (85 percent), as well as retailers and distributors of staples (86 percent) and multiple other consumer goods (84 percent), also show levels of disclosure above the economy-wide average. Conversely, companies in the "Building Products & Furnishings" industry and e-commerce firms have the lowest levels of reporting in the industry, at 52 and 68 percent, respectively. The low levels of reporting by building product and furnishing manufacturers are driven by limited disclosure on product safety considerations (e.g., management of harmful chemicals in products) and wood-sourcing risks. In the "E-commerce" industry, the scant disclosure on environmental risks (such as the energy and water footprint of hardware infrastructure and packaging) drives the results.

Figure 15. Sustainability disclosure in SEC filings for FY 2016 (Consumption II sector)



- Disclosure quality: When companies in the sector provide relevant disclosures, their use of boilerplate narrative is considerably above the wider economy (71 percent versus 50 percent of available disclosures). In fact, this figure is the highest of any sector. At 15 percent of available disclosures, the use of metrics is also the lowest for any sector. The analysis shows that despite having relatively higher levels of reporting, apparel and footwear manufacturers, as well companies in the "Toys & Sporting Goods" industry, provide most of their disclosures in boilerplate form (82 and 88 percent of available disclosures, respectively). The only standout in terms of reporting quality is the "Food Retailers & Distributors" industry, which provides approximately one-third of relevant disclosures in the form of metrics.

YEAR-ON-YEAR COMPARISON

- Disclosure levels: Despite being the sector with the lowest levels of reporting, the analysis shows that the sector's disclosure levels have increased from last year, from 74 to 79 percent. All industries in the sector, except for the "Toys & Sporting Goods" industry, showed an uptick in reporting levels. This change was higher for the "Appliance Manufacturing" and "Building Products & Furnishings" industries.

- Disclosure quality: Sector-wide, the higher levels of reporting were accompanied by an uptake in the use of metrics (which increased from 11 to 15 percent of available disclosures between fiscal years) but also in the use boilerplate (which increased from 65 to 71 percent of available disclosures). The use of metrics improved in a couple of industries in the sector, namely "Food Retailers & Distributors" and "Building Products & Furnishings." Drug retailers also presented slightly higher levels of quantitative reporting. Meanwhile, the analysis shows that most of the change in boilerplate reporting was driven by disclosure practices of apparel and footwear firms, as well as toys and sporting goods manufacturers.

TOPIC SPOTLIGHT

Product Safety

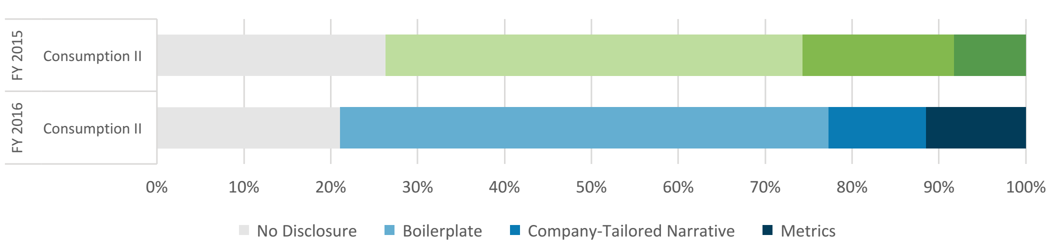
Topics related to product safety appear in the Provisional Standards for six industries in the sector: "Food Retailers & Distributors," "Drug Retailers & Convenience Stores," "Apparel, Accessories & Footwear," "Building Products & Furnishings," "Appliance Manufacturing," and "Toys & Sporting Goods." Companies that participate in this sector are characterized by a close relationship to final consumers. Therefore, product quality and safety is an important consideration for most of these consumer-facing firms, whether they are the manufacturers of non-staple consumer goods—such as clothing, footwear, furnishings, and/or other recreational products—or the retailers that ultimately sell these products and other perishable goods. On the one hand, consumer goods manufacturers must implement quality assurance protocols to reduce the risks of product defects that may lead to costly mandatory or voluntary recalls that may, in turn, impact company reputation. Similarly, distributors and retailers must ensure that the products they carry are safe for human consumption and use; otherwise they face similar risks in the form of recalls and reputational impacts. Disclosure levels indicate that a clear majority of companies in these industries already recognize these risks: 82 percent of companies provide disclosure on this front. However, more than four-fifths of these companies (83 percent) use boilerplate language, while only a minuscule number (2 percent) report metrics. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Appliance Manufacturing" industry:[32]

BOILERPLATE

"Product liability claims and litigation could affect our business, reputation, financial condition, results of operations and cash flows. The products that we design and/or manufacture, and/or the services we provide, can lead to product liability claims or other legal claims being filed against us. To the extent that plaintiffs are successful in showing that a defect in a product's design, manufacture or warnings led to personal injury or

32 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: CN0601-01: Number of recalls and total units recalled; and, CN0601-02: Amount of legal and regulatory fines and settlements associated with product safety

Figure 16. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Consumption II sector)



property damage, or that our provision of services resulted in similar injury or damage, we may be subject to claims for damages. Although we are insured for damages above a certain amount, we bear the costs and expenses associated with defending claims, including frivolous lawsuits, and are responsible for damages up to the insurance retention amount. In addition to claims concerning individual products, as a manufacturer, we can be subject to costs, potential negative publicity and lawsuits related to product recalls, which could adversely impact our results of operations and damage our reputation."

Source: Snap-on, Inc., Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"The failure or misuse of any of the components of our home beverage carbonating systems may cause personal injury and damage to property. In addition, any unauthorized use of our home beverage carbonation systems, including by using third-party consumables with our systems, could lead to failure or malfunction of the systems which in turn could cause personal injury or property damage. Potential personal injury and property damage may also result from the deterioration of the quality or contamination of the materials used in our systems. Product safety or quality issues, actual or perceived, including allegations of product contamination or other issues, even when false or unfounded, could subject us to product liability and other claims, tarnish the image of the affected brands and may cause consumers to choose other products. Such issues or allegations may also require us to conduct product recalls and result in higher than anticipated rates of warranty returns and other returns of goods. For example, in the fourth quarter of 2016, we conducted a voluntary recall of dishwasher safe carbonation bottles. Such recall did not have a material effect on our business or results of operations."

Source: SodaStream International, Ltd., Form 20-F for FY ending December 31, 2016.

METRICS

"In the normal course of business, we engage in investigations of potential quality and safety issues. As part of our ongoing effort to deliver quality products to consumers, we are currently investigating a limited number of potential quality and safety issues globally. As necessary, we undertake to effect repair or replacement of appliances in the event that an investigation leads to the conclusion that such action is warranted. As part of that process, in 2015, Whirlpool engaged in thorough investigations of incident reports associated with two of its dryer production platforms developed by Indesit, prior to Whirlpool's acquisition of Indesit in October 2014. This led to Indesit reporting the issue to regulatory authorities for consideration. These discussions determined that corrective action of the affected dryers was required. In September 2015, we recorded a liability related to this corrective action cost of €245 million (approximately $274 million as of September 30, 2015). Approximately 90% of the affected units were manufactured by Indesit prior to its acquisition by the Company in October 2014. Accordingly, in September 2015 we increased the warranty liability as a purchase accounting adjustment in the opening balance sheet with a corresponding increase to goodwill of €210 million (approximately $235 million as of September 30, 2015). The establishment of this liability is based on several assumptions such as customer response rate, consumer options, field repair costs, inventory repair costs, and timing of tax deductibility. Our experience with respect to these factors may cause our actual costs to differ significantly from our estimated costs. During 2015, we recognized expenses of $39 million related to legacy product warranty and liability corrective action on heritage Indesit product in Europe. Cash settlements related to this corrective action are recognized in other operating activities in the Consolidated Statement of Cash Flows. As of December 31, 2016, Whirlpool had $162 million of cash expenditures related to the corrective action."

Source: Whirlpool Corporation, Form 10-K for FY ending December 31, 2016.

TOPIC SPOTLIGHT

Energy Management in Manufacturing, Distribution, and/or Retail Operations

Topics related to the efficient use of energy resources in either manufacturing, distribution, and/or retailing operations appear in the Provisional Standards of five industries in the sector: "Food Retailers & Distributors," "Drug Retailers & Convenience Stores," "Multiline and Specialty Retailers & Distributors," "E-commerce," and "Building Products & Furnishings." Companies in these industries operate assets and facilities that consume significant amounts of energy for long periods of time, particularly purchased electricity in the case of manufacturers and retailers, and fuel in the case of distribution companies. Food retailers, for example, own facilities that are typically more energy-intensive than other types of commercial spaces because of the continuous need for refrigeration, heating, ventilation, and air-conditioning. A 2014 white paper by Schneider Electric concluded that food retailers use as much as three times the energy per square foot of retail space as non-food retailers.[33] Similarly, companies that operate transportation fleets purchase considerable amounts of fossil fuels—primarily diesel and natural gas—to distribute perishable and non-perishable goods. Unexpected fluctuations in the price of energy have the potential to affect profits, especially in inherently low-operating margin industries such as retailing. In general, most companies in the aforementioned industries provide some sort of disclosure on the risks posed by energy availability and energy price fluctuations: reporting levels on this front currently stand at 68 percent. While the use of metrics (27 percent of companies) is relatively high compared with that for

33 Meriah Jamieson, "A $3 Billion Opportunity: Energy Management in Retail Operations," Schneider Electric, 2014.

other topics, boilerplate disclosures are the norm across the sector, with 53 percent of companies opting to use generic language when describing these risks. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Food Retailers & Distributors" industry:[34]

BOILERPLATE

"General or macro-economic factors, both domestically and internationally, may materially adversely affect our financial performance. General economic conditions and other economic factors, globally or in one or more of the markets we serve, may adversely affect our financial performance … Lower or higher prices of petroleum products, including crude oil, natural gas, gasoline, and diesel fuel, higher costs for electricity and other energy … could … adversely affect our operations and operating results."

Source: Wal-Mart Stores, Inc., Form 10-K for FY ending January 31, 2017. The company's primary industry is the "Multiline & Specialty Retailers & Distributors" industry, but it is also a representative company" in the "Food Retailers & Distributors" industry.

COMPANY-TAILORED NARRATIVE

"We are committed to practicing and advancing environmental stewardship, earning seven Environmental Protection Agency ('EPA') Green Power awards. In 2014, we announced our commitment to reduce energy consumption 20% by 2020 as an official partner in the Department of Energy's Better Buildings Challenge. Many of our stores and facilities use or host rooftop solar systems, wind turbines, combined heat and power (CHP) systems, non-HFC refrigeration, and rooftop farms. We also have installed electric vehicle charging stations at more than 75 U.S. stores. We build our new stores with the environment in mind, using green building innovations whenever possible. Dozens of stores have received Leadership in Energy and Environmental Design ('LEED') certification by the U.S. Green Building Council; earned Green Globes certification from the Green Building Initiative; and received GreenChill Certification awards from the EPA. This includes one store in Dublin, CA that was honored in 2016 with the EPA's 'Best of the Best' GreenChill Award for its state-of-the-art refrigeration system."

Source: Whole Foods Market, Inc., Form 10-K for FY ending September 25, 2016.

METRICS

"Due to the nature of our distribution business, we are exposed to potential volatility in fuel prices. The price and availability of diesel fuel fluctuates due to changes in production, seasonality and other market factors generally outside of our control … Our activities to mitigate fuel costs include routing optimization with the goal of reducing miles driven, improving fleet utilization by adjusting idling time and maximum speeds and using fuel surcharges. We routinely enter into forward purchase commitments for a portion of our projected monthly diesel fuel requirements. As of July 2, 2016, we had forward diesel fuel commitments totaling approximately $84.9 million through May 2017. These contracts will lock in the price of approximately 45% of our fuel purchase needs for fiscal 2017. Our remaining fuel purchase needs will occur at market rates unless contracted for a fixed price or hedged at a later date. Using current, published quarterly market price projections for diesel and estimates of fuel consumption, a 10% unfavorable change in diesel prices from the market price would result in a potential increase of approximately $13.8 million in our fuel costs on our non-contracted volumes."

Source: Sysco Corporation, Form 10-K for FY ending July 2, 2016.

34 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: CN0401-04: Operational energy consumed, percentage grid electricity, percentage renewable energy; and, CN0401-05: Fleet fuel consumed, percentage renewable.

FINANCIALS

The sector's sustainability profile is characterized by generally higher levels of impact associated with leadership and governance topics, along with those related to social capital. For example, due to their significant economic influence and systemic importance, financial institutions in many industries face increasing pressure to better align employee incentives with those of clients, customers, and society at large. Additionally, many industries in the sector have opportunities to provide innovative, 21st-century products and services by integrating environmental, social, and/or governance risks and opportunities into their core operations, such as credit risk analysis, underwriting, investment management, and advisory services.

Table 8. Financials sector disclosure practices

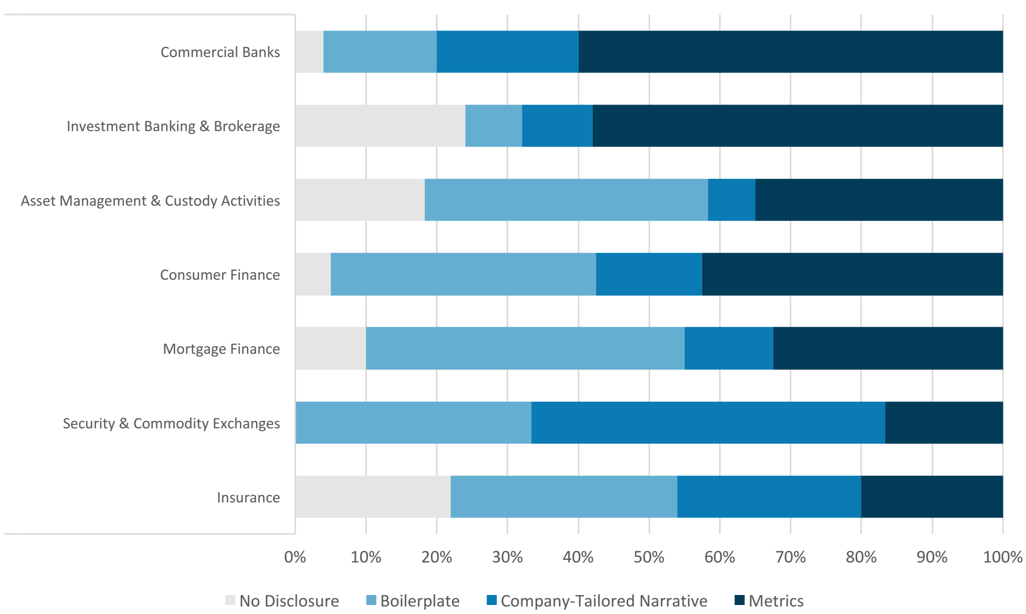
	FY 2016		FY 2015	
Disclosure Levels	86%		73%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	14%	-	27%	-
Boilerplate	30%	34%	24%	33%
Tailored-Narrative	16%	19%	15%	21%
Metrics	40%	47%	34%	46%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: The sector's reporting levels (86 percent) are the highest for any sector in the analysis. Financial companies are, arguably, among the most heavily regulated firms in the economy, so it is perhaps unsurprising to see high levels of reporting across all industries in the sector. Moreover, one-third of disclosure topics in the Provisional Standards of financial industries are related to social capital, and a similar share are part of the "Leadership & Governance" sustainability dimension. As described earlier, reporting on these types of topics tends to be more abundant relative to the other dimensions across all sectors. Four industries have disclosure levels at or above 90 percent, including "Security & Commodity Exchanges" (100 percent), "Commercial Banks" (96 percent), "Consumer Finance" (95 percent), and "Mortgage Finance" (90 percent). Reporting levels are lowest for investment banks (76 percent) and insurers (78 percent). In general, limited disclosure on the integration of ESG characteristics into core activities and products drives the results in both industries. Reporting on employee-related matters is considerably low for investment banking institutions as well.

- Disclosure quality: The "Financials" sector—along with the "Non-Renewable Resources" sector—is one of only

Figure 17. Sustainability disclosure in SEC filings for FY 2016 (Financials sector)



two that provides more disclosures using performance metrics than boilerplate narrative. Quantitative reporting levels (47 percent of available disclosures) are higher for financial services companies than for any other group. Despite these positive aggregate results, there are important differences in disclosure effectiveness at the industry level. For example, investment and commercial banks show relatively higher use of metrics: 76 and 63 percent of available disclosures, respectively. These results are followed by consumer finance firms and asset managers who use metrics in almost half of the relevant disclosures analyzed (45 and 43 percent of available disclosures, respectively). Interestingly, despite having 100 percent reporting levels, the handful of security and commodity exchanges in the analysis use the fewest metrics (17 percent of available disclosures). Back at the sector-level, a bit over one-third of available disclosures use boilerplate, representing the lowest figure for any sector in the analysis. Generic reporting is lowest for investment and commercial banks (11 and 17 percent of available disclosures, respectively) and highest for mortgage finance firms and asset managers (50 and 49 percent of available disclosures, respectively).

YEAR-ON-YEAR COMPARISON

- Disclosure levels: Sector-wide reporting levels increased noticeably between FY 2015 and FY 2016, jumping from 73 to 86 percent. While disclosure availability improved in all industries in the sector, this result was mainly driven by increases in the "Asset Management & Custody Activities" industry, and to a lesser extent in the "Commercial Banks" and "Insurance" industries. More reporting by asset managers on systemic risks and on the integration of environmental, social, and governance factors in investment management and advisory services drove most of the observed change.

- Disclosure quality: While sector-wide levels of reporting increased between fiscal years, disclosure effectiveness barely changed: the share of boilerplate, tailored-narrative, and quantitative disclosures as a percentage of all relevant reporting moved only slightly. The use of boilerplate and performance metrics increased by 1 percentage point or less, at the expense of company-tailored disclosures. Quantitative reporting improved the most in the "Mortgage Finance" industry, mainly because of the inclusion of more diversified banks—rather than pure-play mortgage originators—in the sample. Big banks with mortgage finance operations were more likely to be impacted by the financial crisis of 2008 to 2010 than their smaller peers, and therefore to provide more quantitative disclosure on some of the topics included in the industry's Provisional Standards (especially in the form of fines, penalties, and related legal proceedings following the crisis).

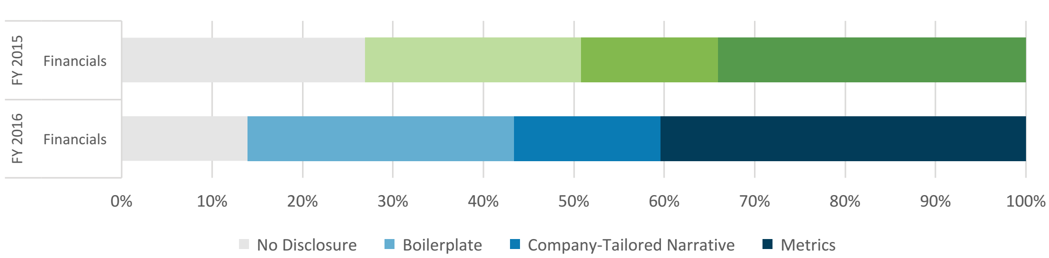
TOPIC SPOTLIGHT

Environmental Risk Exposure

The insurance industry's business model is based on assuming and diversifying risk. In so doing, insurers model catastrophic losses associated with multiple types of events, including weather-related ones. There is broad scientific consensus that the frequency and severity of extreme weather events, such as hurricanes, droughts, and flooding, will increase given the higher concentrations of greenhouse gas emissions in the atmosphere and the resulting increase in average global temperatures. Catastrophic losses associated with the negative impacts of changing global climatic conditions are likely to have a material adverse impact on the industry. In 2005, Hurricane Katrina caused economic damages of $176 billion, $82 billion of which was covered by insurance. Seven years later, Hurricane Sandy's economic damages totaled $75 billion, $31 billion of which was insured. More recently, analysts estimate that the total damages inflicted by Hurricane Harvey will range between $30 and $50 billion, with insured losses estimated at around $19 billion.[35] While the final amount of insured losses is still unknown, several insurers have already provided estimates. The Travelers Companies, Inc., for example, estimates that its catastrophe losses, after

35 "Total Harvey Cost Could Be as High as $100bn, Says Insurance Expert," Guardian, August 29, 2017, https://www.theguardian.com/us-news/2017/aug/29/total-harvey-cost-insurance-texas-tropical-storm-hurricane-sandy.

Figure 18. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Financials sector)



accounting for recoveries from reinsurance, will be in the range of $375 and $750 million before tax.[36] Virtually all companies recognize environmental risk exposures in their latest available annual SEC filings. Moreover, more than half of the disclosures identified in this year's analysis are quantitative. However, some companies still use boilerplate to characterize these risks. The following excerpts illustrate the differences in disclosure practices on this topic:[37]

BOILERPLATE

"The occurrence of natural disasters, including hurricanes, floods, earthquakes, tsunamis, tornadoes … could adversely affect our operations, results of operations or financial condition, including in the following respects … Catastrophic loss of life due to natural or man-made disasters could cause us to pay benefits at higher levels and/or materially earlier than anticipated and could lead to unexpected changes in persistency rates … The above risks are more pronounced in respect of geographic areas, including major metropolitan centers, where we have concentrations of customers, including under group and individual life insurance, concentrations of employees or significant operations … Finally, climate change may increase the frequency and severity of weather related disasters and pandemics … We cannot predict the long-term impacts on us from climate change or related regulation."

Source: Prudential Financial, Inc., Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Our insurance operations are exposed to the risk of catastrophic events. The extent of losses from a catastrophe is a function of both the total amount of insured exposure in the area affected by the event and the severity of the event. Most catastrophes are restricted to small geographic areas; however, hurricanes, earthquakes, tsunamis and man-made catastrophes may produce significant damage or loss of life or property damage in larger areas, especially those that are heavily populated. Claims resulting from catastrophic events could cause substantial volatility in our financial results for any fiscal quarter or year and could materially reduce our profitability or harm our financial condition … Our property & casualty businesses have experienced, and will likely in the future experience, catastrophe losses that may have a material adverse impact on their business, results of operations and financial condition. Although we make every effort to limit our exposure to catastrophic risks through volatility management and reinsurance programs, these efforts do not eliminate all risk … Due to their nature, we cannot predict the incidence, timing and severity of catastrophes. In addition, changing climate conditions, primarily rising global temperatures, may increase the frequency and severity of natural catastrophes such as hurricanes, tornadoes and floods. We have hurricane exposure in coastal sections of the northeastern U.S. (including lower New York, New Jersey, Connecticut, Rhode Island and Massachusetts), the south Atlantic states (including Virginia, North Carolina, South Carolina, Georgia and Florida) and the Gulf Coast (including Alabama, Mississippi, Louisiana and Texas)."

Source: MetLife, Inc., Form 10-K for FY ending December 31, 2016.

METRICS

"Natural Catastrophe Risk. We manage catastrophe exposure with multiple approaches such as setting risk limits based on aggregate Probable Maximum Loss (PML) modeling, monitoring overall exposures and risk accumulations, and purchasing catastrophe reinsurance through both the traditional reinsurance and capital markets in addition to other reinsurance protections … We recognize that climate change has implications for insurance industry exposure to natural catastrophe risk. With multiple levels of risk management processes in place, we actively analyze the latest climate science and policy to anticipate potential changes to our risk profile, pricing models and strategic planning. For example, we continually consider changes in climate and weather patterns as an integral part of the underwriting process. In addition, we are committed to providing innovative insurance products and services to help our clients be proactive against the threat of climate change, including expanding natural disaster resilience, promoting adaptation, and reducing greenhouse gas emissions. Our internal product development, underwriting, modeling, and sustainability practices will continue to adapt to and evolve with the developing risk exposures attributed to climate change. Our natural catastrophe exposure is primarily driven by the U.S. and Japan, though our overall exposure is diversified across multiple countries … Within the U.S., we have significant hurricane exposure in Florida, the Gulf of Mexico, Northeast U.S. and mid-Atlantic regions. Events impacting the Northeast U.S. and the mid-Atlantic may result in a higher share of industry losses than other regions primarily due to our relative share of exposure in those regions … The estimates below are the Occurrence Exceedance Probability (OEP) losses, which reflect losses that may occur in any single event due to the defined peril. The 1-in-100 and 1-in-250 PMLs are the probable maximum losses from a single natural catastrophe event with probability of 1 percent and 0.4 percent in a year,

36 "Travelers Insurance Expects Hurricane Harvey Losses Between $375M–$750M," Insurance Journal, September 12, 2017, http://www.insurancejournal.com/news/national/2017/09/12/463971.htm.

37 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: FN0301-01: Probable Maximum Loss (PML) of insured products from weather-related natural catastrophes, by insurance segment, type of event, and type of risk insured; FN0301-02: Total annual losses attributable to insurance payouts from (1) modeled natural catastrophes and (2) non-modeled natural catastrophes; FN0301-03: Description of how environmental risks are integrated into: (1) The underwriting process for individual contracts (2) The management of firm-level risks and capital adequacy; FN0301-04: List of markets, regions, and/or events for which the registrant declines to voluntarily write coverage for weather-related natural catastrophe risks; and, FN0301-05: Percentage of policies in which weather-related natural catastrophe risks have been mitigated through reinsurance and/or alternative risk transfer.

respectively. The following table presents an overview of OEP modeled losses for top perils and countries:

Exposures (in millions USD) at December 31, 2016

U.S. Hurricane (1-in-100)	Japanese Wind (1-in-100)
Gross - $5,105	*Gross - 1,147*
Net of 2017 Reinsurance - $1,963	*Net of 2017 Reinsurance - 643*
Net of 2017 Reinsurance, After Tax - $1,276	*Net of 2017 Reinsurance, After Tax - 418*
Percent of Total Shareholder Equity - 1.7%	*Percent of Total Shareholder Equity - 0.5*

Source: American International Group, Inc., Form 10–K for FY ending December 31, 2016.

TOPIC SPOTLIGHT

Integration of Environmental, Social, and Governance (ESG) Risk Factors in Advisory, Underwriting, and Brokerage Activities

ESG factors are increasingly contributing to the financial performance of specific projects and companies at large. Value implications, both negative and positive, exist for the financing of projects that generate environmental or social externalities and those that are exposed to risks associated with climate change, resource depletion, and other sustainability-related issues. The potential for both value creation and destruction associated with ESG factors suggests that investment banks have an opportunity to integrate these factors into analysis and valuation related to all core products, including sell-side research, advisory services, origination, underwriting, principal transactions, and commodity-related activities. On the one hand, integrating these factors into daily operations can create new market opportunities as governments and companies across the economy continue looking for resources to finance their efforts to tackle climate change and other environmental and social challenges. For example, according to the Climate Bond Initiative, the total amount of green bonds issued in 2017 could reach $150 billion; for context, this figure was $82 billion in 2016 and just $3 billion in 2012.[38] On the other hand, and as exemplified by some of the excerpts below, integrating ESG considerations into daily operations can reduce operational and reputational risks in the industry. A handful of companies have already started discussing these risks and/or opportunities in their annual SEC filings, albeit in a very heterogeneous manner. This year's analysis shows that six companies provide disclosure on the topic, half of which report on it using boilerplate. The following excerpts illustrate these differences in disclosure practices:[39]

BOILERPLATE

"Institutional Securities provides investment banking, sales and trading, lending and other services to corporations, governments, financial institutions, and high to ultra-high net worth clients … In connection with the commodities activities in our Institutional Securities business segment, we engage in the storage, transportation, marketing and execution of transactions in several commodities, including metals, natural gas, electric power, emission credits, and other commodity products … As a result of these activities, we are subject to extensive energy, commodities, environmental, health and safety and other governmental laws and regulations. Further, through these activities we are exposed to regulatory, physical and certain indirect risks associated with climate change."

Source: Morgan Stanley, Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Reputational risk may arise from a variety of sources, including the nature or purpose of a proposed transaction or service, the identity or activity of a controversial client, the regulatory or political climate in which the business will be transacted, and the potentially controversial environmental or social impacts of a transaction or significant public attention surrounding the transaction itself … Our policy is to avoid any action, transaction or client relationship that involves the risk of an unacceptable level of damage to our reputation. We have a number of measures to mitigate potential reputational risk. Reputational risk potentially arising from proposed business transactions and client activity is assessed in the reputational risk review process. The policy requires employees to be conservative when assessing potential reputational impact and, where certain indicators give rise to potential reputational risk, the relevant business proposal or service must be submitted through the reputational risk review process. This involves a submission by an originator (any employee), approval by a business area head or designee, and its subsequent referral to one of the assigned reputational risk approvers, each of whom is an experienced and high-ranking senior manager, independent of the business divisions, who has authority to approve, reject or impose conditions on our participation in the transaction or service. The [Reputational Risk & Sustainability Committee] RRSC, on a global level, and the reputational risk committees, on a divisional or legal entity level, are the governing bodies responsible for the oversight and active discussion of reputational risk and sustainability issues. At the

38 "The Green Bond Market, Explained," World Economic Forum, July 25, 2017 https://www.weforum.org/agenda/2017/07/what-are-green-bonds-explainer/.

39 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: FN0102-15: Discussion of how environmental, social, and governance (ESG) factors are incorporated into core products and services; FN0102-16: Amount of sustainability-focused services, activities, and products, broken down by: (1) origination, (2) market making, and (3) advisory and underwriting; and, FN0102-17: Deal size of advisory and underwriting transactions for companies in the following sectors/industries: Energy/Oil&Gas, Materials/Basic Materials, Industrials, and Utilities.

Board level, the Risk Committee and Audit Committee jointly assist the Board in fulfilling its reputational risk oversight responsibilities by reviewing and approving the Group's risk appetite framework as well as assessing the adequacy of the management of reputational risks."

Source: Credit Suisse Group AG, Form 20-F for FY ending December 31, 2016.

METRICS

"While our strategic actions are improving our network, we are also anticipating and adapting to the social, economic and technological trends that are changing our operating environment and our customers' needs and expectations … The Paris Agreement of December 2015 reflected a new consensus on the need to strengthen the global response to climate change. Major injections of capital are now required to finance new technologies, infrastructure and the transition of traditional industries from high to low carbon, and to cover the costs of climate adaptation. As the principal intermediaries between entrepreneurs, businesses and investors, banks have a responsibility to help direct this flow of capital. We are already working with our clients and with investors to help them allocate capital and direct finance towards lower-carbon, carbon-resilient activities, and in 2016 we established a Sustainable Financing Unit to coordinate this work across business lines. Headquartered in London, but with resources in New York and Hong Kong, this new unit will support colleagues tasked with creating and delivering innovative climate products, and help them uncover new sources of sustainable finance. We are also seeking to influence client practices and to build the data, the tools and the transparency necessary to embed understanding of climate risk into the way that markets function. In 2016, HSBC Global Research expanded its coverage of environment, social and corporate governance factors to give our clients the information they need to inform their investment decisions. This builds on the work of the world-leading HSBC Climate Change Centre for Excellence, which in 2017 celebrates 10 years of delivering market-leading information on climate policy to clients across the globe. Work is also underway to expand the Group's disclosure of non-financial data to meet the needs of shareholders and other stakeholders … We completed a number of client transactions that help lower carbon dioxide emissions in areas including infrastructure and renewable energy. In 2016, HSBC was the third-ranked bookrunner for green, social and sustainability bonds that exceeded $250m excluding self-led transactions by Dealogic. We also published a report on our own green bond, issued in 2015 … Client examples: Grupo Aeroportuario ('GACM'): Responsible for the construction, administration and operation of Mexico City's new international airport. In 2016, we advised and coordinated financing for GACM including a $1bn 30-year green bond issuance, the largest green bond in Latin America, and the first emerging market green bond to receive a Green Bond Assessment grade from Moody's."

Source: HSBC Holdings PLC, Form 20-F for FY ending December 31, 2016. Note: The company is part of the "Commercial Banks" industry, but it is also a representative company in the "Investment Banking & Brokerage" industry.

HEALTH CARE

The sector's sustainability profile is characterized by generally higher levels of impact related to social capital, along with leadership and governance. Important social topics facing the sector include those related to access and affordability, fair marketing, and patient welfare, while ethical business practices are a key governance issue that cuts across industries. Meanwhile, several industries in the sector also face human capital challenges related to an increasing shortage of skilled medical and scientific personnel.

Table 9. Health Care sector disclosure practices

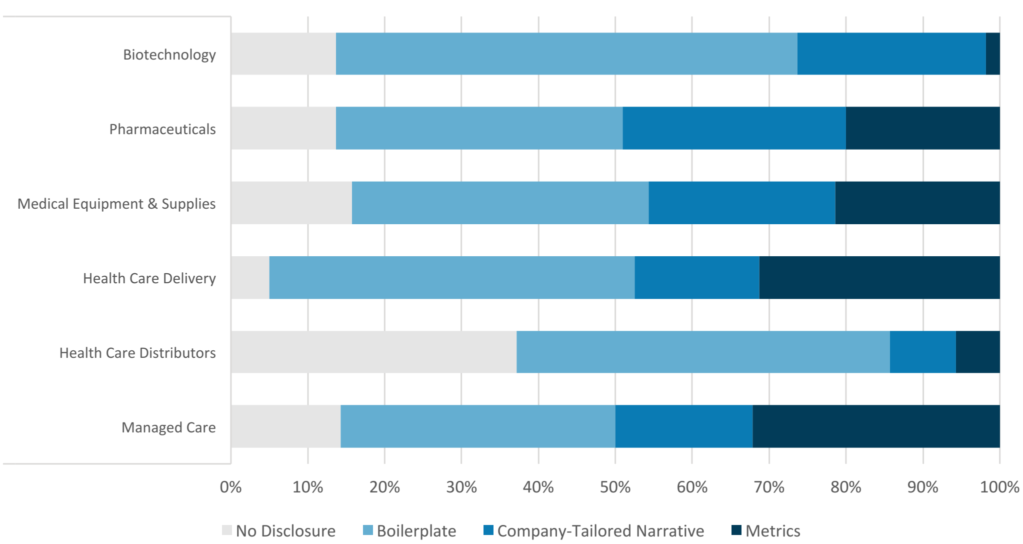
	FY 2016		FY 2015	
Disclosure Levels	86%		81%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	14%	-	19%	-
Boilerplate	45%	53%	43%	53%
Tailored-Narrative	22%	26%	21%	26%
Metrics	18%	21%	17%	21%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: The sector's reporting levels (86 percent) are above those found for the wider economy (83 percent). This figure is the third highest for any sector in the analysis, only slightly behind the "Financials" and "Non-Renewable Resources" sectors. At the industry level, all industries—except the "Health Care Distributors" industry—show levels of disclosure above the economy-wide average. Operators of hospitals, laboratories, and other medical facilities have the highest levels of disclosure within the industry (95 percent), followed by pharmaceutical and biotechnology drug manufacturers, as well as health insurers who participate in the "Managed Care" industry (all at 86 percent).

- Disclosure quality: Disclosure effectiveness across the sector is characterized by a prevalent use of boilerplate language: 53 percent of all relevant reporting uses generic narrative to describe sustainability-related risks. This figure is slightly above the overall economy's use of boilerplate (50 percent of available disclosures). The use of metrics stands at 21 percent of available disclosures sector-wide with important industry-level differences. For example, biotechnology companies seldom provide quantitative information despite having one of the highest levels of reporting in the sector: the use of metrics accounts for only 2 percent of available disclosures across all topics analyzed. These results contrast with those from the arguably similar "Pharmaceuticals" industry, where 23 percent of available disclosures were provided using quantitative performance figures. Note that while both industries have identical reporting levels, disclosure quality is starkly different. Contributing factors of this result likely include the fact that pharmaceutical companies are more diverse in terms of their geographical location—and hence are more likely to be Form 20-F filers—and are on average larger in terms of market capitalization than their biotechnology peers. Aside from these two industries, the use of metrics is also highest for the "Managed Care" and "Health Care Delivery" industries (38 and 33 percent of available disclosures

Figure 19. Sustainability disclosure in SEC filings for FY 2016 (Health Care sector)



respectively). These figures suggest that such companies have both good levels of reporting and above-average disclosure quality.

YEAR-ON-YEAR COMPARISON

- Disclosure levels: Reporting levels sector-wide increased from 81 percent in FY 2015 to 86 percent in FY 2016. While all industries within the sector showed constant or higher availability of disclosures compared to last year, the bulk of the increase was driven by improvements in the "Health Care Distributors" and "Medical Equipment & Supplies" industries. To a lesser extent, biotechnology and pharmaceutical companies also contributed to this year-on-year improvement.

- Disclosure quality: Sector-wide, the quality of reporting remained basically unchanged from last year for all the disclosure effectiveness categories. However, disclosure quality did show some slight movements at the industry level. The analysis suggests that medical equipment and supplies manufacturers and health care insurers increased quantitative reporting more than any other firms in the sector. A slight decrease in the use of metrics was observed in the "Biotechnology," "Pharmaceuticals," and "Health Care Delivery" industries. For biotechnology companies, this decrease was accompanied by an uptake in company-tailored reporting, while for pharmaceuticals companies such a decrease was observed alongside a slightly higher use of boilerplate narrative.

TOPIC SPOTLIGHT

Employee Recruitment, Development, and Retention

Human capital topics focused on employee recruitment and retention can be found in the Provisional Standards for three industries in the sector: "Biotechnology," "Pharmaceuticals," and "Health Care Delivery." At present, there is an important shortage of medical, nursing, and skilled clinical research and development staff worldwide. In 2013, the World Health Organization estimated that the shortage of health care workers globally was 7.2 million; further, it estimated that this figure would increase to 12.9 million workers by 2035.[40] The drug development workforce is a vital part of the medicine supply system, and the nursing and medical staff workforce is key in ensuring positive health outcomes both globally and regionally. Most of the companies that participate in these industries seem to recognize the risks stemming from a shortage of skilled medical and scientific personnel: 26 out of the 30 companies analyzed (87 percent) provided some disclosure on the topic. However, only 4 out of the 26 companies that provided disclosure used metrics to quantitatively characterize these risks. Most reporting on this front (81 percent) is provided using boilerplate language. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Pharmaceuticals" and "Biotechnology" industries:[41]

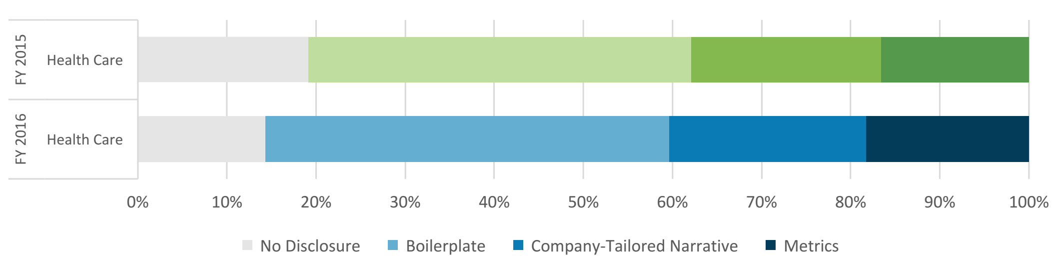
BOILERPLATE

"Failure to attract and retain highly qualified personnel could affect its ability to successfully develop and commercialize products. The Company's success is largely dependent on its continued ability to attract and retain highly qualified scientific, technical and management personnel, as well as personnel with expertise in clinical research and development, governmental regulation and commercialization. Competition for qualified personnel in the pharmaceutical industry is intense. The Company cannot be sure that it will be able to attract and

40 World Health Organization of the United Nations, "Global Health Workforce Shortage to Reach 12.9 Million in Coming Decades," http://www.who.int/mediacentre/news/releases/2013/health-workforce-shortage/en/, accessed on October 12, 2017.

41 The SASB Provisional Standard for these industries and topics includes the following suggested disclosures: HC0101-14: Description of talent recruitment and retention efforts for scientists and other research and development (R&D) personnel, such as mentorship and career development programs, leadership training, or unique incentive structures; HC0101-15: Training and development expenditures per full time employee by: (1) expenditures for industry or professional qualification and advanced industry education; (2) all other; and, HC0101-16: Employee turnover by voluntary and involuntary for: Executives/Senior Managers, Mid-level Managers, Professionals, All others.

Figure 20. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Health Care sector)



retain quality personnel or that the costs of doing so will not materially increase."

Source: Merck and Company, Inc., Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"In the fall of 2016, Shire conducted a materiality assessment with external stakeholders (including patient groups, investors, suppliers and non-government organizations) and Shire senior leaders and employees to identify and prioritize Responsibility issues of greatest significance to Shire and its key stakeholders. Participants consistently expressed the high importance of patient-related issues, including: access to medicine; product quality and safety; innovation; ethical business conduct; and, transparency. Additionally, the ability to attract and develop talent ranked high in importance … The Company relies on recruiting and retaining highly skilled employees to meet its strategic objectives. The Company faces intense competition for highly qualified personnel and the supply of people with the requisite skills may be limited, generally or geographically. The range of skills required and the geographies in which they are required by the Company may also change over time as Shire's business evolves. If the Company is unable to retain key personnel or attract new personnel with the requisite skills and experience, it could adversely affect the implementation of the Company's strategic objectives and ultimately adversely impact the Company's revenues, financial condition or results of operations. Recent acquisitions by the Company, including without limitation, the Dyax and Baxalta acquisitions, and the terminated acquisition by AbbVie, Inc. ('AbbVie') as well as internal reorganizations and transitions of our offices in Pennsylvania, the United Kingdom and other locations, may increase the Company's difficulty in recruiting and retaining employees."

Source: Shire PLC, Form 20-F for FY ending December 31, 2016.

METRICS

"To achieve our strategic priorities, we continue to acquire, retain and develop a talented and diverse workforce united in the pursuit of our Purpose and Values … During 2016, we hired 9,200 permanent employees. An additional 200 employees joined us through acquisitions, most notably Takeda and Acerta Pharma … To help deliver our strategic priorities, we are identifying and recruiting emerging talent, as well as investing in internships and recruitment opportunities globally … We also have a graduate programme for [Innovative Medicines and Early Development] IMED, which complements our established IMED Post Doctorate Programme for researcher recruitment. Additionally, we offer a 12-week internship opportunity for business school students to contribute to key initiatives in our Oncology therapeutic area. Hiring over recent years means that employees with less than two years' service now represent 30% of our global workforce (up from 20% in 2012). This provides a greater balance in terms of refreshing talent and retaining organisational experience … Voluntary employee turnover increased marginally to 9.6% in 2016 from 8.6% in 2015 (restated 2015 number). The voluntary employee turnover rate among our high performers also increased in 2016 to 6.1%. We seek to reduce regretted turnover through more effective hiring and induction, high-level reviews of resignations, risk assessments and retention plans."

Source: AstraZeneca PLC, Form 20-F for FY ending December 31, 2016.

TOPIC SPOTLIGHT

Ethical Marketing

Marketing-related topics are present in the Provisional Standards of three industries in the sector: "Biotechnology," "Pharmaceuticals," and "Medical Equipment & Supplies." In the United States and other important developed markets, such as the European Union, the marketing practices of biopharmaceutical companies are subject to various federal and state health care laws that are intended to prevent fraud and abuse in the health care industry and protect the integrity of government health care programs. These laws generally prohibit anyone from knowingly and willingly presenting any claims that are false or misleading; regulate the sales and marketing practices of biopharmaceutical companies; limit financial interactions between manufacturers and health care providers; require disclosure to the federal or state government and public of such interactions; and/or require the adoption of compliance standards or programs. Additionally, a patchwork of regional mandates seeks to regulate the marketing of prescription drugs under state consumer protection and false advertising laws. These circumstances are similar for medical device manufacturers. As a result, firms operating in these industries face potentially costly fines and penalties that may also impact their reputation with institutional and end-consumers. Virtually all companies in these industries recognize these risks in their annual SEC filings: disclosure levels are high at 97 percent. Disclosure effectiveness, however, is characterized by an equal split in the use of generic and company-tailored narrative. Common boilerplate disclosure is often presented in the form of a description of regulations relevant to the topic, while tailored-narrative is often provided in the form of a description of legal proceedings from alleged violations of marketing and advertising regulations; particularly the promotion of drugs and medical equipment for off-label use. The use of metrics is low, with only 10 percent of companies analyzed reporting performance figures. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Pharmaceuticals" industry:[42]

42 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: HC0102-12: Description of legal and regulatory fines and settlements associated with false marketing claims, including Federal Food, Drug, and Cosmetic Act violations for off-label marketing prosecuted under the False Claims Act. Dollar amount of fines and settlements and a description of corrective actions implemented in response to events; and, HC0102-13: Description of code of ethics governing promotion of off-label use of products, including mechanisms to ensure compliance.

BOILERPLATE

"The marketing, promotional, and pricing practices of human pharmaceutical manufacturers, as well as the manner in which manufacturers interact with purchasers and prescribers, are subject to various other U.S. federal and state laws, including … the False Claims Act and state laws governing kickbacks, false claims, unfair trade practices, and consumer protection. These laws are administered by, among others, the Department of Justice (DOJ), the Office of Inspector General of the Department of Health and Human Services, the Federal Trade Commission, the Office of Personnel Management, and state attorneys general. Over the past several years, the FDA, the DOJ, and many of these other agencies have increased their enforcement activities with respect to pharmaceutical companies and increased the inter-agency coordination of enforcement activities. Several claims brought by these agencies against Lilly and other companies under these and other laws have resulted in corporate criminal sanctions and very substantial civil settlements."

Source: Eli Lilly and Company, Form 10–K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"The marketing practices of all U.S. pharmaceutical manufacturers are subject to Federal and state healthcare laws that are used to protect the integrity of government healthcare programs. The OIG oversees compliance with applicable Federal laws, in connection with the payment for products by government funded programs (primarily Medicaid and Medicare). These laws include the Federal anti-kickback statute, which criminalizes the offering of something of value to induce the recommendation, order or purchase of products or services reimbursed under a government healthcare program. The OIG has issued a series of Guidances to segments of the healthcare industry, including the 2003 Compliance Program Guidance for Pharmaceutical Manufacturers, which includes a recommendation that pharmaceutical manufacturers, at a minimum, adhere to the PhRMA Code, a voluntary industry code of marketing practices. We subscribe to the PhRMA Code, and have implemented a compliance program to address the requirements set forth in the guidance and our compliance with the healthcare laws. Failure to comply with these healthcare laws could subject us to administrative and legal proceedings, including actions by Federal and state government agencies. Such actions could result in the imposition of civil and criminal sanctions, which may include fines, penalties and injunctive remedies, the impact of which could materially adversely affect our business, financial condition and results of operations and cash flows."

Source: Bristol-Myers Squibb Company, Form 10–K for FY ending December 31, 2016.

METRICS

"We are committed to employing high ethical standards of sales and marketing practice worldwide, which are detailed in our Code of Conduct and supporting Global Policies on Ethical Interactions … We report publicly on the number of: confirmed breaches of external sales and marketing codes; [and] breaches of our Code of Conduct, Global Policies or supporting requirements by employees and third parties in our Commercial Regions, and associated corrective actions … During 2016, we continued to train employees on the ethical standards that govern the way we operate. We maintain a robust compliance programme in our efforts to ensure that there is compliance with all applicable laws, regulations and adopted industry codes, and that our business is operating with high ethical standards. Our compliance e is delivered by dedicated compliance professionals who advise on and monitor adherence to our Code of Conduct, Global Policies and supporting requirements. These professionals also support our line managers locally, seeking to ensure that their staff meet our high ethical standards. A network of nominated signatories reviews our promotional materials and activities against applicable requirements. In 2016, audit professionals in Internal Audit Services also conducted compliance audits on selected marketing companies. When engaging third parties for sales and marketing activities or other services, we are committed to working with only those third parties who embrace high standards of ethical behaviour consistent with our own. We identified six confirmed breaches of external sales and marketing regulations or codes in 2016 (2015: 11). There were 1,729 instances, most of them minor, of non-compliance with our Code of Conduct, Global Policies or supporting requirements in our Commercial Regions, including instances by employees and third parties (2015: 1,749). We removed a total of 222 employees and third parties from their roles as a result of these breaches (a single breach may involve more than one person). We also formally warned 429 others and provided further guidance or coaching on our policies to 1,283 more. The most serious breaches were raised with the Audit Committee."

Source: AstraZeneca PLC, Form 20–F for FY ending December 31, 2016.

INFRASTRUCTURE

The sector's sustainability profile is characterized by generally higher levels of impact associated with the environment, as well as with business model and innovation—often, the two intersect. For example, many industries in the sector face challenges related to how efficiently they use natural resources, such as energy and water, and the related risks may be turned into opportunities through innovative approaches to operations, risk management, and/or lifecycle impact management. Additionally, important human capital issues related to workforce health and safety are relevant to many industries in the sector.

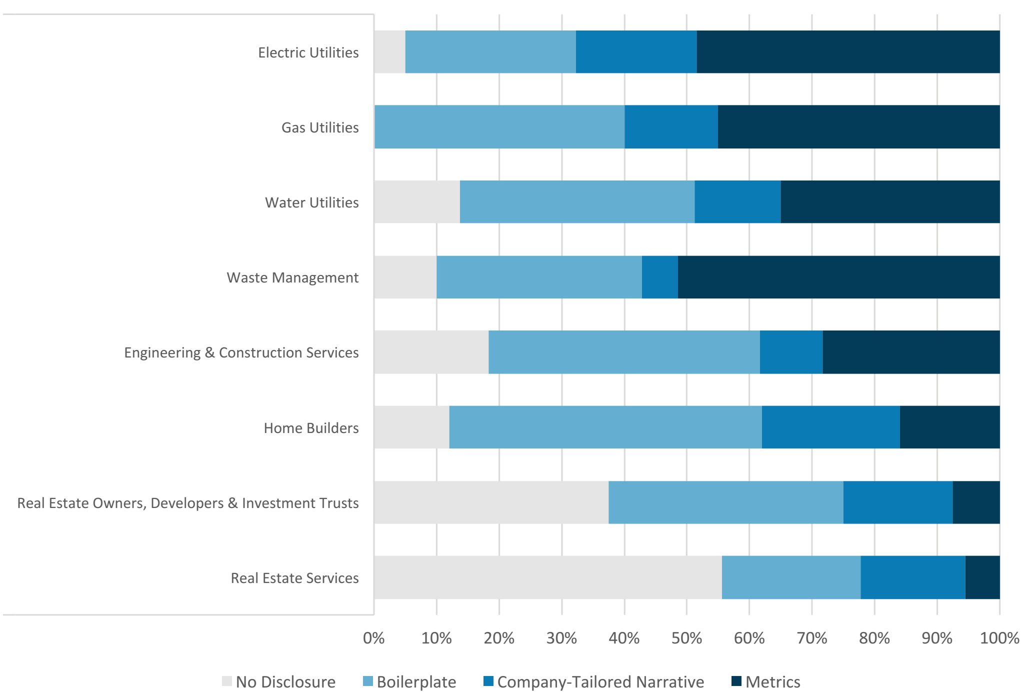
Table 10. Infrastructure sector disclosure practices

	FY 2016		FY 2015	
Disclosure Levels	85%		84%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	15%	-	16%	-
Boilerplate	36%	42%	42%	50%
Tailored-Narrative	15%	17%	20%	24%
Metrics	34%	40%	22%	27%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: Reporting levels across all topics for companies in the sector stand at 85 percent, a figure slightly above the overall economy average (83 percent) and the fourth highest for any sector in the analysis. Industry-level results vary widely. For example, all gas utilities in the analysis reported on all the topics included in their industry's Provisional Standard. Disclosure levels are also high for electric utilities (95 percent), waste management firms (90 percent), and home builders (88 percent). It is likely that regulatory pressures and increased oversight may be driving these results as all these industries are heavily regulated, especially as it pertains to environmental topics. Companies involved in the real estate space—such as real estate investment trusts (REITs), property owners and developers, and other real estate services firms—have the lowest levels of reporting. The analysis suggests that companies in the "Real Estate Services" industry have disclosure levels of just 44 percent; this result is mainly driven by a lack of disclosure on the opportunities stemming from the provision of sustainability-related services. Reporting levels for REITs and other real estate developers stand at 62 percent; these companies provide limited disclosure on water-related risks and the management of tenant sustainability impacts.

Figure 21. Sustainability disclosure in SEC filings for FY 2016 (Infrastructure sector)



- Disclosure quality: Disclosure effectiveness for the sector as a whole is also among the best. Quantitative reporting stands at 40 percent of available disclosures, which is the third highest figure for any sector, behind only "Financials" and "Non-Renewable Resources." This result is mainly driven by high-quality reporting in several industries whose main sustainability challenges are environmental, such as the "Electric Utilities" and "Waste Management" industries: the use of metrics stands at 57 percent of available disclosures by companies in the latter, and 51 percent by those in the former. Relatively high quantitative reporting was also observed from gas and water utilities. Again, the regulatory environment under which all these industries operate is likely driving these results. Disclosure quality was lowest for real estate developers, as well as home builders and engineering and construction companies; boilerplate reporting was 60, 57, and 53 percent of available disclosures, respectively.

YEAR-ON-YEAR COMPARISON

- Disclosure levels: The analysis suggests a minor increase in reporting levels across the sector between fiscal years (85 percent in FY 2016 versus 84 percent in FY 2015). Industry-level results show similar variations: reporting levels are basically unchanged for real estate developers and gas and electric utilities, and have only minor changes for the rest of the industries in the sector.

- Disclosure quality: While reporting levels remained basically unchanged, disclosure effectiveness improved between fiscal years. The use of metrics jumped from 27 to 40 percent of available disclosures, while the use of boilerplate decreased from 50 to 42 percent. Disclosure effectiveness improved the most in the "Electric Utilities" industry, where more quantitative reporting was observed for several environmental topics, including water and coal ash management, as well as nuclear safety. Reporting quality also improved considerably for water utilities and waste management companies. Reporting quality in all other industries, except for "Real Estate Services," also increased, albeit at a slower pace.

TOPIC SPOTLIGHT

End-Use Efficiency and Demand-Side Management

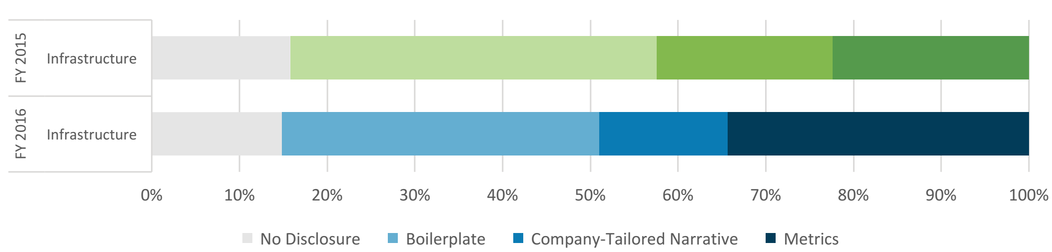
Topics related to the efficient end use of natural resources such as water and several forms of energy (e.g., electricity and gas) are included in the Provisional Standards of three industries in the sector: "Electric Utilities," "Gas Utilities," and "Water Utilities." As policymakers and regulators look to address climate change, utilities that are able to more effectively align their short-term incentives with those of their customers and with long-term mitigation and adaptation initiatives will stand to benefit from more stable and predictable revenues, lower earnings volatility, improved credit risk, and lower costs related to filing rate cases. Alternative ratemaking, such as "decoupling" measures, generally removes the disincentive for utilities to work with their customers on efficiency efforts, through delinking utility revenues from their customers' consumption. In addition to promoting such rate structures, other demand-side management activities may include providing low-interest loans to purchase more efficient appliances and creating and disseminating information and tools to help customers become more aware of ways to reduce their natural resource usage and bills. Reporting levels for this topic are high across all industries, with 93 percent of companies providing disclosure on these risks. Additionally, reporting quality tends to be comparatively high: 57 percent of companies in the analysis reported metrics. Most of the observed quantitative reporting included investment figures on energy and/or water efficiency programs approved by the local public utility commissions. The following excerpts illustrate the differences in disclosure practices on this topic in the "Gas Utilities" industry:[43]

BOILERPLATE

"Energy efficiency and technology advances, as well as price induced customer conservation, may result in reduced demand for our energy products and services. The trend toward increased conservation and technological advances, including installation of improved insulation and the development of more efficient furnaces and other heating devices, may reduce the demand for energy products. Prices for LPG and natural

43 The SASB Provisional Standard for this industry and topic includes the following suggested disclosure: IF0102-01: Customer gas savings from efficiency measures by market.

Figure 22. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Infrastructure sector)



gas are subject to volatile fluctuations in response to changes in supply and other market conditions. During periods of high energy commodity costs, our prices generally increase, which may lead to customer conservation and attrition. A reduction in demand could lower our revenues and, therefore, lower our net income and adversely affect our cash flows. State and/or federal regulation may require mandatory conservation measures, which would reduce the demand for our energy products. We cannot predict the materiality of the effect of future conservation measures or the effect that any technological advances in heating, conservation, energy generation or other devices might have on our operations."

Source: UGI Corporation, Form 10-K for FY ending September 30, 2016.

COMPANY-TAILORED NARRATIVE

"Climate Change. Vectren remains committed to responsible environmental stewardship and conservation efforts … Current Initiatives to Increase Conservation & Reduce Emissions. The Company is committed to a policy that reduces greenhouse gas emissions and conserves energy usage. Evidence of this commitment includes … • Implementing home and business energy efficiency initiatives in the Company's Indiana and Ohio gas utility service territories such as offering rebates on high efficiency furnaces, programmable thermostats, and insulation and duct sealing; • Implementing home and business energy efficiency initiatives in the electric service territory such as rebate programs on central air conditioning units, LED lighting, home weatherization and energy audits; [and] … • Developing renewable energy and energy efficiency performance contracting projects through its Energy Services segment."

Source: Vectren Corporation, Form 10-K for FY ending December 31, 2016.

METRICS

"SAVEGREEN conducts home energy audits and provides various grants, incentives and financing alternatives, which are designed to encourage the installation of high efficiency heating and cooling equipment and other energy efficiency upgrades to promote energy efficiency incentives to its residential and commercial customers while stimulating state and local economies through the creation of jobs. Depending on the specific initiative or approval, NJNG [New Jersey Natural Gas] recovers costs associated with the programs over a two to 10-year period through a tariff rider mechanism. As of September 30, 2016, the BPU has approved total SAVEGREEN investments of approximately $219.3 million, of which, $136.6 million in grants, rebates and loans has been provided to customers, with a total annual recovery of approximately $20 million. The recovery includes a weighted average cost of capital that ranges from 6.69 percent, with a return on equity of 9.75 percent, to 7.76 percent, with a return on equity of 10.3 percent."

Source: New Jersey Resources Corp., Form 10-K for FY ending September 30, 2016.

TOPIC SPOTLIGHT

Workforce Health and Safety

Occupational health and safety topics are included in the Provisional Standards of four industries in the sector: "Electric Utilities," "Waste Management," "Engineering & Construction Services," and "Home Builders." Many hazards are involved in the construction, operation, and maintenance of infrastructure, requiring companies to take measures that ensure good working conditions for employees, strong operational productivity, and effective management of potential risks of regulatory penalties. Most companies in these industries acknowledge these risks in their latest annual SEC filings: 36 out of 40 companies (90 percent) provide some disclosure on the topic. However, when disclosure is available, boilerplate is widely used: 22 out of the 36 companies (61 percent) use generic narrative. The analysis suggests that quantitative reporting on this topic is low; only 8 companies report using occupational health and safety metrics. Many of these companies participate in the engineering and construction industry and report safety metrics because they are involved in infrastructure construction projects for the mining sector, and therefore are required to report on line-item 4 ("Mine Safety Disclosures") in their annual filings. A couple of waste management companies also report metrics on this front. The following excerpts illustrate the differences in disclosure practices for companies in this industry:[44]

BOILERPLATE

"Our business is subject to operational and safety risks, including the risk of personal injury to employees and others. Providing environmental and waste management services, including constructing and operating landfills, involves risks such as truck accidents, equipment defects, malfunctions and failures. Additionally, we closely monitor and manage landfills to minimize the risk of waste mass instability, releases of hazardous materials, and odors that could be triggered by weather or natural disasters. There may also be risks presented by the potential for subsurface heat reactions causing elevated landfill temperatures and increased production of leachate, landfill gas and odors. We also build and operate natural gas fueling stations, some of which also serve the public or third parties. Operation of fueling stations and landfill gas collection and control systems involves additional risks of fire

44 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: IF0201-12: (1) Total recordable injury rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR) for (a) direct employees and (b) contract employees; IF0201-13: Safety Measurement System BASIC percentiles for: (1) Unsafe Driving, (2) Hours-of-Service Compliance, (3) Driver Fitness, (4) Controlled Substances/Alcohol, (5) Vehicle Maintenance, and (6) Hazardous Materials Compliance; and, IF0201-14: Number of vehicle accidents and incidents.

and explosion. Any of these risks could potentially result in injury or death of employees and others, a need to shut down or reduce operation of facilities, increased operating expense and exposure to liability for pollution and other environmental damage, and property damage or destruction. While we seek to minimize our exposure to such risks through comprehensive training, compliance and response and recovery programs, as well as vehicle and equipment maintenance programs, if we were to incur substantial liabilities in excess of any applicable insurance, our business, results of operations and financial condition could be adversely affected. Any such incidents could also tarnish our reputation and reduce the value of our brand. Additionally, a major operational failure, even if suffered by a competitor, may bring enhanced scrutiny and regulation of our industry, with a corresponding increase in operating expense."

Source: Waste Management, Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Execute Best-in-Class Safety and Environmental Compliance Programs. We pursue best-in-class safety and environmental compliance at US Ecology. Not only is it the cornerstone of our business, but our customers and regulators rely on our expertise when they select us as a vendor or grant us permits and licenses. We deploy significant resources in terms of human capital, programs and facility investment to achieve safe and compliant operations. The Company has dedicated professionals who oversee and manage safety and environmental programs including, but not limited to, employee training, internal and independent external audits, safety incentive programs, Voluntary Protection Programs ('VPP'), the Safety & Health Achievement Recognition Program, and ISO 9001 and ISO 14001 programs. Dedicated senior managers regularly review and discuss environmental and safety results with operational staff, management and the Board of Directors to improve our safety results and focus on regulatory compliance."

Source: US Ecology, Form 10-K for FY ending December 31, 2016.

METRICS

"Health and Safety is our #1 priority—companywide. Employees at all levels of our Company share this philosophy and are committed to ensuring our safety goals are met. As an industry leader, our commitment to health and safety benefits everyone—our employees, our customers, the community, and the environment. In 2016 we continued with our very successful Safety Starts With Me: Live It 3-6-5 program which is a key component in our overall safety program and along with our many other programs has continued to achieve low Total Recordable Incident Rate, or 'TRIR;' Days Away, Restricted Activity and Transfer Rate, or 'DART;' and Experience Modification Rate, or 'EMR.' For the year ended December 31, 2016, our Company wide TRIR, DART and EMR were 1.18, 0.72 and 0.67, respectively. For the year ended December 31, 2015, our Company wide TRIR, DART and EMR were 1.33, 0.83 and 0.54, respectively. In order to protect our employees, continue to lower our incident rates, and satisfy our customers' demands to retain the best service providers with the lowest TRIR, DART and EMR rates, we are fully committed to continuously improving our health and safety performance. All employees recognize the importance of protecting themselves, their fellow employees, their customers, and all those around them from harm. This commitment is supported by the philosophies and Golden Rules of Safety that is the cornerstone of the Safety Starts with Me: Live It 3-6-5 program. Live It 3-6-5 is our dedication to the safety of our workers through each and every employee's commitment to our three Safety philosophies, our six Golden Rules of Safety and each employee's five personal reasons why they choose to be safe both at work, on the road and at home."

Source: Clean Harbors, Inc., Form 10-K for FY ending December 31, 2016.

NON-RENEWABLE RESOURCES

The sector's sustainability profile is characterized by generally higher levels of impact associated with the environment, along with leadership and governance. As a sector involved in the extraction, storage, transportation, and processing of natural resources, many important environmental topics affect industries in the sector, including greenhouse gas emissions and the management of air quality, water, wastewater, and hazardous materials, among others. Meanwhile, key industries also face challenges related to operating in foreign jurisdictions, and to the valuation of existing fossil fuel reserves, which may be significantly impacted by regulatory changes and/or shifts in demand. In addition, operations in the sector are generally characterized by safety hazards that require effective controls, governance, and human capital management.

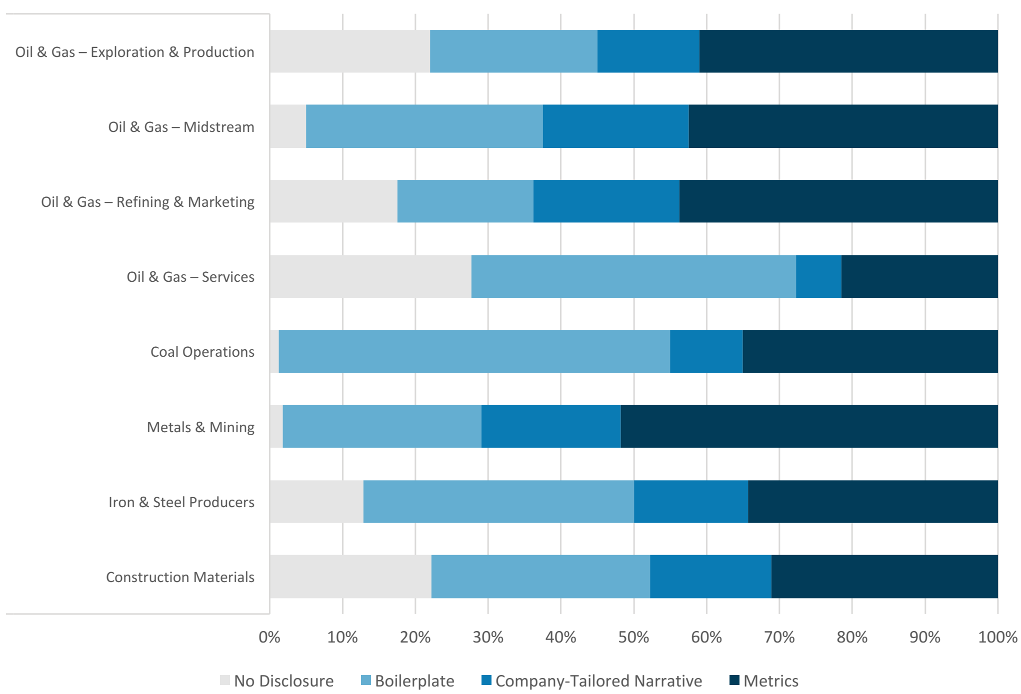
Table 11. Non-Renewable Resources sector disclosure practices

	FY 2016		FY 2015	
Disclosure Levels	86%		84%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	14%	-	16%	-
Boilerplate	32%	38%	38%	45%
Tailored-Narrative	15%	18%	19%	22%
Metrics	38%	45%	27%	33%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: Reporting levels across the sector stand at 86 percent; matching that of "Financials," this figure is the highest for any sector in the analysis. This result is likely a reflection of the type of sustainability challenges faced by the extractive industries that comprise the sector: more than half of the disclosure topics in the Provisional Standards fall under the "Environment" sustainability dimension. As mentioned earlier, disclosure levels for environmental topics are normally higher than those for other dimensions (second only to social capital). Moreover, regulatory, societal, and market forces are also likely influencing the sector's disclosure practices. Past, current, and expected environmental impacts from oil, gas, coal, metals, and minerals extraction operations have been, are, and will continue to be heavily scrutinized by regulators, civil society, and an increasing number of investors. Disclosure levels are highest for companies in the "Coal Operations," "Metals & Mining," and "Oil & Gas—Midstream" industries (99, 98, and 95 percent, respectively). On the other hand, upstream oil and gas companies, the firms that provide them with ancillary services (such as drilling, seismic surveying, well monitoring, etc.), and firms involved in extracting and processing construction materials show the lowest levels of reporting (78, 72, and 78 percent, respectively). Low reporting levels for oil and gas extracting companies are driven by limited

Figure 23. Sustainability disclosure in SEC filings for FY 2016 (Non-Renewable Resources sector)



disclosure on social topics (such as community relations and rights of indigenous peoples) and leadership and governance issues (such as corruption and bribery risks). In the "Construction Materials" industry, low reporting levels are driven by a lack of disclosure on the opportunities that product-innovation initiatives can have in the context of increasing consumer demand for highly efficient buildings and other infrastructure projects, and on the operational risks from water and energy mismanagement.

- Disclosure quality: Quality of disclosure in the sector is also among the highest in the economy. Arguably, the regulatory, societal, and market forces mentioned above are also driving disclosure effectiveness. The use of metrics stands at 45 percent of all relevant disclosures, a result topped only by the financial sector. In fact, these sectors are the only two that have higher levels of quantitative reporting than they do boilerplate (which stands at 38 percent of available disclosures for extractive companies). Firms in the oil and gas "Exploration & Production" and "Refining & Marketing" industries, as well as miners of metals and minerals, provide quantitative information on more than half of all relevant entries analyzed: the use of metrics is 53 percent of available disclosures for all three industries. Interestingly, despite having the highest levels of reporting, coal miners also show one of the highest levels of boilerplate use (54 percent of available disclosures). Generic reporting, however, is highest for companies in the "Oil & Gas—Services" industry (62 percent); note that this industry also has the lowest levels of reporting.

YEAR-ON-YEAR COMPARISON

- Disclosure levels: Sector-wide disclosure levels increased slightly between FY 2015 and FY 2016, from 84 to 86 percent. Disclosure availability increased in all industries in the sector, except for the "Oil & Gas—Services" industry, where disclosure levels remained constant. The highest increase came in the "Iron & Steel Producers" industry, where more disclosure about water management risks was observed in comparison with last year's analysis. In most other industries the changes were minimal, with only one or two companies providing new disclosures on any given topic.

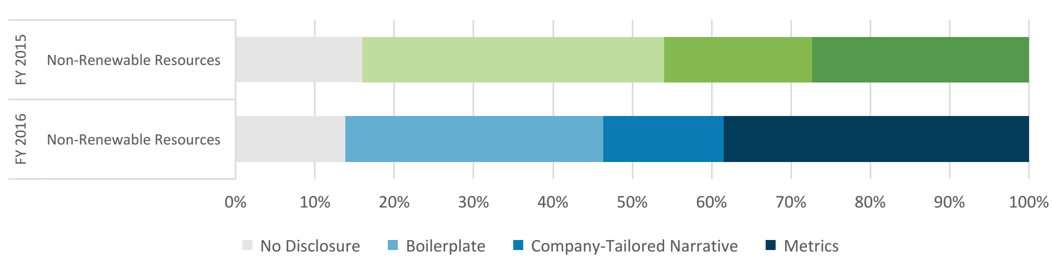
- Disclosure quality: While disclosure levels remained basically unchanged, disclosure effectiveness improved between fiscal years. Quantitative reporting increased from 33 to 45 percent of available disclosures. A higher use of metrics was observed across all industries in the sector. This increase was relatively higher for the four industries operating in the oil and gas sub-sector—upstream, midstream, downstream, and services. The analysis suggests that "big oil" companies participating in the "Exploration & Production" industry improved disclosure effectiveness the most, especially in the context of greenhouse gas emissions and health, safety, and emergency management risks. Operational safety was also a topic with improved disclosure levels in the "Midstream" and "Refining & Marketing" industries. Meanwhile, the use of boilerplate decreased at the sector level, moving from 45 to 38 of available disclosures. Use of generic reporting remained constant or decreased in almost all industries in the sector, except for the "Iron & Steel Producers" industry.

TOPIC SPOTLIGHT

Reserves Valuation and Capital Expenditures

Last year's State of Disclosure Report analyzed the sector's climate-risk-related disclosure practices in the context of direct greenhouse gas emissions (GHG) emitted during day-to-day operations, and the regulatory, operational, and innovation challenges that managing these emissions entails. This environmental topic is included in the Provisional Standards of all but one of the industries in the sector (i.e., "Oil & Gas—Services"). This year's report analyzes the disclosure practices on a related topic, which also deals with climate risk but in the context of the future valuations of hydrocarbon reserves: the "stranded assets" debate. The topic of reserves valuation and capital expenditures is included in the Provisional Standards of two industries in the sector: "Oil & Gas—Exploration & Production" and "Coal Operations." Upstream oil and gas companies make

Figure 24. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Non-Renewable Resources sector)



significant investments in the exploration of new oil and gas reserves. However, the prospect that climate change regulations will limit the amount of GHG emissions allowed to be released during production processes and at the use-phase of oil and gas refined products, along with the improved competitiveness of renewable energy technologies, has the potential to significantly alter the economic value of the industry's reserves, particularly those of oil. Furthermore, scenarios that consider a future price on carbon emissions—whether through carbon taxes, cap-and-trade systems, or policies that limit emissions—indicate that demand for, and prices of, oil and gas could be lower than projected under the baseline case without carbon pricing. These factors could materially impact the future cash flows of projects for exploration and production companies. In a similar fashion, carbon mining operations require considerable amounts of investments and are subject to the same regulatory, market, and societal forces described above. Efforts to reduce the carbon footprint of the economy are already having a major impact on the demand for coal as a primary source for electricity generation and on the industry's reserves valuations. According to HSBC's Global Research on Climate Change, a weakening coal market could affect coal asset values by as much as 44 percent.[45]

All companies in both industries report on the risks from direct GHG emissions (see last year's "Topic Spotlight" section). Disclosure in the context of stranded-asset risk is relatively lower: this year's analysis shows that only 85 percent of companies discuss climate risks in this way. Although this is still a high figure, disclosure quality varies by industry. Results show that all coal operators provide disclosure on the topic but 9 out of 10 do so using generic narrative. Reporting levels by oil and gas companies are lower—7 of 10 companies discuss stranded-asset risks—but the quality of such disclosure is better: 3 companies report metrics and another 3 tailored their reporting to specific company circumstances. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Oil & Gas—Exploration & Production" industry:[46]

BOILERPLATE

"Regulation of greenhouse gas (GHG) emissions could increase Chevron's operational costs and reduce demand for Chevron's hydrocarbon and other products. In the years ahead, companies in the energy industry, like Chevron, may be challenged by an increase in international and domestic regulation relating to GHG emissions. Such regulation could have the impact of curtailing profitability in the oil and gas sector or rendering the extraction of the company's oil and gas resources economically infeasible. Although the IEA's World Energy Outlook scenarios anticipate global demand for oil to continue increasing until 2040, and even GHG-constrained scenarios (such as the IEA's 450 case) anticipate significant demand for petroleum and natural gas given their respective advantages in transportation and power generation, if a new onset of regulation contributes to a decline in the demand for the company's products, this could have a material adverse effect on the company and its financial condition … Consideration of GHG issues and the responses to those issues through international agreements and national, regional or state legislation or regulations are integrated into the company's strategy and planning, capital investment reviews, and risk management tools and processes, where applicable. They are also factored into the company's long-range supply, demand and energy price forecasts. These forecasts reflect long-range effects from renewable fuel penetration, energy efficiency standards, climate-related policy actions, and demand response to oil and natural gas prices. Additionally, the company assesses carbon pricing risks by considering carbon costs in these forecasts. The actual level of expenditure required to comply with new or potential climate change-related laws and regulations and amount of additional investments in new or existing technology or facilities, such as carbon dioxide injection, is difficult to predict with certainty and is expected to vary depending on the actual laws and regulations enacted in a jurisdiction, the company's activities in it and market conditions."

Source: Chevron Corporation, Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"International accords and underlying regional and national regulations covering greenhouse gas emissions continue to evolve with uncertain timing and outcome, making it difficult to predict their business impact. For many years, the Corporation has taken into account policies established to reduce energy-related greenhouse gas emissions in its long-term Outlook for Energy, which is used as a foundation for assessing the business environment and business strategies and investments. The climate accord reached at the recent Conference of the Parties (COP 21) in Paris set many new goals, and many related policies are still emerging. Our Outlook reflects increasingly stringent climate policies and is consistent with the aggregation of Nationally Determined Contributions which were submitted by signatories to the United Nations Framework Convention on Climate Change (UNFCC) 2015 Paris Agreement. Our Outlook seeks to identify potential impacts of climate related policies, which often target specific sectors, by using various assumptions and tools including application of a proxy cost of carbon to estimate potential impacts on consumer demands. For purposes of the Outlook, a proxy cost on energy-related CO2 emissions is assumed to reach about $80 per tonne on average in 2040 in OECD nations. China and other leading non-OECD nations are expected to trail

45 Nick Robins, Andrew Keen, and Zoe Knight, "Coal and Carbon, Stranded Assets: Assessing the Risk," HSBC Global Research, June 21, 2012, available at https://www.research.hsbc.com/midas/Res/RDV?p=pdf&key=dXwE9bC8qs&n=333473.pdf.

46 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: NR0101-22: Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions; NR0101-23: Estimated carbon dioxide emissions embedded in proved hydrocarbon reserves; and, NR0101-24: Discussion of how price and demand for hydrocarbons and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets.

OECD policy initiatives. Nevertheless, as people and nations look for ways to reduce risks of global climate change, they will continue to need practical solutions that do not jeopardize the affordability or reliability of the energy they need. Thus, all practical and economically viable energy sources, both conventional and unconventional, will need to be pursued to continue meeting global energy demand, recognizing the scale and variety of worldwide energy needs as well as the importance of expanding access to modern energy to promote better standards of living for billions of people."

Source: Exxon Mobil Corporation, Form 10-K for FY ending December 31, 2016.

METRICS

"Laws and regulations related to climate change may adversely affect the Group's business and financial condition … Regulations designed to gradually limit fossil fuel use may, depending on the GHG emission limits and time horizons set, negatively and significantly affect the development of projects, as well as the economic value of certain of the Group's assets. Internal studies conducted by TOTAL have shown that a long-term CO2 price of $40/t applied worldwide would have an impact of around 5% on the discounted present value of the Group's assets (upstream and downstream). In response to these possible developments, natural gas, which is the fossil energy that emits the least amount of GHG, represented nearly 48% of TOTAL's production in 2016, compared to approximately 35% in 2005, and the Group's objective is to grow this percentage over the long term with the expected growth of gas markets. In addition, the Group ceased its coal production activities and is developing its activities in the realms of solar energy production and energy from biomass (renewable energies)."

Source: TOTAL SA, Form 20-F for FY ending December 31, 2016.

TOPIC SPOTLIGHT

Operational and Occupational Safety

Safety-related topics, whether focused on occupational risks or broader operational hazards and emergency response practices, are included in the Provisional Standards of all industries in the sector. The extraction, storage, delivery, and processing of non-renewable resources involves a variety of potential safety risks, including dangerous working conditions, the operation of heavy machinery, hazardous and/or volatile materials, and mission-critical infrastructure that is susceptible to integrity risks. In addition to potentially exposing workers and communities to health and safety hazards, the mismanagement of such risks may also reduce a firm's productive capacity because of operational disruptions or worker downtime. These factors may result in contingent liabilities, compliance, and/or remediation costs, and could negatively affect a firm's reputation, resulting in reduced revenues and/or market share. Virtually all companies recognize the importance of safety-related risks in their daily operations: disclosure levels are 98 percent across the sector. Moreover, disclosure quality is high: two-thirds of companies report performance metrics. This result is driven by quantitative reporting by companies with metal and mineral mining operations in the United States. The SEC requires companies with such operations to report on the "Mine Safety Disclosures" line item in all Forms 10-K (Item 4) and Forms 20-F (Item 16H). The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Metals & Mining" industry:[47]

BOILERPLATE

"Our business is subject to environmental, health and safety incidents. Our operations involve the use, handling, storage, discharge and disposal of hazardous substances into the environment and the use of natural resources, and the mining industry is generally subject to significant risks and hazards, including fire, explosion, toxic gas leaks, spilling of polluting substances or other hazardous materials, rockfalls, incidents involving dams, failure of other operational structures and incidents involving mobile equipment, vehicles or machinery. This could occur by accident or by breach of operating and maintenance standards, and could result in a significant environmental and social impacts, damage to or destruction of mineral properties or production facilities, personal injury, illness or death of employees, contractors or community members close to operations, environmental damage, delays in production, monetary losses and possible legal liability. Additionally, in remote localities, our employees may be exposed to tropical and contagious diseases that may affect their health and safety. Notwithstanding our standards, policies and controls, our operations remain subject to incidents or accidents that could adversely affect our business, stakeholders or reputation."

Source: Vale SA, Form 20-F for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"In October 2006, in Barnett, et al. v. Alcoa and Alcoa Fuels, Inc., Warrick Circuit Court, County of Warrick, Indiana; 87-C01-0601-PL-499, forty-one plaintiffs sued ParentCo and one of its subsidiary, asserting claims similar to those asserted in Musgrave v. Alcoa, et al., Warrick Circuit Court, County of Warrick, Indiana; 87-C01-0601-CT-006. In November 2007, ParentCo and its subsidiary filed a motion to dismiss the Barnett cases. In October 2008, the Warrick County Circuit Court granted ParentCo's motions to dismiss, dismissing all claims arising out of alleged occupational exposure to wastes at the Squaw Creek Mine, but in November 2008, the trial court clarified its ruling, indicating that the order does not dispose of plaintiffs' personal injury claims based upon alleged 'recreational' or non-occupational exposure. Plaintiffs also

47 The SASB Provisional Standard for this industry and topic includes the following suggested disclosure: NR0302-18: (1) MSHA All-Incidence Rate, (2) Fatality Rate, and (3) Near Miss Frequency Rate for (a) full-time employees and (b) contract employees.

filed a 'second amended complaint' in response to the court's orders granting ParentCo's motion to dismiss. On July 7, 2010, the court granted the parties' joint motions for a general continuance of trial settings. Discovery in this matter remains stayed. On January 24, 2017 the court set a hearing for March 23, 2017, under local rules concerning non-prosecution of cases. Since that time, the parties have agreed to file a motion to dismiss the remaining claims."

Source: Alcoa Corporation, Form 10-K for FY ending December 31, 2016. Note: The company provides quantitative information on "Item 4: Mine Safety Disclosures"; therefore, the above disclosure does not represent the company's highest disclosure-quality ranking.

METRICS

"Sustainability … Health and safety … Managing our responsibility for people's safety … In developing our broader safety strategy for our operated assets, in FY2016, we reviewed our priorities under each material safety issue, assessed our performance and determined our priorities. This was the foundation for functional planning. Over time we will continue embedding the desired safety culture, capability and systems to meet our aspirations and drive better performance. The Our Requirements for Safety standard defines a number of the most common safety risks and their minimum controls. Each operated asset assesses further controls that may be required to manage specific risks at its operations to meet the objective of no fatalities. In FY2016, we had no fatalities at our operated assets and there was a reduction in high-potential safety events. Our total recordable injury frequency (TRIF) performance in FY2016 was 4.3 per million hours worked, a slight increase on FY2015. While we did not meet our target of year-on-year TRIF improvement, this represents a reduction of nine per cent over the past five years.

Total recordable injury frequency (per million hours worked)
2016—4.3 2015—4.1 2014- 4.2"

Source: BHP Billiton Ltd., Form 20-F for FY ending June 30, 2016.

RENEWABLE RESOURCES & ALTERNATIVE ENERGY

The sector's sustainability profile is characterized by generally higher levels of impact associated with the environment, along with leadership and governance. Important risks affecting industries in the sector include those related to climate change, air quality, and the environmental and social impacts of operations—including on ecosystems, local communities, and indigenous peoples. Additionally, key industries face challenges related to workforce health and safety.

Table 12. Renewable Resources & Alternative Energy sector disclosure practices

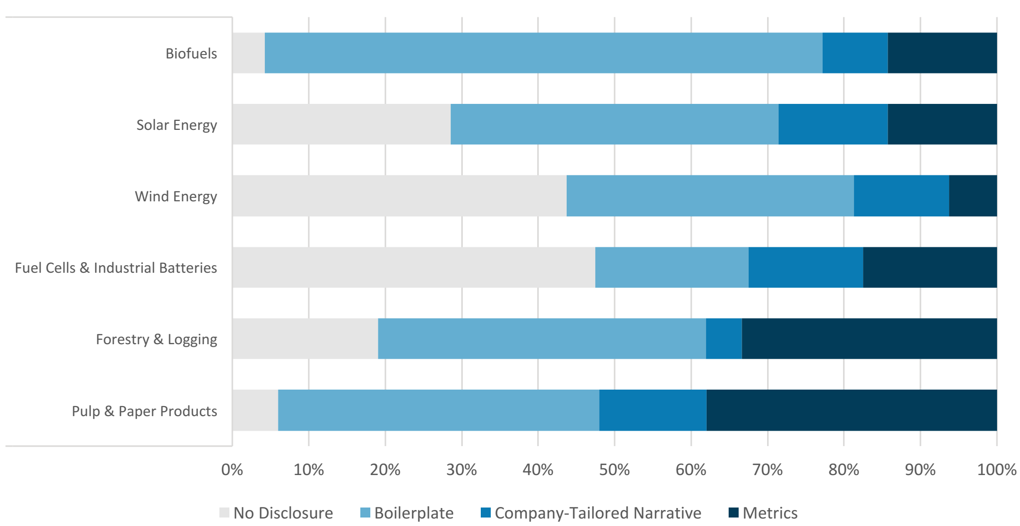
	FY 2016		FY 2015	
Disclosure Levels	79%		85%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	21%	-	15%	-
Boilerplate	47%	59%	53%	63%
Tailored-Narrative	12%	15%	13%	15%
Metrics	20%	26%	19%	23%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: Sector-wide reporting levels (79 percent) are below those for the overall economy (83 percent). However, industry-level differences are noteworthy. For example, biofuel producers as well as companies involved in the manufacturing of pulp and paper products show reporting levels above 94 percent across all topics in their respective SASB Standards. However, producers of fuel cells and industrial batteries, as well as companies in the "Wind Energy" industry provide disclosure on only around half of their topics. In the "Fuel Cells & Industrial Batteries" industry, a lack of disclosure on product end-of-life, energy management, and materials-sourcing risks drive these results. Wind-energy product manufacturers also barely discuss sourcing risks. Moreover, these companies provide limited disclosure on the operational and reputational risks from community pushback due to social and environmental concerns of project development.

- Disclosure quality: Disclosure effectiveness in the sector remains predominately boilerplate: 59 percent of available disclosures were categorized as such in this year's analysis. As with reporting levels, differences in disclosure quality arise at the industry level. For example, more than 60 percent of available disclosures analyzed in the "Solar" and "Wind Energy" industries are boilerplate. Moreover, despite its high level of reporting, the "Biofuels" industry presents the highest use of boilerplate narrative of any industry in the sector (76 percent of available disclosures) and one of the lowest levels of quantitative reporting (15 percent). Interestingly, the relatively fewer disclosures made by companies in the "Fuel Cells & Industrial Batteries" industry are of better quality: one-third of available disclosures were made in the form of performance metrics. The use of metrics by fuel cell and battery manufacturers, while high, is not the highest in the sector. Companies in the "Forestry & Logging" and "Pulp & Paper Products" industries provide relatively higher levels of quantitative information: around 40 percent of available disclosures in both industries.

Figure 25. Sustainability disclosure in SEC filings for FY 2016 (Renewable Resources & Alternative Energy sector)



YEAR-ON-YEAR COMPARISON

- Disclosure levels: Reporting levels across the sector decreased from 85 percent in FY 2015 to 79 percent in FY 2016. This decrease was mainly driven by the inclusion of more companies in the analysis for the "Fuel Cells & Industrial Batteries" industry (i.e., three companies in FY 2015 versus eight companies in FY 2016), most of which lacked disclosure on most topics. For most other industries, disclosure levels remained basically unchanged, and in some cases, such as with forest managers and producers of pulp and paper products, reporting levels increased slightly.

- Disclosure quality: Year-on-year comparisons show an uptick in the use of metrics across the sector, with quantitative reporting improving from 23 to 26 percent of available disclosures. This result was mainly driven by improved disclosure effectiveness in the "Forestry & Logging" industry, especially as it relates to the "Ecosystem Services & Impacts" topic. Reporting practices using qualitative company-specific information remained basically unchanged, suggesting that the increased use of metrics came at the expense of boilerplate reporting.

TOPIC SPOTLIGHT

Climate-Related Risks

Climate risks are present in the Provisional Standards for most industries in the sector. The nature of these risks varies from industry to industry; for example, the physical impacts of climate change on timber growth cycles and overall forest productivity are likely to represent an important consideration for forest managers. In other industries, climate risks stem from regulatory forces that may impact operational expenses—think increased energy costs for wind turbine and solar panel manufacturers—or public policy incentives for the use of renewable and alternative forms of energy. Additionally, direct greenhouse gas emissions have been identified as a likely material risk in the "Pulp & Paper Products" industry mainly because of its reliance on on-site cogeneration of steam and electricity via the burning of pulping by-products, woody biomass, natural gas, and smaller amounts of other fossil fuels. As reported in the 2010 Energy Information Administration's Manufacturing Energy Consumption Survey (MECS), the industry accounted for nearly 9 percent of total fossil fuel consumption for all industries surveyed in the MECS.[48] Both biogenic and non-biogenic emissions are subject to regulatory pressures from global, state, and local governments. In terms of disclosure, most pulp and paper product manufacturers recognize the risks posed by these regulations: 9 out of the 10 companies analyzed provided some sort of disclosure on the subject. However, most of this disclosure was boilerplate: 6 of the 9 companies that provided relevant reporting (67 percent) discussed these risks using generic narrative. The following excerpts illustrate the differences in disclosure practices on the "Greenhouse Gas Emissions" topic by companies in this industry:[49]

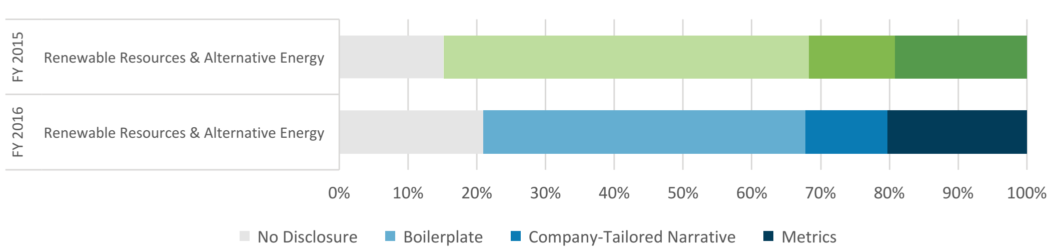
BOILERPLATE

"While legislation regarding the regulation of greenhouse gas emissions has been proposed from time to time over the past several years at the federal level, there is no indication of any near term action. In the absence of broad legislation, the EPA has moved forward with an increasing array of regulations governing greenhouse gas emissions in certain industrial sectors under existing Clean Air Act programs. The result of a broader regulation of greenhouse gas emissions could be an increase in our future environmental compliance costs, or additional capital expenditures to modify facilities, which may be material … We currently generate a significant portion of our power requirements for our mills using bark, black liquor and biomass as fuel, which are derived from renewable resources. While we believe we are well-positioned to take advantage of any renewable energy incentives, it is uncertain what the ultimate costs and opportunities of any climate

48 U.S. Energy Information Administration, 2010 Manufacturing Energy Consumption Survey, "Fuel Consumption, 2010," March 2013, Table 3.2, accessed September 15, 2015. https://www.eia.gov/consumption/manufacturing/data/2010/pdf/Table3_2.pdf.

49 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: RR0202-01: Gross global Scope 1 emissions; and, RR0202-02: Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emission reduction targets, and an analysis of performance against those targets.

Figure 26. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Renewable Resources & Alternative Energy sector)



change legislation or regulation will be and how our business and industry will be affected."

Source: Kapstone Paper and Packaging Corporation, Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Our key sustainability achievements include … • Announcing in July 2016, our membership in the Carbon Pricing Leadership Coalition (or 'CPLC'), a voluntary global partnership that brings together leaders across national and sub-national governments, the private sector, and civil society to help address climate change through putting a price on carbon. We have long recognized the importance of reducing our carbon footprint and reporting on our greenhouse gas emissions and we are pleased to be one of the first Canadian companies to become a member of the CPLC … • Earning high marks for our climate, water and forests disclosures to the CDP (formerly the Carbon Disclosure Project) in 2016 for our development of a policy and strategic framework within which to take action and reduce negative impacts associated with climate change and water stress as well as our implementation of a range of actions to manage deforestation risk."

Source: Resolute Forest Products, Inc., Form 10-K for FY ending December 31, 2016.

METRICS

"Climate change may affect the results of our business, which is based on the use of natural resources. We therefore consider climate-change-related physical and regulatory risks, as well as risks to our reputation, in our business strategy … In 2016, we published our eighth GHG emission inventory, referred to 2015 activities, which considered the industrial and forestry activities of the Aracruz (ES), Três Lagoas (MS) and Jacareí (SP) units, as well as their pulp export logistics operations. The report presents a net balance of 1.57 tCO2e/ton removed from atmosphere for each pulp produced, stating the increment of biomass as energy source in our process. We will publish our greenhouse gas inventory related to 2016 activities by March 2017 … Our 2016 GHG emission inventory was based mainly on GHG Protocol, a calculation protocol developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), adapted by the International Council of Forest & Paper Associations (ICFPA) for the pulp and paper sectors."

Source: Fibria Celulose SA, Form 20-F for FY ending December 31, 2016.

TOPIC SPOTLIGHT

Workforce Health and Safety

Workforce health and safety topics are included in the Provisional Standards of two industries in the sector: "Fuel Cells & Industrial Batteries" and "Wind Energy." The manufacturing of fuel cells and industrial batteries involves the storage, use, processing, and disposal of considerable amounts of hazardous materials, such as lead and acid. Similarly, the production of wind turbines and other electrical components, as well as the installation and maintenance of wind farms, are inherently risky activities that have the potential to create employee health and safety challenges. The analysis of disclosure practices indicates that two-thirds of companies in these industries recognize these risks in their latest available SEC filing; however, boilerplate is widely used (63 percent of available disclosures). The following excerpts illustrate the differences in disclosure practices on this topic for companies in "Fuel Cells & Industrial Batteries" industry:[50]

BOILERPLATE

"Some of the components of our products contain elements that are known to pose potential safety risks. In addition to these risks, there can be no assurance that accidents in our facilities will not occur. Any accident, whether occasioned by the use of all or any part of our products or technology or by our manufacturing operations, could adversely affect commercial acceptance of our products and could result in significant production delays or claims for damages resulting from injuries. Any of these occurrences would materially adversely affect our operations and financial condition."

Source: Arotech Corporation, Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"In March 2015, the Ministry of Industry and Information Technology of China (the 'MIIT') issued the Requirements of the Industry Standards for the Auto Power Storage Batteries ('Requirements'), which are applicable to auto power battery manufacturers located in China. In order to be certified as qualified manufacturers under Requirements, manufacturers are required to be examined by quality inspecting agencies appointed by Administration of Quality Inspection under Requirements after the manufacturers have obtained the following reports and certificates … 4. OHSAS 18001 Occupational Health and Safety Management System … and 6. Occupational Health Report Occupational Health Report. We have obtained all the above listed required reports and certificates."

Source: CBAK Energy Technology, Inc., Form 10-K for FY ending September 30, 2016.

METRICS

"Workforce Health & Safety: We work to continually improve what we feel is a robust safety program. This is demonstrated by an improving safety trend over each of the past 3 years. We have never had a workplace fatality at any of our facilities or power plant installations."

Source: FuelCell Energy, Inc., Form 10-K for FY ending December 31, 2016.

50 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: RR0104-02: (1) Total recordable injury rate (TRIR) and (2) fatality rate; and, RR0104-03: Discussion of efforts to assess, monitor, and reduce exposure of workforce to human health hazards.

RESOURCE TRANSFORMATION

The sector's sustainability profile is characterized by generally higher levels of impact associated with the environment, along with business model and innovation. Important environmental topics affecting the sector include the effective management of energy consumption and hazardous waste related to manufacturing activities. Many industries also face significant opportunities to design innovative products with reduced environmental impacts over their full lifecycle, including raw material sourcing and use-phase considerations. Additionally, key industries must grapple with challenges related to health, safety, and emergency management.

Table 13. Resource Transformation sector disclosure practices

	FY 2016		FY 2015	
Disclosure Levels	76%		82%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	24%	-	18%	-
Boilerplate	48%	63%	46%	56%
Tailored-Narrative	14%	18%	17%	20%
Metrics	14%	19%	19%	24%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: On average, reporting levels across the sector stand at 76 percent; this is the lowest figure of any sector in the analysis. This result is mainly driven by low levels of disclosure by companies in the "Industrial Machinery & Goods" and "Aerospace & Defense" industries. Reporting levels by manufacturers of machinery and other industrial goods are only 50 percent—limited disclosure on materials sourcing, remanufacturing design and employee safety risks drive these results. Meanwhile, aerospace and defense companies have disclosure levels of 70 percent; this result is mainly driven by limited disclosure on the use-phase impacts of the industry's products and materials sourcing risks. Conversely, the "Containers & Packaging" industry is the sector's top performer with disclosure levels of 90 percent, followed by the "Chemicals" industry (81 percent).

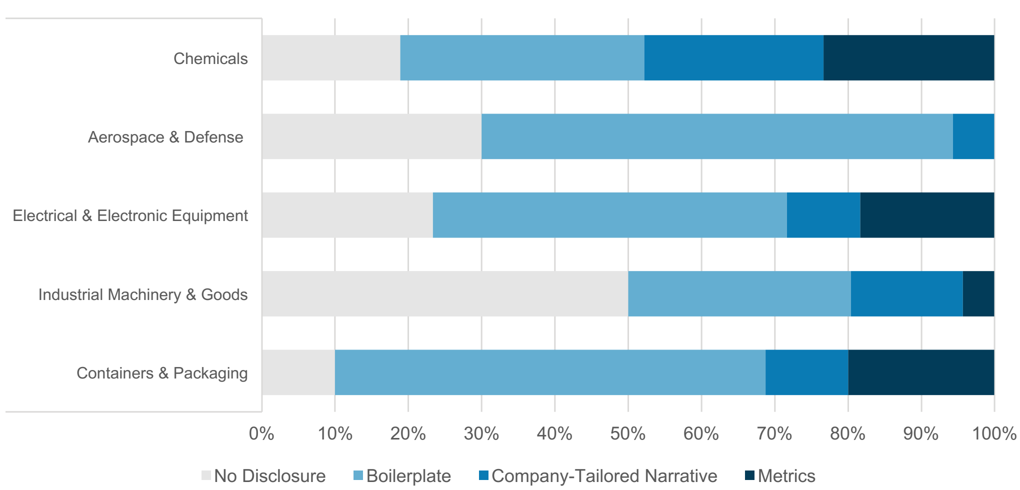
- Disclosure quality: When available, disclosure for topics in the sector tends to be boilerplate: 63 percent of relevant disclosures were categorized as such. Additionally, the use of metrics (19 percent of available disclosures) is lower than the economy-wide average (29 percent). This figure is the third lowest across all sectors. As with disclosure levels, the "Aerospace & Defense" and the "Industrial Machinery & Goods" industries drive these results. Reporting via the use of metrics was minimal for aerospace and defense firms; in fact, almost all available reporting by companies in this industry was boilerplate (92 percent). In terms of the other industries in the sector, chemical manufacturers have the highest use of metrics (29 percent) and the lowest use of boilerplate (41 percent), followed by firms in the "Electrical & Electronic Equipment" industry (24 and 63 percent, respectively).

YEAR-ON-YEAR COMPARISON

- Disclosure levels: Sector-wide, reporting levels decreased from 82 percent in FY 2015 to 76 percent in FY 2016. This trend was identified for all industries in the sector, except for the "Chemicals" industry, where disclosure availability increased slightly. The decrease in disclosure levels was highest for companies involved in aerospace and defense, and the manufacturing of industrial machinery and electrical equipment.

- Disclosure quality: Reporting via the use of generic language increased across the sector between fiscal years: from 56 percent of all relevant disclosures to 63 percent. The use of boilerplate increased the most in the

Figure 27. Sustainability disclosure in SEC filings for FY 2016 (Resource Transformation sector)



"Containers & Packaging" and "Aerospace & Defense" industries. This was accompanied by a sector-wide decrease in the use of metrics: 24 percent of available disclosures in FY 2015 versus 19 percent in FY 2016. The use of metrics decreased in all industries except for "Industrial Machinery & Goods" and "Chemicals."

TOPIC SPOTLIGHT

Hazardous Waste Management

Topics that focused on the management of hazardous waste in manufacturing operations are included in the Provisional Standards of four industries in the sector: "Aerospace & Defense," "Chemicals," "Containers & Packaging," and "Electrical & Electronic Equipment." Companies in these industries produce significant amounts of process waste: for example, according to data from the U.S. Environmental Protection Agency, in 2011 the "Chemicals" industry generated 61 percent of all reported solid hazardous waste generated nationwide.[51] As a result, these companies face regulatory and operational challenges in managing many of these substances which can be hazardous to human health and the environment. Most of these substances are heavily regulated internationally and within the United States via the Resource Conservation and Recovery Act (RCRA). All these regulations pose challenges and restrictions on the generation, transport, treatment, storage, and disposal of hazardous and solid waste. Therefore, proper processing and disposal practices are essential to limiting risks of remediation liabilities, fines, and litigation. Virtually all companies involved in these industries recognize the materiality of this issue in their latest annual SEC filings: reporting levels stand at 98 percent. However, most companies (62 percent) provide disclosure using boilerplate narrative, while only a handful of companies (13 percent) report on these risks using performance metrics. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Chemicals" industry:[52]

51 Environmental Protection Agency, National Biennial RCRA Hazardous Waste Report 2011, Exhibit 1.1 and Exhibit 1.9.

52 The SASB Provisional Standard for this industry and topic includes the following suggested disclosure: RT0101-09: Amount of hazardous waste, percentage recycled.

BOILERPLATE

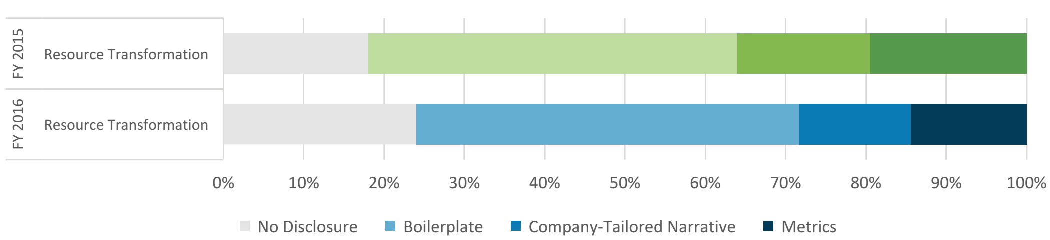
"Syngenta is subject to stringent environmental, health and safety laws, regulations and standards, which can result in compliance costs and remediation efforts that may adversely affect its operational and financial position. Syngenta is subject to a broad range of increasingly stringent laws, regulations and standards in all of its operational jurisdictions. This results in significant compliance costs and can expose Syngenta to legal liability. These requirements are comprehensive and cover many activities including … waste water discharges, the use and handling of hazardous materials, waste disposal practices, the clean-up of existing environmental contamination … Disposal of waste from its business at off-site locations also exposes Syngenta to potential remediation costs. Consistent with past practice, Syngenta is continuing to monitor, investigate and remediate soil and groundwater contamination at a number of these sites. Despite its efforts to comply with environmental laws, Syngenta may face remediation liabilities and legal proceedings concerning environmental matters."

Source: Syngenta AG, Form 20-F for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"It is Dow's policy to adhere to a waste management hierarchy that minimizes the impact of wastes and emissions on the environment. First, Dow works to eliminate or minimize the generation of waste and emissions at the source through research, process design, plant operations and maintenance. Second, Dow finds ways to reuse and recycle materials. Finally, unusable or non-recyclable hazardous waste is treated before disposal to eliminate or reduce the hazardous nature and volume of the waste. Treatment may include destruction by chemical, physical, biological or thermal means. Disposal of waste materials in landfills is considered only after all other options have been thoroughly evaluated. Dow has specific requirements for waste that is transferred to non-Dow facilities, including the periodic auditing of these facilities. Dow believes third-party verification and transparent public reporting are cornerstones of world-class EH&S performance and building public trust. Numerous Dow sites in Europe, Latin America, Asia Pacific and North America have received third-party verification of Dow's compliance with Responsible Care® and with outside specifications such as ISO-14001.

Figure 28. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Resource Transformation sector)



Dow continues to be a global champion of Responsible Care® and has worked to broaden the application and impact of Responsible Care® around the world through engagement with suppliers, customers and joint venture partners."

Source: The Dow Chemical Company, Form 10-K for FY ending December 31, 2016. Note: The company provides quantitative information on environmental remediation expenses; therefore, the above disclosure does not represent the company's highest disclosure quality ranking.

METRICS

"Industrial Waste … We treat wastewater generated by our company at the São Paulo Complex at a liquid effluents treatment station located in the São Paulo Complex. This treatment station also includes a system for the collection and disposal of contaminated wastewater, while hazardous waste generated at the São Paulo Complex is incinerated in cement kilns and other kinds of solid waste is disposed of in landfills. In our Bahia facilities, all wastewater is transported to Cetrel, a wastewater treatment facility. Solid waste is incinerated in cement kilns or incinerators and the remaining waste is disposed of in landfills. Additionally, we have a series of recycling programs that includes recycling of solid waste and wastewater. We recycle or reuse 26.8% of the solid waste generated by our facilities and 28.2% of the water used in our production processes."

Source: Braskem SA, Form 20-F for FY ending December 31, 2015.

Health, Safety, and Emergency Management

Topics focused on workplace safety and accident prevention are included in the Provisional Standards of two industries in the sector: "Chemicals" and "Industrial Machinery & Goods." Employees involved in the production of commodity, specialty, and agricultural chemicals face numerous occupational hazards, including fires, explosions, equipment-related accidents, and use of hazardous substances. Manufacturing of industrial machinery and goods poses similar occupational risks due to employees' use of heavy equipment and cutting tools, exposure to electrical systems, as well as vehicular hazards. These inherent risks increase the likelihood of employee injuries and fatalities, which in turn may make companies vulnerable to fines, penalties and costly litigation. Additionally, employee productivity may be impacted by recurrent safety incidents. Seventy percent of companies involved in these industries recognize these risks in their latest annual SEC filings. However, most companies (71 percent) do so using boilerplate and only a handful of companies (14 percent) report metrics. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Chemicals" industry:[53]

53 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: RT0101-17: Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR); RT0101-18: Number of transport incidents; RT0101-19: Challenges to the Safety Systems indicator rate (Tier 3); RT0101-20: (1) Total recordable injury rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees; and, RT0101-21: Discussion of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks.

BOILERPLATE

"Our business, including our results of operations and reputation, could be adversely affected by safety or product liability issues. Failure to appropriately manage safety, human health, product liability and environmental risks associated with our products, product life cycles and production processes could adversely impact employees, communities, stakeholders, our reputation and our results of operations. Public perception of the risks associated with our products and production processes could impact product acceptance and influence the regulatory environment in which we operate. While we have procedures and controls to manage safety risks, issues could be created by events outside of our control, including natural disasters, severe weather events and acts of sabotage."

Source: LyondellBasell Industries N.V, Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Dow is committed to world-class environmental, health and safety ('EH&S') performance, as demonstrated by industry-leading performance, a long-standing commitment to Responsible Care®, and a strong commitment to achieve the Company's 2025 Sustainability Goals—goals that set the standard for sustainability in the chemical industry by focusing on improvements in Dow's local corporate citizenship and product stewardship, and by actively pursuing methods to reduce the Company's environmental impact … Dow's EH&S policies helped the Company achieve improvements in many aspects of EH&S performance in 2016. Dow's process safety performance was excellent in 2016 and improvements were made in injury/illness rates. In light of the fatalities that we tragically experienced in 2016, safety focus remains a priority for the entire Company. Further improvement in these areas, as well as environmental compliance, remains a top management priority, with initiatives underway to further improve performance and compliance in 2017 as Dow continues to implement the Company's 2025 Sustainability Goals."

Source: The Dow Chemical Company, Form 10-K for FY ending December 31, 2016.

METRICS

"Litigation … La Porte Plant, La Porte, Texas—Crop Protection—release Incident Investigations: On November 15, 2014, there was a release of methyl mercaptan at the company's La Porte facility. The release occurred at the site's Crop Protection unit resulting in four employee fatalities inside the unit. DuPont continues to cooperate with governmental agencies, including the U.S. Environmental Protection Agency (EPA) and the Department of Justice (DOJ), still conducting investigations. These investigations could result in sanctions and penalties against the company … La Porte Plant, La Porte, Texas—OSHA Release Incident Citations: In May 2015, the Occupational Safety & Health Administration (OSHA) cited the company in

connection with the November 2014 release for 14 violations (twelve serious, one repeat and one other-than-serious) with an aggregate associated penalty of $99,000. The company has contested the citations and the matter is before the U.S. Occupational Safety and Health Review Commission (the OSHRC). A hearing before an administrative law judge appointed by OSHRC is scheduled for the first quarter 2017."

Source: E. I. Du Pont De Nemours and Company, Form 10-K for FY ending December 31, 2016.

SERVICES

The sector's sustainability profile is characterized by generally higher levels of impact associated with social and human capital, particularly with respect to customer and employee welfare. Important social challenges tend to be industry specific, such as responsible gaming for casinos and the nutritional content of restaurant menus. Prevalent human capital topics include employee health, safety, and well-being; fair compensation, benefits, and other labor practices; employee turnover; and workforce diversity. Meanwhile, energy management is a key environmental issue affecting many industries in the sector.

Table 14. Services sector disclosure practices

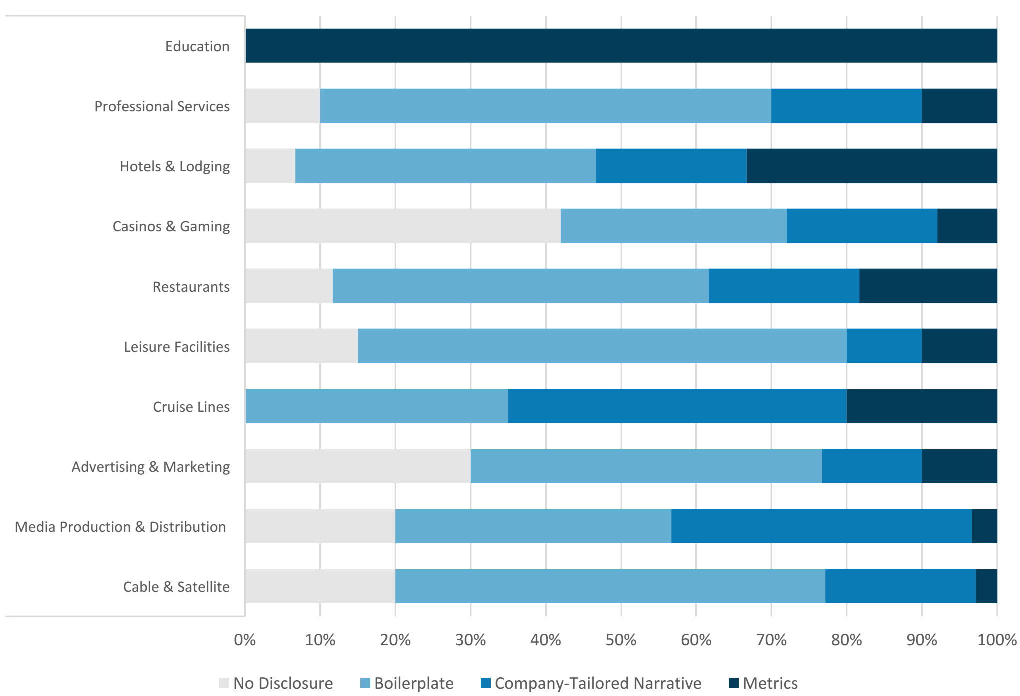
	FY 2016		FY 2015	
Disclosure Levels	82%		83%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	18%	-	17%	-
Boilerplate	44%	53%	46%	56%
Tailored-Narrative	21%	26%	20%	24%
Metrics	17%	21%	17%	21%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: Sector-wide disclosure levels (82 percent) are similar to those observed in the overall economy (83 percent). Industry-level differences, however, are noteworthy. On the one hand, all companies in the "Education" and "Cruise Lines" industries provided disclosure on all the topics included in their respective Provisional Standard. High levels of reporting were also observed for hotels (93 percent), professional services firms (90 percent), restaurants (88 percent), and owners and operators of leisure facilities (85 percent). On the other hand, companies participating in the "Casinos & Gaming" and "Advertising & Marketing" industries provided relatively less disclosure: disclosure levels were 58 and 70 percent, respectively. For casino operators, lack of disclosure around responsible gaming regulatory, operational and reputational risks, and, to a lesser extent, energy management is prevalent. For advertisers and marketers, limited disclosure on workforce diversity and inclusion and advertising integrity drives the results.

- Disclosure quality: On average, the use of boilerplate (53 percent of available disclosures) is the most common form of reporting by companies in the sector. While quantitative reporting stands at 21 percent, important industry-level differences exist. All companies in the "Education" industry, for example, use metrics to disclose information on the topics covered by the industry's Provisional Standard. This result makes this industry the top performer among the 79 industries in

Figure 29. Sustainability disclosure in SEC filings for FY 2016 (Services sector)



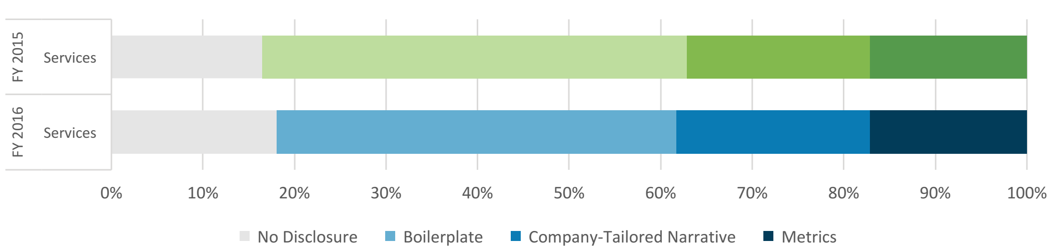
the analysis. Hotel operators also show relatively higher levels of quantitative reporting: over a third of relevant disclosures include some sort of performance metric. Media production and distribution companies, cable and satellite operators, and advertisers and marketers sit at the other end of the spectrum; the analysis shows minimal use of metrics by these companies (4, 4, and 14 percent of available disclosures, respectively). This result is likely a reflection of these industries' sustainability profiles: sustainability risks faced by media-type companies are unique and difficult to quantify. Despite having relatively high levels of reporting, companies in the "Leisure Facilities" and "Professional Services" industries use boilerplate extensively: 76 and 67 percent of available disclosures, respectively. Reporting via the use of generic disclosures is also common for restaurants (57 percent) and casinos (52 percent).

YEAR-ON-YEAR COMPARISON

- Disclosure levels: Levels of reporting remained basically unchanged, decreasing only slightly between FY 2015 and 2016 (from 83 to 82 percent). In fact, 4 of the 10 industries that make up the sector—"Advertising & Marketing," "Cruise Lines," "Restaurants," and "Education"—had identical disclosure levels. Differences in the remaining industries were minimal, with only one or two companies providing new disclosures or dropping previously existing ones.

- Disclosure quality: Similarly, the quality of disclosure remained basically unchanged at the sector level. Reporting via the use of metrics did not change between fiscal years, while the use of tailored-narrative increased slightly at the expense of boilerplate. Industry-level results, however, tell a different story. Companies in the "Hotels & Lodging" industry improved their levels of quantitative reporting the most, mainly driven by improved disclosure on their ecosystem protection and climate change adaptation strategies. Advertisers and marketers and professional services firms also improved their disclosure quality, albeit to a lower degree. Conversely, the use of metrics decreased the most in the "Cruise Lines" industry. Last year's State of Disclosure Report showcased the following excerpt from a cruise liner's Form 10-K as one of the best examples of quantitative sustainability-related disclosures (for the industry's "Fuel Use & Air Emissions" provisional disclosure topic). This year, however, such disclosure has been removed from the company's Form 10-K and replaced by company-tailored narrative (see next page).

Figure 30. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Services sector)



Cruise Liner's Form 10-K for FY ending November 30, 2015

XVIII. Sustainability

Our environmental efforts are focused on, among other things, reducing emissions such as greenhouse gases ("GHGs") (for example, carbon dioxide ("CO_2") or CO_2e, sulfur oxides ("SOx") and nitrogen oxide ("NOx")). These emissions result from the combustion of the marine fuels consumed by our ships, which accounts for substantially all of our total GHG and other emissions. Accordingly, reducing fuel consumption continues to be an important company-wide initiative, which will continue to help reduce emissions. We will continue to implement our energy-saving and emission reduction strategy, which includes installing some of the best available energy and emission reduction technologies on our ships, such as:

- Efficiency improvements in the areas of hull coating and designs,
- Exhaust gas cleaning systems,
- More advance engine designs,
- More efficient LED lighting,
- More efficient air conditioning, which is the second largest user of onboard energy after propulsion,
- More efficient pumps, ventilation and waste heat recovery systems,
- New itineraries,
- More efficient propeller designs,
- Reduction in ship speeds and
- Increased energy use awareness and training.

In addition, we are designing more energy efficient ships that will enter our fleet in the future, while continuing toward reducing the fuel consumption of our existing fleet.

We had voluntarily set a goal of delivering a 20% reduction (per unit) from our 2005 baseline of CO_2e emissions from shipboard operations by 2015. We achieved our goal one year ahead of schedule and have set a new goal to achieve a 25% CO_2e emissions reduction (per unit) from our 2005 baseline by 2020. We measure our ability to use direct energy efficiently by calculating the amount of primary source energy we consume. Our ship fuel consumption and emission rates and our total ship fuel GHG emissions are as follows:

Measure	Units	2015	2014	2008
Ship Fuel Consumption Rate	Grams Fuel/ALB-KM	84	87	104
Ship Fuel GHG Emission Rate	Grams CO_2e/ALB-KM	266	274	327
SOx Emission Rate	Kg SOx/NM	(e)	14.3	16.1
NOx Emission Rate	Kg NOx/NM	(e)	22.5	24.8
Total Ship Fuel GHG Emissions	Million tonnes CO_2e	10.1	10.1	10.0

(e) Information for 2015 is not available as of January 29, 2016

Cruise Liner's Form 10-K for FY ending 30/Nov/2016

XVIII. Sustainability

In order to support our environmental strategy, all of our brands' environmental management systems are certified in accordance with ISO 14001. We have also developed a set of 2020 sustainability goals reinforcing our commitment to the environment, our guests, our employees and the communities in which we operate. Our ten goals listed below are aimed at reducing our environmental footprint while enhancing the health, safety and security of our guests and crew members and ensuring sustainable business practices across our brands and business partners:

Environmental Goals

- Reduce intensity of carbon dioxide equivalent ("CO_2e") emissions from operations by 25% by 2020 relative to our 2005 baseline
- Continue to improve the quality of our emissions into the air by developing, deploying and operating exhaust gas cleaning systems ("EGCS") across our fleet
- Increase usage of ship-to-shore power connection capabilities …

TOPIC SPOTLIGHT

Workforce Diversity and Inclusion

The "Services" sector is heavily reliant on human capital for its day-to-day operations. On the one hand, several industries in the sector—such as "Restaurants," "Hotels & Lodging," "Casinos & Gaming," and "Cruise Lines"—rely on temporary and/or low-skilled workforces to properly conduct their business. These industries' reputational and operational challenges in the context of fair labor standards, as well as their reporting practices, were showcased in last year's State of Disclosure Report. On the other hand, a different set of industries rely on a more skilled and diverse workforce to meet the constantly evolving needs of a heterogeneous customer base. "Workforce Diversity and Inclusion" is a disclosure topic in the Provisional Standards of two industries in the sector: "Professional Services" and "Advertising & Marketing." For professional services firms—such as those providing tax, legal, consulting, or human resources services—a diverse and inclusive workforce can not only improve recruitment and retention efforts but also foster competitive advantage by appealing to new businesses, generating new ideas, and better meeting the needs of diverse, often international clients. Meanwhile, advertising and marketing firms similarly benefit from a diverse workforce by enhancing their ability to cater to the tastes of multiple demographics and audiences. The analysis shows that all 10 professional services firms in the analysis recognize the importance of diversity in the workplace and provide relevant disclosure on the topic in their latest available annual SEC filing; however, eight of these companies use boilerplate, while only two discuss their diversity and inclusion strategies in more detail falling short of reporting metrics. The results for advertisers and marketers are different: only four out of 10 companies provide disclosure on the topic and half of them use boilerplate. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Advertising & Marketing" industry:[54]

BOILERPLATE

"If we fail to manage our growth and the shift in our client profile effectively, we may be unable to execute our business plan or maintain high levels of advertiser and publisher satisfaction … Furthermore, our rapid international expansion and the expanding geographic diversity of our workforce has placed, and is expected to continue to place, a significant strain on the corporate culture of rapid innovation and teamwork that has been central to our growth."

Source: Criteo SA, Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Diversity and Inclusion … IPG and our agencies are committed to diversity and inclusion, and we reinforce these values through a comprehensive set of award-winning programs. These include business resource groups that develop career building programs, as well as training around topics like unconscious bias. We seek to ensure accountability by tying executive compensation directly to the ability of our leaders to hire, promote and retain diverse talent, and we regularly measure the inclusiveness of our culture with a company-wide climate for inclusion survey. We began our formal programs a decade ago. Since then, IPG has seen dramatic improvements in the diversity of our workforce. In the U.S., IPG exceeded the ad industry's representation rates for women and minorities for both professional-level and management positions in the most recent filings. An environment that encourages respect and trust is key to a creative business like ours, and IPG believes a competitive advantage comes with having a variety of perspectives and beliefs in its workforce."

Source: The Interpublic Group of Companies, Inc., Form 10-K for FY ending December 31, 2016.

METRICS

"Sustainability … Leading companies –the Group's clients– are prioritizing sustainability, looking to integrate improved social and environmental performance into their products, communications and operations. Our commitment to sustainability helps us to align with the interests of our clients and to respond to the growing number of client procurement processes that include sustainability criteria. It makes the Group a more attractive employer, enables us to improve efficiency, to be prepared for changes in regulation and to maintain positive relationships with our stakeholders … People: At year-end 2016, women comprised 29% of the WPP Board, 33% of non-executive directors, 34% of directors and executive leaders in our operating companies, and 54% of total employees."

Source: WPP PLC, Form 20-F for FY ending December 31, 2016.

TOPIC SPOTLIGHT

Nutritional Content

Obesity is a national public health concern in the United States. According to the Food Research and Action Center (FRAC), in 2014, 34.9 percent of American adults were obese, while 68.5 percent were either overweight or obese.[55] The "obesity epidemic" in the U.S. has put several food and beverage companies (see the "Consumption I—Food & Beverage" sector overview above), as well as the "Restaurants" industry under the national spotlight. Regulatory efforts have put pressure on restaurants to display calorie counts in several state and local jurisdictions. Additionally, demand-side forces are pressuring restaurants to improve the nutritional content of menu offerings to cater to progressively health-conscious customers and to improve the supply of healthier meal alternatives for consumer segments considered as more vulnerable, such as minorities and children. The FRAC

54 The SASB Provisional Standard for this industry and topic includes the following suggested disclosure: SV0301-07: Percentage of gender and racial/ethnic group representation for: (1) executives, (2) professionals, and (3) all others.

55 Food Research and Action Center, "Overweight and Obesity in the U.S.," accessed October 28, 2014, http://frac.org/initiatives/hunger-and-obesity/obesity-in-the-us/.

estimates that black women have the highest rates of extreme obesity. Similarly, data from the National Health and Nutrition Examination Survey suggests that 31.8 percent of U.S. children are overweight or obese.[56] All companies in the analysis recognize the importance of this topic in their latest available annual SEC filings; however, the vast majority use generic language to describe the risks (and sometimes opportunities) that changing regulatory conditions and consumer nutritional preferences entail: results show that 80 percent of companies use boilerplate. Only one company reports tailored information, by describing in-store and online tools to improve nutritional information transparency; and only one reports metrics, by implicitly reporting on the percentage of menu boards that have been updated with calorie-count information. The following excerpts illustrate these differences in disclosure practices:[57]

BOILERPLATE

"Failure to preserve the value and relevance of our brand could have a negative impact on our financial results. To be successful in the future, we believe we must preserve, enhance and leverage the value of our brand. Brand value is based in part on consumer perceptions. Those perceptions are affected by a variety of factors, including the nutritional content and preparation of our food, the ingredients we use, our business practices and the manner in which we source the commodities we use. Consumer acceptance of our offerings is subject to change for a variety of reasons, and some changes can occur rapidly. For example, nutritional, health and other scientific studies and conclusions, which constantly evolve and may have contradictory implications, drive popular opinion, litigation and regulation (including initiatives intended to drive consumer behavior) in ways that affect the IEO segment or perceptions of our brand generally or relative to available alternatives. Consumer perceptions may also be affected by third parties presenting or promoting adverse commentary or portrayals of the quick-service category of the IEO segment, our brand and/or our operations, our suppliers or our franchisees. If we are unsuccessful in addressing such adverse commentary or portrayals, our brand and our financial results may suffer."

Source: McDonald's Corporation, Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Nutrition and Well-Being … As part of our commitment to offering nutritious and high-quality products to our customers, we are dedicated to actively promoting a balanced lifestyle. This includes providing reliable, accessible information to guide educated nutritional decisions. We were the first restaurant chain in Latin America to provide full nutritional and calorie information about our menu on our websites in every country, as well as giving consumers within the restaurants full printed nutritional information on every tray liner. In 2014, we added a nutritional calculator on our websites to complement nutritional transparency with a personalized tool to enable our customers to make the right nutritional choices for their lifestyle."

Source: Arcos Dorados Holdings, Inc., Form 20-F for FY ending December 31, 2016.

METRICS

"Regulatory changes in and customer focus on nutrition and advertising practices could adversely affect our business. There continues to be increased consumer emphasis on, and regulatory scrutiny of, restaurants operating in the quick-service and fast-casual segments with respect to nutrition and advertising practices. While we have responded to these developments by updating our menu boards and printed menus in all [100%] of our Company-owned bakery-cafes to include caloric information, we may become subject to other regulations in the area of nutrition disclosure or advertising which would require us to make certain additional nutritional information available to our customers or restrict the sales of certain types of ingredients. We may experience higher costs associated with the implementation and oversight of such changes that could have an adverse impact on our business… Our menu is designed to provide a variety of food products our customers crave, along with transparency to empower them to choose how they want to eat. Panera was the first national restaurant company to voluntarily add calories to its menu boards in 2010 and currently includes this information on menu boards at all of our bakery-cafes. We feature a menu which includes proprietary items prepared with high-quality, fresh ingredients, including our fresh-from-the-field romaine lettuce and tomatoes and our chicken raised without antibiotics, as well as unique recipes and toppings designed to provide appealing, flavorful products. Our menu embodies a comprehensive set of commitments formally articulated in our Food Policy and consistent with our long held values. The Food Policy outlines our advocacy for a commitment to clean ingredients and a positive impact on the food system. In fiscal 2016, we announced our Kids Meal Promise, which expresses our commitment to offer kids meals that are clean, worthy of trust, full of delicious options, nutritionally paired, and served with water, organic milk or juice, rather than a sugary beverage. At the beginning of 2017, we completed the removal of all artificial additives on our 'No No List.'"

Source: Panera Bread Company, Form 10-K for FY ending December 27, 2016.

56 Ibid.

57 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: SV0203-08: Percentage of meal options consistent with the Dietary Guidelines for Americans or foreign equivalent, sales from these options; SV0203-09: Percentage of children's meal options consistent with national dietary guidelines for children or foreign equivalent, sales from these options; and, SV0203-10: Number of child advertising impressions made, percentage promoting products that meet national dietary guidelines for children or foreign equivalent.

TECHNOLOGY & COMMUNICATIONS

The sector's sustainability profile is characterized by generally higher levels of impact associated with innovation and leadership and governance, along with key impacts related to social and human capital. For example, key governance-related issues facing the sector include intellectual property protection and threats to competitive behavior, as well as the risks and opportunities embedded in supply chains and materials sourcing, particularly in manufacturing industries. The sector's most critical social topics are also its most high-profile issues: data security and customer privacy. Meanwhile, human capital challenges exist across many industries in the sector, including employee diversity, inclusion, recruitment, development, and retention.

Table 15. Technology & Communications sector disclosure practices

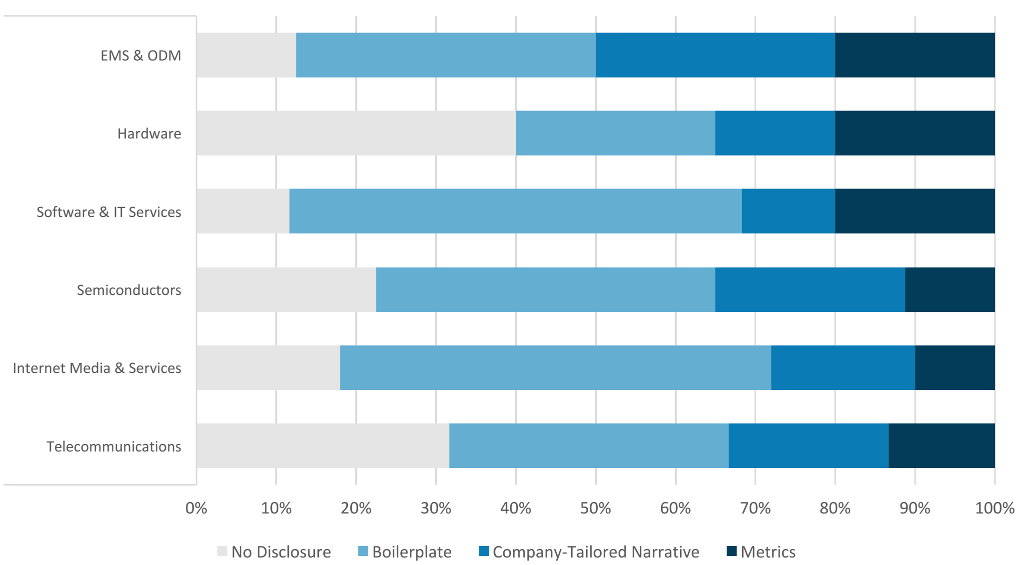
	FY 2016		FY 2015	
Disclosure Levels	78%		75%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	22%	-	25%	-
Boilerplate	43%	55%	54%	71%
Tailored-Narrative	20%	25%	12%	16%
Metrics	15%	20%	9%	13%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: Reporting levels across the sector stand at 78 percent. This figure is below the economy-wide average of 83 percent and is the second-lowest figure among all sectors. Two industries have reporting levels at or above the overall average, while the rest fall below it. Publishers of software and companies involved in the provision of information technology (IT) services have the highest levels of reporting (88 percent), followed closely by companies in the "Electronic Manufacturing Services & Original Design Manufacturing," or EMS & ODM, industry (87 percent). Reporting is lowest for hardware manufacturers (60 percent) and telecommunication companies (68 percent). Low disclosure levels in the "Hardware" industry are mainly a result of lack of disclosure on employee inclusion risks/opportunities. In the "Telecommunications" industry, limited disclosure on product end-of-life management and the environmental footprint of operations drive the result.

- Disclosure quality: Disclosure effectiveness across the sector is characterized by a prevalent use of boilerplate narrative (55 percent of available disclosures). Despite having the highest levels of disclosure in the sector, companies in the "Software & IT Services" industry predominately use generic narrative in describing sustainability-related risks: 64 percent of available disclosures in the industry were identified as boilerplate. This figure is only topped by internet media and services firms which, on average, used boilerplate reporting two-thirds of the time. Quantitative reporting stands at 20 percent sector-wide with important industry-level differences. The use of metrics is more prevalent in the "Hardware" industry: when available, one in three

Figure 31. Sustainability disclosure in SEC filings for FY 2016 (Technology & Communications sector)



disclosures included performance metrics. Internet firms and semiconductor manufacturers are at the other end of the spectrum, with levels of quantitative reporting at or below 15 percent.

YEAR-ON-YEAR COMPARISON

- Disclosure levels: Sector-wide, disclosure levels improved between fiscal years shifting from 75 percent in FY 2015 to 78 percent in FY 2016. All industries within the sector followed this trend, except for the "Semiconductors" industry which recorded a slight decrease in reporting. The highest increase was observed in the "EMS & ODM" and "Telecommunications" industries. Levels of reporting by internet companies remained unchanged.

- Disclosure quality: Quality of disclosure practices in the sector also improved between fiscal years: the use of metrics was higher while boilerplate reporting decreased. While boilerplate is still predominantly used across the sector, its use decreased from 71 percent of all available disclosures to 55 percent. This trend was observed across the board at the industry level, with important reductions in the "EMS & ODM" and "Hardware" industries.

TOPIC SPOTLIGHT

Employee Diversity, Inclusion, Recruitment, Development, and Retention

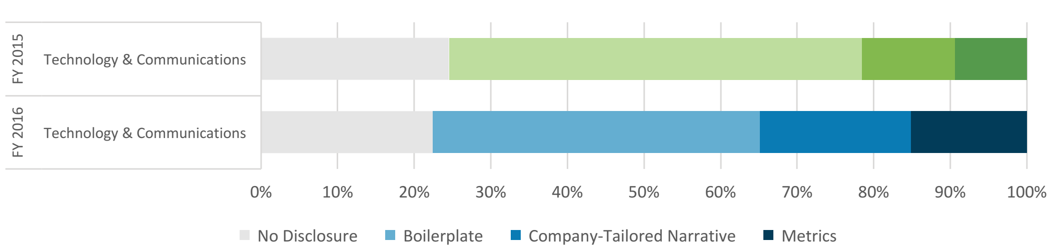
Human capital topics focused on employee inclusion and diversity, as well as those dealing with the sector's challenges in recruiting, developing, and retaining key technical staff, are included in the Provisional Standards of four industries in the sector: "Hardware," "Semiconductors," "Internet Media & Services," and "Software & IT Services." All these industries rely heavily on intellectual capital; therefore, employees are key contributors to value creation. As economies become more digital, the number of job opportunities in these industries are expected to increase. However, technology companies are finding it difficult to recruit qualified employees with the proper science, technology, engineering, and mathematical (STEM) backgrounds needed to enable the transition to a digitalized world. The shortage in technically skilled staff in the United States has created intense competition for human capital, contributing to high employee turnover rates. To respond to talent shortages, technology companies are hiring foreign nationals, ramping up offshoring operations and trying to improve diversity and inclusion practices. Most companies in these industries identify the aforementioned challenges in their latest available SEC filings: 75 percent of them provide disclosure on these fronts. However, the analysis shows that most companies describe these risks in a generic fashion. In fact, 80 percent of companies that provided some sort of disclosure use boilerplate narrative to characterize these risks, while only a handful of companies use performance metrics such as employee turnover rates or gender and/or racial diversity ratios. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Software & IT Services" industry:[58]

BOILERPLATE

"Our business depends on our ability to attract and retain talented employees. Our business is based on successfully attracting and retaining talented employees. The market for highly skilled workers and leaders in our industry is extremely competitive. We are limited in our ability to recruit internationally by restrictive domestic immigration laws. If we are less successful in our recruiting efforts, or if we cannot retain key employees, our ability to develop and deliver successful products and services may be adversely affected. Effective succession planning is also important to our long-term success. Failure to ensure effective transfer of knowledge and smooth transitions involving key employees could hinder our strategic planning and execution. How employment-related laws are interpreted and applied to our workforce practices may result

58 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: TC0102-11: Percentage of employees that are (1) foreign nationals and (2) located offshore; TC0102-12: Employee engagement as a percentage; and, TC0102-13: Percentage of gender and racial/ethnic group representation for: (1) executives and (2) all others.

Figure 32. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Technology & Communications sector)



in increased operating costs and less flexibility in how we meet our workforce needs."

Source: Microsoft Corporation, Form 10-K for FY ending June 30, 2016.

COMPANY-TAILORED NARRATIVE

"Our highly qualified workforce is the foundation for our continued success. In certain regions and specific technology and solution areas, we continue to set very high growth targets, specifically in countries and regions such as Africa, China, Latin America, and the Middle East. In the execution of SAP's strategic priorities, we depend on highly skilled and specialized personnel and leaders, both male and female. Successful maintenance and expansion of our highly skilled and specialized workforce in the area of cloud is a key success factor for our transition to be the leading cloud company. The availability of such personnel as well as business experts is limited and, as a result, competition in our industry is intense and could expose us to claims by other companies seeking to prevent their employees from working for a competitor. If we are unable to identify, attract, develop, motivate, adequately compensate, and retain well-qualified and engaged personnel, or if existing highly skilled and specialized personnel leave SAP and ready successors or adequate replacements are not available or we cannot allocate our workforce as required due to local regulations and associated restrictions, we might not be able to manage our operations effectively, which could have an adverse effect on our reputation, business, financial position, profit, and cash flows. Furthermore, we might not be able to develop, sell, or implement successful new solutions and services as planned. This is particularly true as we continue to introduce new and innovative technology offerings and expand our business in emerging markets. The lack of appropriate or inadequately executed benefit and compensation programs could limit SAP's ability to attract or retain qualified employees and lead to financial losses. In addition, we might not be able to achieve our internal gender diversity objectives to increase the number of women in management from 18% in 2010 to 25% by end of 2017."

Source: SAP SE, Form 20-F for FY ending December 31, 2016. Note: The company provides quantitative information on its employee engagement index; therefore, the above disclosure does not represent the company's highest disclosure quality ranking.

METRICS

"Competition for highly-skilled technical personnel is intense, and our ability to compete for and manage customer engagements depends on our ability to attract and retain such personnel. Our ability to maintain and renew existing customer engagements and obtain new business depends to a significant extent on our ability to attract, train and retain highly-skilled technical personnel so as to keep our supply of skills and resources in balance with customer demand. In particular, in order to serve customer needs and grow our business, we must attract, train and retain appropriate numbers of talented people, including project managers, IT engineers and other senior technical personnel, who are able to keep pace with continuing changes in information technology, evolving industry standards and changing customer preferences … We believe there is a shortage of, and significant competition for, professionals with the advanced technological skills necessary to perform the services we offer. We have subcontracted in the past, and may continue to subcontract in the future, with other service providers in order to meet our obligations to our customers. If we are unable to attract and retain highly-skilled technical personnel, our ability to effectively lead our current projects and develop new business could be jeopardized, and our business, results of operations and financial condition could be adversely affected … We finished the year with approximately 260,200 employees, which is an increase of approximately 38,500 over the prior year end … Annualized turnover, including both voluntary and involuntary, was approximately 15.6% for the three months ended December 31, 2016. The majority of our turnover occurs in India. As a result, annualized attrition rates on-site at customers are below our global attrition rate. In addition, attrition is weighted towards the more junior members of our staff."

Source: Cognizant Technology Solutions Corporation, Form 10-K for FY ending December 31, 2016.

DATA PRIVACY

Topics related to data privacy are included in the Provisional Standards of three industries in the sector: "Software & IT Services," "Internet Media & Services," and "Telecommunications." As technology companies increasingly deliver products and services over digital and mobile platforms, they must carefully manage two separate and often conflicting priorities. On one hand, companies use customer data to innovate and provide customers with new products and services and to generate revenues. On the other, there are consumer protection and privacy concerns associated with companies having access to a wide range of personally identifiable data, such as demographic and behavioral information. This scenario is leading to increased regulatory scrutiny in the United States and abroad. Moreover, the delivery of mobile and personalized services also raises concerns about potential access to user data by governments that may use it to limit the freedoms of citizens. Properly managing these issues is likely to reduce regulatory and reputational risks and limit impacts on profitability from data privacy violations. Disclosure practices in these industries suggest that most companies recognize these challenges as a material factor: 93 percent of analyzed companies discuss these risks in their latest available SEC filings. All software, IT services, and internet companies report on the topic, while only a handful of telecommunication firms do not. However, disclosure quality is low. None of these companies provide performance metrics when discussing the challenges they face; most reporting firms (80 percent) use boilerplate narrative instead. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Telecommunications" industry:[59]

BOILERPLATE

"Changes to federal, state and foreign government regulations and decisions in regulatory proceedings could further increase our operating costs and/or alter customer perceptions of our operations, which could materially adversely affect us … Increased public focus on a variety of issues related to our operations, such as privacy issues, government requests or orders for customer data, and potential global climate changes, have led to proposals at state, federal and foreign government levels to change or increase regulation on our operations. Should customers decide that our competitors operate in a more customer-friendly environment, we could be materially adversely affected."

Source: AT&T Inc., Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Sustainable business … Human Rights … Communications technologies play an important role in underpinning human rights, enabling citizens to share information, communicate and learn. Some of our most salient human rights risks relate to the citizen's right to privacy and freedom of expression. Our Digital Rights and Freedoms Reporting Centre (available on vodafone.com) sets out our policies and principles regarding a range of these issues. In March 2017, Vodafone became a Board member of the Global Network Initiative ('GNI'), a multi-stakeholder body bringing together communications and technology companies, civil society, academics and investors who share a commitment to privacy and freedom of expression."

Source: Vodafone Group PLC, Form 20-F for FY ending March 31, 2016.

METRICS

Disclosure example not available

59 The SASB Provisional Standard for this industry and topic includes the following suggested disclosures: TC0301-02: Discussion of policies and practices relating to collection, usage, and retention of customer information and personally identifiable information; TC0301-03: Percentage of users whose customer information is collected for secondary purpose, percentage who have opted-in; TC0301-04: Amount of legal and regulatory fines and settlements associated with customer privacy; and, TC0301-05: Number of government or law enforcement requests for customer information, percentage resulting in disclosure.

TRANSPORTATION

The sector's sustainability profile is characterized by generally higher levels of impact associated with the environment, along with leadership and governance. Key topics in the sector focus on the environmental and social impacts of operating transportation equipment, mainly those related to fuel efficiency and passenger safety. In transportation services industries, accident and safety management is a key governance topic. Meanwhile, in manufacturing industries, companies face challenges related to regulatory scrutiny and pricing uncertainty of raw materials, which may be addressed through efficiency and recycling efforts.

Table 16. Transportation sector disclosure practices

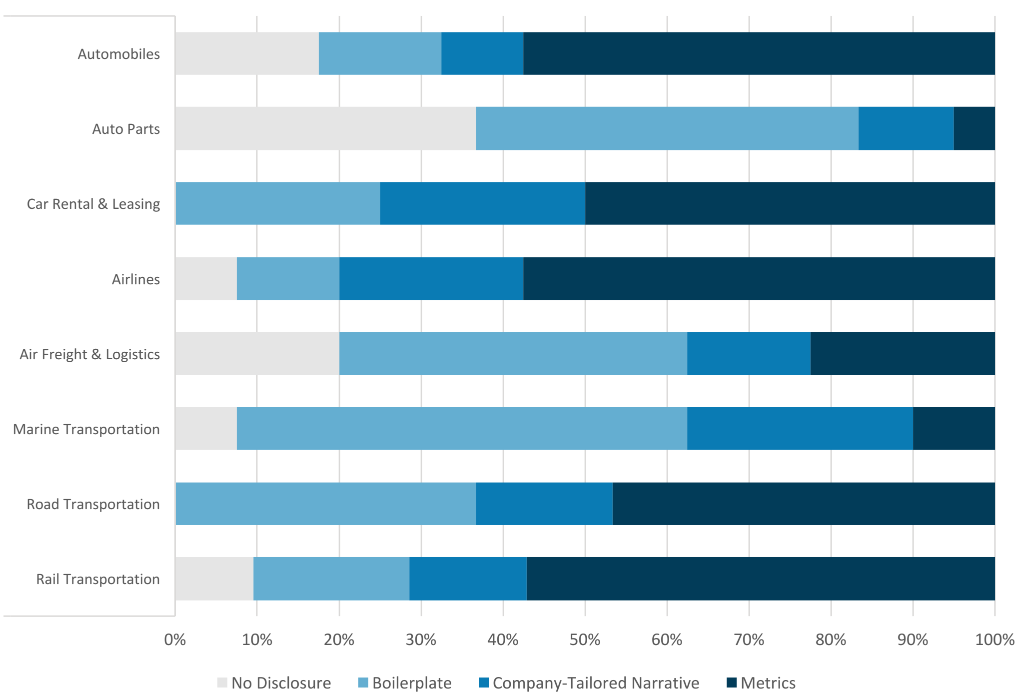
	FY 2016		FY 2015	
Disclosure Levels	84%		86%	
Disclosure Quality	Possible	Available	Possible	Available
No Disclosure	16%	-	14%	-
Boilerplate	34%	41%	31%	36%
Tailored-Narrative	17%	20%	29%	34%
Metrics	33%	39%	26%	31%

CURRENT STATE OF DISCLOSURE

- Disclosure levels: Sector reporting levels (84 percent) are slightly above those observed in the overall economy (83 percent). Most industries within the sector have high reporting levels. Car rental and leasing companies and those participating in the "Road Transportation" industry provide disclosure for all topics included in their respective Provisional Standards. Disclosure levels are also high for airlines (93 percent), shipping (93 percent), and trucking companies (91 percent). The industry with the lowest level of reporting was the "Auto Parts" industry: companies involved in the manufacturing of auto parts provided disclosure in only 63 percent of cases. Across the industry, companies provided limited disclosure on materials sourcing risks and environmental topics (such as energy and waste management). In contrast, reporting levels for auto makers stand at 83 percent.

- Disclosure quality: Sector-wide disclosure effectiveness is characterized by a somewhat balanced use of metrics, tailored-narrative, and boilerplate. Quantitative reporting stands at 39 percent of available disclosures while use of generic language (41 percent) is the third lowest of any sector in the analysis only behind "Financials" and "Non-Renewable Resources." These results are mainly

Figure 33. Sustainability disclosure in SEC filings for FY 2016 (Transportation sector)



driven by auto makers, rail companies, and airlines, whose use of metrics is high, at 70, 63, and 62 percent of available disclosures, respectively; and the use of boilerplate is low, at 18, 21, and 14 percent. Interestingly, despite providing disclosure for almost all the topics included in their industry's Provisional Standard, shipping companies have one of the highest levels of generic reporting (59 percent of available disclosures). This figure is similar to the one in the "Air Freight & Logistics" industry (53 percent), and it is only topped by auto parts manufacturers, which not only provide low levels of disclosure, but consistently use boilerplate when they do (74 percent).

YEAR-ON-YEAR COMPARISON

- Disclosure levels: Disclosure levels across the sector decreased slightly between FY 2015 and 2016 moving from 86 to 84 percent. This result was almost entirely driven by lower reporting levels observed in the "Auto Parts" industry; particularly for materials efficiency and sourcing-related topics. Reporting levels remained unchanged for five industries in the sector, including "Automobiles," "Car Rental & Leasing," Airlines," "Road Transportation," and "Rail Transportation."

- Disclosure quality: Quantitative reporting across all industries in the sector increased from 31 percent of available disclosure in FY 2015 to 39 percent in FY 2016, while the use of boilerplate showed a similar upward pattern, going from 36 to 41 percent. The use of metrics increased the most in the "Road Transportation" industry where companies provided a handful of additional quantitative disclosures for fuel and safety-related topics. Quantitative reporting also increased in the "Automobiles" industry mainly driven by improved disclosure effectiveness in the context of vehicle emissions and safety recalls.

TOPIC SPOTLIGHT

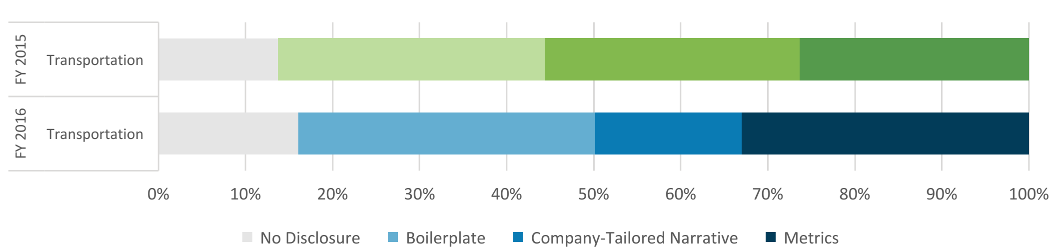
Accidents and Safety Management

Topics dealing with operational safety and accident mitigation practices are included in the Provisional Standards of five industries in the sector: "Airlines," "Air Freight & Logistics," "Marine Transportation," "Rail Transportation," and "Road Transportation." All modes of transportation pose safety risks, either due to mechanical failure or human error. For transportation services firms, however, such accidents are inherently tied to employee and/or customer safety. Furthermore, transporting freight involves the risk of accidents and unintended releases of hazardous materials that can cause injuries, fatalities, and negative environmental impacts. Preventative measures and emergency response preparedness can therefore reduce a firm's risk of negative financial impacts from operational disruptions, employee downtime, insurance premiums, asset-salvage costs, legal expenses, remediation costs, reputational damage, and an increased risk profile. Virtually all companies in these industries recognize the importance of safety and accident prevention in their operations: disclosure levels are close to 100 percent. In addition, quality of reporting is relatively balanced between the three disclosure categories: 30 percent of companies report metrics, 35 percent provide tailored-narrative—mainly describing their safety-related training or corporate-wide practices—and 35 percent use boilerplate. The following excerpts illustrate the differences in disclosure practices on this topic for companies in the "Airlines" industry:

BOILERPLATE

"We are at risk of losses and adverse publicity stemming from any accident involving our aircraft or the aircraft of our regional or codeshare operators. If one of our aircraft, an aircraft that is operated under our brand by one of our regional operators, or an aircraft that is operated by an airline with which we have a marketing alliance, joint business or codeshare relationship were to be involved in an accident, incident or catastrophe, we could be exposed to significant tort liability. The insurance we carry to cover damages arising from any future accidents may be inadequate. In the event that our insurance is not adequate, we may be forced to bear substantial losses from an accident. In addition, any accident,

Figure 34. Sustainability disclosure in SEC filings for FY 2016 vs. FY 2015 (Transportation sector)



incident or catastrophe involving an aircraft operated by us, operated under our brand by one of our regional operators or operated by one of our codeshare partners could create a public perception that our aircraft or those of our regional operators or codeshare partners are not safe or reliable, which could harm our reputation, result in air travelers being reluctant to fly on our aircraft or those of our regional operators or codeshare partners, and adversely impact our business, results of operations and financial condition."

Source: American Airlines Group Inc., Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"LATAM Safety and Security … Our most important priority is the safety of our passengers and employees. LATAM has been working to standardize our operational indicators regarding safety, audits and emergency response throughout our operations. The divisions that currently support these functions are Safety Management, Emergency Response Management, and Security Management … We give the highest priority to providing safe and reliable air service. We have unified our Safety Management under a single organization (Corporate) that is responsible for the definition of processes and procedures for LATAM Safety Management and for the oversight of the affiliates that apply and implement those processes and procedures. All LATAM affiliates have safety management system ('SMS') documentation that provides clear definitions of the functions and responsibilities regarding operational safety for all persons involved, from the top to the bottom of the operational structure in the airline. All systems are IOSA certified and have a Senior Safety Manager who is responsible for each system implementation and for setting standardized procedures for measuring the quality and safety of services provided by companies or professional contractors that affect the operational safety of LATAM."

Source: LATAM Airlines Group SA, Form 20-F for FY ending December 31, 2016.

METRICS

"Safety … We endeavor to maintain strict compliance with all laws and regulations applicable to flight safety. In addition, we have adopted measures to eliminate or minimize factors that may impair flight safety, including specialized training programs and safety manuals. The Air Safety Management Department of our Company implements safety-related training programs on an ongoing basis in all of our operations to raise the safety awareness of all employees. As a result, overall flight safety has gradually improved. For 'incidents' which include various events and conditions prescribed by the CAAC which do not involve serious personal injury or material damage to flight equipment, our Group has kept the number consistently below what is prescribed by the CAAC. For example, our Company's 'Air Transportation Incidents Per Ten Thousands Hours Ratio' was 0.005, 0.034 and 0.012 in 2016, 2015 and 2014, respectively. In comparison, CAAC's published maximum acceptable Air Transportation Incidents Per Ten Thousands Hours Ratio was 0.14, 0.5 and 0.5 in 2016, 2015 and 2014, respectively. This ratio is defined as the number of occurrences of air transportation incident for every 10,000 hours of flight time. In 2013, we strengthened our flight safety management on the internal and external safety requirements. In 2008, we received the 'Five-Star Flight Safety Award' from CAAC, being the first in domestic aviation industry to receive such a great honor. Subsequently in 2012, we were awarded the 'Safe Flight Diamond Award' by CAAC for our 10,000,000 safety flight hours record, also being the first in domestic aviation industry to receive such a great honor. By December 31, 2016, our Company's continuous safe flight span totaled to 1.809 million hours."

Source: China Southern Airlines Co Ltd, Form 20-F for FY ending December 31, 2016.

TOPIC SPOTLIGHT

Materials Efficiency and Recycling

Topics related to the efficient use of materials during manufacturing operations and the resulting minimization of industrial waste are included in the Provisional Standards of two industries in the sector: "Automobiles" and "Auto Parts." The automobile manufacturing process involves the use of significant amounts of materials (including steel, iron, aluminum, and plastics) and can generate considerable amounts of solid waste (including scrap metal and plastics, paint sludge, lubricants, and coolants, among others). Cost of materials are a significant portion of auto makers' and auto part manufacturers' operating expenses. Data from Bloomberg's Professional Service, for example, shows that auto makers' cost of purchases account for 80 percent of revenue. This figure is 65 percent for auto part manufacturers. In addition to the financial importance of resource efficiency and waste reduction initiatives, regulatory pressures aimed at increasing the use of recycled materials and improving the recyclability of end-of-life vehicles are also noteworthy. Many governmental standards and regulations relating to vehicle recycling and use of substances of concern, are applicable to new motor vehicles, engines, and equipment manufactured in markets such as the United States, the European Union, and Japan. Results from this year's analysis show that around 60 percent of companies in these industries report information on these challenges. Most auto makers (90 percent) provide relevant disclosure in their latest available SEC filings, while only a handful of auto equipment manufacturers (40 percent) do the same. Disclosure quality, however, remains low in both industries. The small number of companies that discuss this topic in the "Auto Parts" industry do so using generic narrative. Auto manufacturers also predominantly use boilerplate, but some companies provide tailored and quantitative reporting. The following excerpts illustrate these differences:

BOILERPLATE

"Management Opportunities, Challenges and Risks and 2017 Outlook … Automotive Demand, Production and Deliveries … In addition to expanding our vehicle production and deliveries, we expect to continue to lower the cost of manufacturing our vehicles over the next several quarters due to economies of scale, material cost reductions and more efficient manufacturing. The decreasing trend in cost of manufacturing vehicles is expected to improve total automotive gross margin over time and mitigate some of the higher ramp up costs associated with the launch of Model 3. We have achieved cost improvements through material cost reductions from both engineering and commercial actions and increased manufacturing efficiencies including better inventory control over utilization and minimization of scrapping materials."

Source: Tesla, Inc., Form 10-K for FY ending December 31, 2016.

COMPANY-TAILORED NARRATIVE

"Industrial Environmental Control. Our operations are subject to a wide range of environmental protection laws including those laws regulating ... waste management ... Our Environmental Management System (or 'EMS') formalizes our commitment to responsible management of the environment. Applied at all plants operating worldwide, the EMS consists of methodologies and processes designed to prevent or reduce the environmental impact of our manufacturing activities. Implementing the EMS which is compliant with the requirements of the ISO 14001 standard is one of our main objectives. Receipt of an ISO 14001 certification confirms that an organization has a management system capable of keeping the environmental impact of its operations under control and that it systematically seeks to improve this system in a way that is coherent, effective and, above all, sustainable. Our attention to environmental and sustainability issues is also reflected through our internal World Class Manufacturing ('WCM') system, which currently covers the majority of our plants … Throughout our manufacturing operations, we have deployed WCM principles. WCM principles were developed by the WCM Association, a non-profit organization dedicated to developing superior manufacturing standards. We are the only OEM that is a member of the WCM Association. WCM fosters a manufacturing culture that targets improved safety, quality and efficiency, as well as the elimination of all types of waste. Unlike some other advanced manufacturing programs, WCM is designed to prioritize issues, focus on those initiatives believed likely to yield the most significant savings and improvements, and direct resources to those initiatives... We also offer several types of WCM programs to our suppliers whereby they can learn and incorporate WCM principles into their own operations."

Source: Fiat Chrysler Automobiles N.V., Form 20-F for FY ending December 31, 2016.

METRICS

"Industrial Environmental Control. Our operations are subject to a wide range of environmental protection laws including those regulating ... waste management ... To mitigate the effects our worldwide operations have on the environment and reduce greenhouse gas emissions associated with waste disposal, we are committed to converting as many of our worldwide operations as possible to landfill-free operations. At December 31, 2016, 100 (or approximately 60%) of our manufacturing operations were landfill-free. Additionally, we have 52 non-manufacturing operations that are landfill-free. At our landfill-free manufacturing operations approximately 90% of waste materials are reused or recycled and approximately 10% are converted to energy at waste-to-energy facilities. Including construction, demolition and remediation wastes, we estimate that we reused, recycled or composted over 2.5 million metric tons of waste materials at our global manufacturing operations, converted over 137,000 metric tons of waste materials to energy at waste-to-energy facilities and avoided approximately 9 million metric tons of greenhouse gas emissions in the year ended December 31, 2016. In addition to minimizing our impact on the environment our landfill-free program and total waste reduction commitments generate revenue from the sale of production by-products, reduce our use of material, reduce our carbon footprint and help to reduce the risks and financial liabilities associated with waste disposal."

Source: General Motors Company, Form 10-K for FY ending December 31, 2016.

INDUSTRY RANKINGS

Through a rigorous, evidence-based, market-informed standard-setting process, the SASB Standards have revealed the unique sustainability profile of each of 79 SICS™ industries across 11 thematic sectors. Intuitively, this makes sense: For example, a chemicals manufacturer will obviously face different sustainability challenges than will an advertising and marketing firm. As reliable performance data begins to emerge, these industry profiles will become more clearly defined. In the meantime, however, investors can develop a fuller understanding of industry- and sector-specific sustainability risks and opportunities by assessing the rigor with which companies measure, manage, and report their most critical sustainability factors.

The SASB ranks industries in terms of their disclosure levels and effectiveness, according to the completeness of reporting, the use of metrics, and the prevalence of boilerplate language. (See "Ranking Methodology" sidebar.) While the ranking methodology used in this year's report is different from the one used last year, the results for FY 2015 were re-run to allow for year-on-year comparisons. It is important to note that these rankings represent the overall effectiveness of the industry as a whole, and are not intended to reflect on the disclosure practices of individual companies. In fact, a handful of companies from some of the lowest-ranked industries have already started using the SASB standards in their latest available SEC filings. (See "Standout Reporting Demonstrates Leadership" sidebar in the preceding "Overview" section.)

Ranking Methodology

SASB ranks industries according to the overall effectiveness of their sustainability disclosures by systematically considering several key variables. These include the following:

- **Disclosure levels:** The percentage of entries with relevant disclosures on SASB's industry-specific topics, regardless of such disclosure's quality. In other words, the levels of "available disclosures" across all topics in the industry.
- **Available metrics:** The percentage of relevant disclosures that include performance metrics. The more metrics—as a percentage of available disclosures—the better.
- **Available boilerplate:** The percentage of relevant disclosures that use generic language. The less boilerplate—as a percentage of available disclosures—the better.

In last year's report, the SASB ranked industries based first on their disclosure levels. An industry's use of metrics and boilerplate were subsequently considered as tiebreakers, in that order. As a result, industries with higher levels of reporting ranked higher than those with lower disclosure levels. Although the SASB considers all disclosure topics included in its Provisional Standards to be likely material—which, in an ideal world, would imply observing reporting levels of 100 percent for all industries—such methodology biased the rankings toward industries with (a) less than 10 companies, and (b) a small number of disclosure topics. After all, disclosure levels for smaller industries—both in terms of number of companies and number of topics—are more likely to have higher disclosure levels than industries with more companies and more topics to report.

In this year's report, the SASB has tried to reduce this bias by assigning weights to the three variables. After standardizing values,[60] the SASB calculated a final ranking score based on the following weights: 50 percent for disclosure levels, 30 percent for metrics and 20 percent for one minus boilerplate.[61] In order to draw comparisons between fiscal years, last year's results were re-run using this methodology.

60 Values for each of the three variables were rescaled to fit a 0-to-1 scale.

61 Following the principle that the less boilerplate, the better, if an industry provides boilerplate reporting on 25 percent of available disclosures, the 20 percent weight is applied on the remaining 75 percent: (1 – use of boilerplate) = (1 – 0.25) = 0.75.

The best performing sector overall was "Financials", followed by "Transportation," "Non-Renewable Resources," and "Infrastructure." (See Table 17.) These results echo the findings that have already been highlighted throughout this report; chiefly, that sectors whose sustainability profiles are predominantly characterized by social and environmental topics show relatively high reporting levels—and, in the case of environmental risks, also higher disclosure quality—and that highly regulated sectors show higher levels and quality of disclosure. At the other end of the spectrum, the ranking includes innovation-driven sectors, such as "Resource Transformation," "Technology & Communications," and "Renewable Resources & Alternative Energy." However, the worst ranked sector is "Consumption II—Consumer Goods & Retail."

Table 17. Sector-level rankings

Sector	FY 2016 Highest Rank	FY 2016 Lowest Rank	FY 2016 Average Rank	FY 2015 Average Rank
Financials	3	47	21.7	28.6
Transportation	4	72	24.1	20.8
Non-Renewable Resources	6	58	25.4	30.5
Infrastructure	9	79	36.8	37.9
Consumption I—Food & Beverage	2	75	41.0	42.9
Health Care	22	74	41.5	44.0
Services	1	70	42.4	39.7
Renewable Resources & Alternative Energy	19	76	48.7	42.8
Technology & Communications	30	64	52.0	58.8
Resource Transformation	39	78	57.4	42.2
Consumption II—Consumer Goods & Retail	34	77	58.4	58.1

Table 18, below, ranks industries instead of sectors. For the second year in a row—and even after re-running last year's results using this year's methodology[62]—the top-ranking industry is "Education." All companies in this industry provide disclosure on all the topics included in the SASB Provisional Standard; moreover, all disclosure is provided in the form of performance metrics. Several other consumer-facing industries sit atop the rankings, notably "Tobacco," "Commercial Banks," "Car Rental & Leasing," "Airlines," "Automobiles," and "Consumer Finance." Sitting at the bottom of this year's rankings is the "Real Estate Services" industry. Disclosure practices in the industry are characterized by low levels of reporting; moreover, when relevant information is available, it is overwhelmingly boilerplate with only limited examples of quantitative disclosure.

Comparing results between fiscal years shows that there was little movement atop the list: 9 out of the top 10 performing industries in last year's rankings continue to top the results. Changes were more prevalent in the middle of the list. The industry with the largest jump in the rankings is "Asset Management & Custody Activities." Asset managers jumped 29 spots between fiscal years, going from 60th to 31st place. Other notable changes include those by technology hardware contract manufacturers (i.e., the "EMS & ODM" industry), forest managers, and midstream oil and gas companies, which jumped 25, 17, and 16 spots, respectively. At the other end of the spectrum, the "Fuel Cells & Industrial Batteries" industry suffered the biggest drop in the rankings, going from 24th to 67th place (a drop of 43 spots). This result was mainly driven by the inclusion of more fuel cell and battery manufacturing companies in the analysis, the majority of which lacked disclosure on most topics. Other industries that moved in the wrong direction in this year's rankings are "Electrical & Electronic Equipment" (dropping 31 spots), "Containers & Packaging" (22 spots), and "Auto Parts" (18 spots).

As these findings indicate, the quality of sustainability disclosure needs significant improvement across nearly every SICS industry. However, until such improvement occurs, investors can assume that the industries with more effective disclosure practices tend to face less unpriced risk than do the industries with less effective practices. More detailed charts showing the disclosure effectiveness for each topic in each industry are included in the Appendices of this report. Meanwhile, results are aggregated at the sector level and presented—along with sample disclosures—in the Sector Overview section above.

62 Re-running last year's results with this year's methodology shows that the top 15 industries are "Education," "Car Rental & Leasing," "Airlines," "Tobacco," "Cruise Lines," "Road Transportation," "Metals & Mining," "Rail Transportation," "Gas Utilities," "Commercial Banks," "Consumer Finance," "Investment Banking & Brokerage," "Pulp & Paper Products," "Security & Commodity Exchanges," and "Electric Utilities."

Table 18. Industry rankings for FY 2016 and FY 2015 with new methodology

FY 2016 Rank	FY 2015 Rank	Industry	Disclosure Levels (%)	Available Metrics (%)	Available Boilerplate (%)	Weighted Score (after re-scaling)
1	1	Education	100.0%	100.0%	0.0%	1.000
2	4	Tobacco	100.0%	87.5%	0.0%	0.963
3	10	Commercial Banks	96.0%	62.5%	16.7%	0.815
4	2	Car Rental & Leasing	100.0%	50.0%	25.0%	0.796
5	3	Airlines	92.5%	62.2%	13.5%	0.790
6	7	Metals & Mining	98.2%	52.8%	27.8%	0.781
7	6	Road Transportation	100.0%	46.7%	36.7%	0.760
8	8	Rail Transportation	90.5%	63.2%	21.1%	0.758
9	9	Gas Utilities	100.0%	45.0%	40.0%	0.748
10	15	Electric Utilities	94.9%	51.1%	28.7%	0.745
11	27	Oil & Gas—Midstream	95.0%	44.7%	34.2%	0.715
12	16	Automobiles	82.5%	69.7%	18.2%	0.712
13	11	Consumer Finance	95.0%	44.7%	39.5%	0.703
14	19	Waste Management	90.0%	57.1%	36.5%	0.702
15	12	Investment Banking & Brokerage	76.0%	76.3%	10.5%	0.690
16	5	Cruise Lines	100.0%	20.0%	35.0%	0.684
17	14	Security & Commodity Exchanges	100.0%	16.7%	33.3%	0.677
18	20	Coal Operations	98.8%	35.4%	54.4%	0.677
19	13	Pulp & Paper Products	94.0%	40.4%	44.7%	0.670
20	21	Hotels & Lodging	93.3%	35.7%	42.9%	0.654
21	22	Oil & Gas—Refining & Marketing	82.5%	53.0%	22.7%	0.652
22	18	Health Care Delivery	95.0%	32.9%	50.0%	0.645
23	23	Alcoholic Beverages	92.0%	34.8%	43.5%	0.638
24	30	Non-Alcoholic Beverages	96.7%	19.0%	51.7%	0.614
25	26	Iron & Steel Producers	87.1%	39.3%	42.6%	0.609
26	36	Mortgage Finance	90.0%	36.1%	50.0%	0.609
27	41	Water Utilities	86.3%	40.6%	43.5%	0.603
28	42	Oil & Gas—Exploration & Production	78.0%	52.6%	29.5%	0.595
29	29	Managed Care	85.7%	37.5%	41.7%	0.593
30	55	EMS & ODM	87.5%	22.9%	42.9%	0.563
31	60	Asset Management & Custody Activities	81.7%	42.9%	49.0%	0.557
32	34	Pharmaceuticals	86.4%	23.2%	43.2%	0.553
33	31	Biofuels	95.7%	14.9%	76.1%	0.540
34	38	Food Retailers & Distributors	85.6%	33.8%	61.0%	0.538
35	52	Forestry & Logging	81.0%	41.2%	52.9%	0.537
36	37	Construction Materials	77.8%	40.0%	38.6%	0.536
37	45	Marine Transportation	92.5%	10.8%	59.5%	0.535
38	46	Medical Equipment & Supplies	84.3%	25.4%	45.8%	0.535
39	17	Containers & Packaging	90.0%	22.2%	65.3%	0.535

FY 2016 Rank	FY 2015 Rank	Industry	Disclosure Levels (%)	Available Metrics (%)	Available Boilerplate (%)	Weighted Score (after re-scaling)
40	33	Restaurants	88.3%	20.8%	56.6%	0.534
41	35	Chemicals	81.1%	28.8%	41.1%	0.527
42	28	Engineering & Construction Services	81.7%	34.7%	53.1%	0.524
43	47	Software & IT Services	88.3%	22.6%	64.2%	0.523
44	51	Home Builders	88.0%	18.2%	56.8%	0.523
45	50	Processed Foods	88.6%	16.1%	61.3%	0.512
46	58	Professional Services	90.0%	11.1%	66.7%	0.498
47	57	Insurance	78.0%	25.6%	41.0%	0.490
48	32	Air Freight & Logistics	80.0%	28.1%	53.1%	0.489
49	39	Apparel, Accessories & Footwear	95.0%	2.6%	81.6%	0.485
50	48	Agricultural Products	86.7%	11.5%	66.7%	0.469
51	49	Multiline and Specialty Retailers & Distributors	84.0%	11.9%	69.0%	0.441
52	43	Leisure Facilities	85.0%	11.8%	76.5%	0.434
53	40	Media Production & Distribution	80.0%	4.2%	45.8%	0.433
54	59	Biotechnology	86.4%	2.1%	69.5%	0.432
55	56	Internet Media & Services	82.0%	12.2%	65.9%	0.431
56	25	Electrical & Electronic Equipment	76.7%	23.9%	63.0%	0.424
57	53	Semiconductors	77.5%	14.5%	54.8%	0.422
58	63	Oil & Gas—Services	72.3%	29.8%	61.7%	0.406
59	66	Drug Retailers & Convenience Stores	80.0%	6.3%	68.8%	0.389
60	64	Cable & Satellite	80.0%	3.6%	71.4%	0.375
61	44	Toys & Sporting Goods	85.0%	0.0%	88.2%	0.373
62	62	Solar Energy	71.4%	20.0%	60.0%	0.372
63	72	Telecommunications	68.3%	19.5%	51.2%	0.362
64	70	Hardware	60.0%	33.3%	41.7%	0.349
65	76	Appliance Manufacturing	75.0%	11.1%	77.8%	0.339
66	67	Advertising & Marketing	70.0%	14.3%	66.7%	0.328
67	24	Fuel Cells & Industrial Batteries	52.5%	33.3%	38.1%	0.290
68	68	Meat, Poultry, and Dairy	66.0%	10.6%	69.7%	0.274
69	69	Real Estate Owners, Developers & Investment Trusts	62.5%	12.0%	60.0%	0.268
70	65	Casinos & Gaming	58.0%	13.8%	51.7%	0.251
71	74	E-commerce	68.0%	2.9%	79.4%	0.248
72	54	Auto Parts	63.3%	7.9%	73.7%	0.233
73	61	Aerospace & Defense	70.0%	0.0%	91.8%	0.230
74	78	Health Care Distributors	62.9%	9.1%	77.3%	0.225
75	77	Household & Personal Products	60.0%	12.5%	75.0%	0.214
76	75	Wind Energy	56.3%	11.1%	66.7%	0.194
77	79	Building Products & Furnishings	52.5%	9.5%	66.7%	0.156
78	73	Industrial Machinery & Goods	50.0%	8.7%	60.9%	0.144
79	71	Real Estate Services	44.4%	12.5%	50.0%	0.129

THE FUTURE OF SUSTAINABILITY REPORTING ANALYSIS

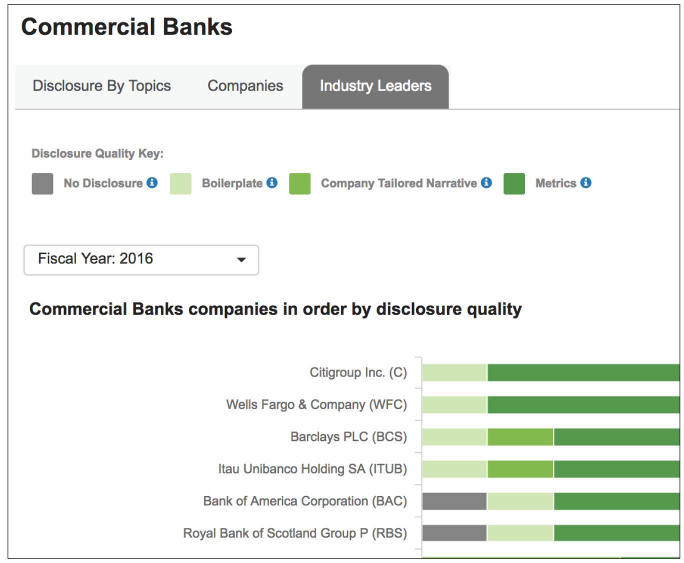
The analysis presented in this report covers sustainability disclosures by the top 10 companies in each of 79 SICS industries, representing about 12 percent of the approximately 5,700 companies currently listed on the NYSE and Nasdaq exchanges.

However, the SASB has also developed an approach that allows it to extend this analysis to all firms publicly listed in the United States by using technology to meet the challenge of scale. SASB's Disclosure Intelligence Tool, which is available in the online SASB Navigator, presents the first comprehensive look at the quality of corporate sustainability disclosures in SEC filings, including Forms 10-K, 20-F, and 40-F (for more information please visit https://navigator.sasb.org/).

The tool is the result of work that began in 2015 as an experiment using machine learning to identify and assess information contained in the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system, which provides investors and the public with free access to more than 21 million corporate filings.

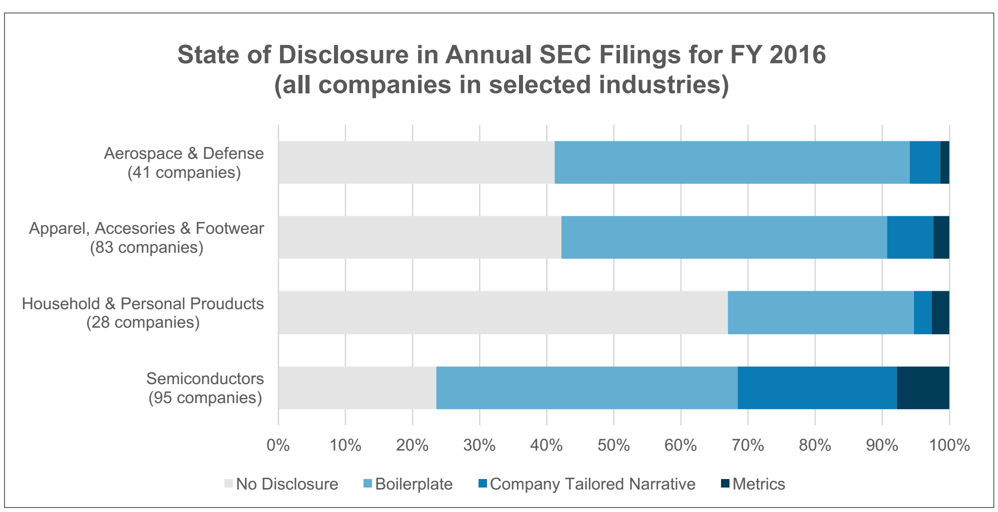
The Disclosure Intelligence Tool contains thousands of excerpts from SEC filings and covers the entire U.S. equity market. The data set now includes the last three fiscal years (2014 to 2016), enabling longitudinal trend analysis. New features in the Tool also allow users to quickly see how a company's disclosure levels and quality compare to its industry overall, to those of its peers (e.g., by market cap), and to those of user-selected companies. Additionally, within each SICS industry, users can view a list of companies ranked in terms of their disclosure quality. (Note: This is an assessment of disclosure, not of performance.)

The chart below presents results for the Disclosure Intelligence Tool's more comprehensive analysis of a select set of industries from different sectors. These results differ from those presented earlier because they include the whole universe of companies within these industries, not just the top 10 in terms of revenue. Note, however, that the broader trends discussed earlier in this report still apply. Mainly, disclosure levels vary substantially by industry, and even when disclosure is available, most of it is provided using boilerplate language.



It is important to note that both machine learning and sustainability disclosure are emerging practices that are evolving quickly. As a result, the SASB is constantly exploring advanced technologies to train its artificial intelligence to become more effective at classifying information, and that effectiveness is likely to improve as disclosure becomes more commonplace. In the meantime, however, certain limitations exist—particularly when analyzing issues that are rarely addressed in filings, such as logistics and packaging efficiency. In such cases, the SASB augments the Disclosure Intelligence Tool's results with manual (i.e., human) quality assurance.

Going forward, the SASB will incorporate additional fiscal years of data, enabling investors to not only identify where uncompensated risks and opportunities exist in their portfolios but to also see how trends in disclosure reflect the evolution of a company's, industry's, or sector's approach to specific sustainability issues.



CONCLUSION

Corporate disclosure is intended to provide the transparency that enables markets to perform their core functions, one of which is price discovery. Financial markets exist, in large part, to convert information into prices. A bedrock assumption is that the price of a security has quickly and efficiently incorporated all relevant information, and therefore accurately reflects the security's intrinsic value. Such prices are critically important not only to the buyer and seller in a trade, but also to a broader set of decision makers. For example, investors use them to inform the allocation of financial capital; companies and underwriters use them to set prices for primary market offerings; and regulators use them to ensure that exchanges and other trading systems are operating in a way that is fair, efficient, and transparent.

Because others rely on it, a market-produced price is a public good. However, when that price is based on incomplete or ineffective information, it sends a less useful signal to market participants. A lighthouse doesn't help a sailor navigate a coastline when it's built several miles away from potentially dangerous rocks; likewise, a price signal may harbor hidden risks for investors and others when it's based solely on historical financial performance data with no forward-looking context.

The SASB Standards are intended to improve the effectiveness of corporate disclosure on sustainability matters. As this report has demonstrated, the overwhelming majority of companies have acknowledged that the industry-specific issues addressed in the standards have had—or are reasonably likely to have—material impacts on their business outcomes. Nevertheless, the same companies are disclosing primarily boilerplate information, and very few performance metrics, to help investors and other users of financial filings better understand related challenges.

When companies begin to systematically apply the same rigor to such information that they currently do to traditional financial data, they will improve their own ability to manage these issues, the ability of their investors to incorporate them into their own decision-making processes, and the efficacy of markets in more accurately incorporating ESG risks and opportunities into securities pricing.

Until then, a thorough analysis of corporate disclosure practices, such as this one, can help shine a light on things investors don't know that could hurt them.

ADDITIONAL RESOURCES

SASB Navigator

https://navigator.sasb.org/

SASB State of Disclosure Report—2016

https://library.sasb.org/state-of-disclosure-annual-report/

SASB Implementation Guide for Companies

https://library.sasb.org/implementation-guide/

SASB Mock 10-K Library

https://library.sasb.org/mock-10-ks-select-sector/

SASB Industry Standards—A Field Guide

https://library.sasb.org/field-guide/

SASB Climate Risk Technical Bulletin

https://library.sasb.org/climate-risk-technical-bulletin/

Converging on Climate Risk

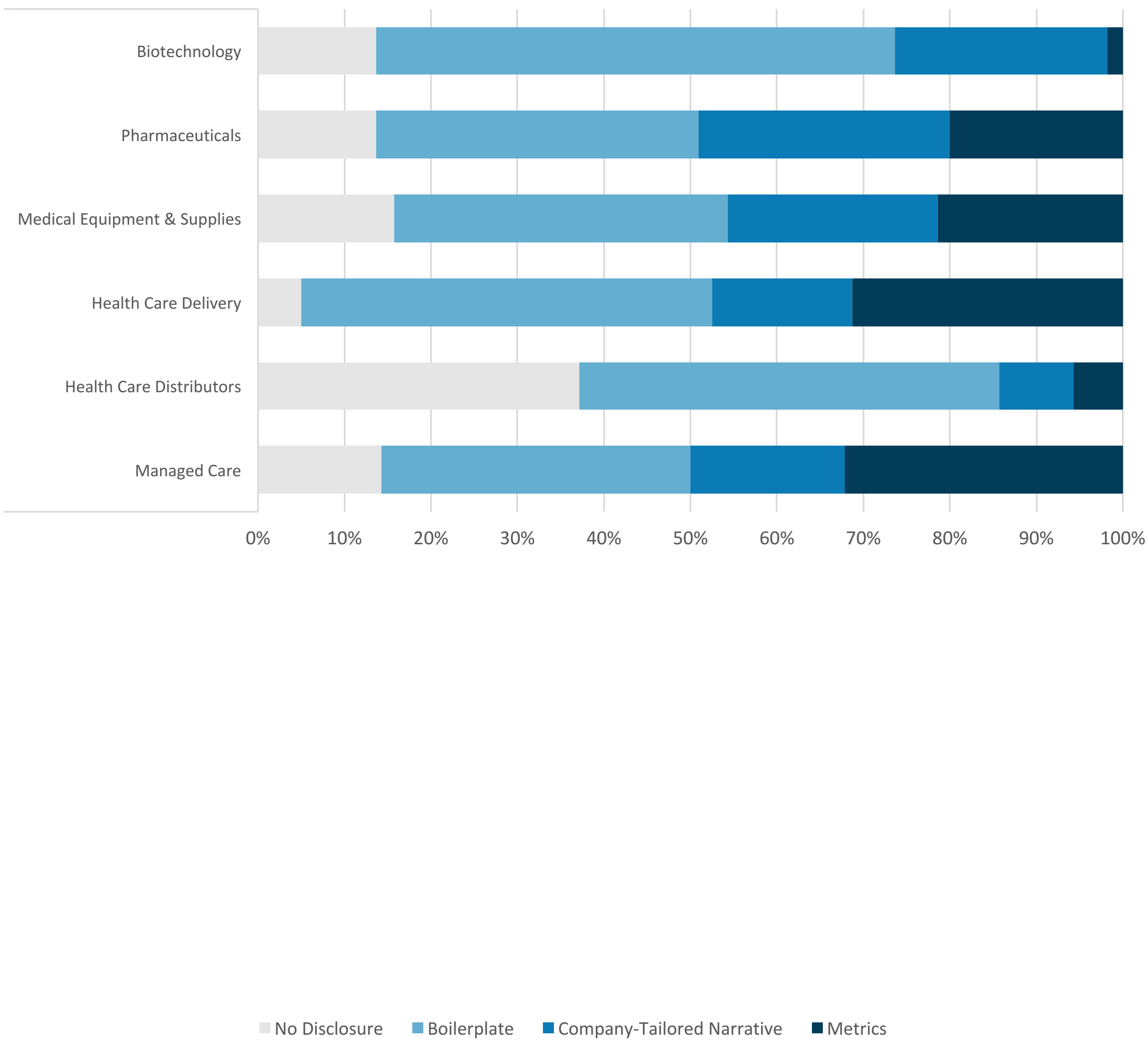
https://library.sasb.org/converging-on-climate-risk/

APPENDICES

DISCLOSURE BY INDUSTRY

The charts that follow illustrate the effectiveness of current SEC disclosure on every SASB topic in every SICS industry. Readers can use this information to drill down one level deeper on the aggregated information presented previously in the sector-level charts. Note that, unlike the sector-level charts above, the following bar charts represent the percentage of companies (rather than the percentage of possible disclosures) providing disclosure on each topic using the different categories of disclosure effectiveness.

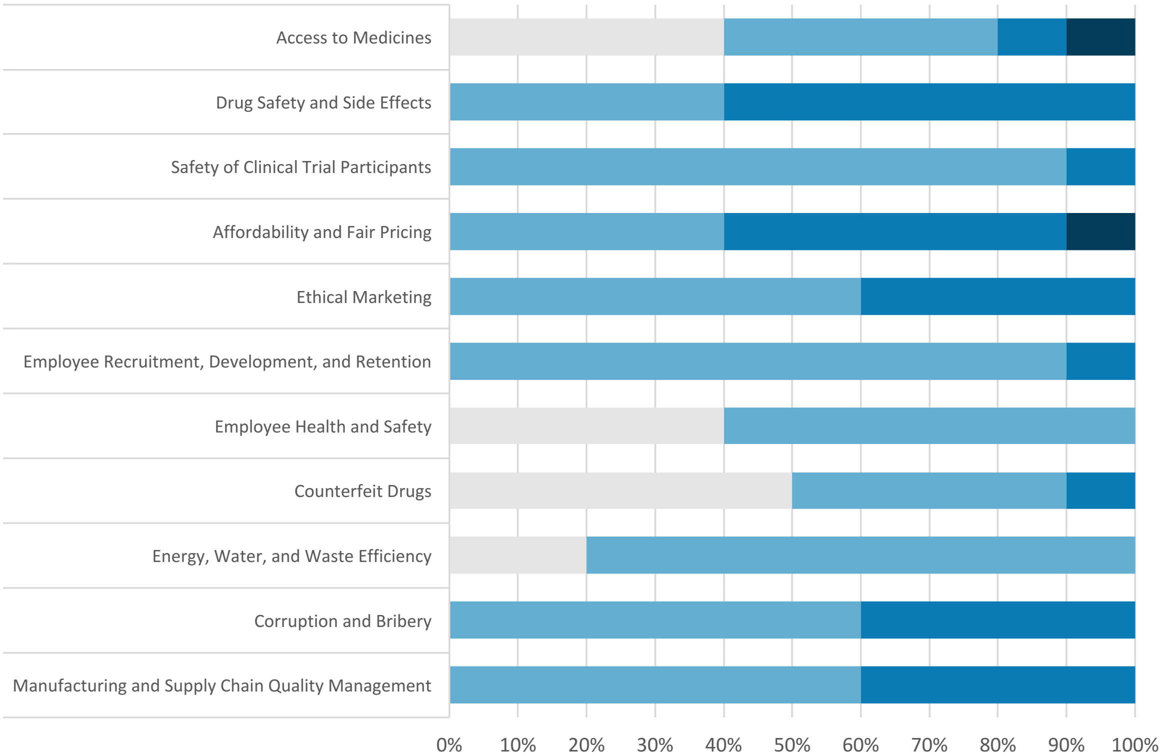
HEALTH CARE SECTOR



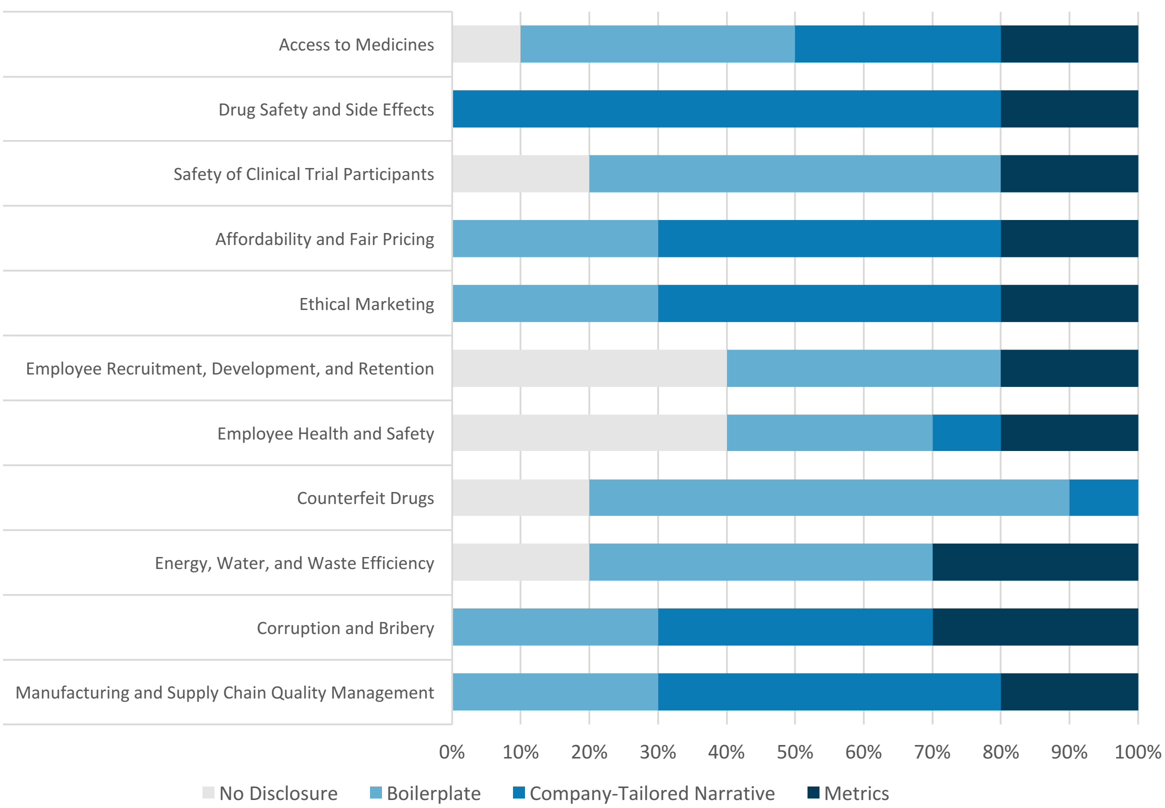
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

HEALTH CARE SECTOR

BIOTECHNOLOGY



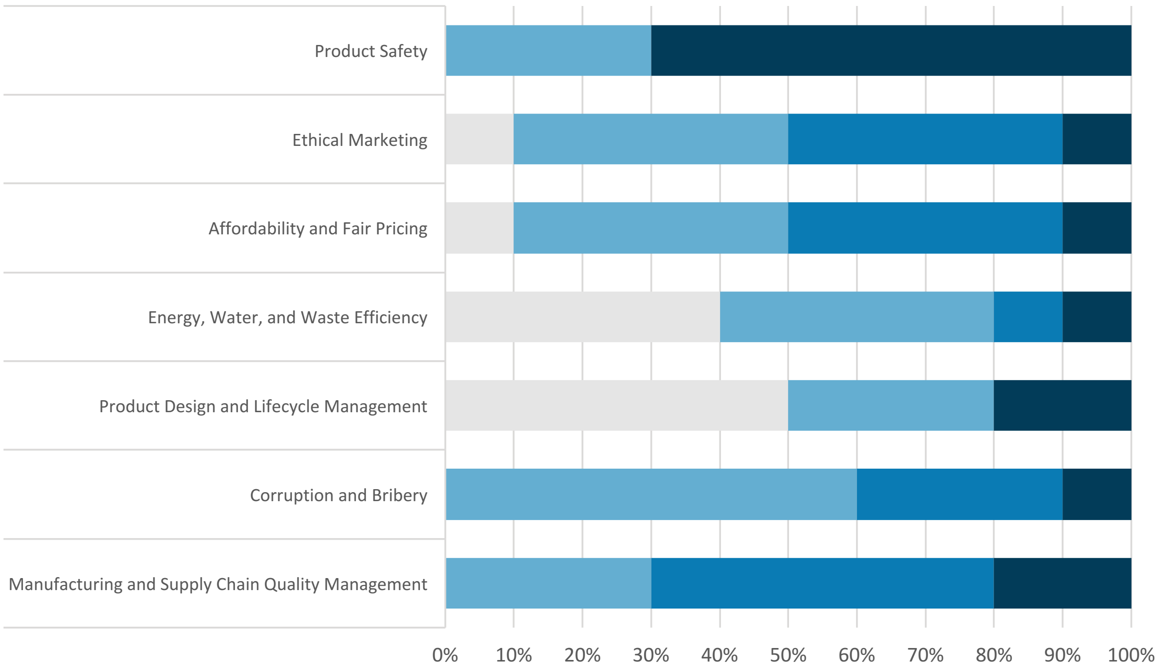
PHARMACEUTICALS



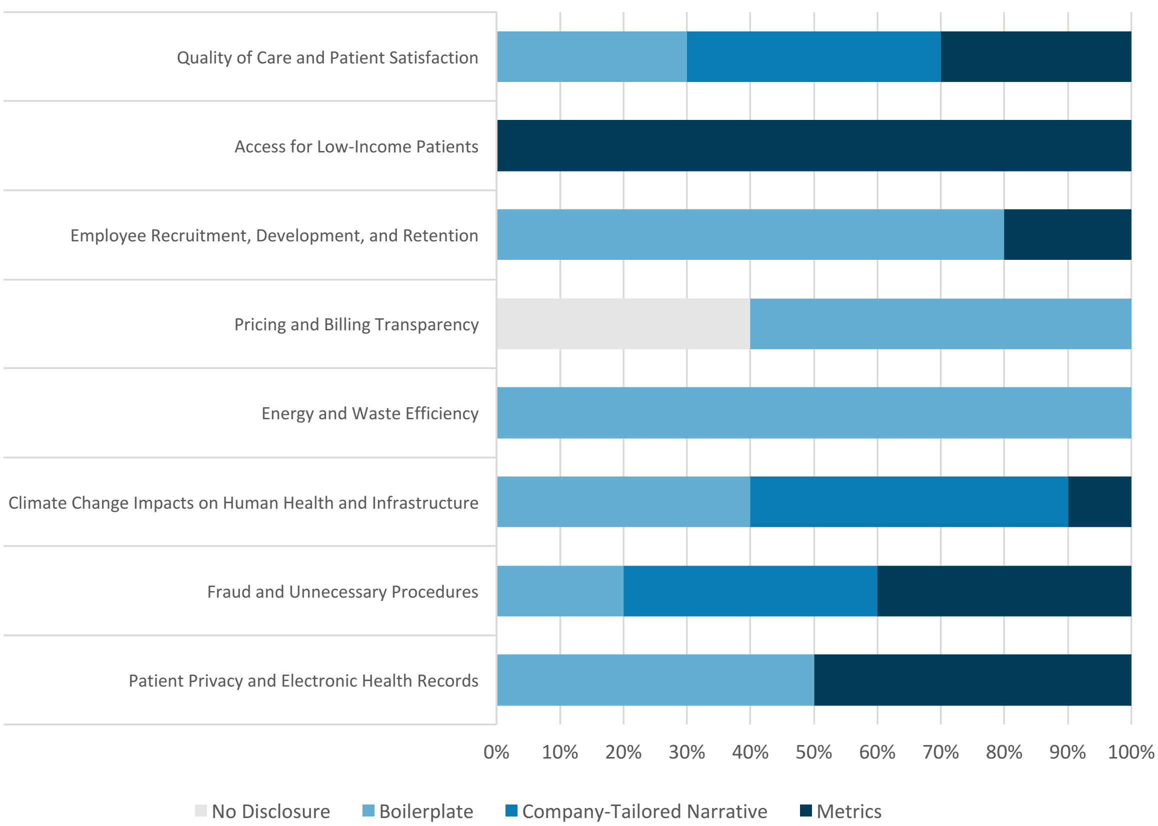
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

HEALTH CARE SECTOR

MEDICAL EQUIPMENT & SUPPLIES



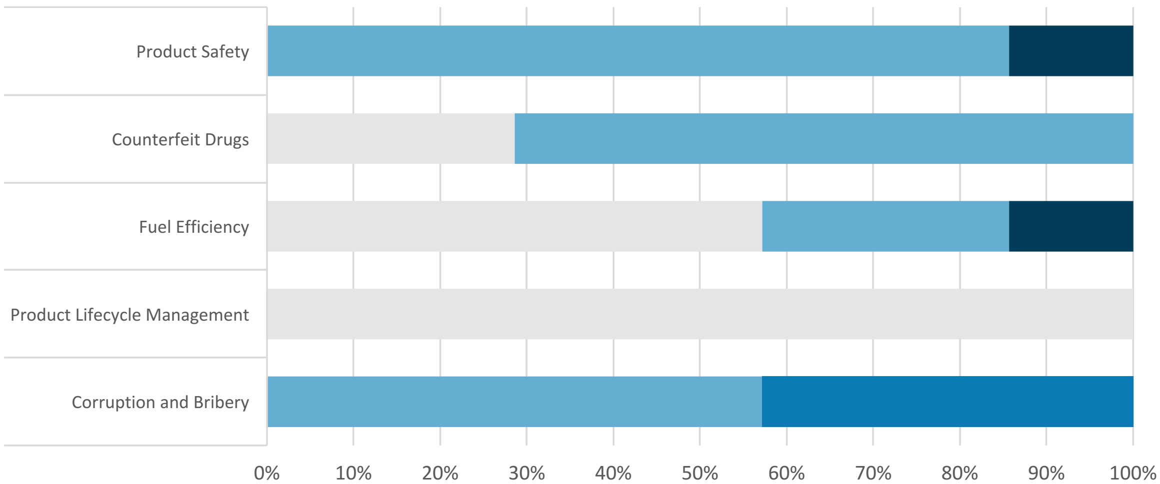
HEALTH CARE DELIVERY



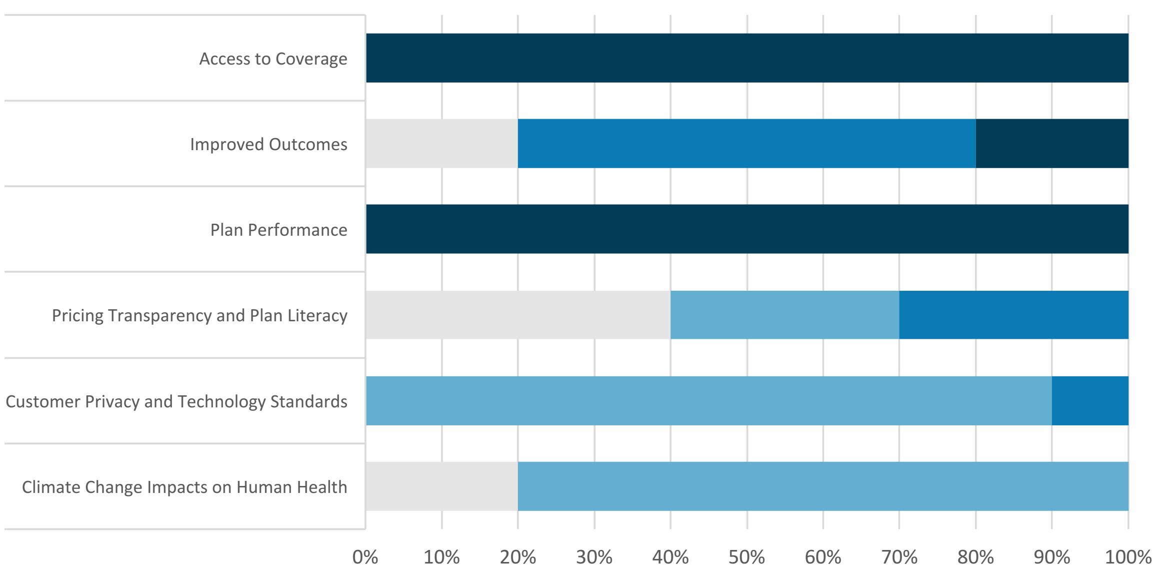
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

HEALTH CARE SECTOR

HEALTH CARE DISTRIBUTORS

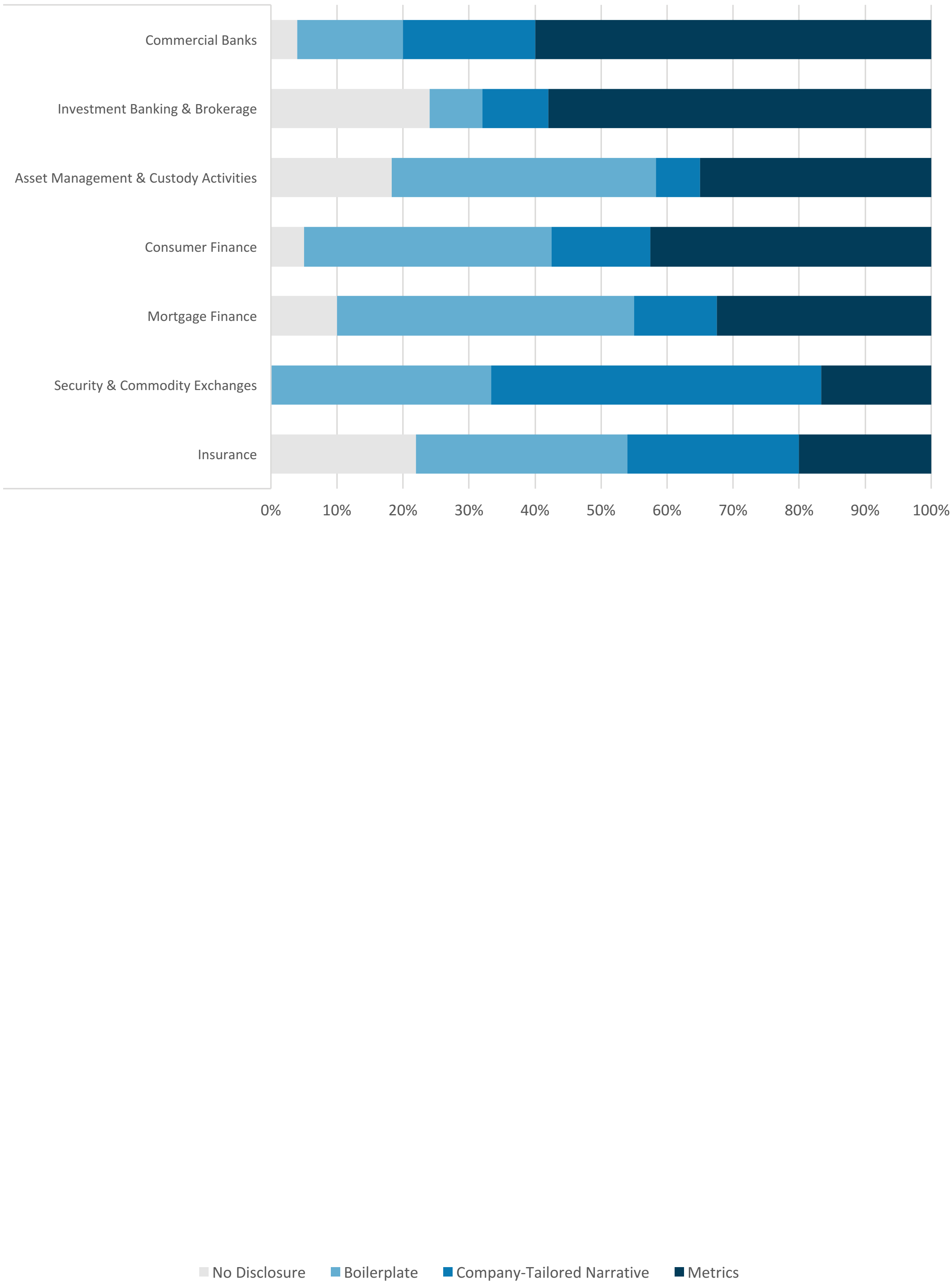


MANAGED CARE



Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

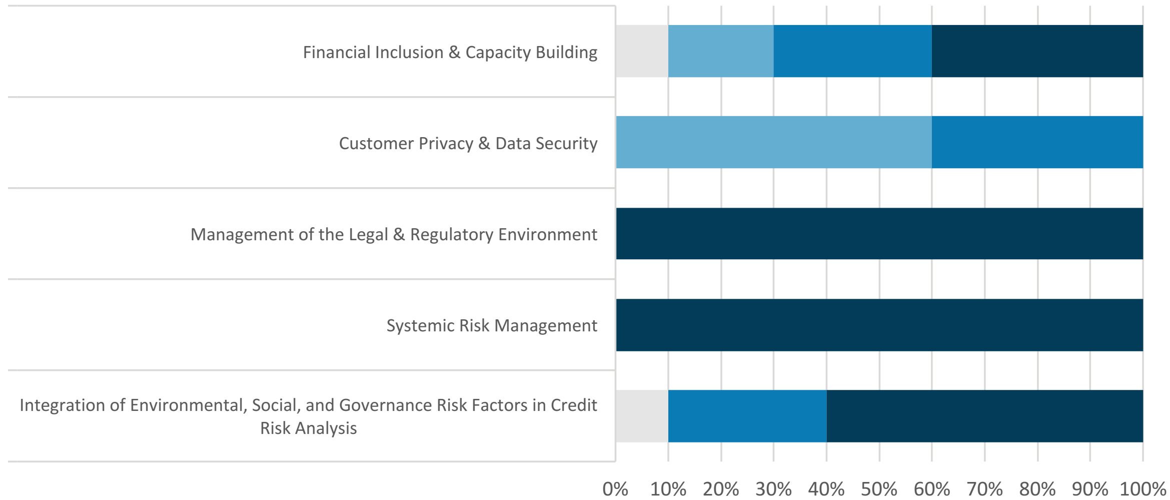
FINANCIALS SECTOR



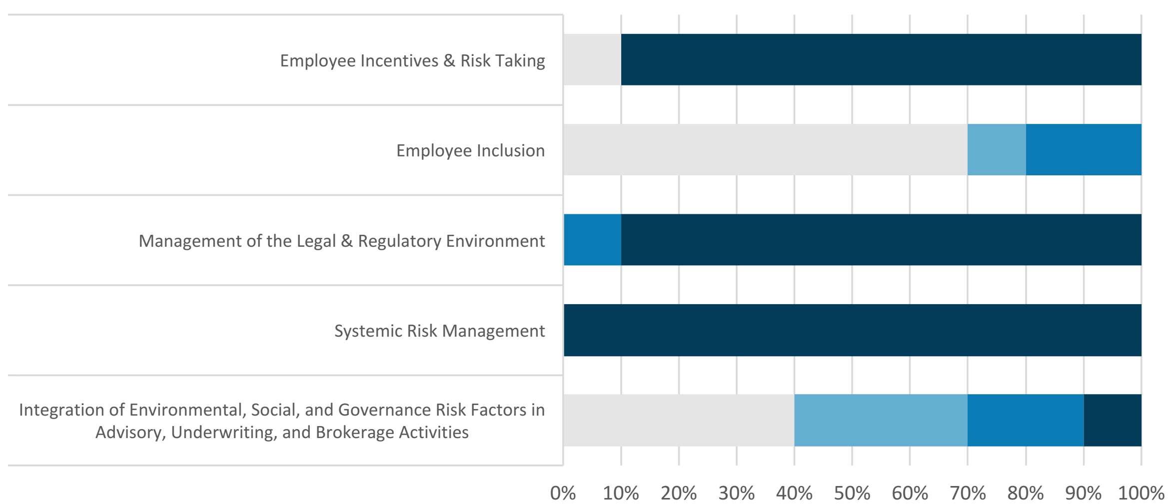
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

FINANCIALS SECTOR

COMMERCIAL BANKS



INVESTMENT BANKING & BROKERAGE



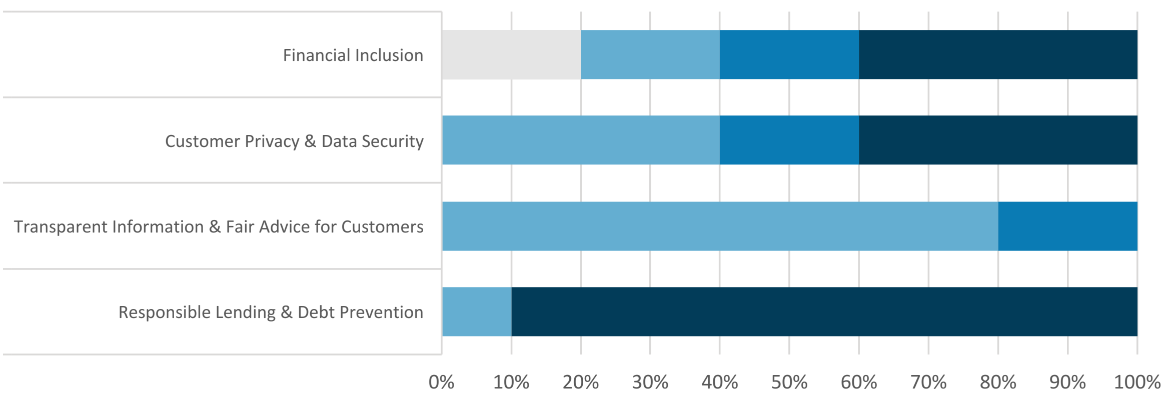
No Disclosure ■ Boilerplate ■ Company-Tailored Narrative ■ Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

FINANCIALS SECTOR

ASSET MANAGEMENT & CUSTODY ACTIVITIES

CONSUMER FINANCE

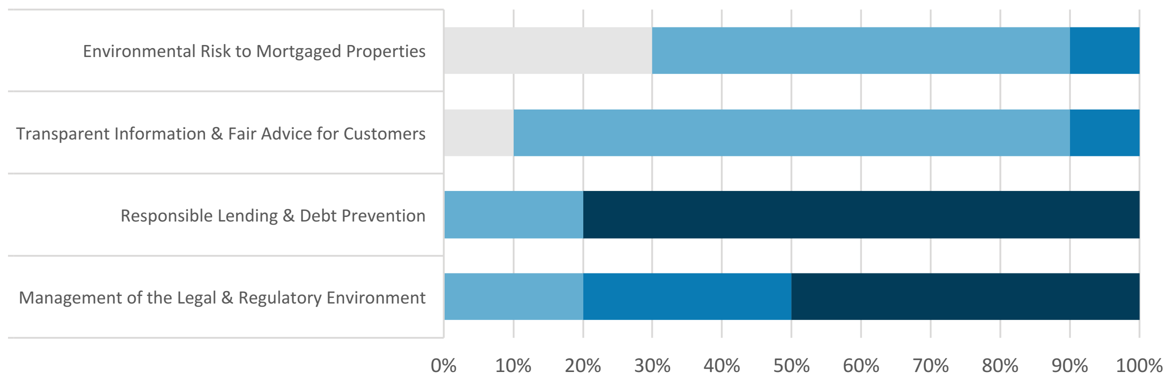


No Disclosure Boilerplate Company-Tailored Narrative Metrics

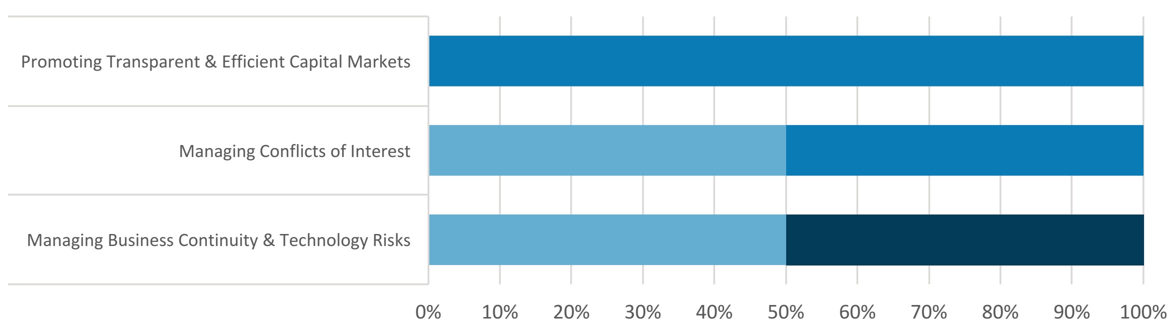
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

FINANCIALS SECTOR

MORTGAGE FINANCE



SECURITY & COMMODITY EXCHANGES

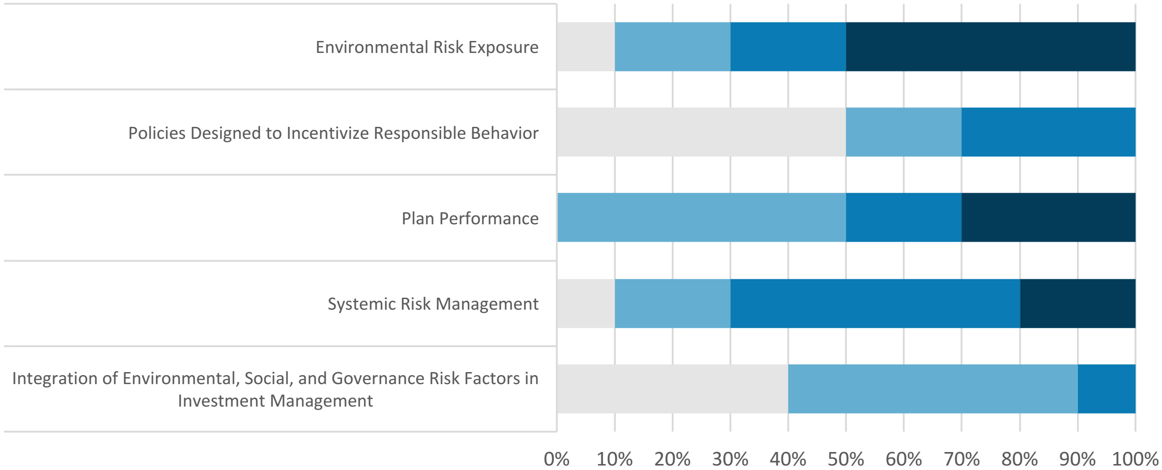


No Disclosure Boilerplate Company-Tailored Narrative Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

FINANCIALS SECTOR

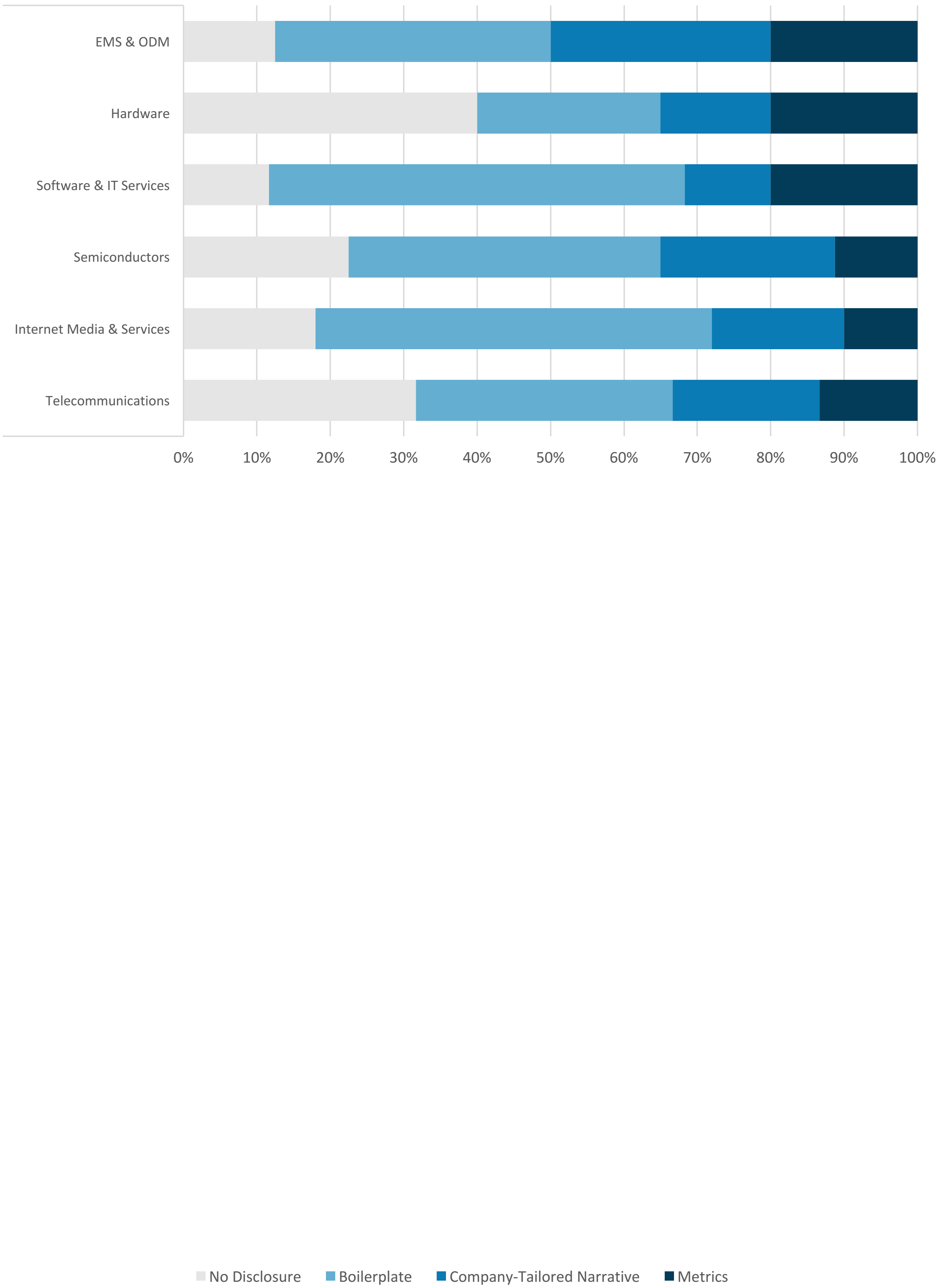
INSURANCE



No Disclosure Boilerplate Company-Tailored Narrative Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

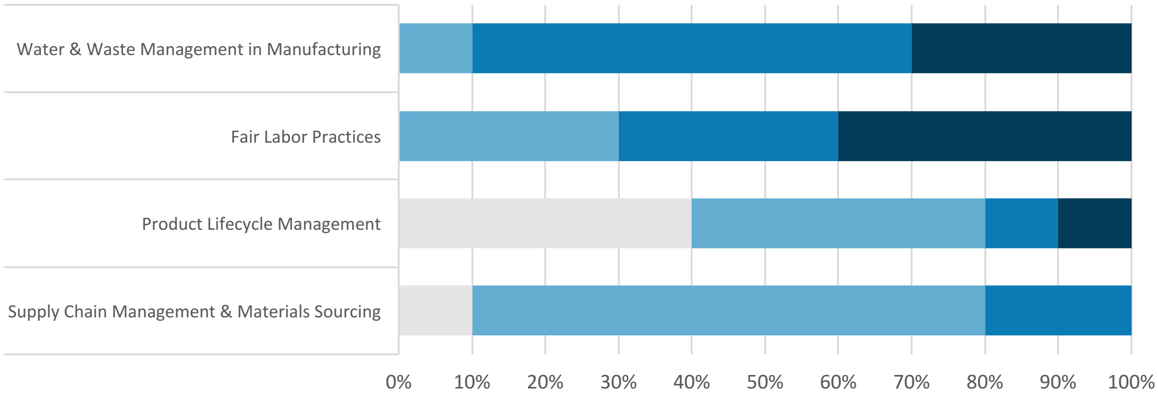
TECHNOLOGY & COMMUNICATIONS SECTOR



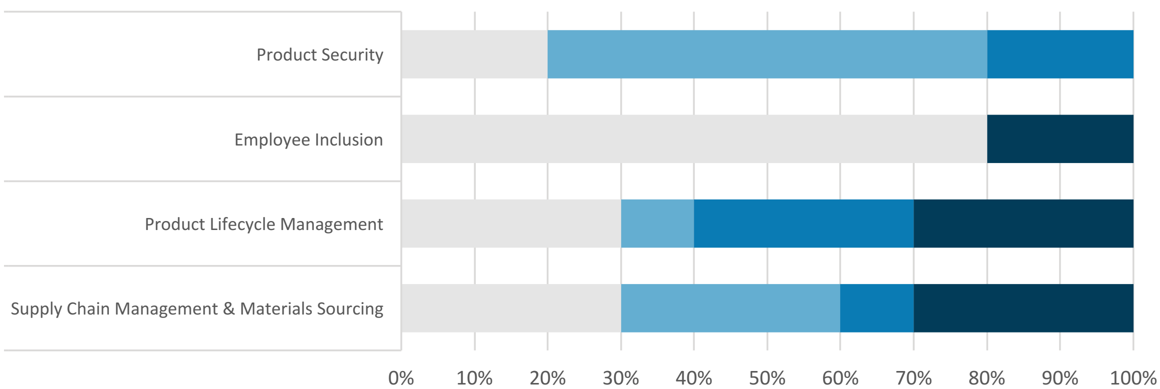
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

TECHNOLOGY & COMMUNICATIONS SECTOR

ELECTRONIC MANUFACTURING SERVICES & ORIGINAL DESIGN MANUFACTURING



HARDWARE

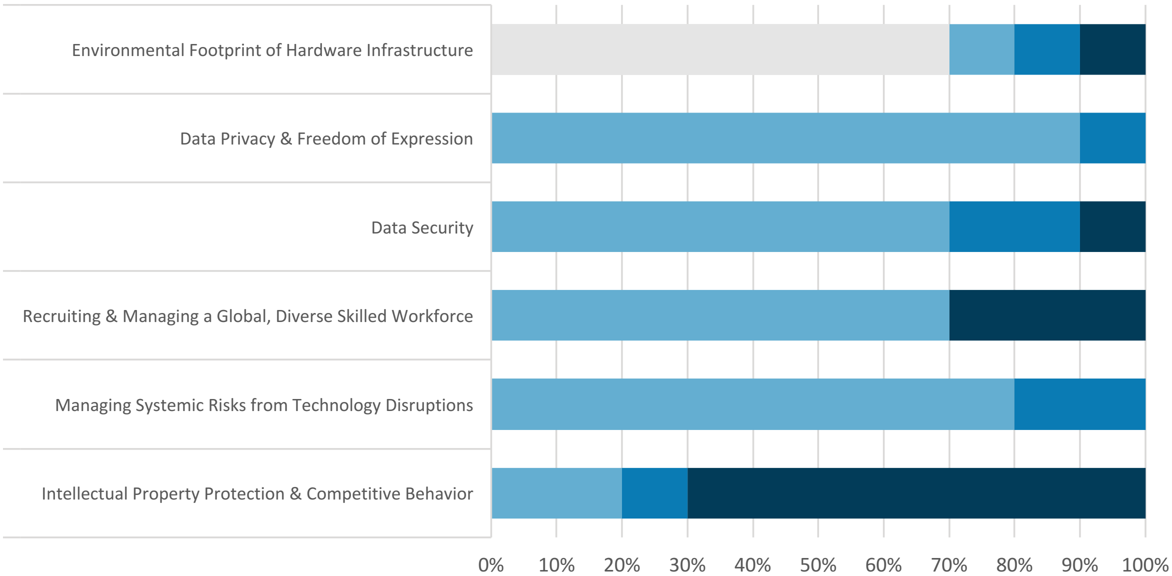


No Disclosure Boilerplate Company-Tailored Narrative Metrics

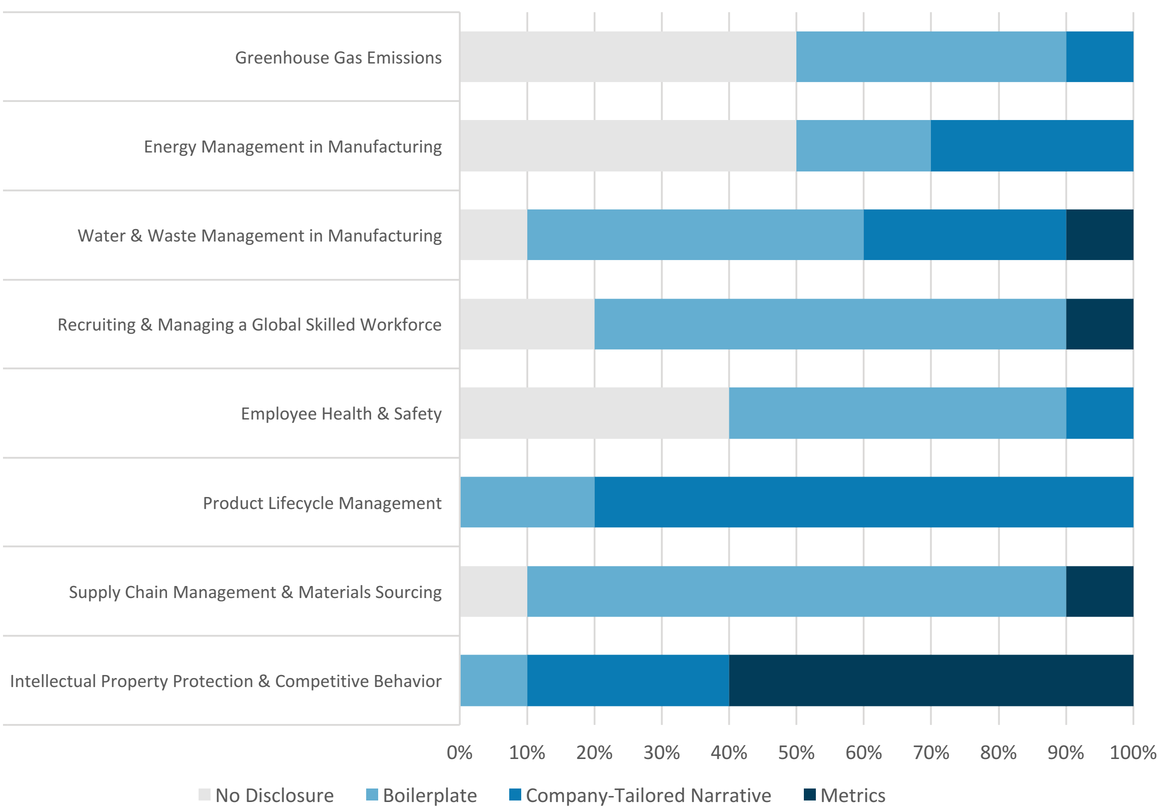
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

TECHNOLOGY & COMMUNICATIONS SECTOR

SOFTWARE & IT SERVICES



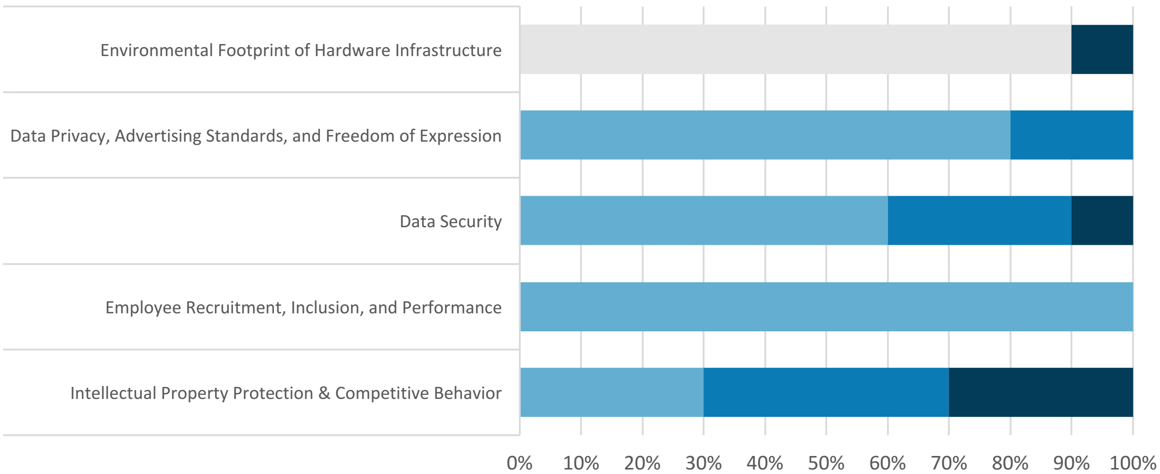
SEMICONDUCTORS



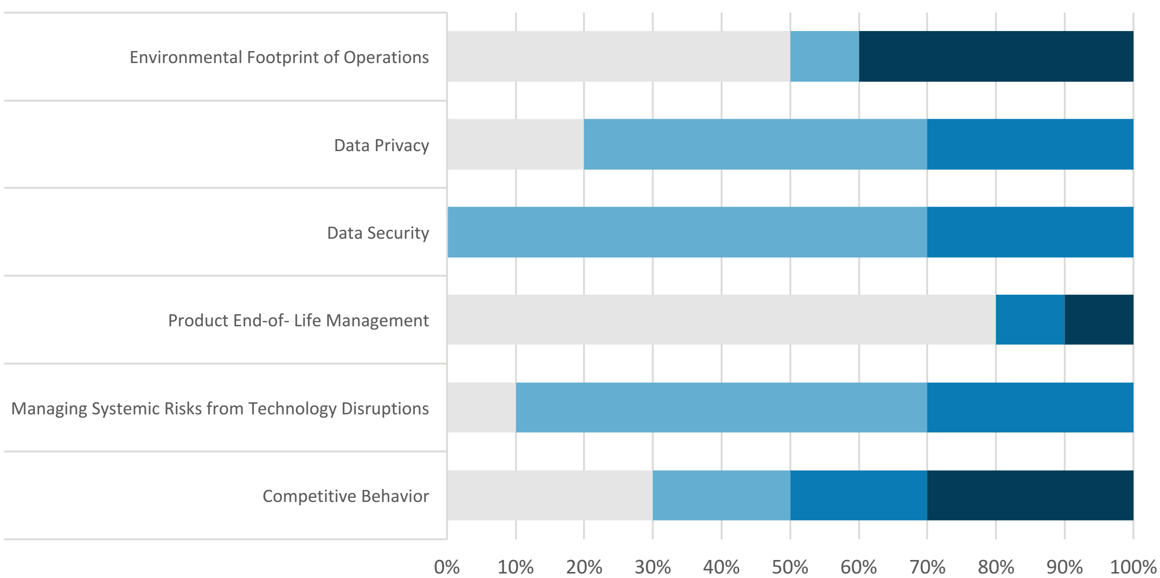
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

TECHNOLOGY & COMMUNICATIONS SECTOR

INTERNET MEDIA & SERVICES



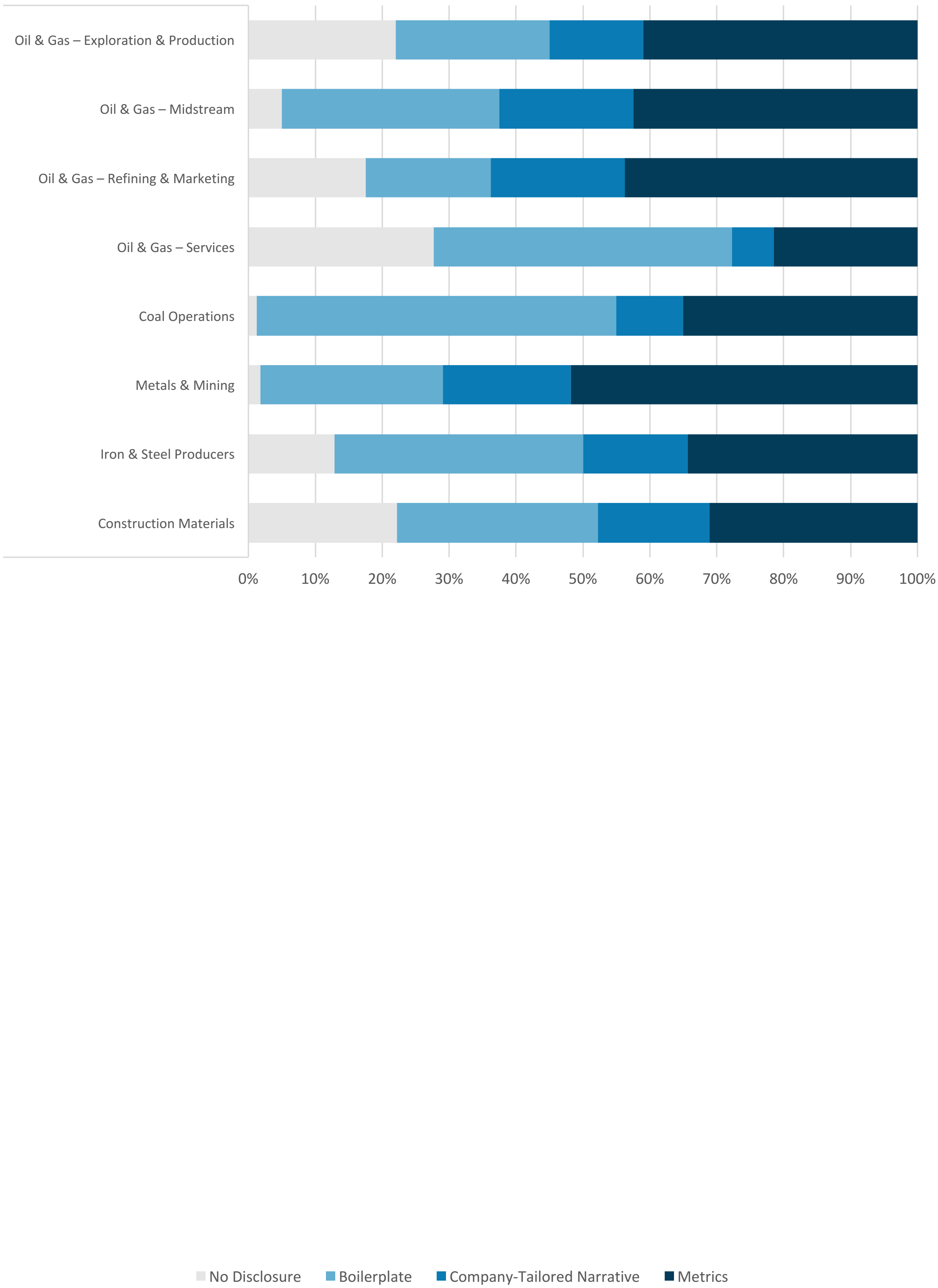
TELECOMMUNICATIONS



No Disclosure Boilerplate Company-Tailored Narrative Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

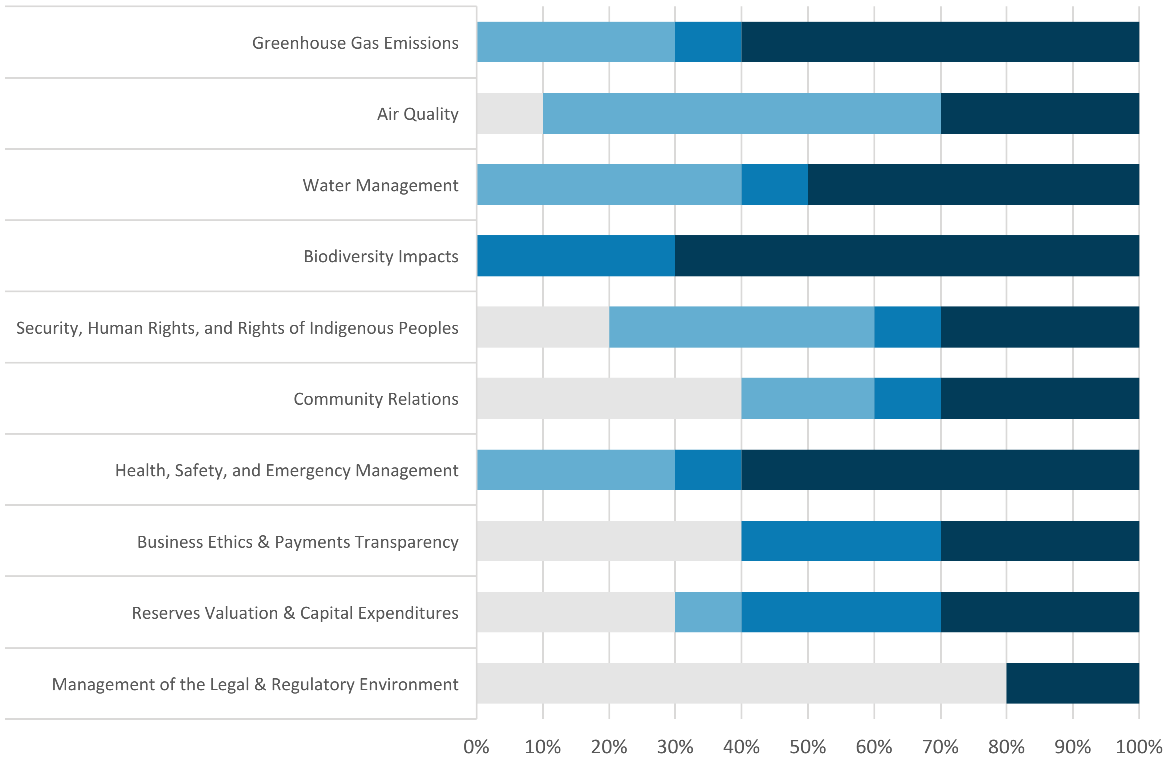
NON-RENEWABLE RESOURCES SECTOR



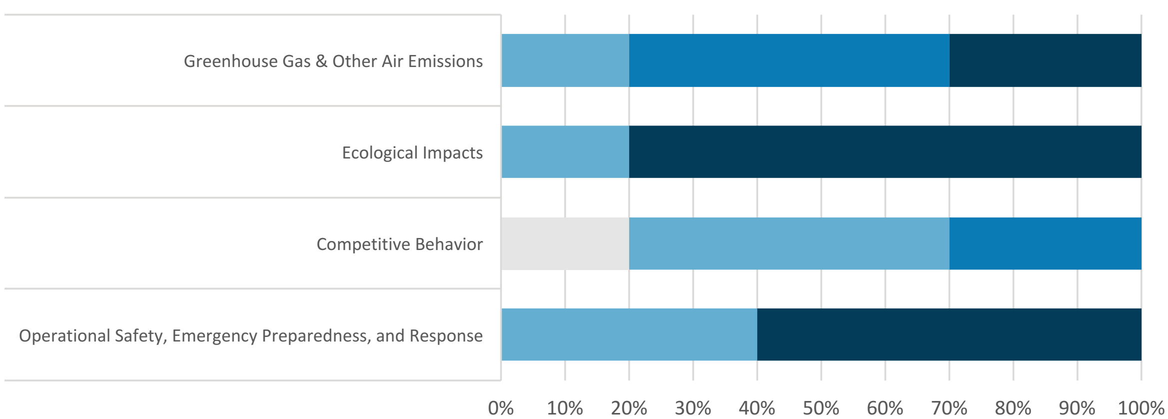
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

NON-RENEWABLE RESOURCES SECTOR

OIL & GAS - EXPLORATION & PRODUCTION



OIL & GAS - MIDSTREAM

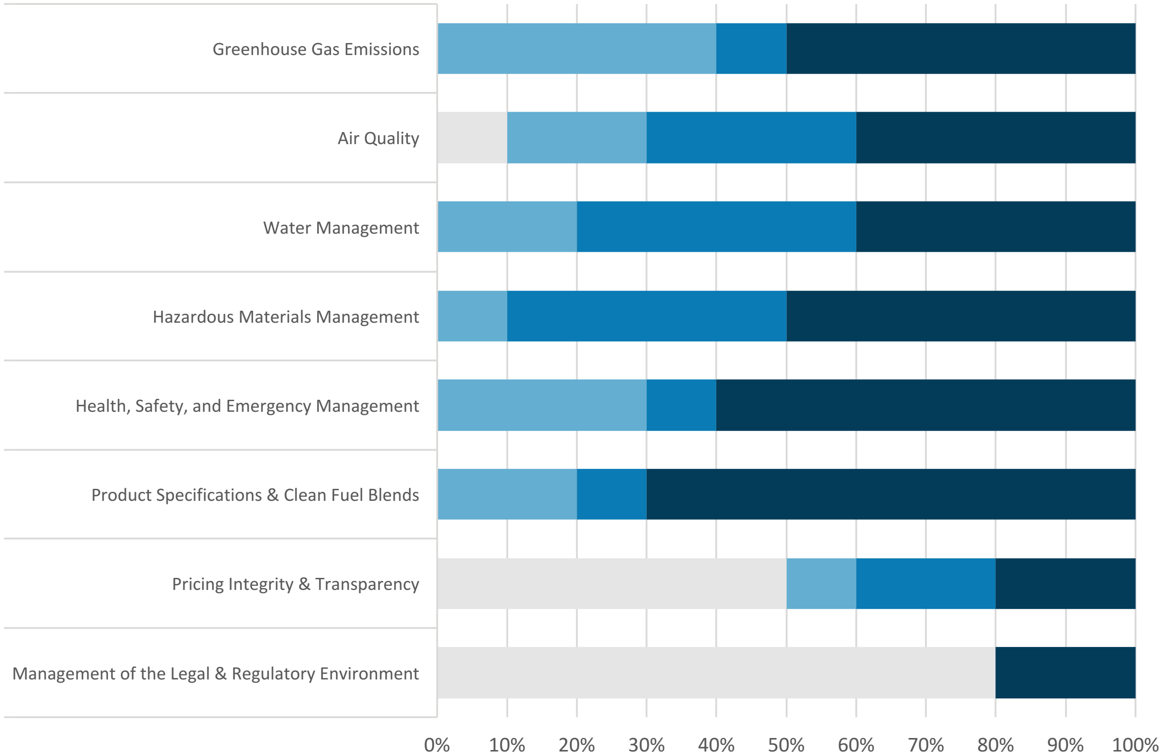


No Disclosure Boilerplate Company-Tailored Narrative Metrics

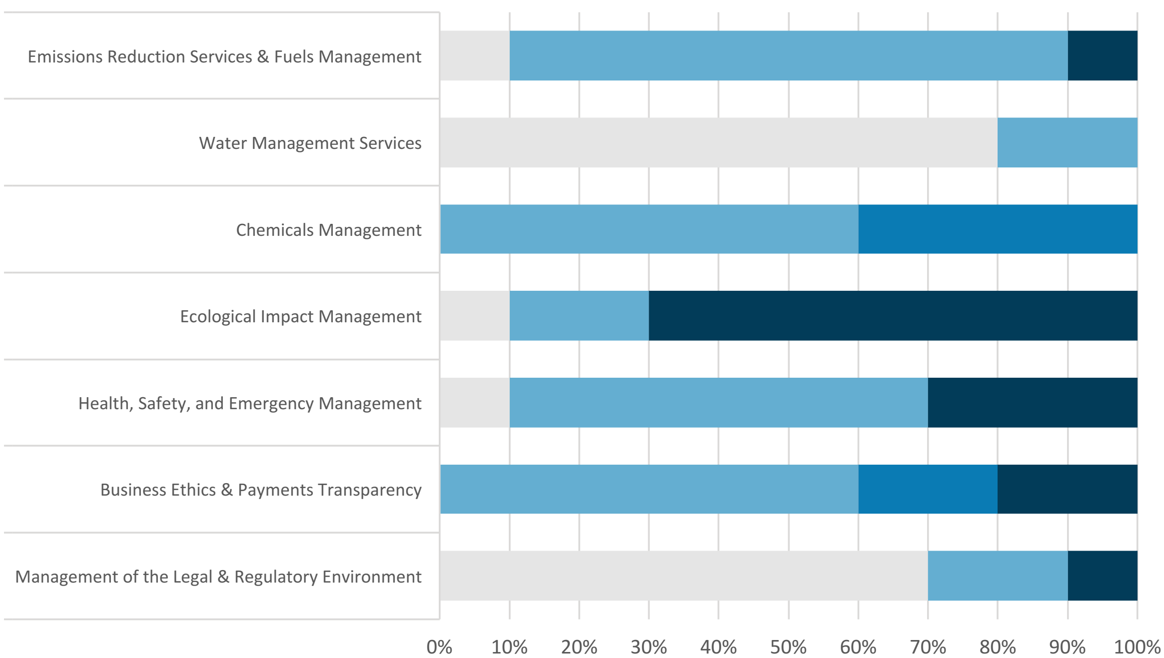
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

NON-RENEWABLE RESOURCES SECTOR

OIL & GAS - REFINING & MARKETING



OIL & GAS - SERVICES

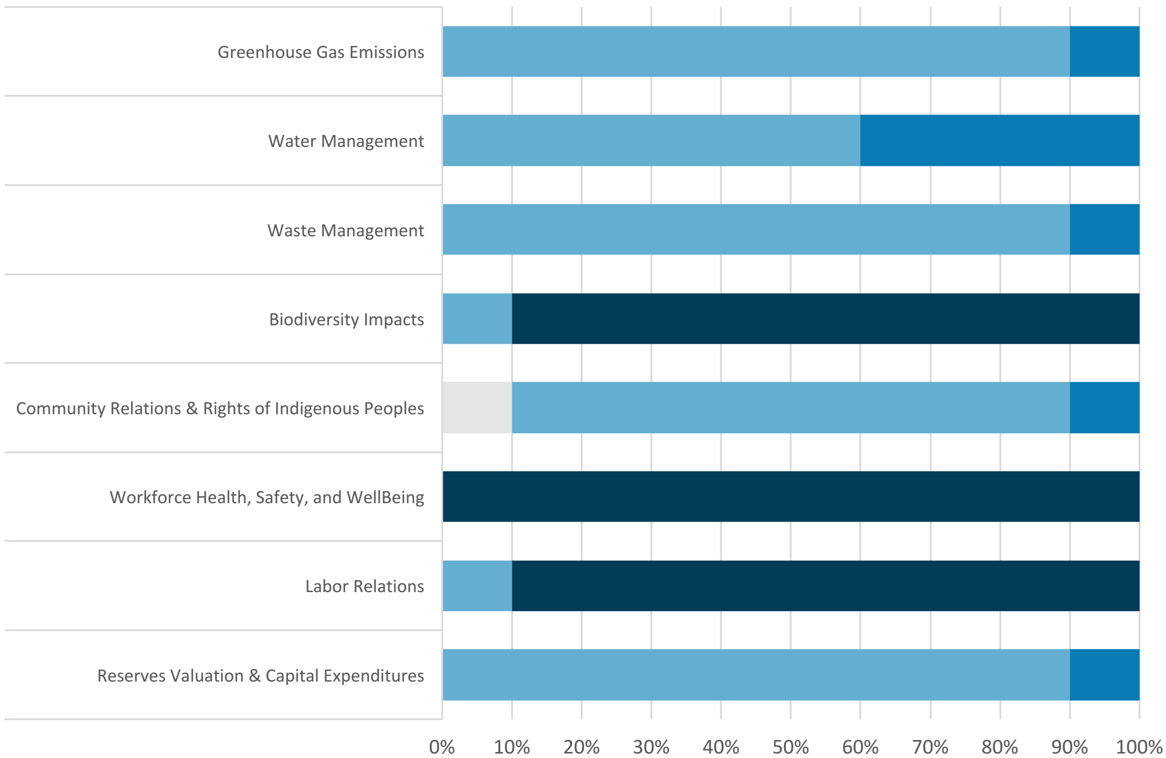


No Disclosure Boilerplate Company-Tailored Narrative Metrics

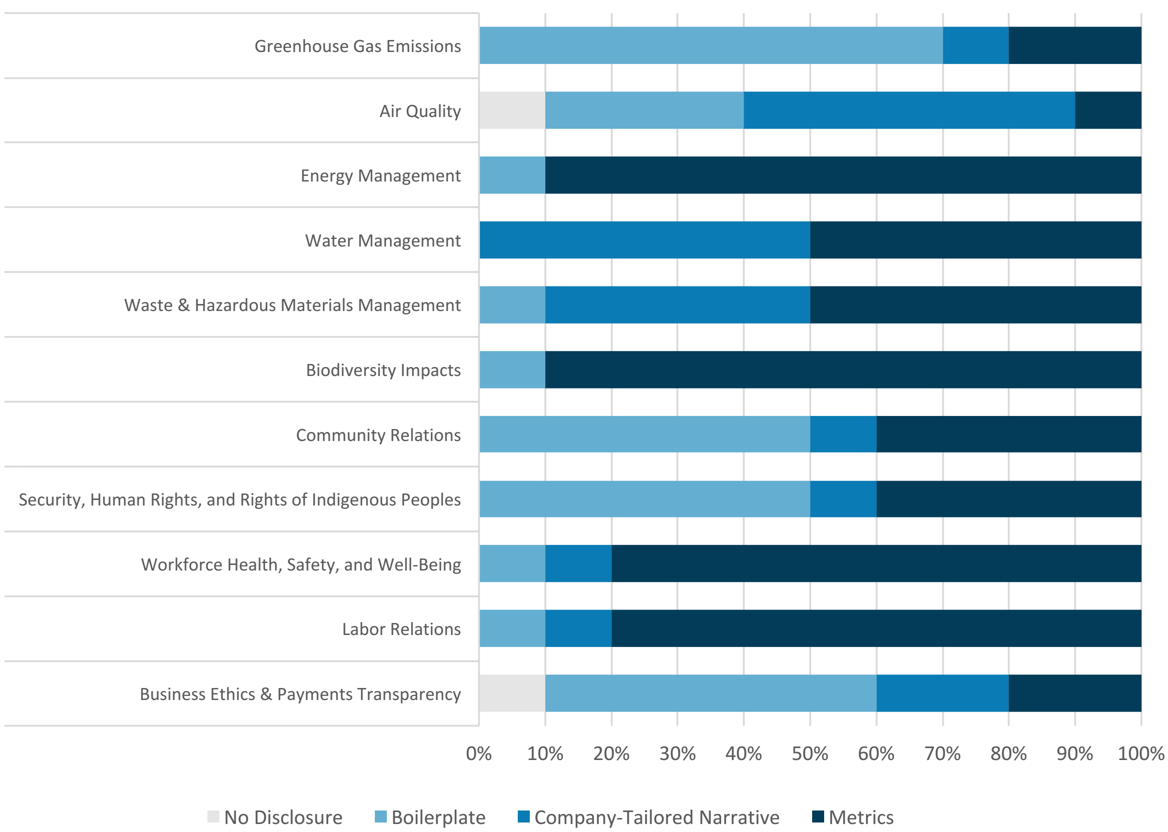
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

NON-RENEWABLE RESOURCES SECTOR

COAL OPERATIONS



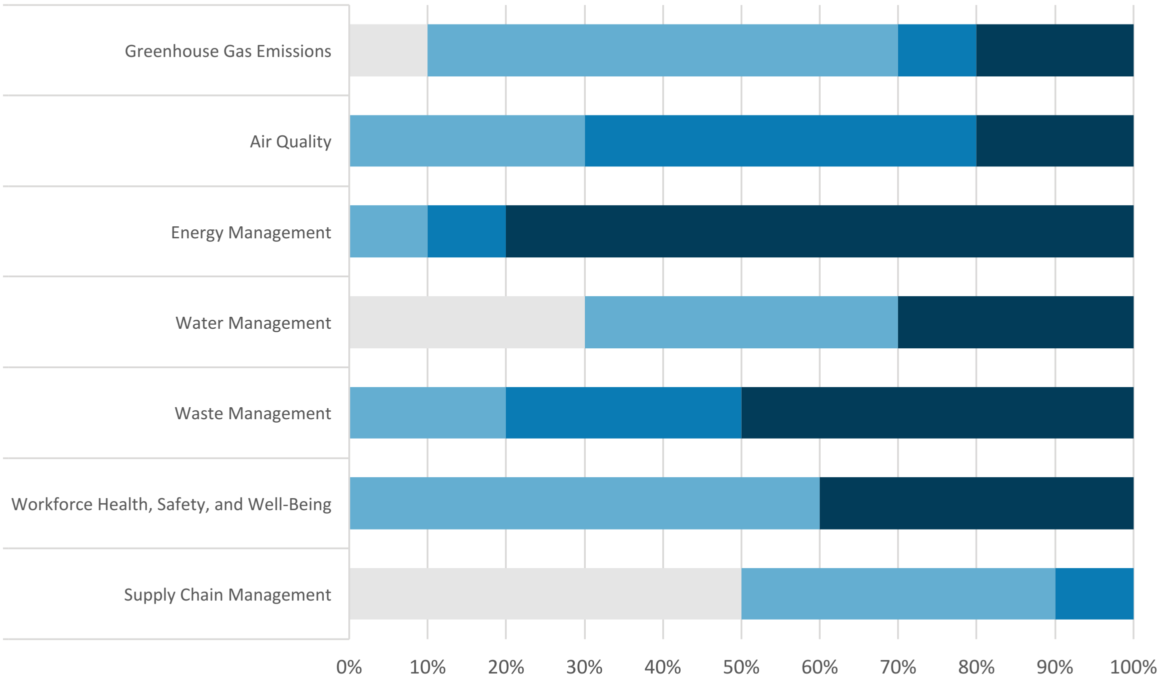
METALS & MINING



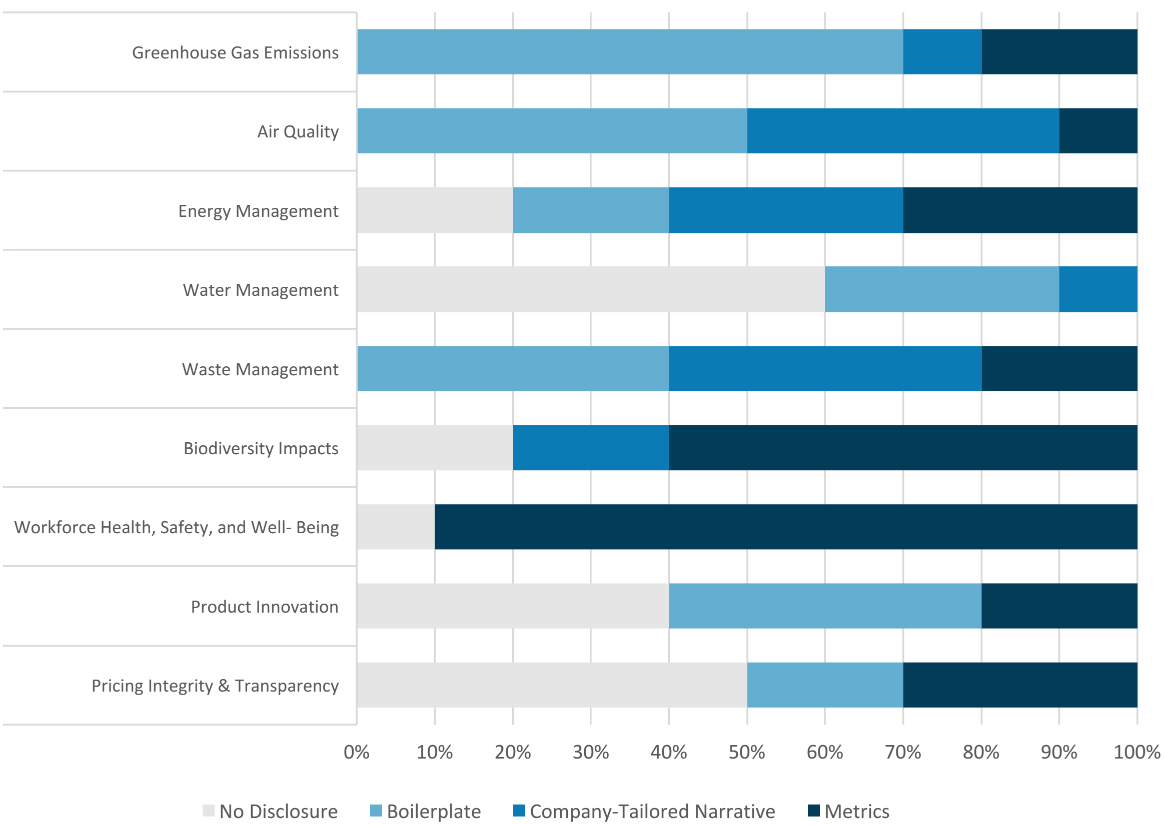
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

NON-RENEWABLE RESOURCES SECTOR

IRON & STEEL PRODUCERS

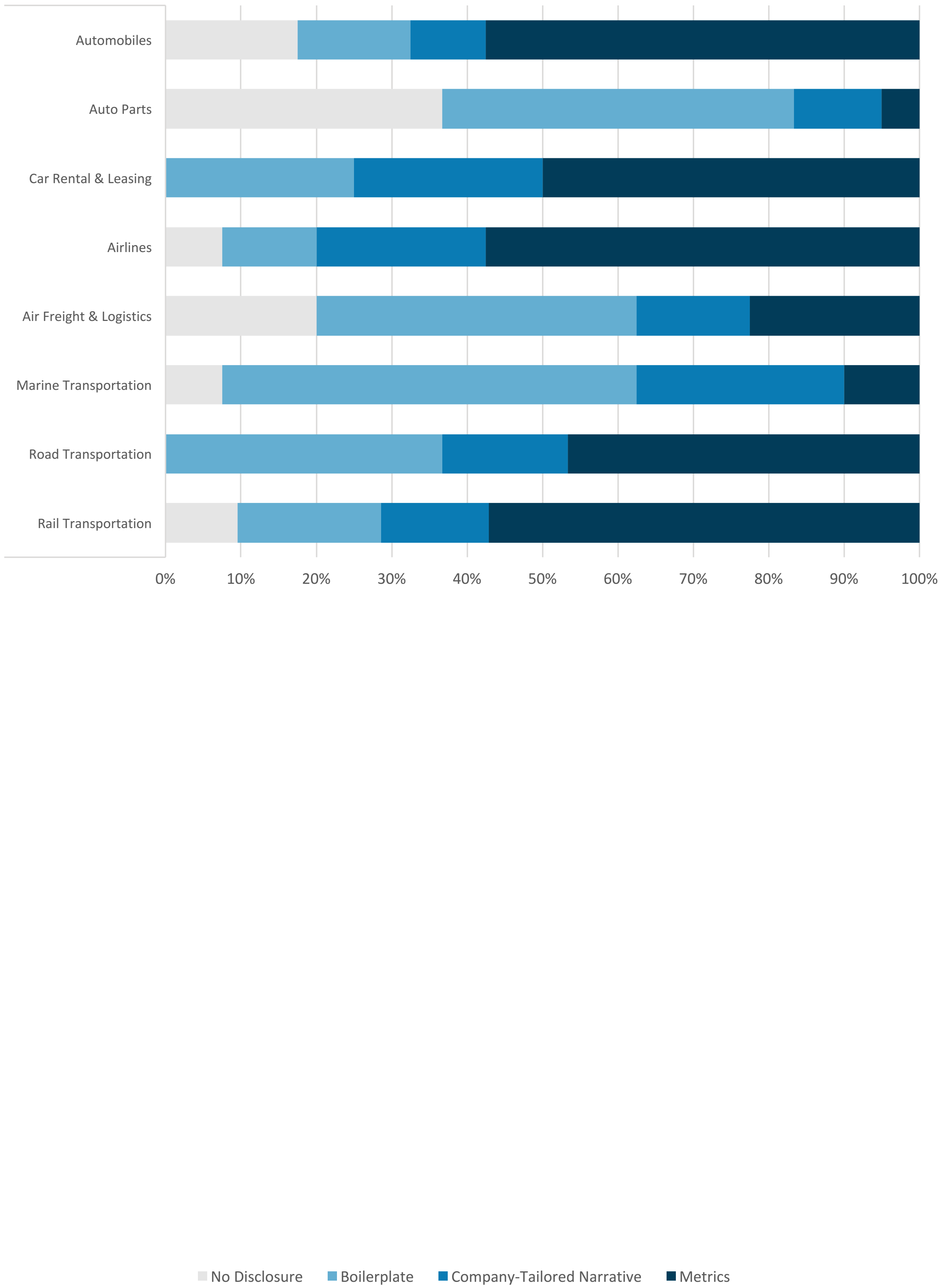


CONSTRUCTION MATERIALS



Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

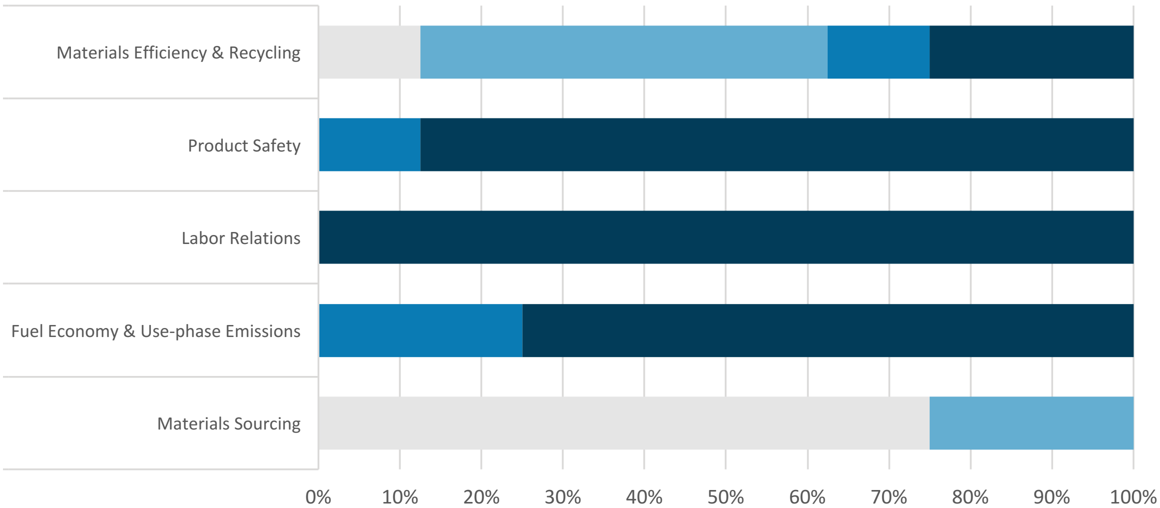
TRANSPORTATION SECTOR



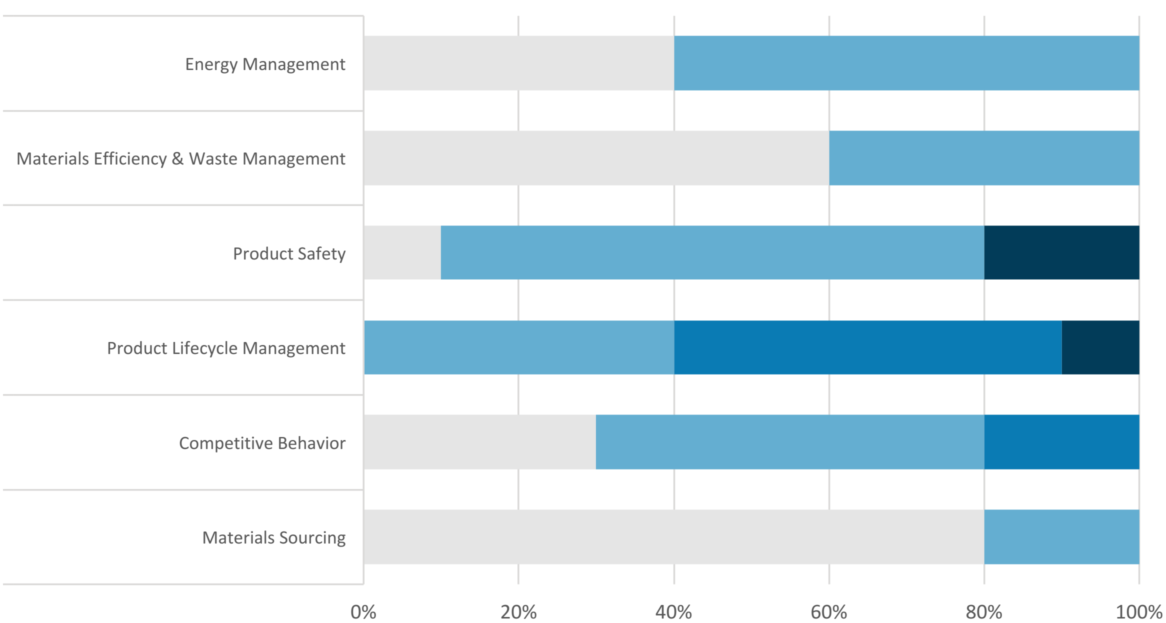
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

TRANSPORTATION SECTOR

AUTOMOBILES



AUTO PARTS

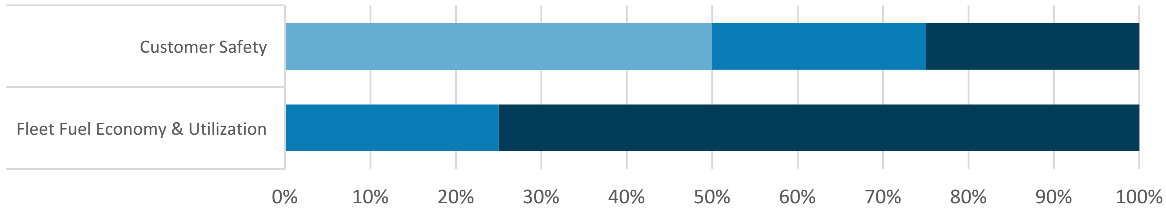


No Disclosure Boilerplate Company-Tailored Narrative Metrics

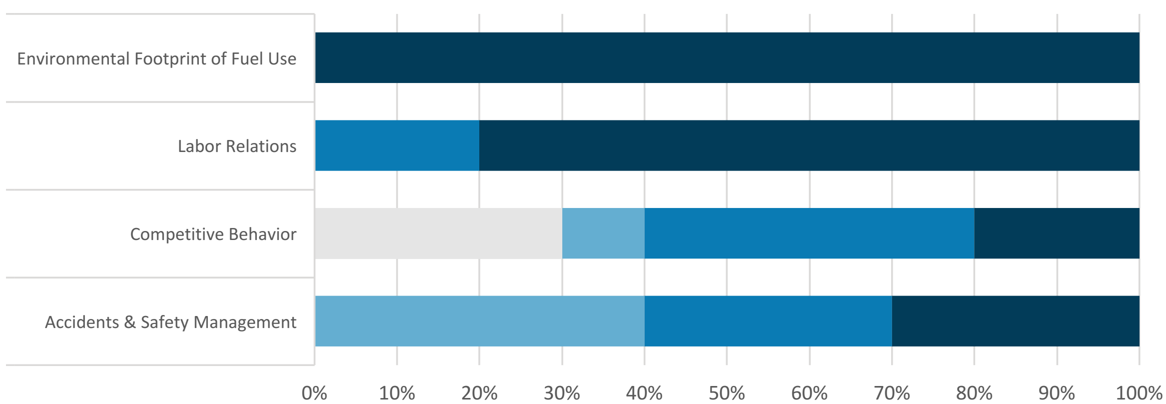
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

TRANSPORTATION SECTOR

CAR RENTAL & LEASING



AIRLINES

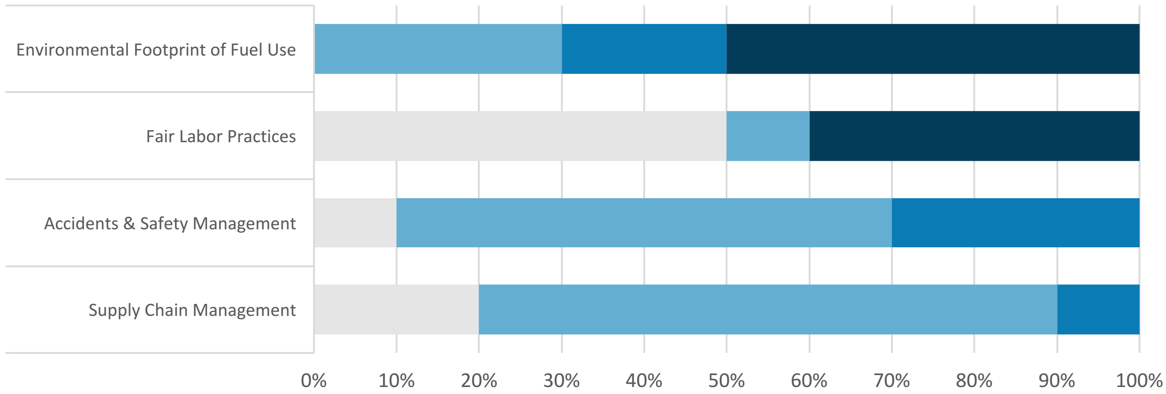


No Disclosure Boilerplate Company-Tailored Narrative Metrics

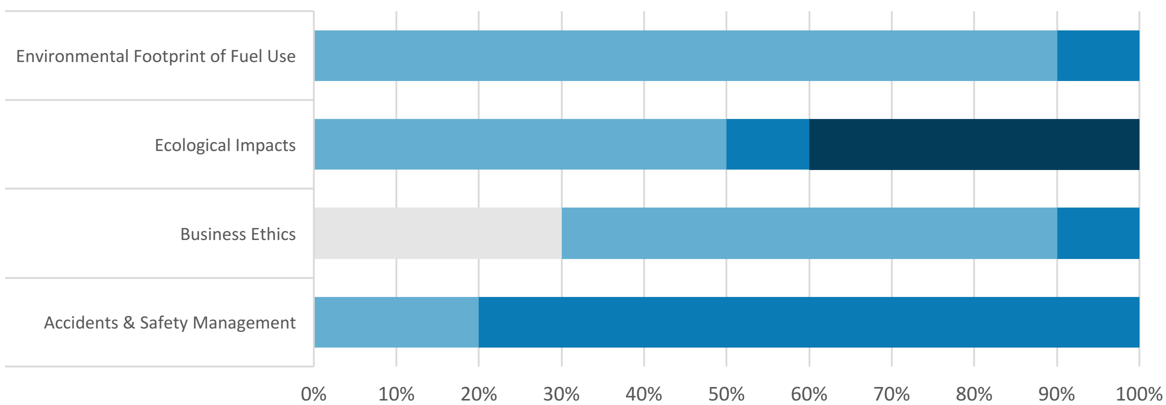
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

TRANSPORTATION SECTOR

AIR FREIGHT & LOGISTICS



MARINE TRANSPORTATION

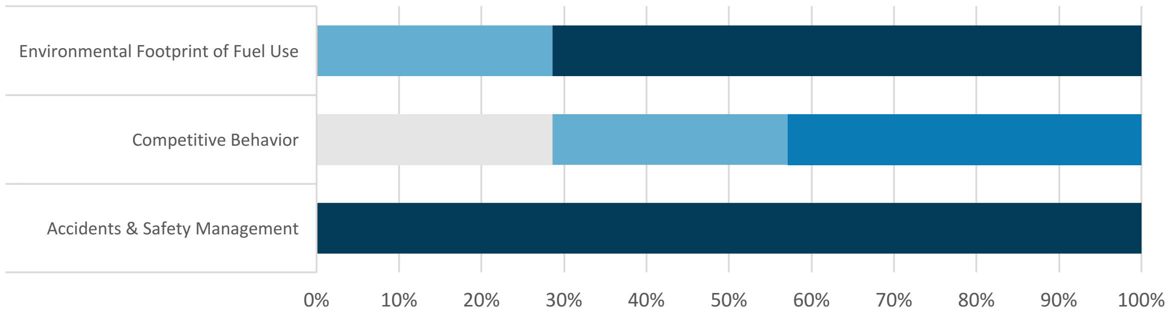


No Disclosure Boilerplate Company-Tailored Narrative Metrics

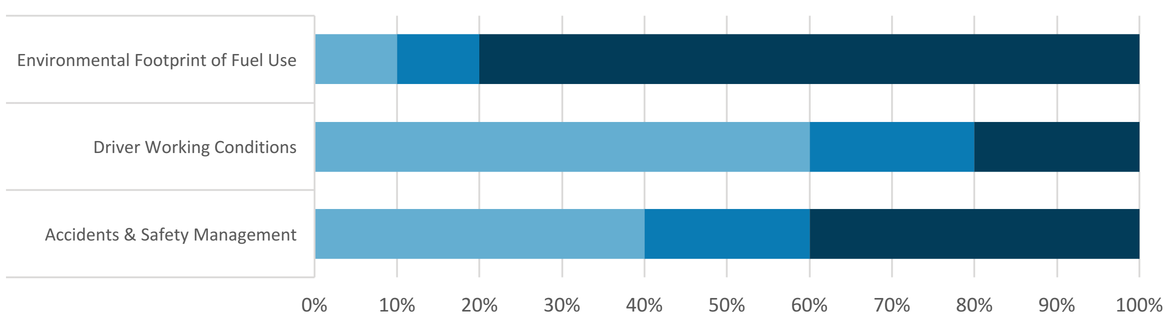
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

TRANSPORTATION SECTOR

RAIL TRANSPORTATION



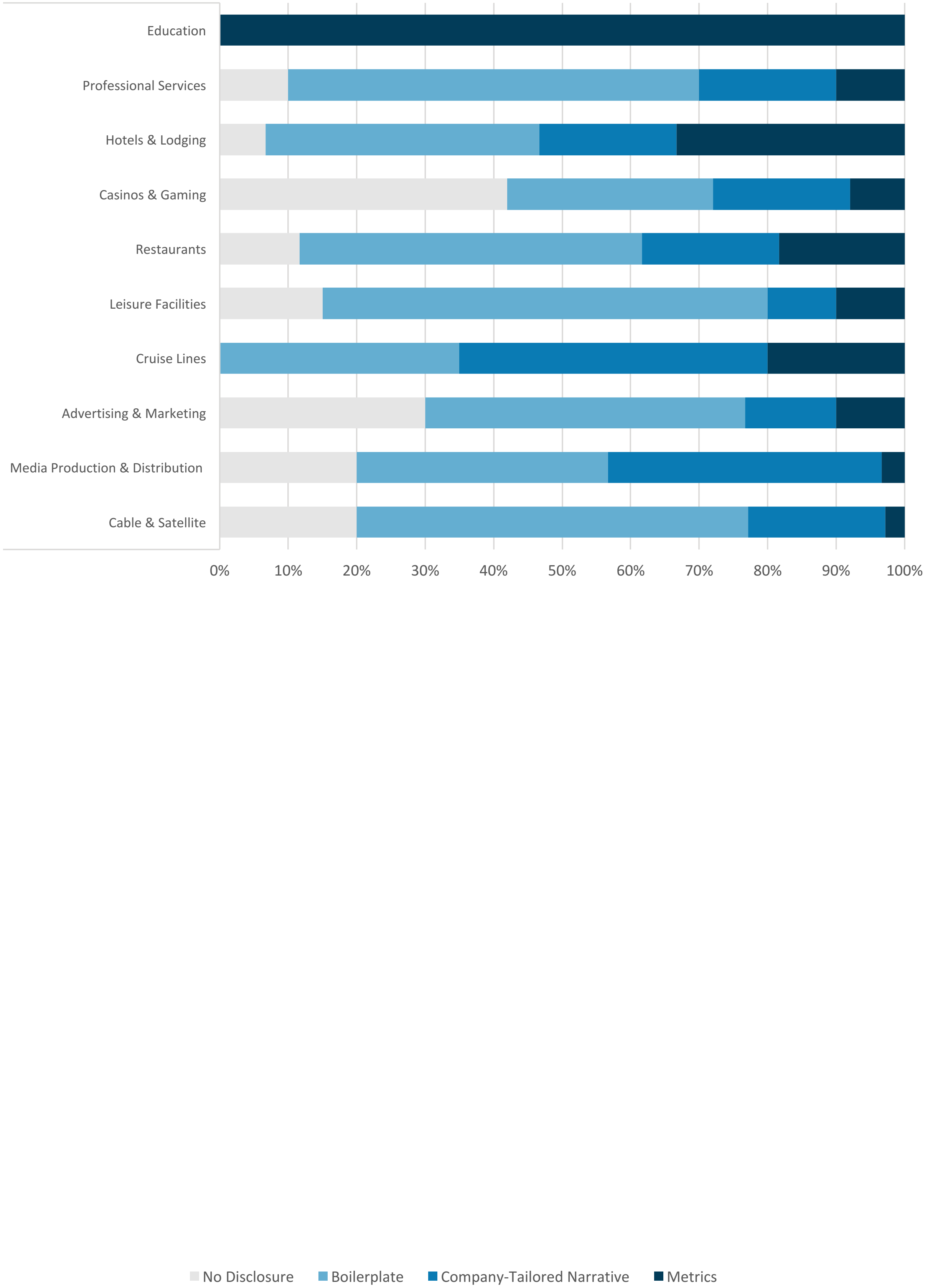
ROAD TRANSPORTATION



No Disclosure Boilerplate Company-Tailored Narrative Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

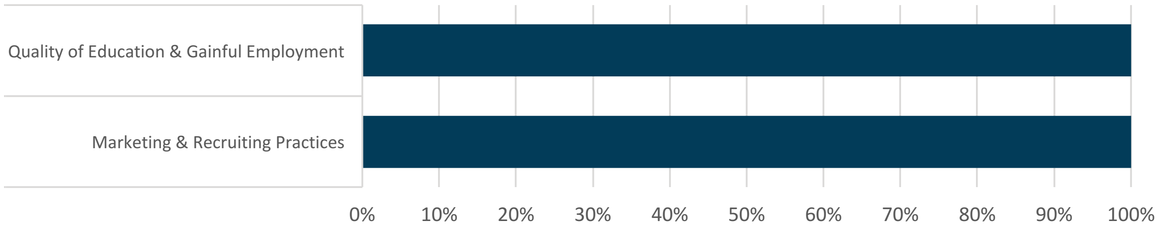
SERVICES SECTOR



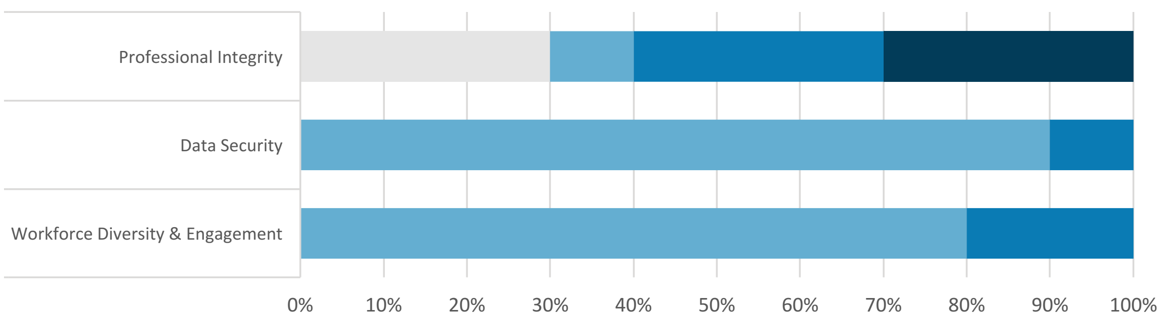
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

SERVICES SECTOR

EDUCATION



PROFESSIONAL SERVICES

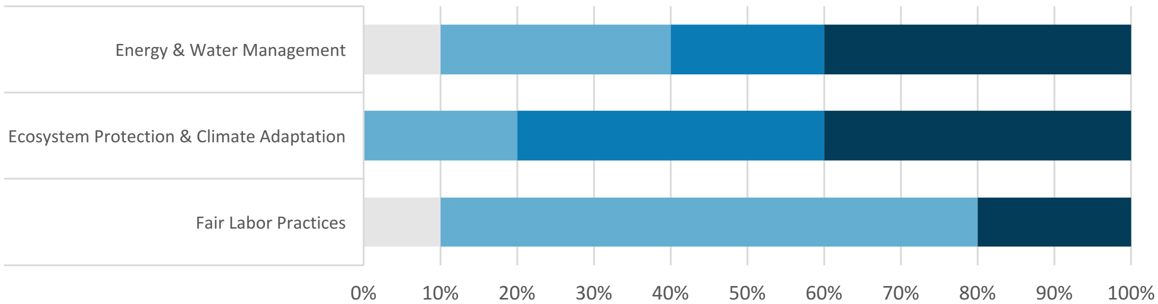


No Disclosure Boilerplate Company-Tailored Narrative Metrics

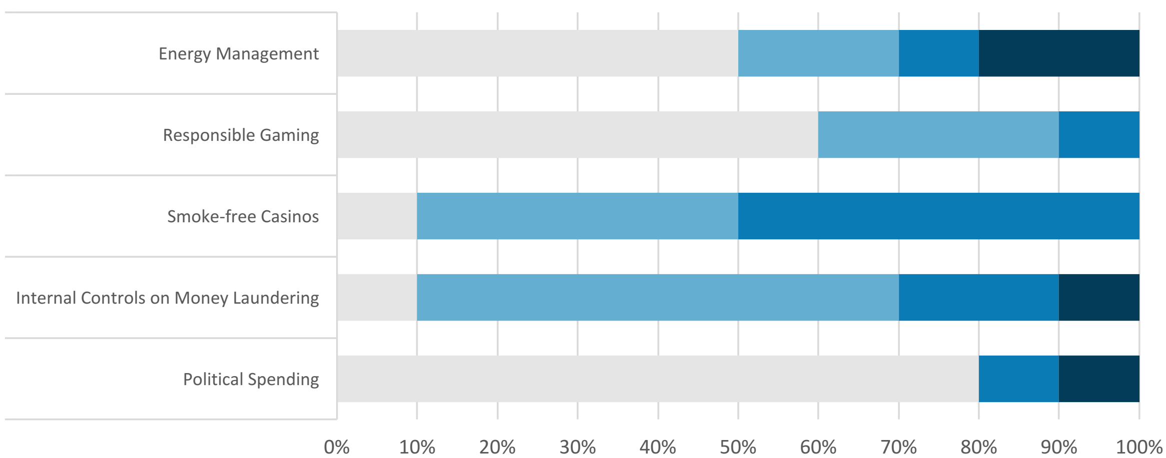
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

SERVICES SECTOR

HOTELS & LODGING



CASINOS & GAMING



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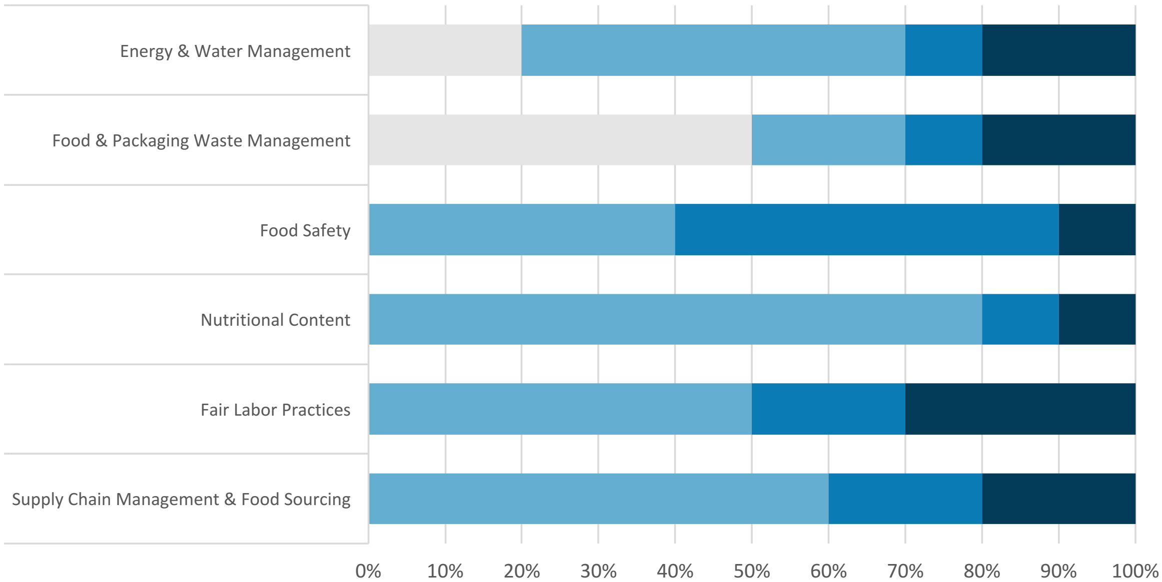
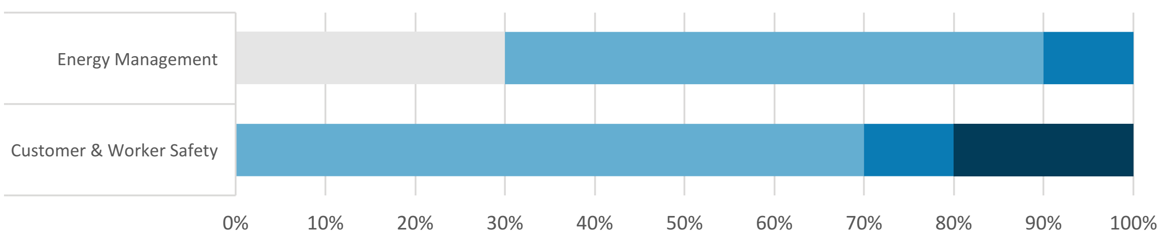
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

SERVICES SECTOR

RESTAURANTS



LEISURE FACILITIES

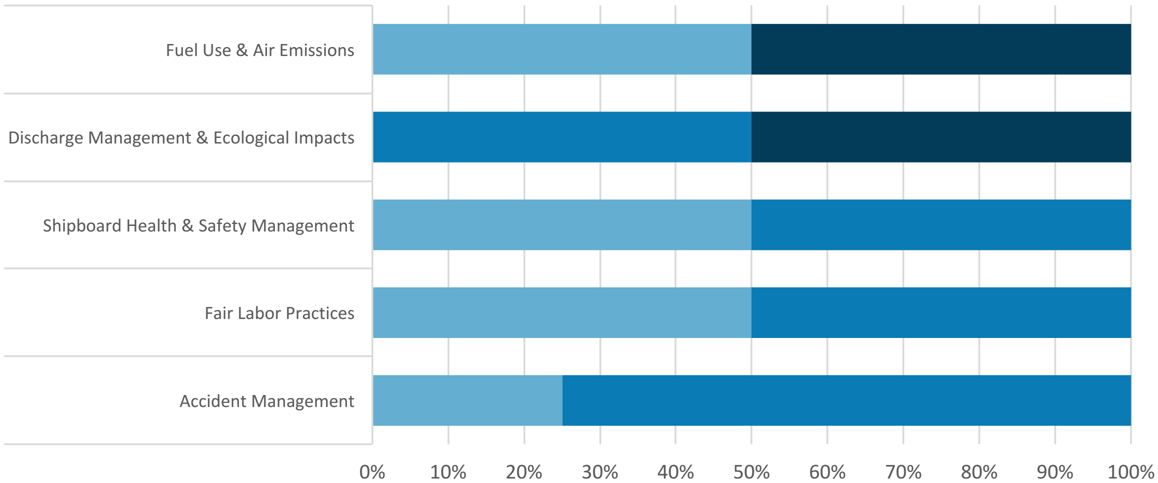


No Disclosure Boilerplate Company-Tailored Narrative Metrics

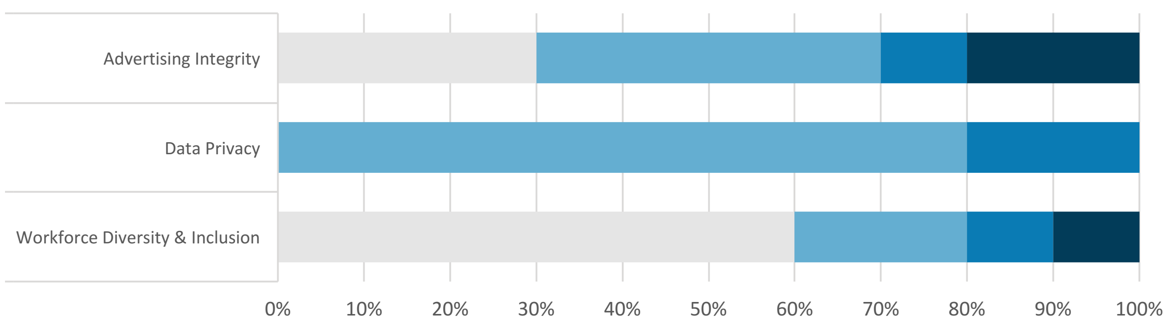
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

SERVICES SECTOR

CRUISE LINES



ADVERTISING & MARKETING

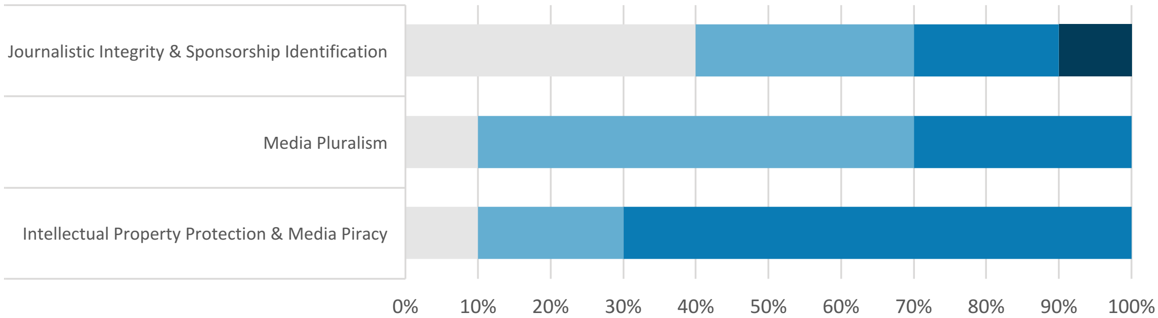


No Disclosure Boilerplate Company-Tailored Narrative Metrics

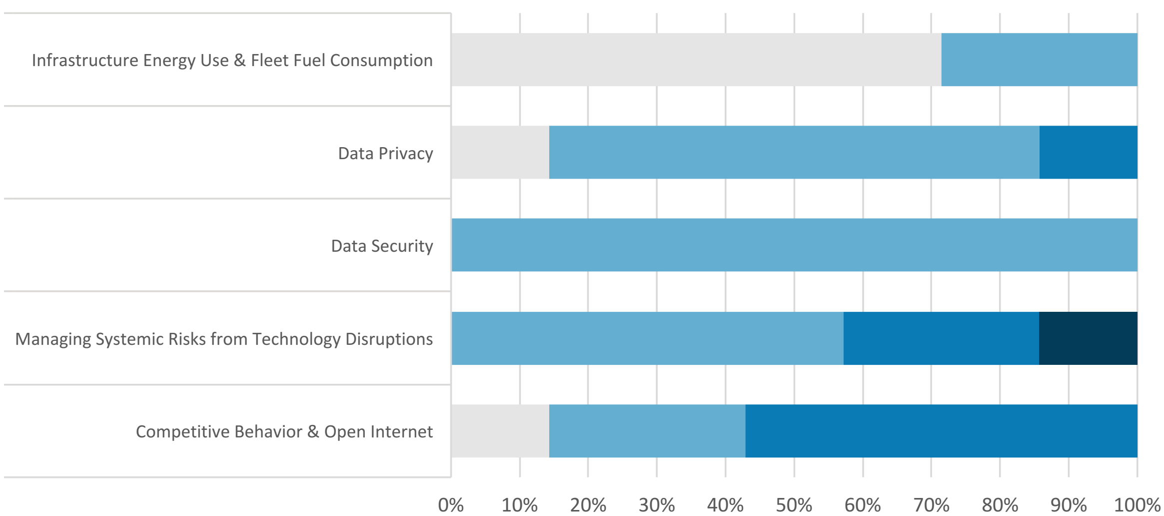
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

SERVICES SECTOR

MEDIA PRODUCTION & DISTRIBUTION



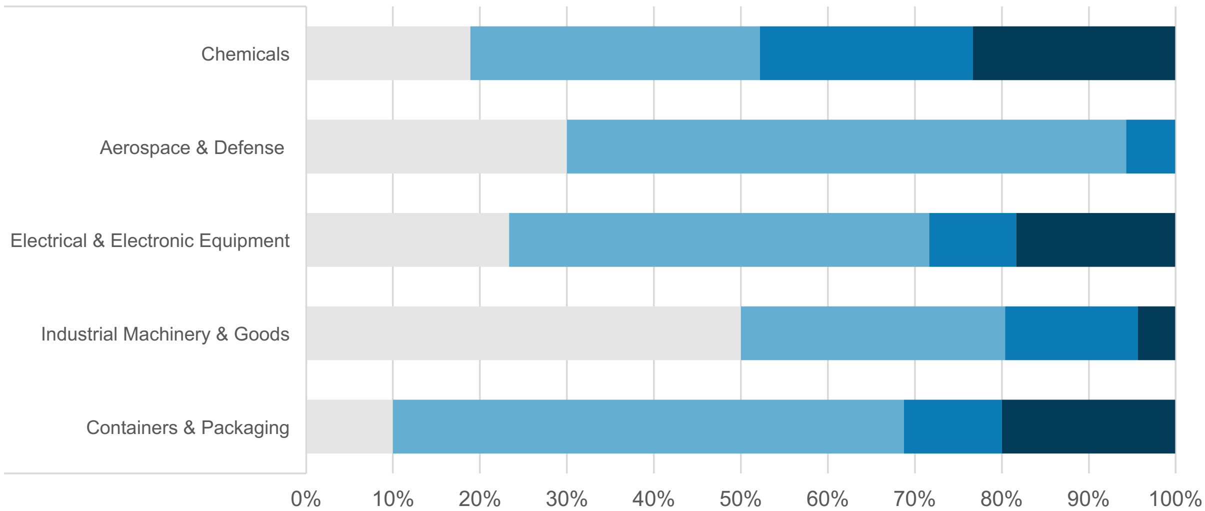
CABLE & SATELLITE



No Disclosure ■ Boilerplate ■ Company-Tailored Narrative ■ Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

RESOURCE TRANSFORMATION SECTOR

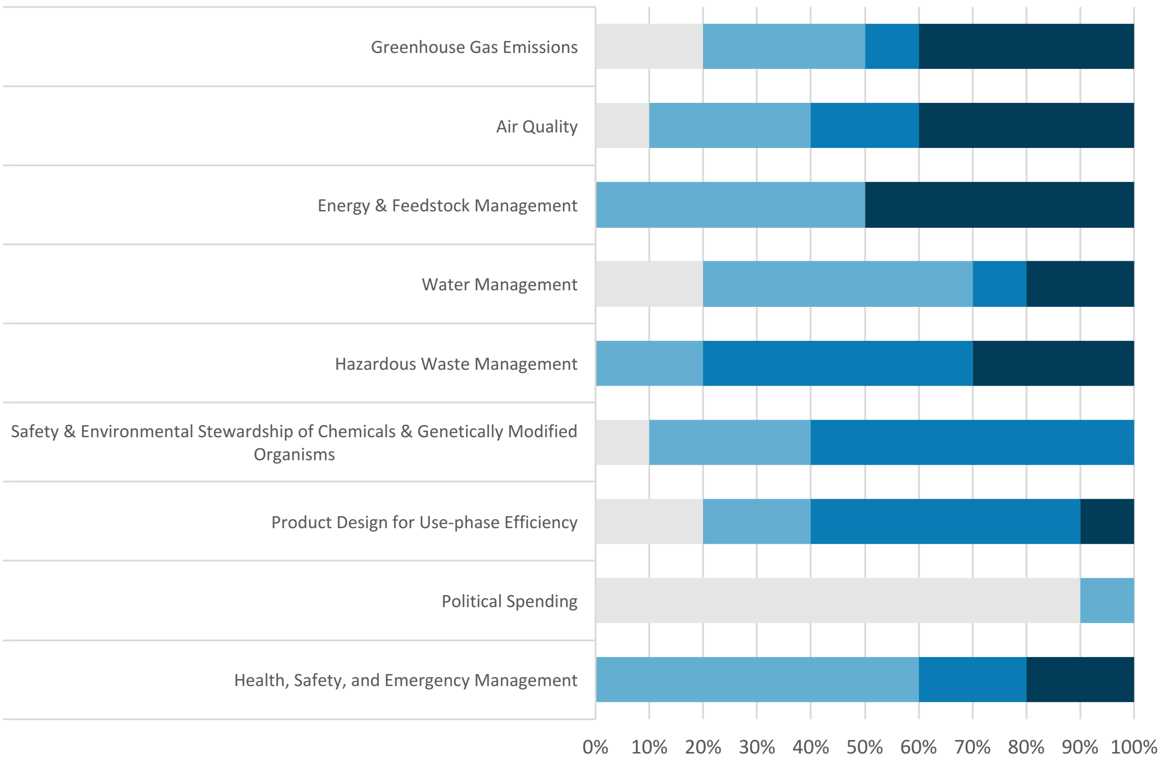


No Disclosure Boilerplate Company-Tailored Narrative Metrics

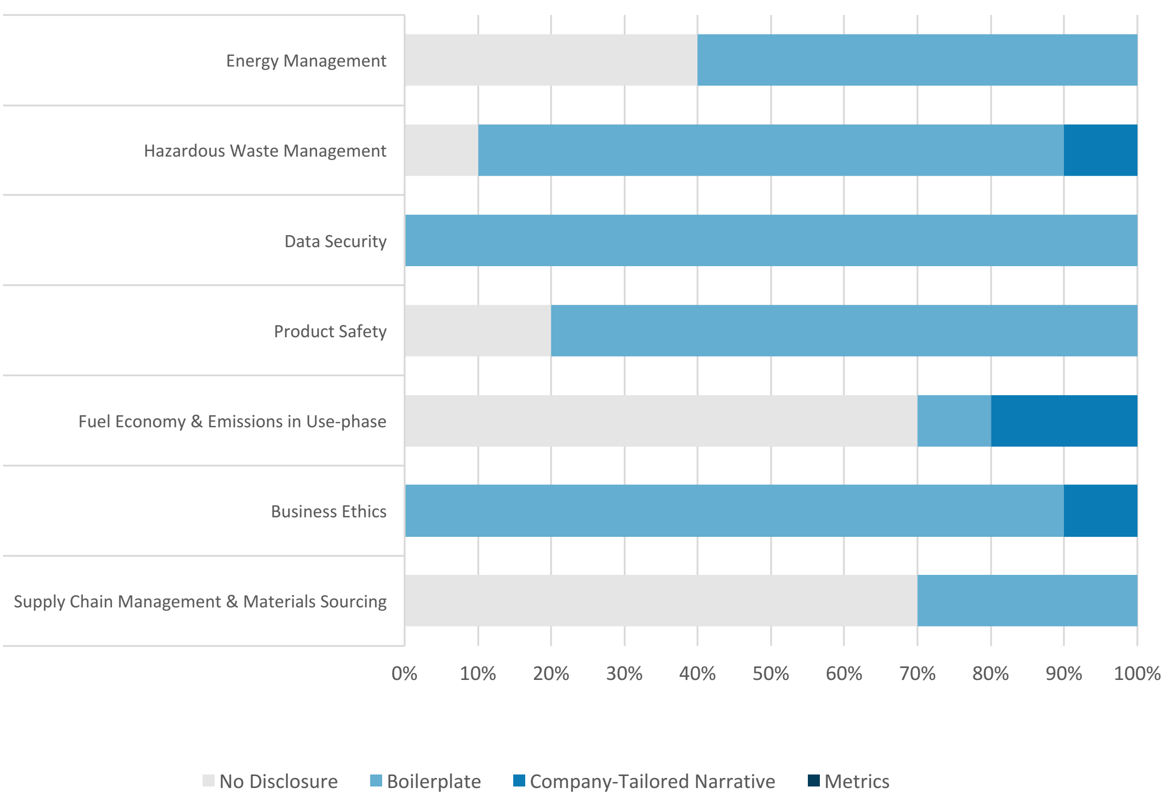
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

RESOURCE TRANSFORMATION SECTOR

CHEMICALS



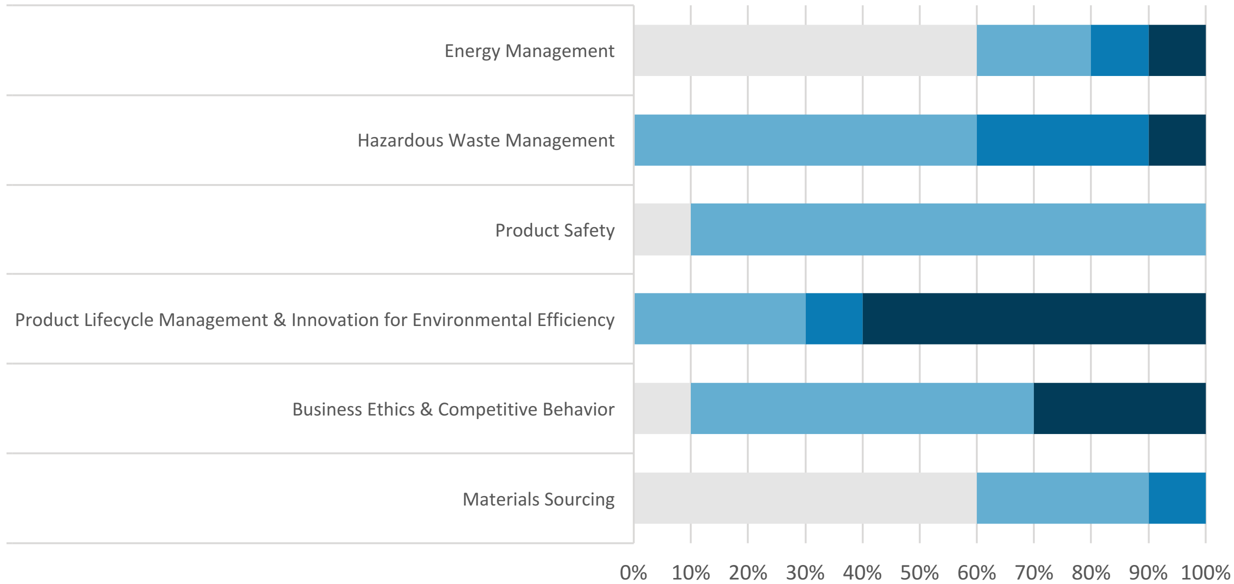
AEROSPACE & DEFENSE



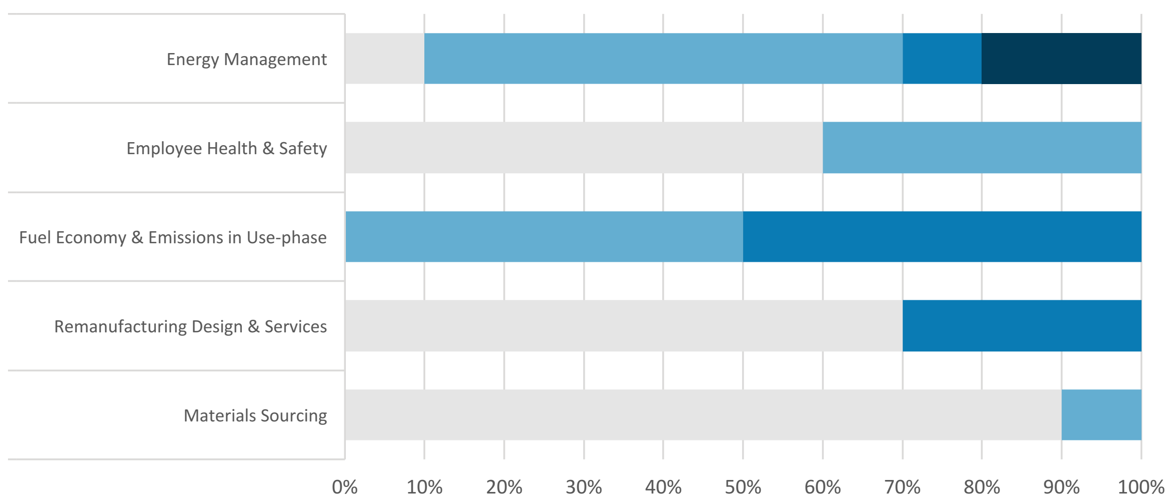
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

RESOURCE TRANSFORMATION SECTOR

ELECTRICAL & ELECTRONIC EQUIPMENT



INDUSTRIAL MACHINERY & GOODS

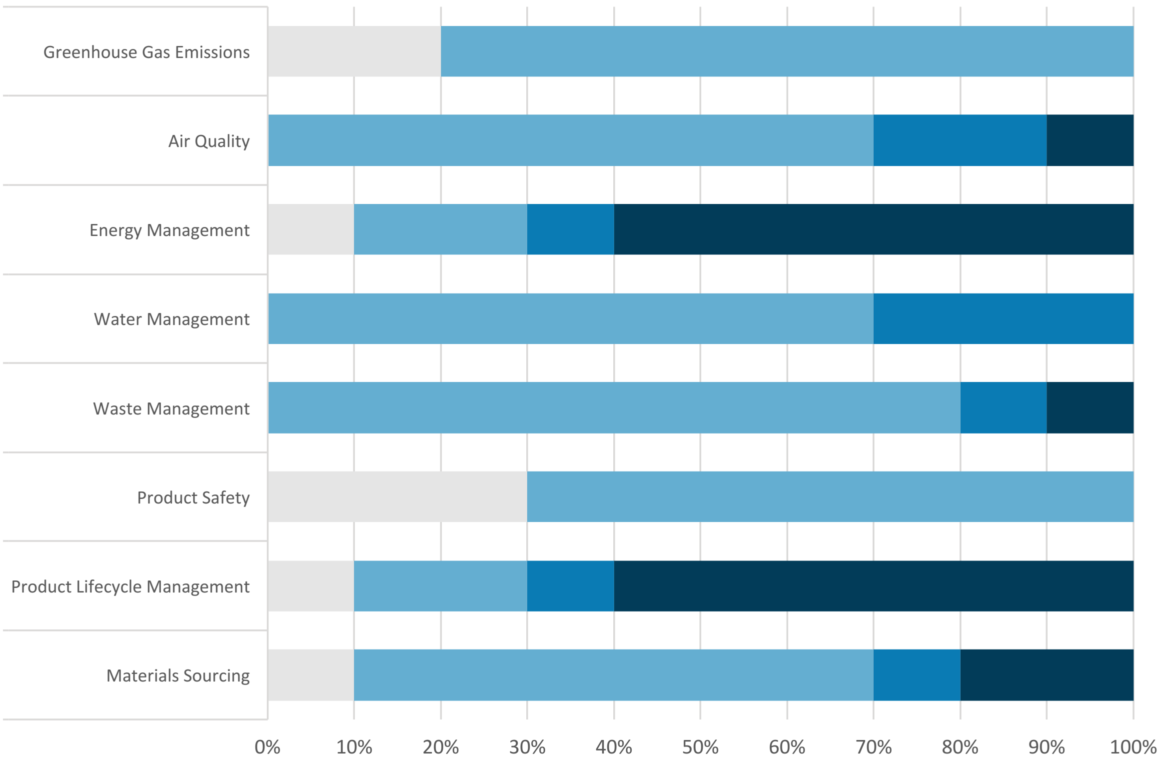


No Disclosure Boilerplate Company-Tailored Narrative Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

RESOURCE TRANSFORMATION SECTOR

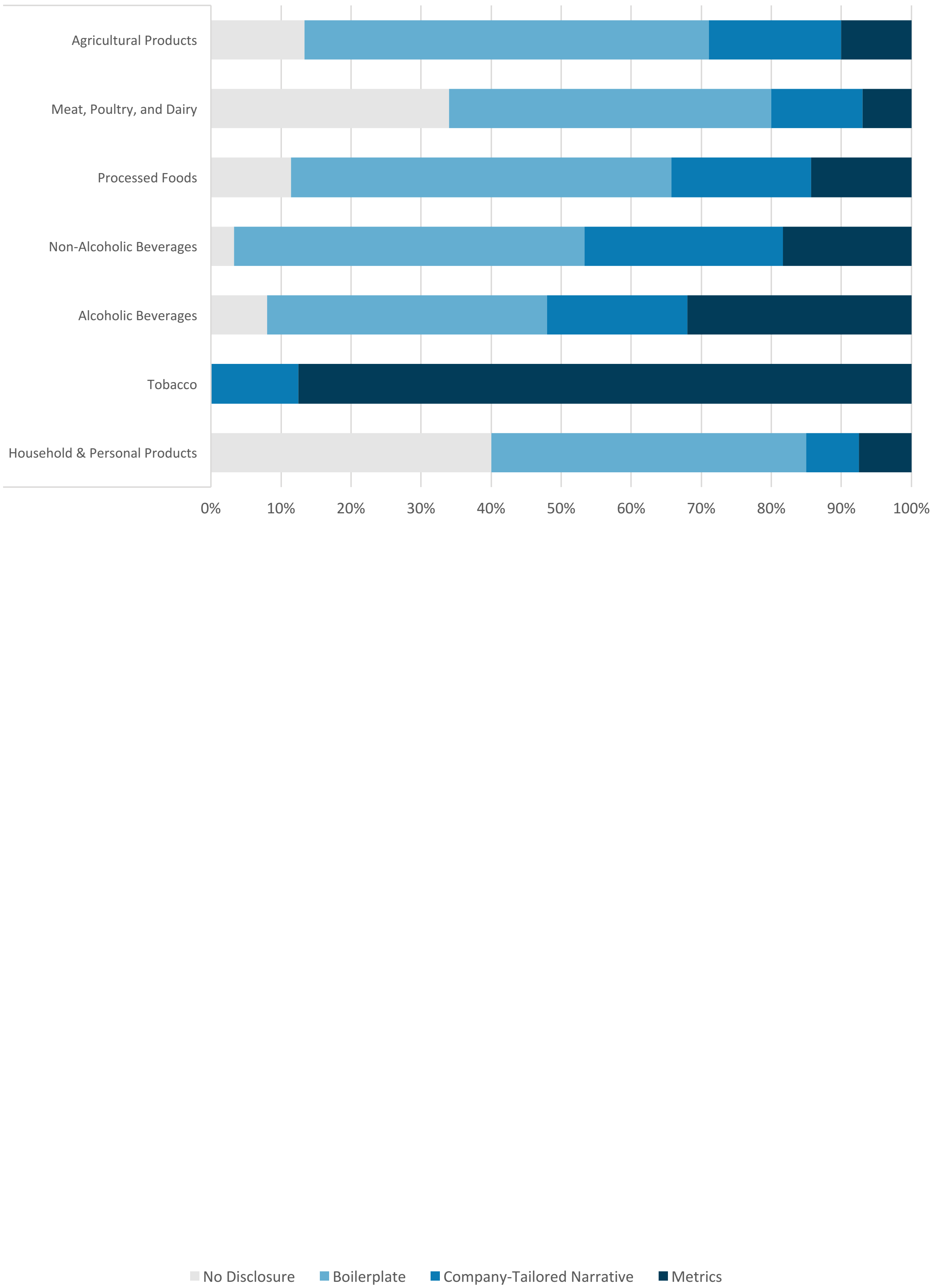
CONTAINERS & PACKAGING



No Disclosure · Boilerplate · Company-Tailored Narrative · Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

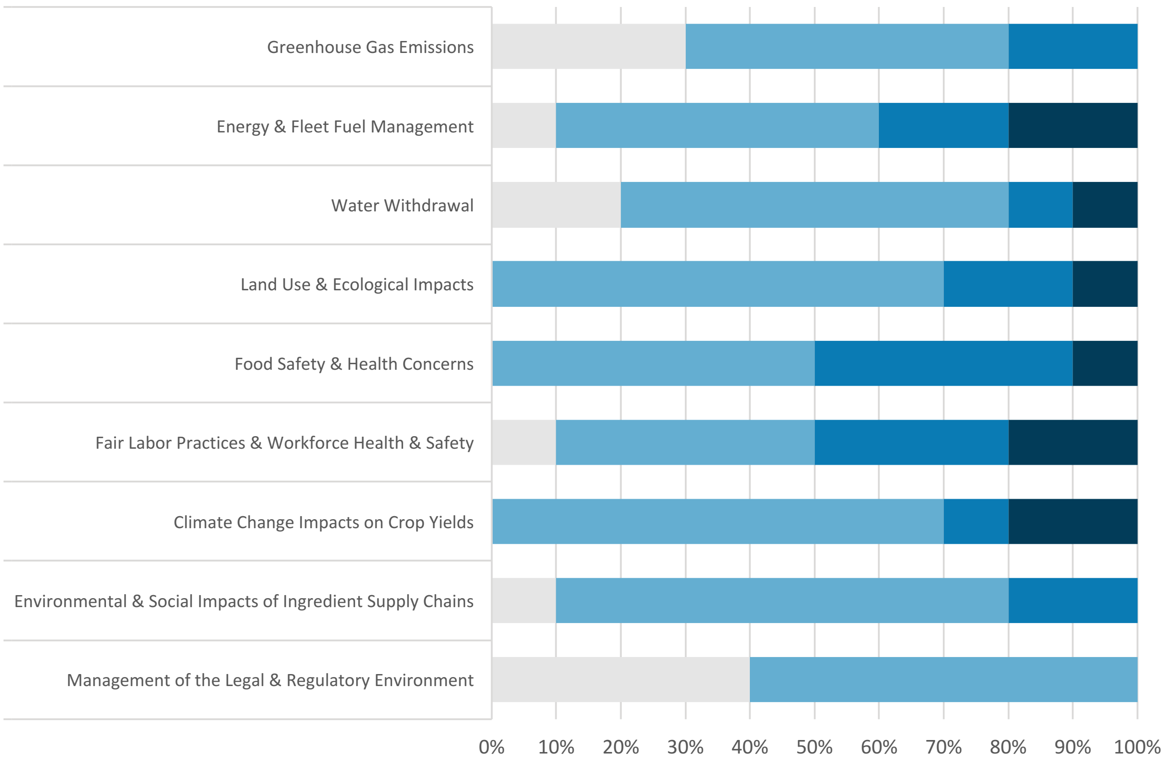
CONSUMPTION I – FOOD AND BEVERAGE SECTOR



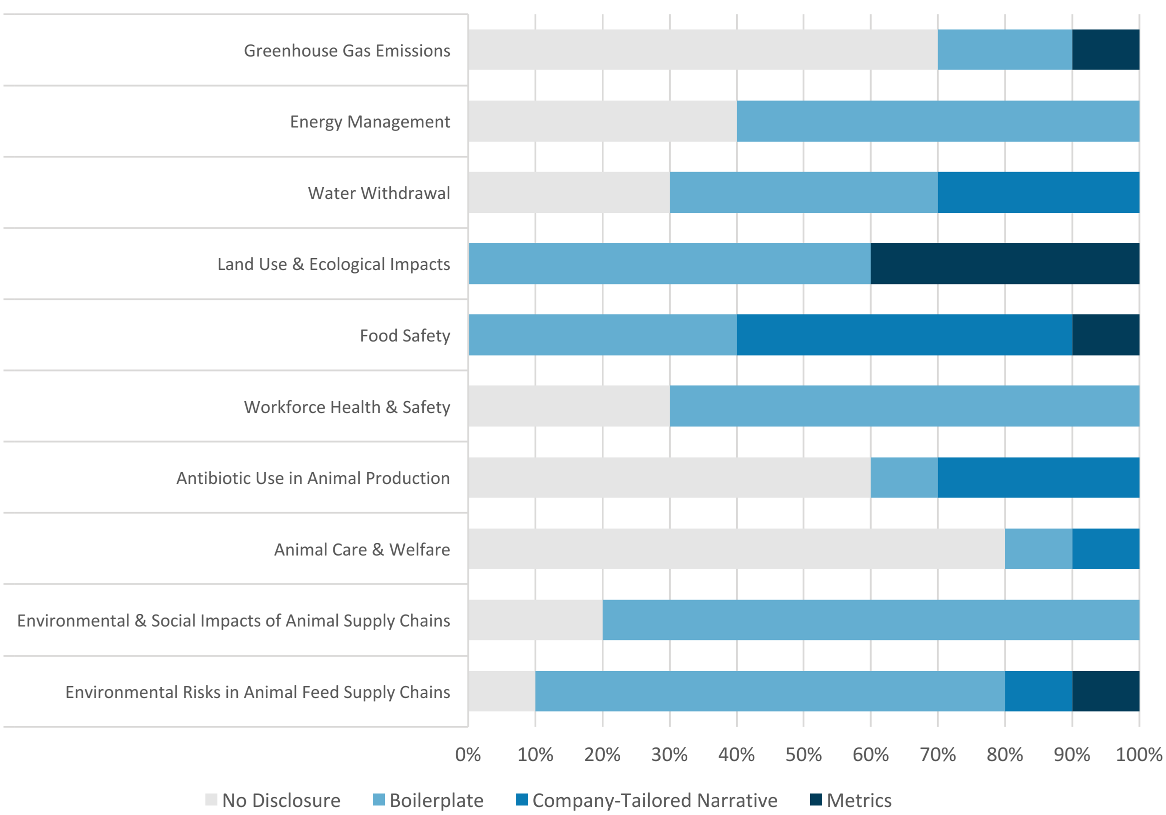
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

CONSUMPTION I – FOOD AND BEVERAGE SECTOR

AGRICULTURAL PRODUCTS



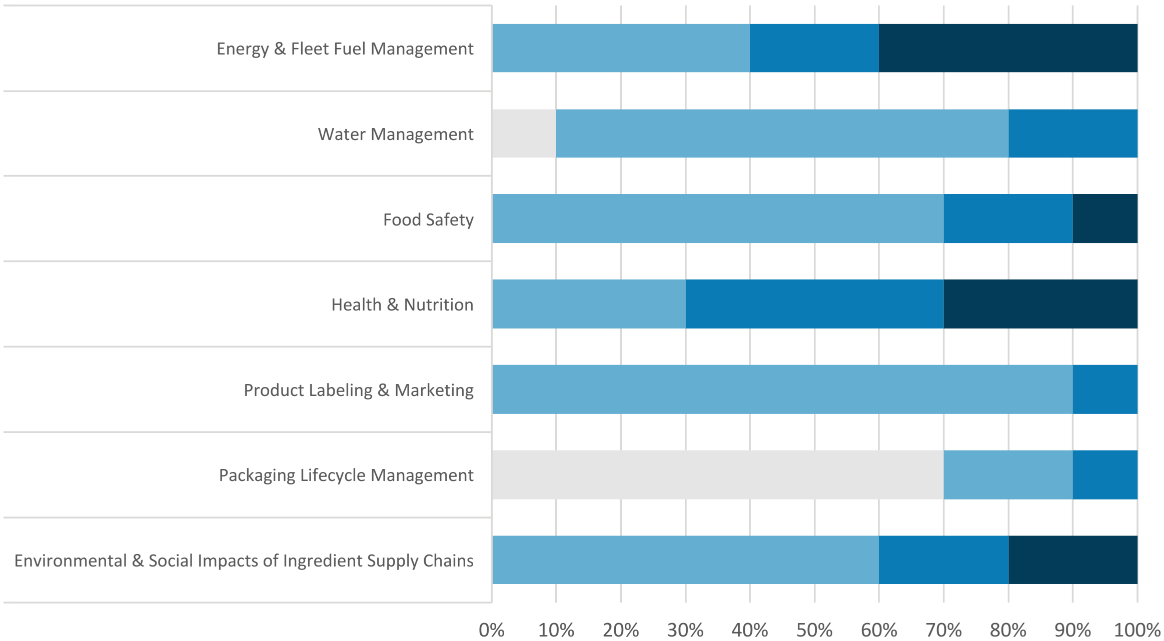
MEAT, POULTRY, & DAIRY



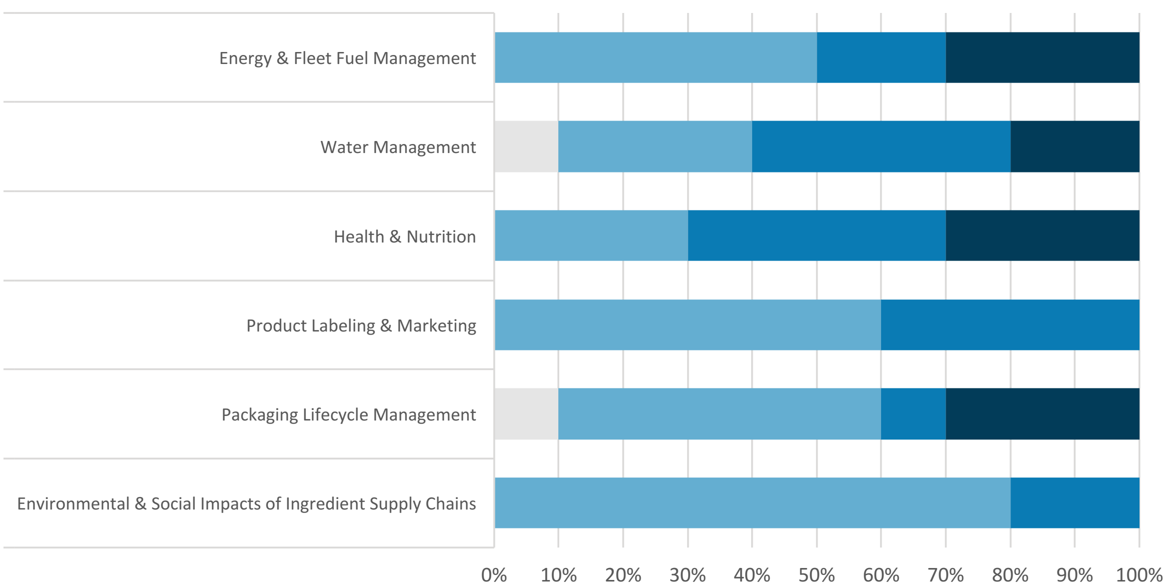
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

CONSUMPTION I – FOOD AND BEVERAGE SECTOR

PROCESSED FOODS



NON-ALCOHOLIC BEVERAGES



No Disclosure Boilerplate Company-Tailored Narrative Metrics

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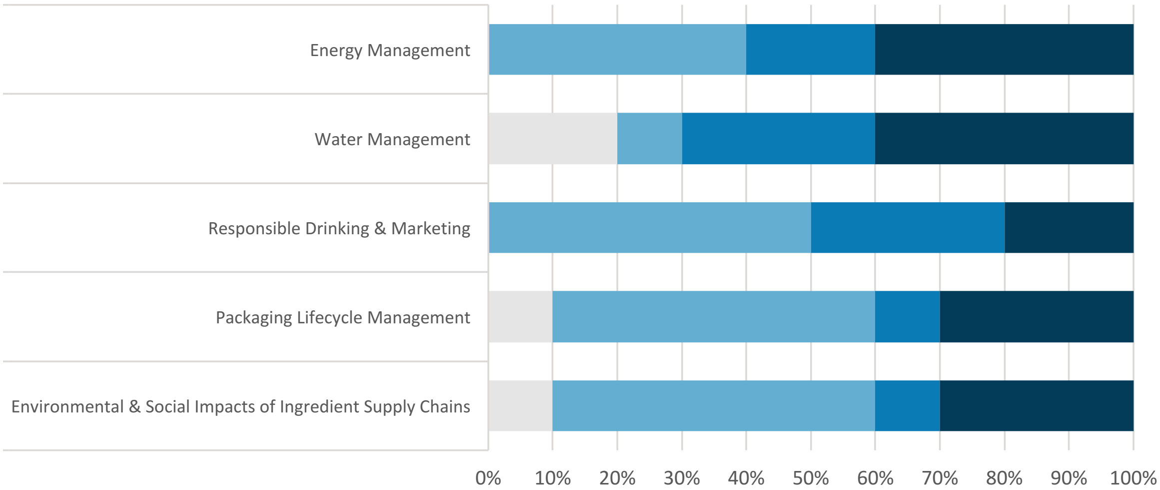
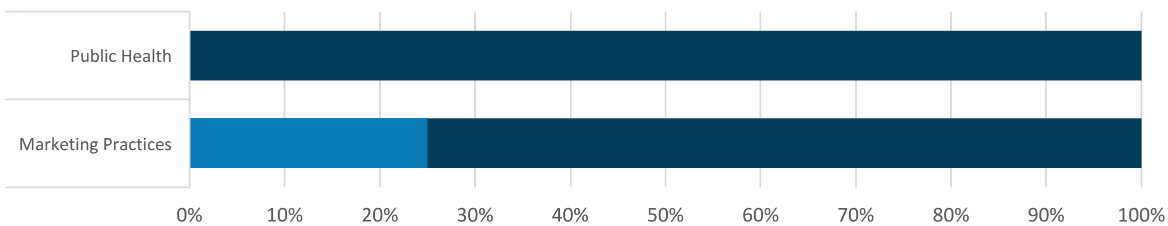
CONSUMPTION I – FOOD AND BEVERAGE SECTOR

ALCOHOLIC BEVERAGES



TOBACCO



No Disclosure Boilerplate Company-Tailored Narrative Metrics

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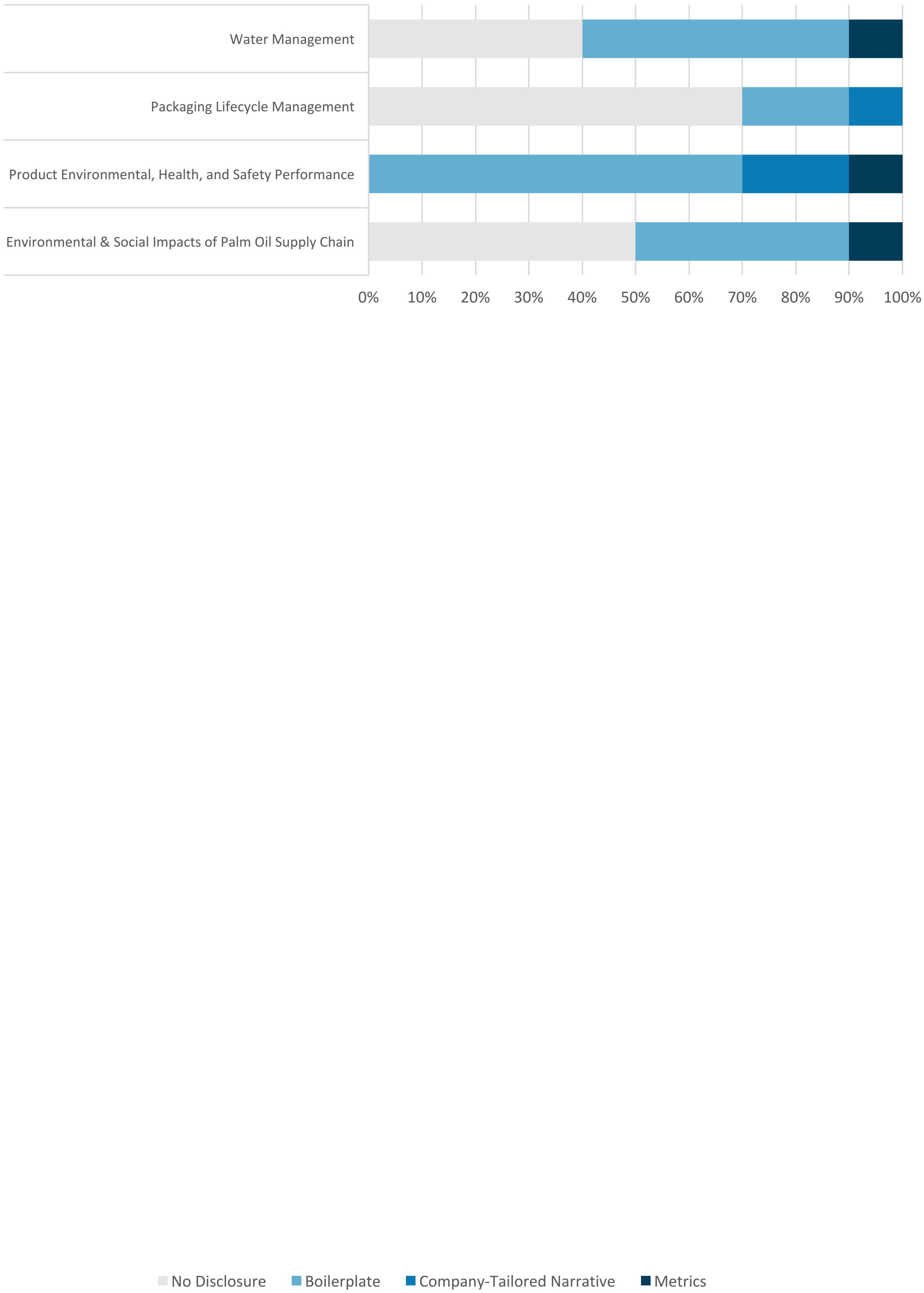
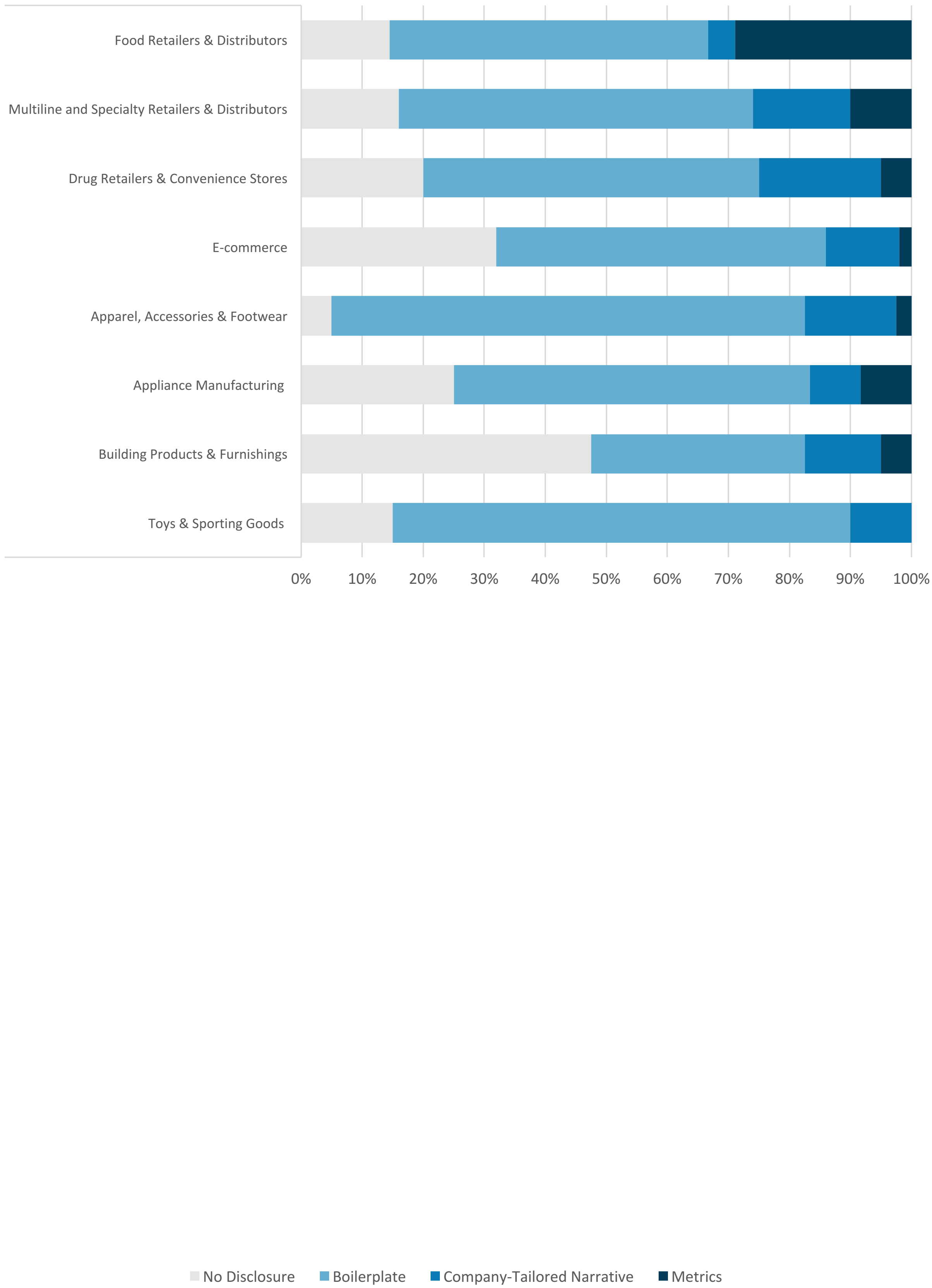
CONSUMPTION I – FOOD AND BEVERAGE SECTOR

HOUSEHOLD & PERSONAL PRODUCTS



Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

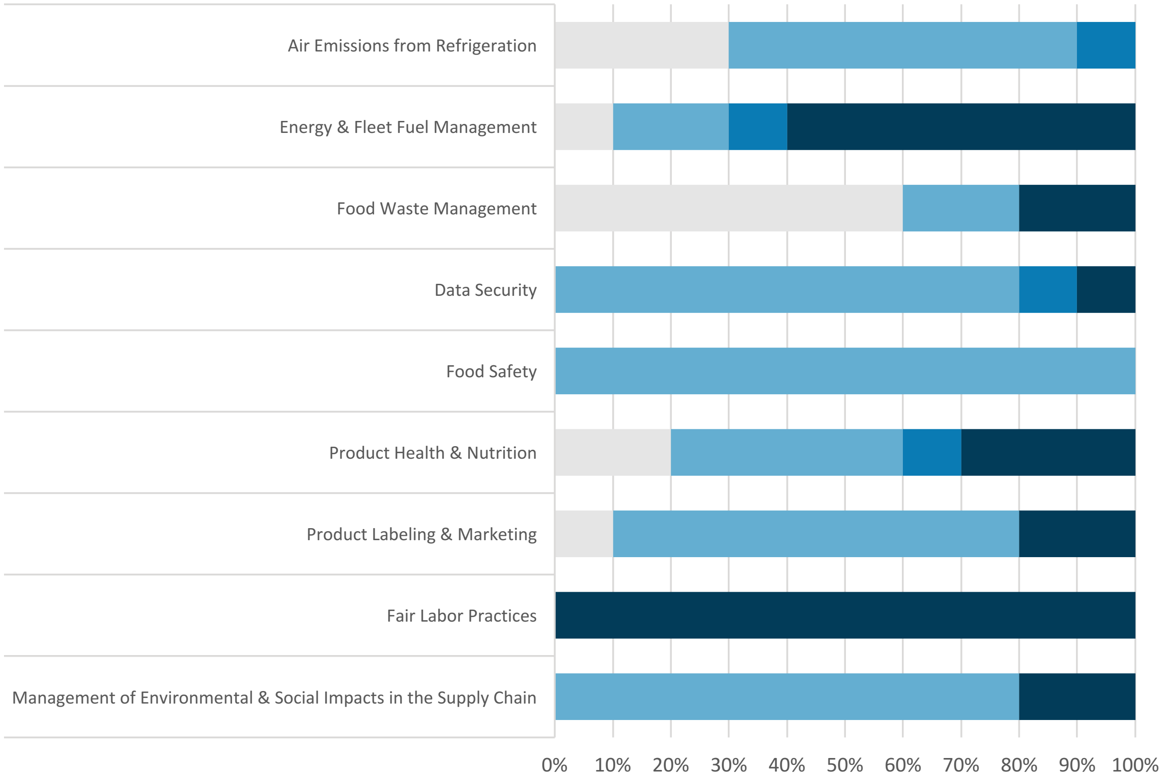
CONSUMPTION II – CONSUMER GOODS AND RETAIL SECTOR



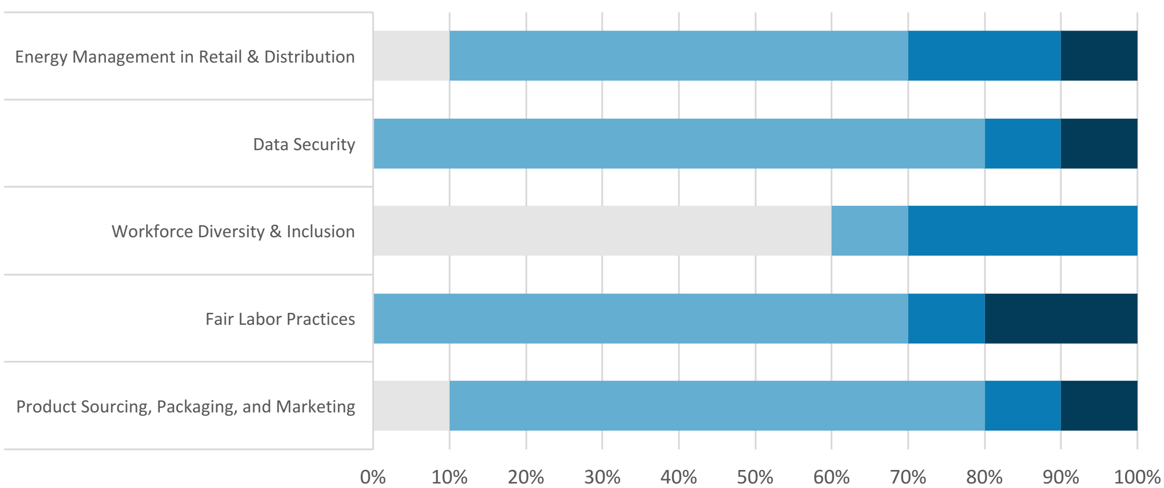
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

CONSUMPTION II – CONSUMER GOODS AND RETAIL SECTOR

FOOD RETAILERS & DISTRIBUTORS



MULTILINE & SPECIALTY RETAILERS & DISTRIBUTORS

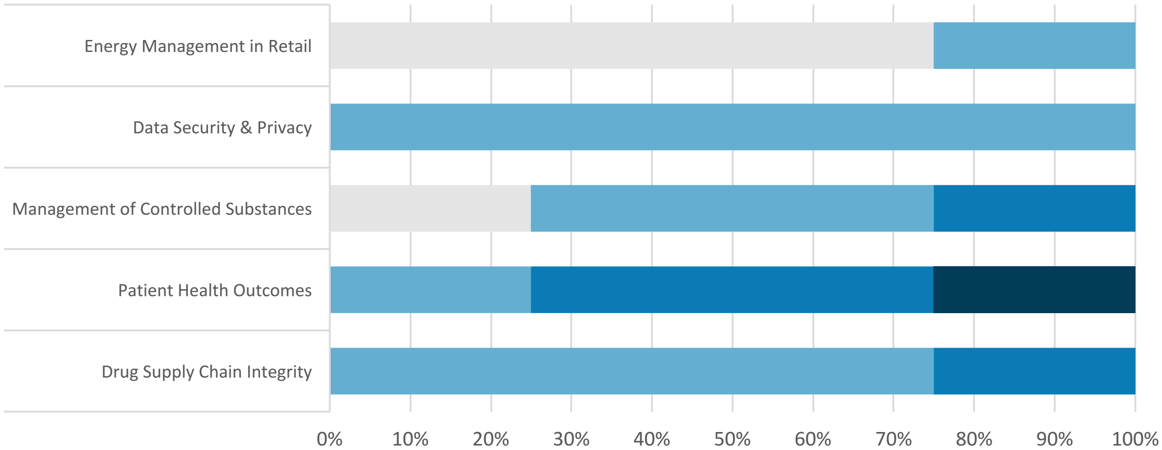


No Disclosure Boilerplate Company-Tailored Narrative Metrics

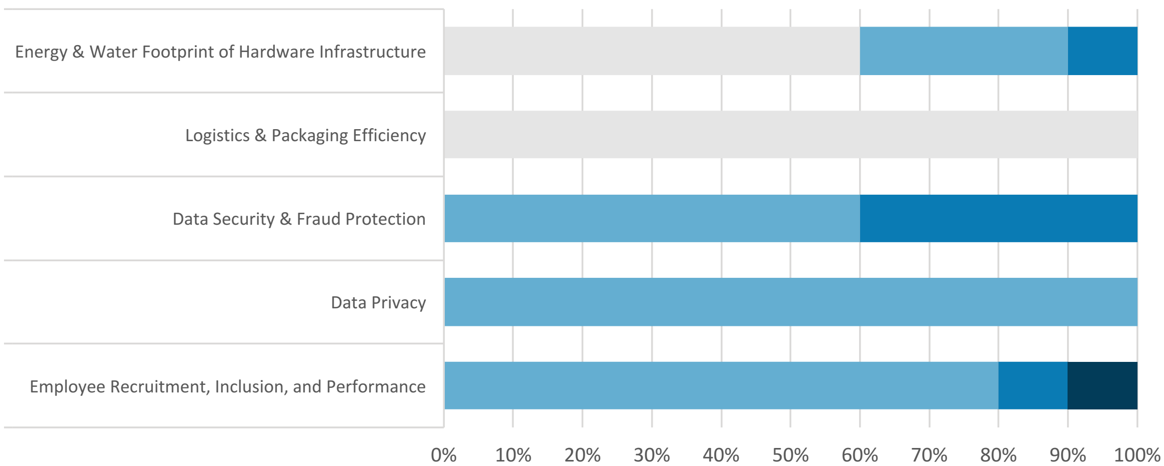
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

CONSUMPTION II – CONSUMER GOODS AND RETAIL SECTOR

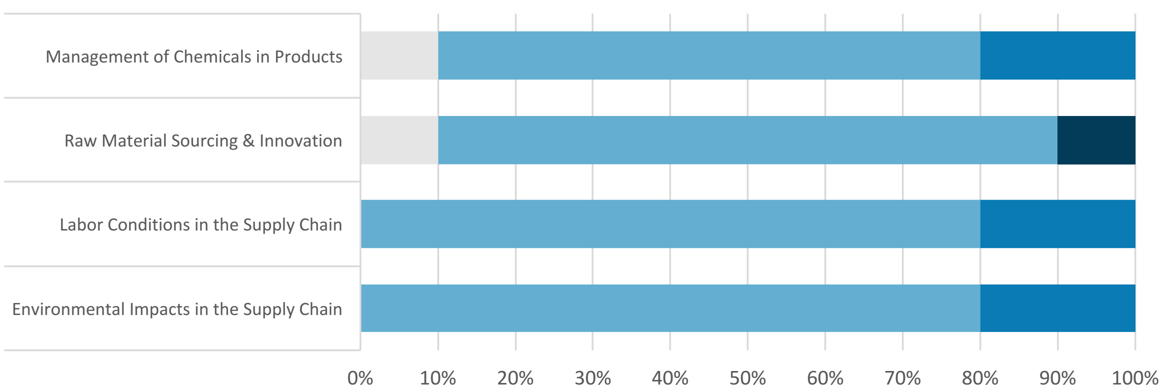
DRUG RETAILERS & CONVENIENCE STORES



E-COMMERCE



APPAREL, ACCESSORIES & FOOTWEAR

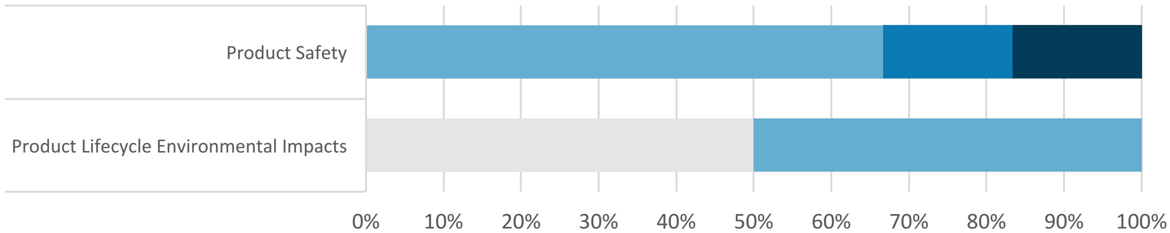


No Disclosure Boilerplate Company-Tailored Narrative Metrics

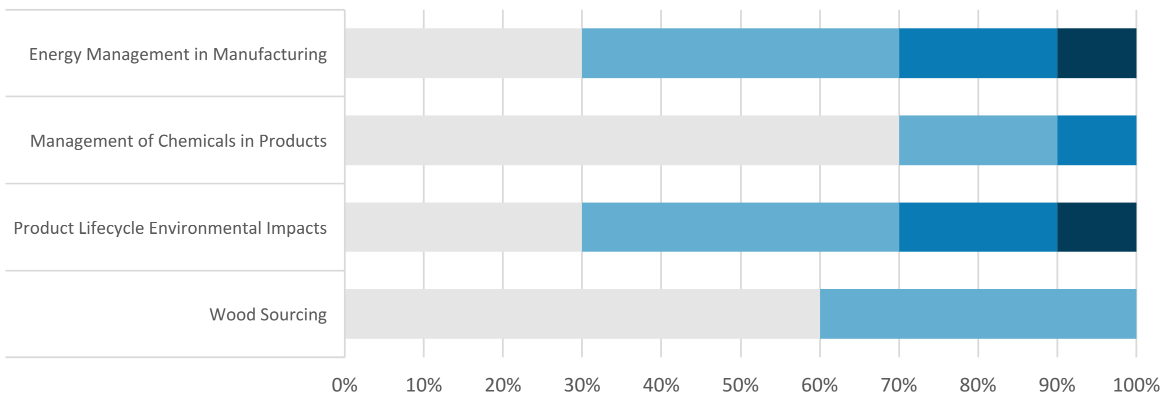
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

CONSUMPTION II – CONSUMER GOODS AND RETAIL SECTOR

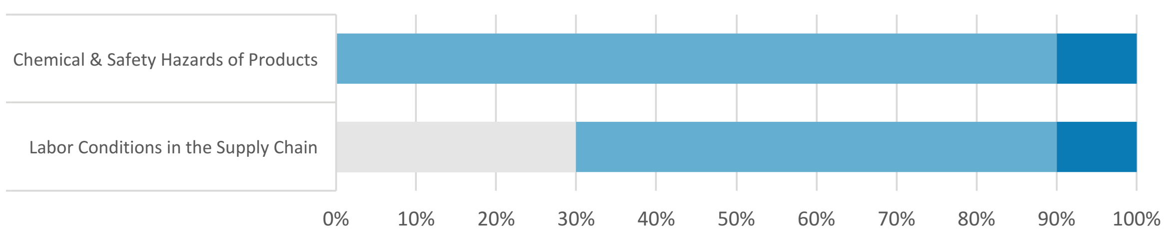
APPLIANCE MANUFACTURING



BUILDING PRODUCTS & FURNISHINGS



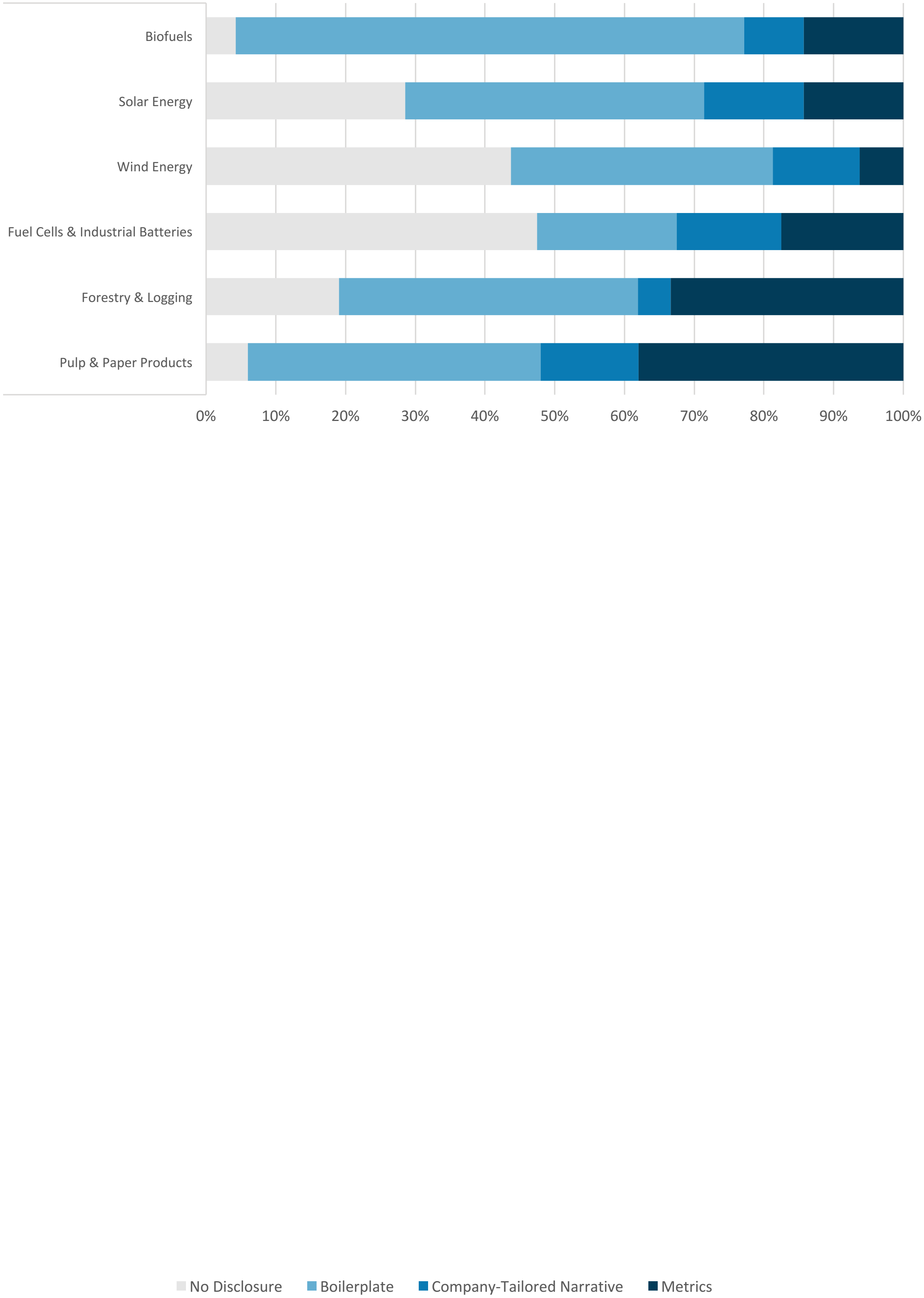
TOYS & SPORTING GOODS



No Disclosure Boilerplate Company-Tailored Narrative Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

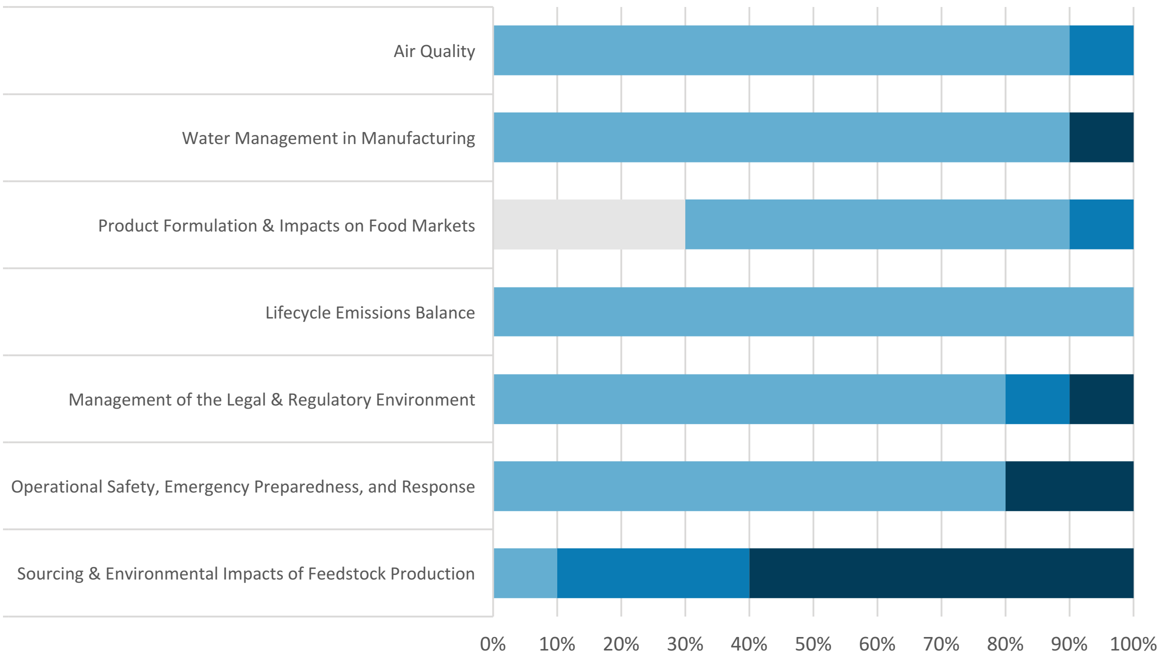
RENEWABLE RESOURCES & ALTERNATIVE ENERGY SECTOR



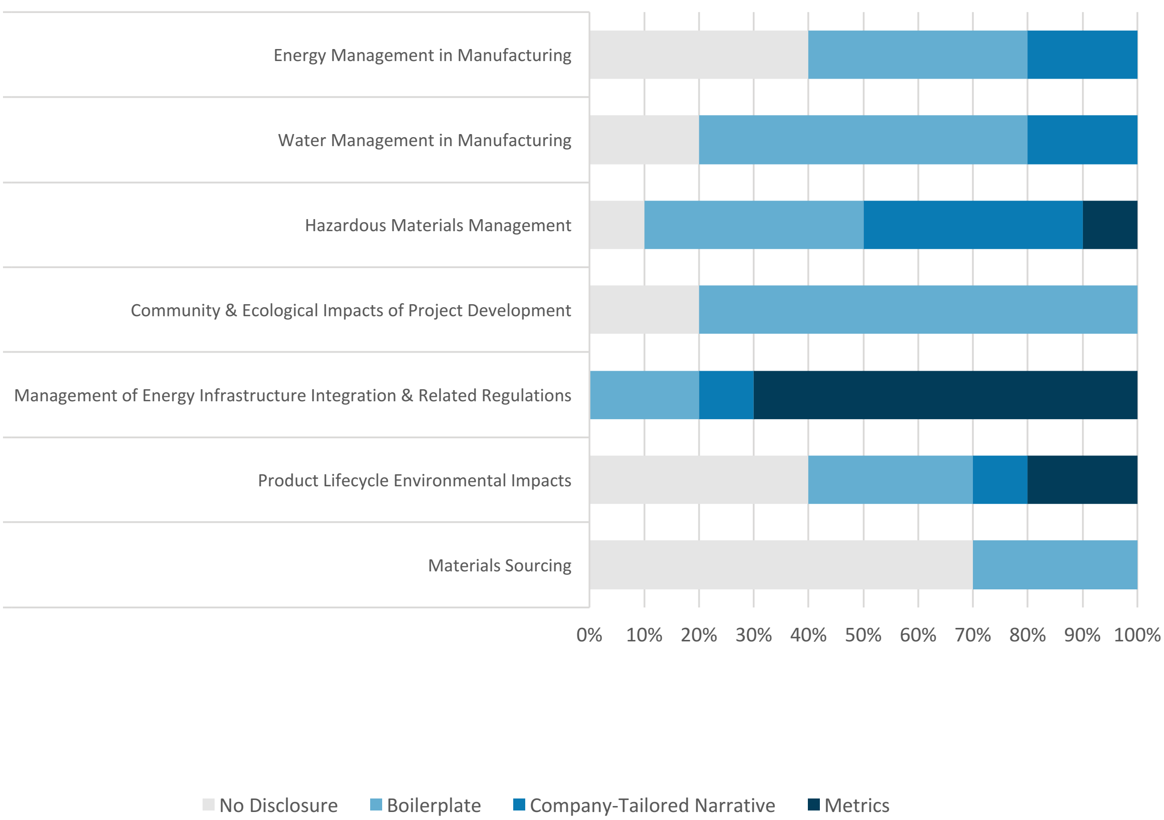
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

RENEWABLE RESOURCES & ALTERNATIVE ENERGY SECTOR

BIOFUELS



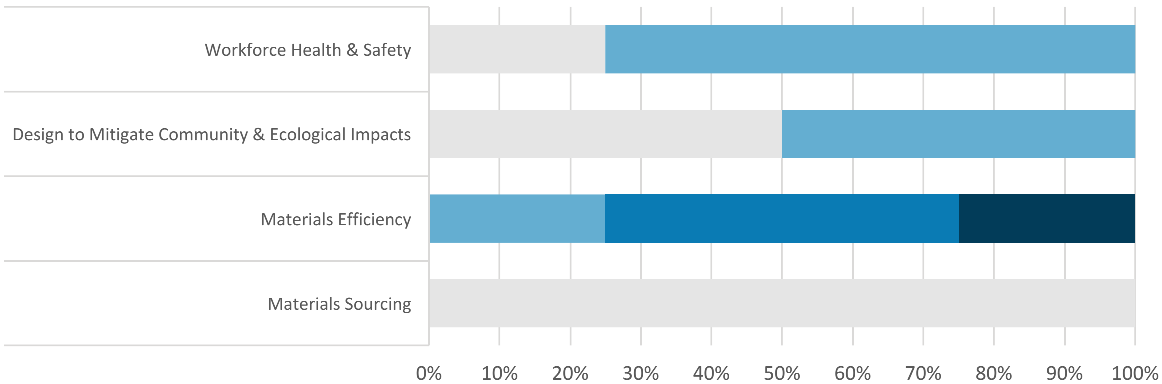
SOLAR ENERGY



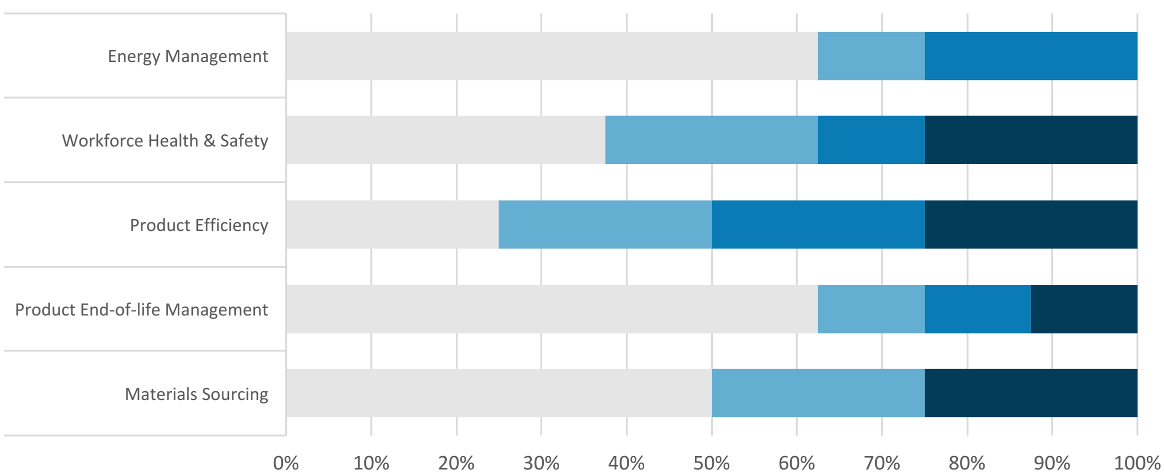
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

RENEWABLE RESOURCES & ALTERNATIVE ENERGY SECTOR

WIND ENERGY



FUEL CELLS & INDUSTRIAL BATTERIES

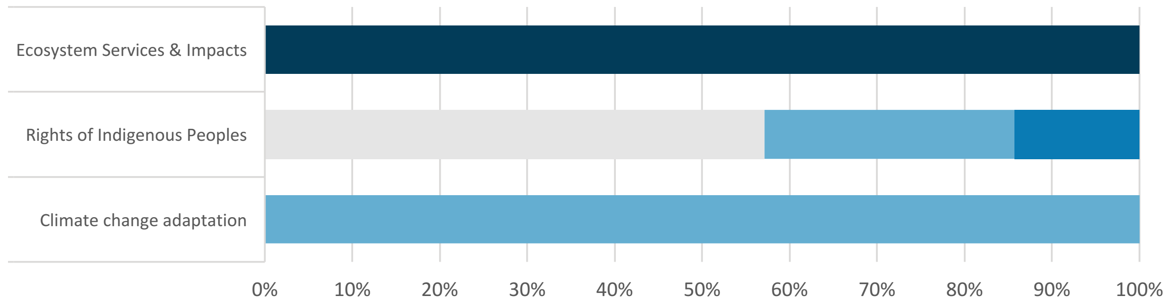


No Disclosure Boilerplate Company-Tailored Narrative Metrics

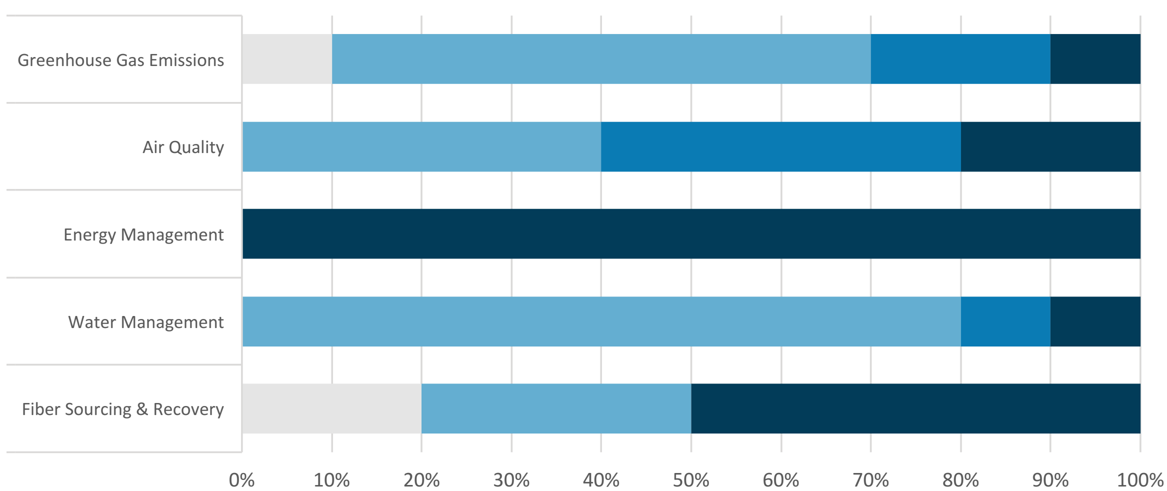
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

RENEWABLE RESOURCES & ALTERNATIVE ENERGY SECTOR

FORESTRY & LOGGING



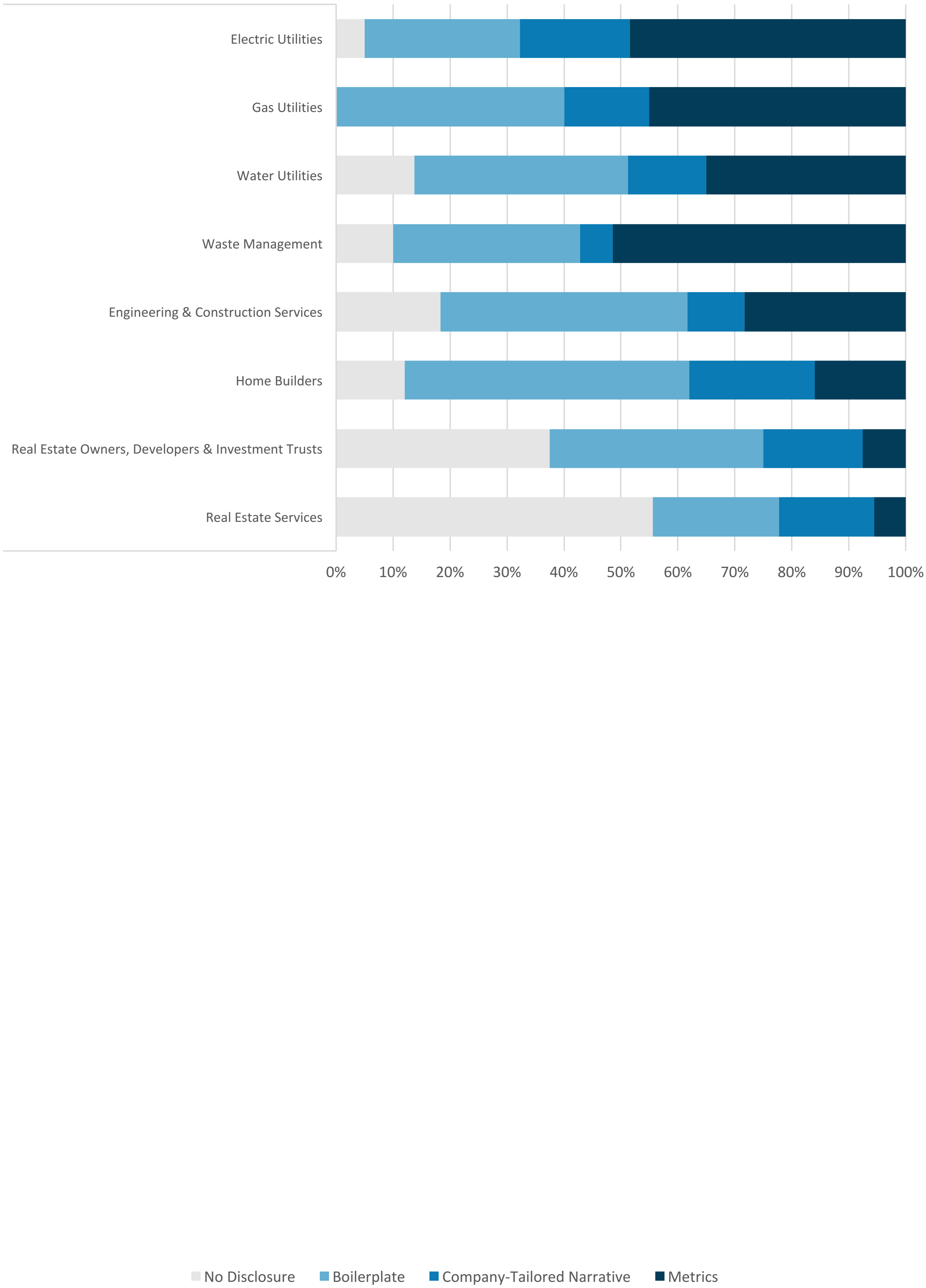
PULP & PAPER PRODUCTS



No Disclosure Boilerplate Company-Tailored Narrative Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

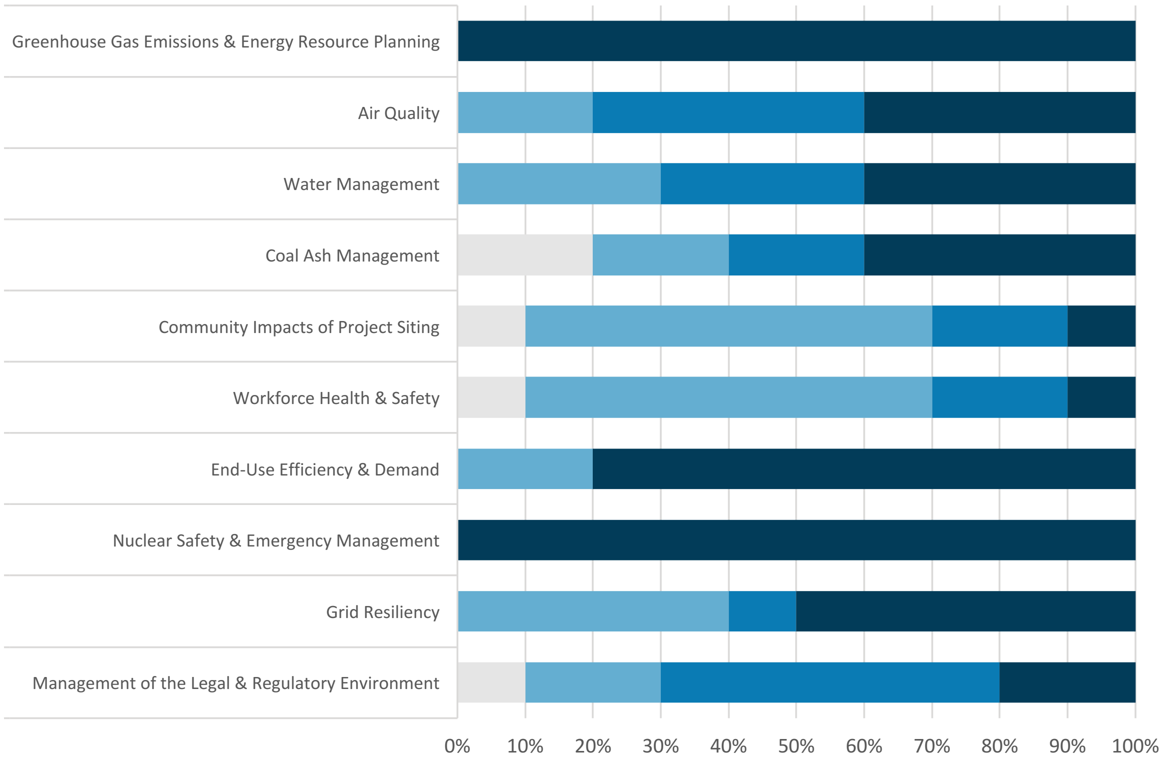
INFRASTRUCTURE SECTOR



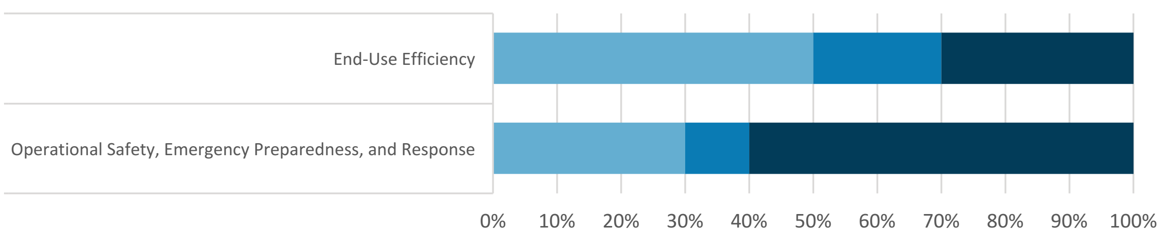
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

INFRASTRUCTURE SECTOR

ELECTRIC UTILITIES



GAS UTILITIES

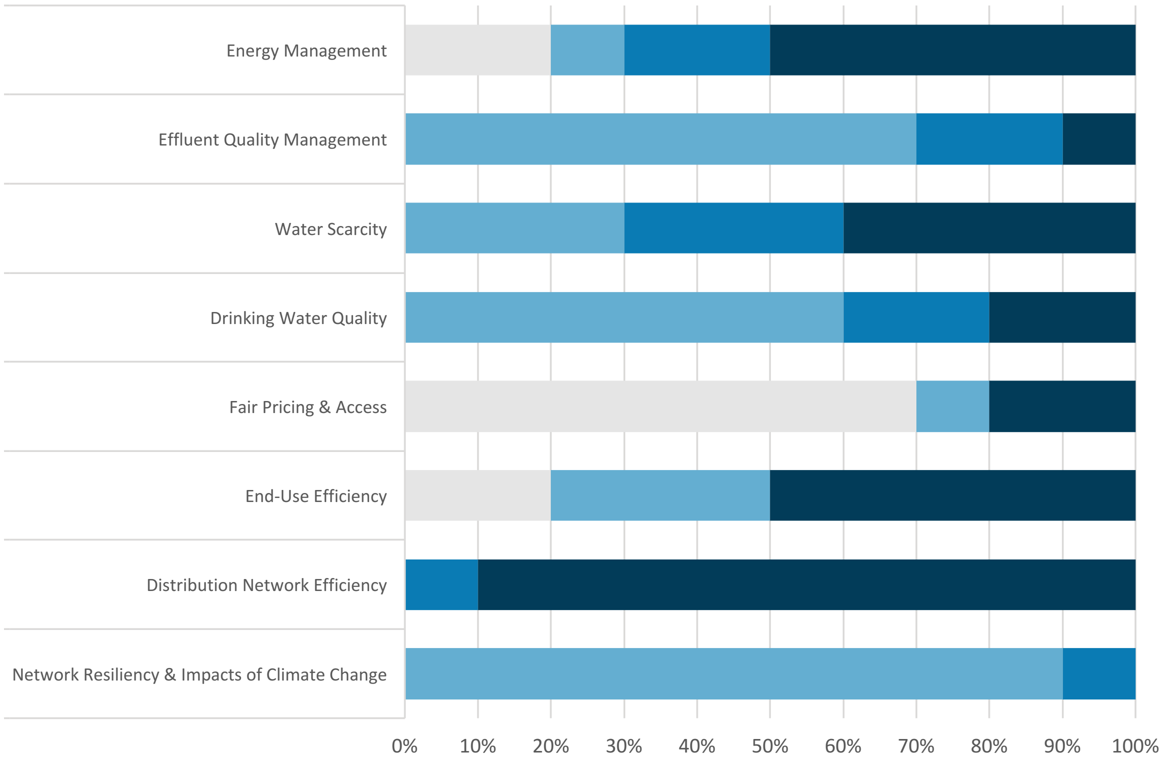


No Disclosure Boilerplate Company-Tailored Narrative Metrics

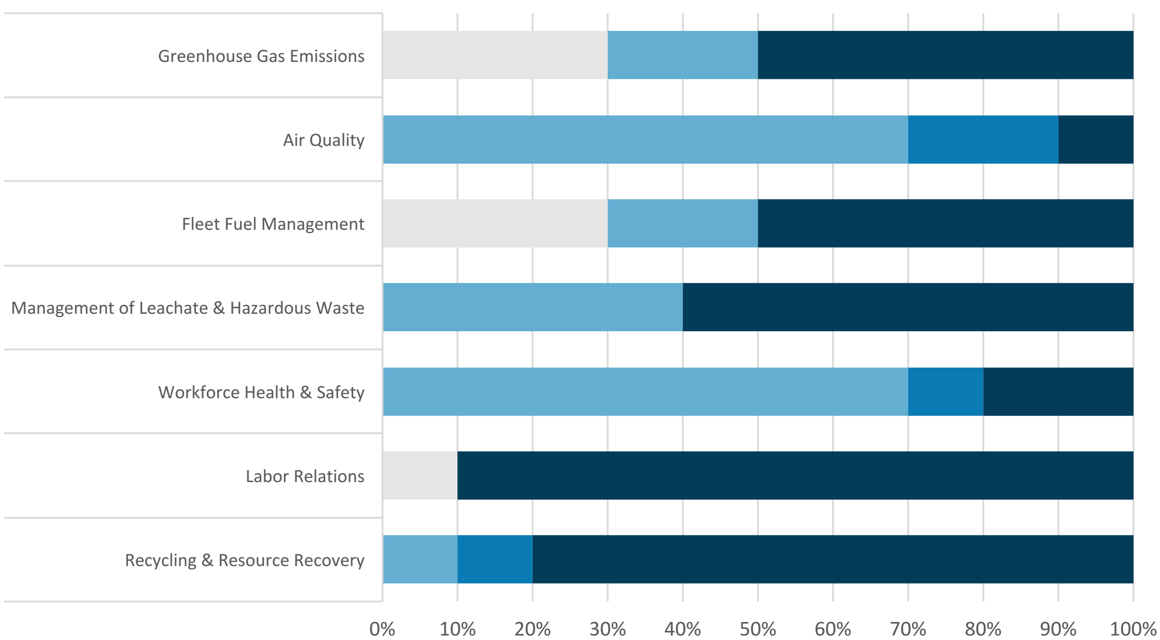
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

INFRASTRUCTURE SECTOR

WATER UTILITIES



WASTE MANAGEMENT

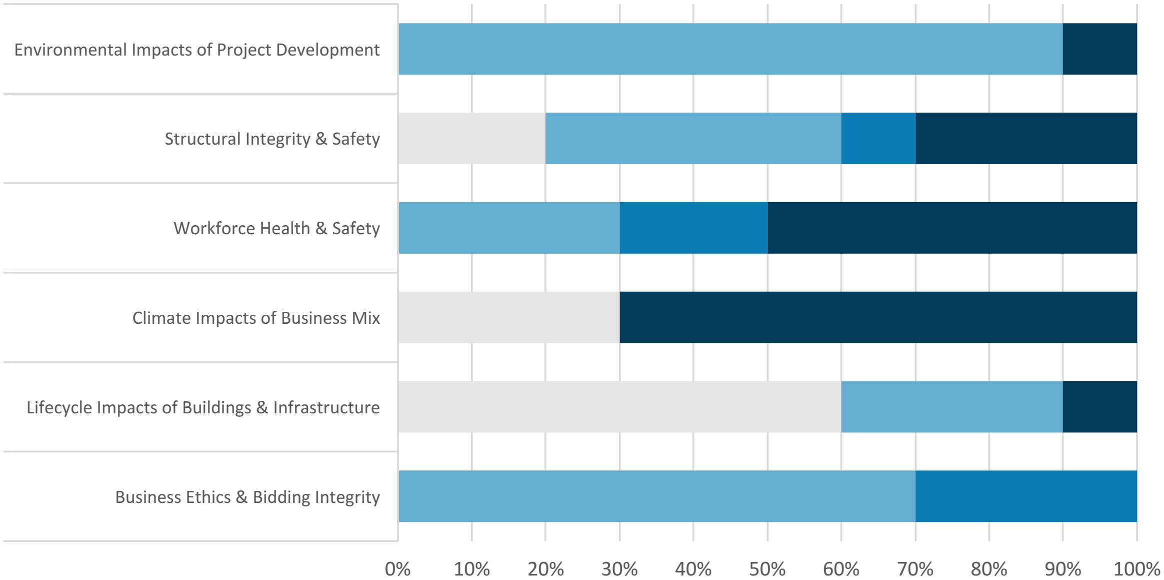


No Disclosure Boilerplate Company-Tailored Narrative Metrics

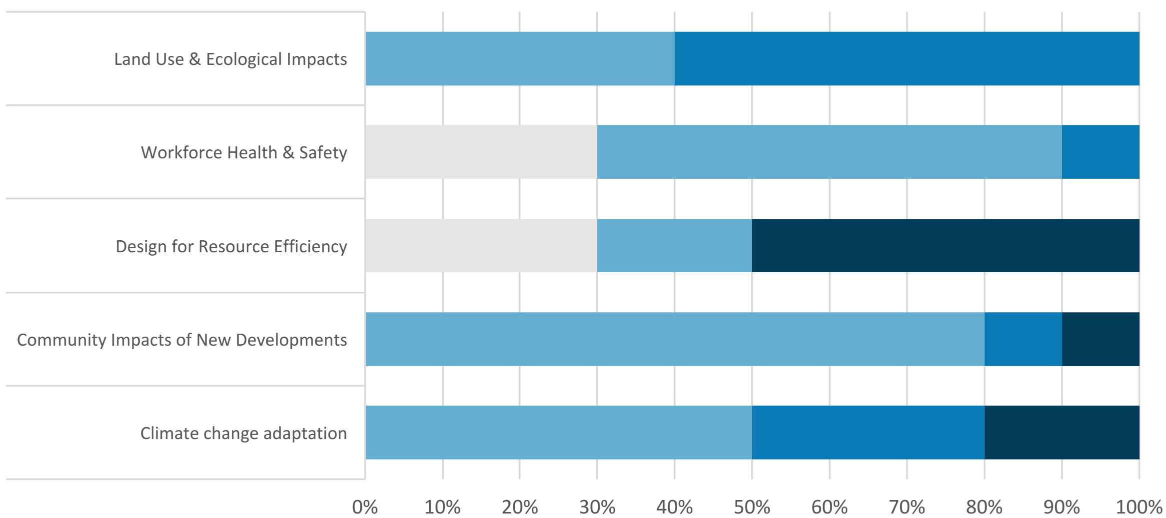
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

INFRASTRUCTURE SECTOR

ENGINEERING & CONSTRUCTION SERVICES



HOME BUILDERS

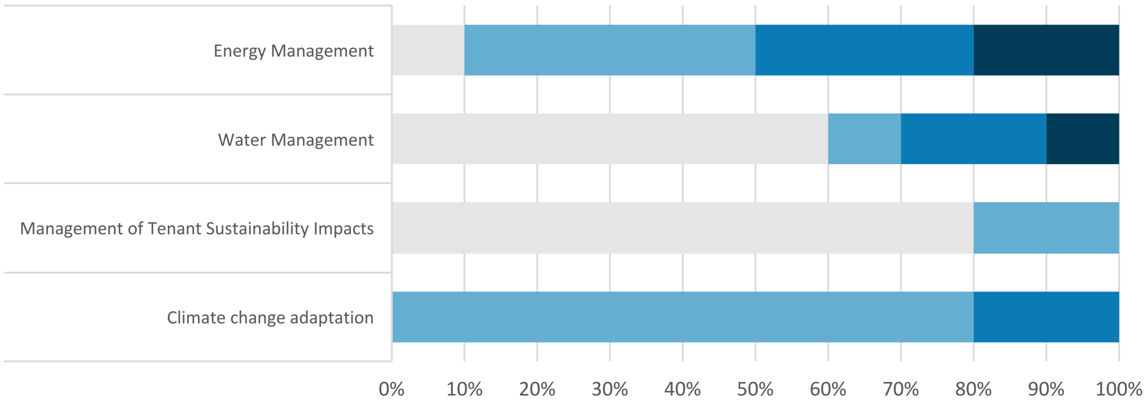


No Disclosure Boilerplate Company-Tailored Narrative Metrics

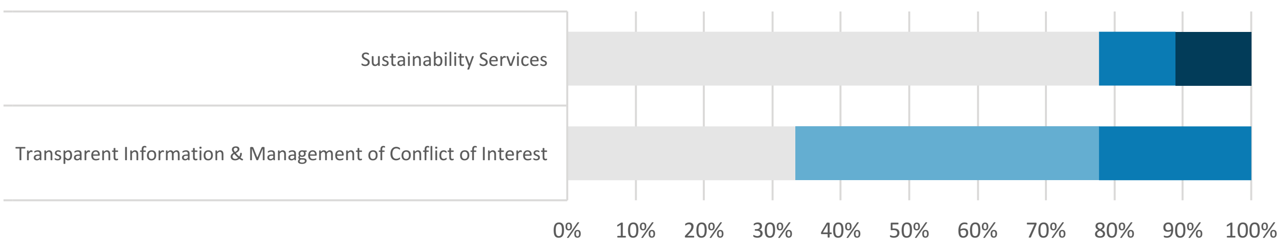
Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

INFRASTRUCTURE SECTOR

REAL ESTATE OWNERS, DEVELOPERS & INVESTMENT TRUSTS



REAL ESTATE SERVICES



No Disclosure Boilerplate Company-Tailored Narrative Metrics

Source: SASB analysis performed between May and September 2017 using the latest annual SEC Filings (i.e., Form 10-Ks and 20-Fs) for the top companies, by revenue, per SICS industry (maximum of 10 companies).

SASB'S SUSTAINABLE INDUSTRY CLASSIFICATION SYSTEM (SICS)

Where most traditional classification systems take a market-oriented approach to classifying companies by sources of revenue, SICS uses an impact-focused methodology. Thus, it builds on and complements traditional classification systems by grouping issuers into sectors and industries in accordance with a fundamental view of their business model, their resource intensity and sustainability impacts, and their sustainability innovation potential. Each of the following 79 industries has its own unique set of sustainability accounting standards in the SASB system.

CONSUMPTION

- Agricultural Products
- Meat, Poultry & Dairy
- Processed Foods
- Non-Alcoholic Beverages
- Alcoholic Beverages
- Tobacco
- Household & Personal Products
- Multiline and Specialty Retailers & Distributors
- Food Retailers & Distributors
- Drug Retailers & Convenience Stores
- E-Commerce
- Apparel, Accessories & Footwear
- Building Products & Furnishings
- Appliance Manufacturing
- Toys & Sporting Goods

FINANCIALS

- Commercial Banks
- Investment Banking & Brokerage
- Asset Management & Custody Activities
- Consumer Finance
- Mortgage Finance
- Security & Commodity Exchanges
- Insurance

HEALTH CARE

- Biotechnology
- Pharmaceuticals
- Medical Equipment & Supplies
- Health Care Delivery
- Health Care Distributors
- Managed Care

INFRASTRUCTURE

- Electric Utilities
- Gas Utilities
- Water Utilities
- Waste Management
- Engineering & Construction Services
- Home Builders
- Real Estate Owners, Developers & Investment Trusts
- Real Estate Services

RESOURCE TRANSFORMATION

- Chemicals
- Aerospace & Defense
- Electrical & Electronic Equipment
- Industrial Machinery & Goods
- Containers & Packaging

NON-RENEWABLE RESOURCES

- Oil & Gas – Exploration & Production
- Oil & Gas – Midstream
- Oil & Gas – Refining & Marketing
- Oil & Gas – Services
- Coal Operations
- Iron & Steel Producers
- Metals & Mining
- Construction Materials

RENEWABLE RESOURCES & ALTERNATIVE ENERGY

- Biofuels
- Solar Energy
- Wind Energy
- Fuel Cells & Industrial Batteries
- Forestry & Logging
- Pulp & Paper Products

SERVICES

- Education
- Professional Services
- Hotels & Lodging
- Casinos & Gaming
- Restaurants
- Leisure Facilities
- Cruise Lines
- Advertising & Marketing
- Media Production & Distribution
- Cable & Satellite

TECHNOLOGY & COMMUNICATIONS

- Electronic Manufacturing Services & Original Design Manufacturing
- Software & IT Services
- Hardware
- Semiconductors
- Telecommunications
- Internet Media & Services

TRANSPORTATION

- Automobiles
- Auto Parts
- Car Rental & Leasing
- Airlines
- Air Freight & Logistics
- Marine Transportation
- Rail Transportation
- Road Transportation

TOPIC SPOTLIGHT YEAR-ON-YEAR COMPARISONS

In last year's publication, the SASB showcased disclosure examples for 22 important cross-cutting sector topics, two for each sector. This year's report includes disclosure examples for a different pair of topics, per sector, to provide additional insights into current reporting practices for a wider variety of industries and sustainability issues (See Table 5 in the "Sector Overviews" section.) While the selection of a new sample of topics allows readers to better understand the current state of disclosure on additional topics included in the SASB's Provisional Standards, it does not allow for year-on-year comparisons. The information and table presented below summarize the observed changes in disclosure effectiveness on the original set of topics.

Table 19. Changes in disclosure effectiveness for companies and topic showcased in last year's report.

COMPANY	TOPIC	FY 2016	FY 2015
Dr. Pepper Snapple Group	Health & Nutrition	Tailored narrative	Boilerplate
GlaxoSmithKline PLC	Counterfeit Drugs	Boilerplate	Metrics
Vale SA	Water Management	Metrics	Boilerplate
Resolute Forest Products, Inc.	Air Quality	Boilerplate	Tailored narrative
Brinker International, Inc.	Fair Labor Practices	Boilerplate	Metrics
Ford Motor Company	Product Safety	Metrics	Boilerplate
Tata Motors Ltd.	Product Safety	Metrics	Tailored narrative
United Parcel Service, Inc.	Environmental Footprint of Fuel Use	Metrics	Tailored Narrative

- Dr. Pepper Snapple Group: Last year, the company identified "increased health consciousness" as a key trend that could affect its business (FY 2015 Form 10-K, page 24.) This year, the company provides tailored narrative on the completion of the "Bai Brands Merger." According to the company, the merger will allow them to capture additional growth as a result of changing consumer preferences (FY 2016 Form 10-K, page 25.)
- GlaxoSmithKline PLC: Last year, the company disclosed metrics on their end-to-end supply chain serialization program aimed to reduce drug counterfeiting (FY 2015 Form 20-F, Exhibit 15.2, page. 44.) This year, these metrics were substituted for generic narrative around the operational and reputational risks from counterfeit drugs (FY 2016 Form 20-F, Exhibit 15.2, page 263.)
- Vale SA: Last year, the company provided generic disclosure on its commitment to reduce the consumption of water in daily activities (FY 2015 Form 20-F, page 20). This year, the company reports figures on total water withdrawals (in million cubic meters) and water reuse ratios—both SASB metrics (FY 2016 Form 20-F, page 19.)
- Resolute Forest Products, Inc.: Last year, the company reported it had received environmental awards for their emission control technologies (FY 2015 Form 10-K, page 28.) This year, such disclosure is no longer available; in its place, the company briefly describes regulatory risks concerning air emissions (FY 2016 Form 10-K, page 18).
- Brinker International, Inc.: Last year, the company provided narrative—and quantitative financial impacts—on legal proceedings related to employee-related disputes (FY 2015 Form 10-K, page 15.) Currently, and having resolved these legal matters, the company only briefly reports on the regulatory and legal risks from the Fair Labor Standards Act (FY 2016 Form 10-K, page 9.)
- Ford Motor Company: Last year, the company discussed the operational and reputational risks it faced from defective vehicles and voluntary or mandatory recalls using boilerplate narrative (FY 2015 Form 10-K, page 15). In its latest SEC filing, the company provides figures on the financial impact from a door latch recall announced during the year (FY 2016 Form 10-K, page 35.)
- Tata Motors Inc.: Last year, the company provided tailored narrative on some of the product recalls it had implemented during the period (FY 2015 Form 20-F, page 7.) This year, the company provides metrics—in the form of costs associated with an airbag recall—affecting its Jaguar Land Rover division (FY 2016 Form 20-F, page 7).
- United Parcel Service, Inc.: Last year, in a list of sustainability highlights, the company provided disclosure on several awards received for its management of environmental topics, including the "Climate Leadership Award for Excellence in Greenhouse Gas Emissions Management" (FY 2015 Form 10-K, page 9.) This year, the company provides additional tailored disclosure around its efforts to manage its carbon-intensity, including its carbon reduction targets. Moreover, it provides performance metrics against those targets (FY 2016 Form 10-K, page 8.)

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