

# The Sustainability Yearbook 2020

Perceiving risks, measuring impact,  
and disclosing results – critical  
steps for propelling corporate  
sustainability into the future

# The Sustainability Yearbook 2020

January 2020

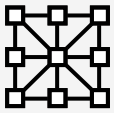
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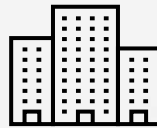
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# 2019 Annual Corporate Sustainability Assessment



**61**

Industries



**4,710**

Companies assessed\*

\*As of November 30th 2019



**227,316**

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# Foreword

Dear Reader,

There's no question the theme of sustainability is increasingly on the minds of investors, business leaders and policy makers. It's moved to the top of the agenda at The World Economic Forum. Sustainable investing assets are growing. And you see more CEOs and corporate policy experts advocating long-term thinking.

Virtually everywhere I go there are discussions about the role asset owners and the world's largest businesses have in society, and how we all should be measuring their performance in that context. Just a few years ago these topics didn't really resonate beyond Scandinavia, parts of Asia and segments of the investment community. Now they're pervasive.

The rising prominence of environmental, social and governance, or ESG, issues and the market demand for greater insights about these matters make this Sustainability Yearbook more important than ever.

This Yearbook stands out for another reason. It's the first one published by S&P Global.

We're incredibly proud to have acquired RobecoSAM's ESG Ratings and Benchmarking businesses and to be able to share the insights you'll find throughout the following pages.

Providing the market with ESG solutions is an ongoing strategic priority for S&P Global. Adding the Corporate Sustainability Assessment (CSA) to our data capabilities will greatly enhance the growing range of analytics, benchmarks and other products we provide to investors, companies and governments to help them identify growth opportunities and mitigate ESG risk.

S&P Global is uniquely positioned to leverage the 20-plus year history of the CSA and help it realize its full potential. Companies will benefit from the breadth and depth of S&P Global's reach in capital and commodity markets and investors will benefit from our commitment to delivering trusted data and insights effectively, reliably and consistently.

We thank everyone who participates in the CSA for their continued partnership. We recognize there are many competing demands for your time, including many different surveys and requests for information, and we want you to know we value your vital contributions.

As you read this report, you'll learn about the highest-performing sustainable companies, sectors and geographic regions in the world as determined by the CSA. And I hope you'll glean new essential and actionable insights about the corporate sustainability themes shaping our world.

Regards,

Douglas L. Peterson

President and CEO  
S&P Global



**Dear reader,**

Welcome to the 2020 Sustainability Yearbook.

Last August the US-based Business Roundtable, which represents over 200 leading US CEOs, unveiled its new definition of the “purpose of a corporation”. The statement placed customer value, ethics in the supply chain, and supporting communities at the forefront of business goals, rather than purely serving shareholders and maximizing profits. Such a move from a body of global business leaders collectively employing over 15 million people and generating upwards of USD 17 trillion in annual revenues was widely reported. It thus served as an affirmation that the interconnected systems within which corporates exist has never been more complex.

#### **Distant threats, and imminent dangers**

It is in part such complexity that presents many companies with the need to mitigate against unforeseen negative events, or – “emerging risks”. The opening article of this Yearbook highlights that many companies are aware of the clear and present dangers, i.e. the material risks, that they face. But it is often the distant threats, the emerging risks, that many are less equipped to properly manage, which can have significant and damaging consequences for corporates.

The article examines the need to target such risks early to minimize the potential for negative scenarios. Data from the SAM Corporate Sustainability Assessment (CSA) for two key risk areas: climate change, and data security & privacy, illustrates the connection between companies’ perceptions of risk, their risk control, and the impact on risk actualization or risk avoidance.

Addressing the threats posed by emerging risks highlights the significance for corporates to understand both the internal and external impacts of their behaviors – positive and negative. Hence, companies simply cannot consider themselves in isolation from their stakeholders. Their actions impact the environment, social equity, and ultimately their profits.

#### **Holding sustainability to account**

Impact valuation, a relatively new concept, is a tool that companies can use to help identify, measure, and value their externalities beyond products and profit. The rationale for management teams to assess their business activities for a better understanding of impact, risk, and value creation for society is the focus of our second article.

Corporate behavior which produces both positive and negative internalities and externalities reaches beyond financial markets. Therefore, companies must understand their impact on a broader group of stakeholders, e.g. customers, employees, communities as well as shareholders, for strategic management decision-making. This requires corporates to look critically at their ESG efforts, holding sustainability to account.

As part of a more holistic view, impact valuation aids companies to better anticipate and manage future risks from multiple sources, while also gaining an understanding of the promising opportunities to explore. Only when all externalities are properly factored into the decision-making process can companies make viable business decisions that positively impact their profits and growth without disadvantaging “the commons” or society.

The further development of impact valuation criteria is just one way in which the CSA will evolve in its third decade since being established in 1999. Collaboration will continue with industry standard-setters such as WBCSD, the Natural Capital Coalition, Social and Human Capital Coalition, and the CDP.



### Climate disclosure – a first step towards change

Later in 2020 will come the five-year anniversary of COP 21, the Paris Climate Conference, which firmly and ominously marked out the climate emergency as the issue of our age. Fittingly, our interview on climate disclosure with Faye Bennett-Hart, Associate Director, Reporting at CDP, reveals the organization's progress in helping companies and governments track and disclose their environmental impact.

A knowledge-partner of RobecoSAM for over six years, the CDP focuses on investors, companies, and cities to take action to build a truly sustainable economy by measuring and understanding their environmental impact.

Improved climate disclosures are a prerequisite for meaningful change in both corporate business practices and capital allocation to address the climate emergency. Understanding the challenges of data collection and material impacts is the first step in transforming business models and setting ambitious goals.

Describing this as an “exciting transformational time”, Ms. Bennet-Hart explains the importance of having the best data available for companies, governments, and investors to use in critical decision-making for future-proof growth in a low-carbon economy.

### A fresh start to the new decade for the CSA

In late 2019, RobecoSAM and S&P Global agreed to build on their successful 20-year relationship by transferring the SAM ESG Ratings and Benchmarking businesses to S&P Global, the holding company of S&P Dow Jones Indices (S&PDJI), RobecoSAM's longtime partner for the Dow Jones Sustainability Indices (DJSI). The transaction was completed early January 2020 and SAM is now a part of S&P Global.

The transaction covering all assets branded “SAM” and “Corporate Sustainability Assessment” includes all future Sustainability Yearbooks, which will be published by S&P Global. The embedding of the CSA activities of RobecoSAM into S&P Global will enhance the scale of the operations, usage, and volume of the data and services, which will benefit all stakeholders. S&P Global assuming ownership of the SAM CSA is an excellent strategic fit.

As the next CSA campaign begins shortly, we look forward to engaging with all CSA stakeholders more intensively than ever.



Edoardo Gai

Head of ESG  
Benchmarking  
S&P Global



Manjit Jus

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An aerial photograph of a dense forest, showing the tops of many tall evergreen trees. The canopy is a mix of dark green and lighter green, with some trees appearing more vibrant than others. The perspective is from directly above, looking down into the forest.

## **Impact Valuation – Holding Sustainability to Account**

Environmental issues like increasing climate change and decreasing biodiversity together with social issues like pernicious inequalities in labor markets, bring into stark relief the fact that companies' impacts are not limited to financial markets. Business behavior produces positive and negative externalities that affect society, ecosystems, and the planet.

Impact valuation is a way for companies to gain a more comprehensive, concrete understanding of the value (or cost) of their impacts on society. Impact valuation is a tool companies can use to help identify, measure and value their impact beyond products and profits. This means looking beyond customers and suppliers toward their impact on a broader group of stakeholders that include people and planet. Impacts are measured, quantified and reported in hard figures that can be positive or negative, depending on whether value is being created or destroyed. It is only by measuring these externalities that a true picture of a company's value can be painted.

Impact valuation goes beyond sustainability reporting and toward a more systematic prioritization, collection, and evaluation of data via quantification and monetization techniques. It is still a nascent movement, but it is gaining momentum as more experts across accounting, finance and sustainability advocate it as a means to elevate sustainability standards in business, equip companies with tools for the task, and hold them accountable for their performance.

What sets impact valuation apart from other forms of sustainability reporting are the demands it places on companies to critically and systematically assess and value the externalities that result from their business activities. Moreover, unlike many forms of sustainability reporting, it is intended as a tool for strategic decision-making by management rather than simply to inform shareholders of sustainability and corporate responsibility initiatives.

Here we seek to demonstrate the current state of play and practice among companies worldwide. This helps us to better understand how impact valuation is evolving globally in general as well as within specific industries. Our findings indicate that even after three years of reporting, misconceptions regarding impact valuation's purpose and execution are still rampant. Impact valuation is time-, knowledge-, and resource-intensive. As a result, many companies misunderstand and misimplement valuation methodologies; others ignore impact valuation completely.



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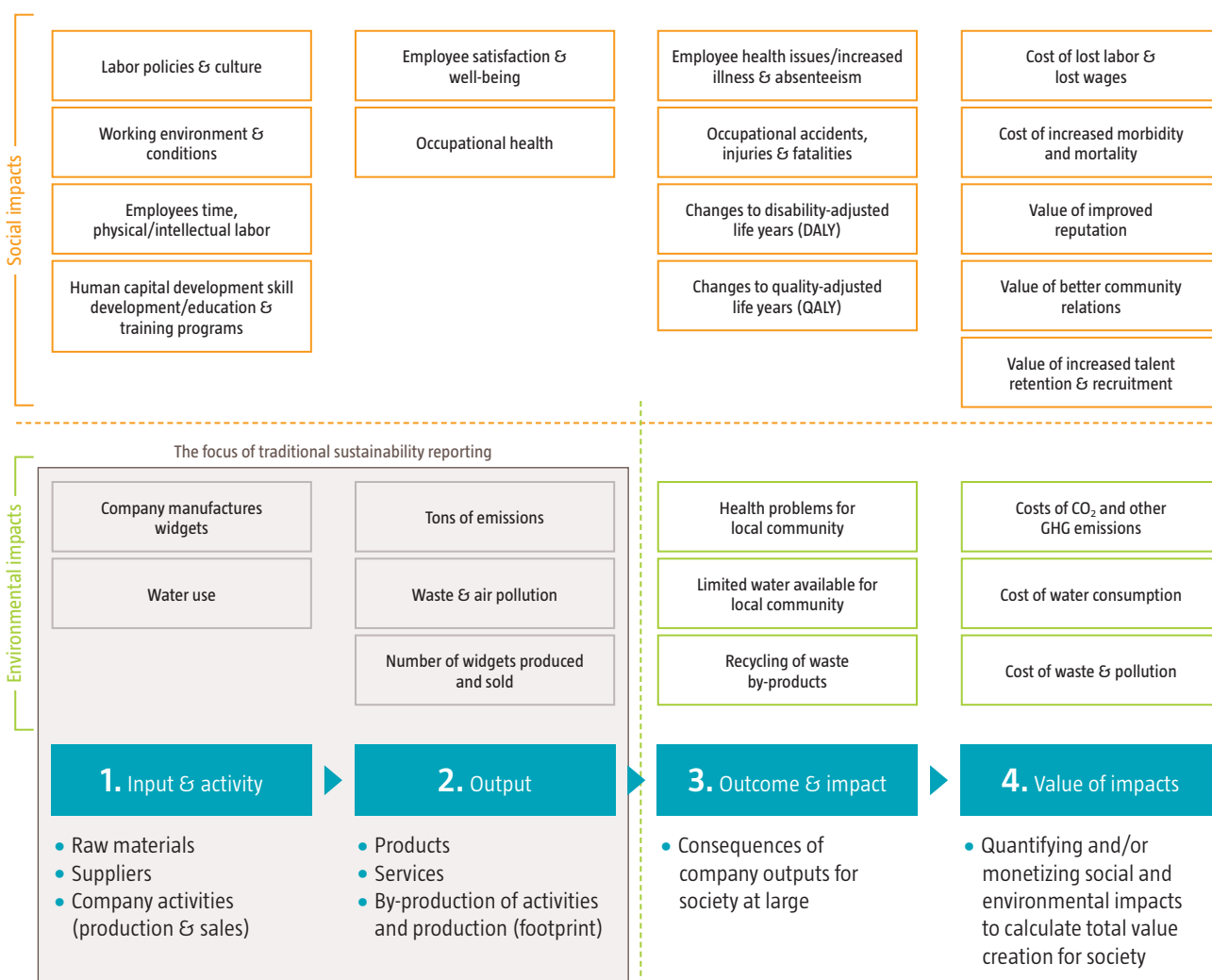
[impact valuation] is intended as a tool for strategic decision-making by management rather than simply to inform shareholders of sustainability and corporate responsibility initiatives.

### Redefining the value proposition

Companies are in the business of providing products and services, but the process of creating those products and services involves the consumption and exploitation of a lot more than what gets itemized on a balance sheet or included in sustainability reports. Throughout the 20<sup>th</sup> century and continuing into the 21<sup>st</sup>, accepted practice was to internalize value and profits and externalize hidden costs and damages. Record the revenues, costs and profits associated strictly with production, but leave any other effects (damaging or beneficial) for society to bear.

Until now, a company's main value proposition was narrowly defined in terms of profits and/or losses on financial statements, and its main stakeholders were narrowly defined as its customers, creditors, investors and shareholders. Impact valuation forces companies to broaden these limited financially oriented definitions to capture the total value they create (or destroy), not just in terms of financial capital but also in terms of social, human, and natural capital. These too are critical resources that companies use but rarely recognize as input factors for production or output factors for external impact.

Figure 1: The impact valuation pathway



Impact valuation goes beyond traditional sustainability reporting as it requires companies to not only measure but also evaluate their impacts on society and the environment using monetary values or other quantitative metrics.

Source: RobecoSAM

Of these, natural capital<sup>1</sup> has received the most attention and is the easiest to illustrate. Natural capital (in particular air and atmospheric health) is being destroyed as a result of carbon and other noxious emissions from corporate activities. In addition, global conglomerates and local owners continue to strip land of natural vegetation and resources, dump chemicals into public waterways and oceans, and pile waste into landfills. These actions further damage natural capital in the present and endanger amounts available for future generations. These are all examples of companies exploiting natural resources and destroying natural capital for their own

gain, without assimilating the negative costs onto their own balance sheets. Similarly, individuals and groups of individuals are resources that can be used by companies. Social capital and human capital measure the knowledge, skills, competencies, and shared norms of people, families, communities, groups and networks. Companies use these forms of capital to create positive value through their products and services and even enhance them via extended education and training. However, companies can also destroy value if they damage the health and well-being of workers, communities, groups and society during the production process.

### Managing Risks, Seizing Opportunities

As if the existential risks posed to the environment and society by company externalities were not enough to spur companies into action, there are also compelling

practical reasons for companies to conduct impact valuation, including anticipating and managing future risks.

#### Proactively managing risks

- **Protecting business operations** – companies are heavily dependent on natural, social and human capital as inputs for their products and services. When these resources are reduced or damaged, company output also suffers.
- **Legal and regulatory action** – regulatory actions worldwide in response to the climate crisis demonstrate that authorities will continue to tighten their grip on company activities that create negative externalities.
- **Changing consumer preferences** – a new breed of conscious consumers who place greater weight on companies' ESG impact is emerging. Sustainable companies that create value-added products with minimal damage to people and planet stand to gain trust and market share.
- **Supply chain partners** – relationships across a company's supply chain may also be at risk if companies fail to adequately address their overall impact. Negative reputational effects of one link can quickly spread to suppliers and customers both upstream and downstream.
- **Investors and financing** – ESG ratings are increasingly being used as investment criteria in their own right. Investors will reward companies that holistically consider long-term risks and opportunities, thereby creating positive shared value for society. Companies that fail to identify, value and rectify their negative impacts will risk an increase in financing costs and divestment by shareholders.

<sup>1</sup> Natural capital is the stock of renewable and non-renewable natural resources (including plants, animals, air, water, soils and minerals) that combine to yield a flow of benefits to people, the environment and society, as well as entities of society like corporations. Natural Capital Coalition, Natural Capital Protocol, p.2

<sup>2</sup> EY Report. "Total Value: Impact valuation to support decision-making," p. 4

Impact valuation is a tool that helps companies identify and measure the most material (i.e. financially relevant) aspects of value creation that would otherwise go undetected and unmeasured.<sup>2</sup> It is a beneficial exercise for a company to undertake in order to understand not just its negative costs but also the positive benefits it generates. It enables companies to gain a holistic view of not only potential risks but also promising opportunities to explore. In doing so companies increase their ability to strengthen key areas, expand into new ones, overcome obstacles, and increase overall resilience to

future risks. Below are some positive features of impact valuation for companies and industries.

As if environmental risks were not enough to spur action ... there are also compelling practical reasons for companies to conduct impact valuation, including anticipating and managing future risks.

### Understanding and seizing opportunities

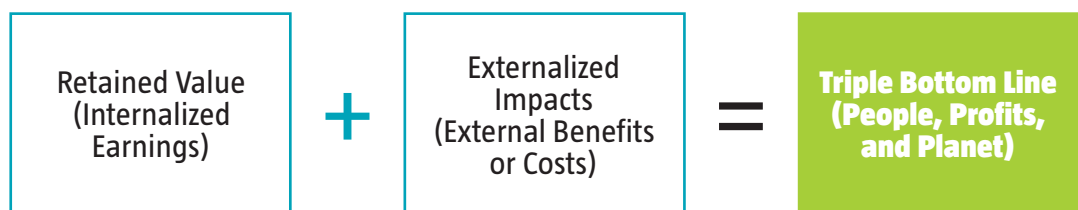
- **Decision-support tool** – knowing the location and magnitude of impacts in an organization is critical in the development of policies, processes, partnerships and products that mitigate and/or enhance those impacts. Companies can use the results of impact valuations to justify capital investments to augment or mitigate impact results.
- **Demonstrate material value creation** – companies can use impact valuation to inform their understanding of how wages, employment, healthcare, training and services create powerful positive impacts on individuals, families, communities, and in turn on the local economy and the company itself. In addition, companies regularly invest in beneficial development and educational projects that produce multiplier effects for their key stakeholders.
- **Greater transparency** – companies that are open about measuring their impact and sharing the results will create goodwill and trust among stakeholders.
- **Knowledge-sharing** – dissemination of knowledge and experience by companies is badly needed. Companies willing to share their knowledge will increase their chances of constructive feedback from supply chain partners and peers also interested in the development of impact valuation within business and industry. Inter- and intra-industry collaboration means tackling key problems together, thus strengthening the sustainability of specific industry value chains as well as the overall development of impact valuation for a sustainable global economy.

Impact valuation ... is a means to elevate sustainability standards in business, equip companies with tools for the task, and hold them accountable for their performance.

### Integrated Reporting – measuring the triple bottom line

Many companies have adopted a monetized profit/loss (P&L) approach to impact valuation that helps them understand the financial impact of externalities on social and environmental health and well-being in the same way a traditional P&L gives them a snapshot of their financial health. Using the P&L approach, companies prioritize the most relevant impact areas for business activities, measure the inputs and outputs associated with those activities (externalities), and

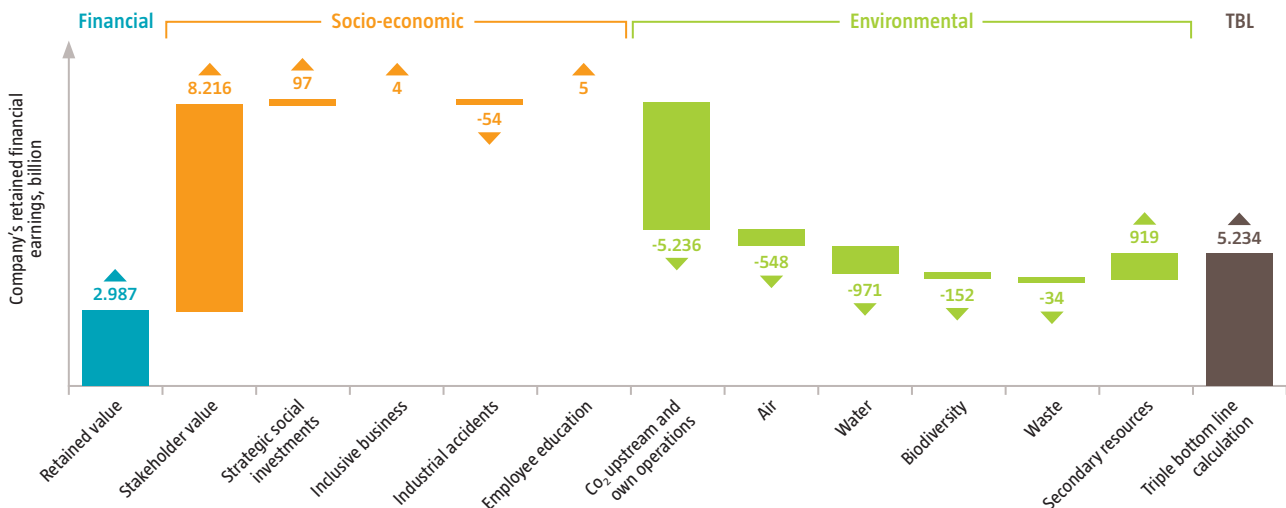
then translate the resulting data into monetary values (monetization). Integrated P&Ls measure and monetize economic, social and environmental externalities (both positive and negative) and integrate the results with internalized earnings from company financials. The integrated results yield a true picture of the triple bottom line (TBL) – the total value created (or lost) for all stakeholders in society (See Figure 2).



These types of impact P&Ls are separate from company financial statements but can be used as supplements to financial reports to guide senior management in assessing risks and opportunities related to impacts as well as to inform stakeholders of a company's track

record on sustainability issues. Impact P&Ls can take different forms, including Integrated, Environmental or Social P&Ls, depending on the scope and purpose of the impact assessment.

**Figure 2: Calculating the triple bottom line – the ultimate impact on profits, people and planet**



An illustrative example of a company's Integrated P&L statement. Although there were negative environmental externalities, positive social and economic externalities were able to compensate so that the triple bottom line (TBL) was positive overall.

Source: LafargeHolcim, Sustainability Report 2017

### Impact valuation in the CSA

A central purpose of the SAM Corporate Sustainability Assessment (CSA) is to collect information on corporate sustainability performance in order to keep investors updated and informed. A secondary aim is to inform companies themselves. The extensive data collection process enables engagement with companies at a deeper level, helping them to understand and adopt the latest developments in best practice as well as prepare for the requirements and demands of

stakeholders in the future. Impact valuation is one of those key sustainability areas whose development and importance, though nascent at present, looks set to grow dramatically in the future.

The impact valuation criterion was first introduced in the 2016 CSA and was included in 16 out of 61 industry questionnaires. The purpose was to identify companies that have adopted processes to value the impacts of their main environmental and social externalities and to assess the extent to which management had incorporated the results into strategic planning, budgetary decisions, and business model analysis.

Including impact valuation in the CSA allows us to assess the extent to which management is incorporating the results into strategic planning, budgetary decisions, and business model analysis.

In 2018, the questions were extended to all 61 industries of the CSA. The question was part of the “Future Questions” section of the questionnaire, giving companies the opportunity to thoughtfully consider, explore, and challenge themselves on this emerging but imminently important sustainability topic without penalizing their overall sustainability performance.

Questions focused on:

- (1) whether companies are conducting impact valuation on social or environmental externalities;
- (2) whether these externalities originate from operations during upstream manufacturing and processing phases or further downstream from products & servicing phases; and
- (3) which impact valuation technique companies are adopting

### 2019 CSA Results

A total of 259 companies confirmed they conducted impact valuation; however, this is not a reflection of the total amount of companies correctly assessing their impact. Due diligence revealed that only 31% of these (81 companies) actually conducted impact assessments according to generally accepted practice criteria – pointing to confusion among companies on the definition and execution of impact valuation (See Figure 3).

In geographic terms, companies from Asia-Pacific and Europe led other regions in attempting to respond. Companies from North America, Latin America and Africa followed in that order. Though many responses from Asia-Pacific companies did not constitute true impact valuation, their high response rates may be indicative of a need that Asian companies feel to demonstrate leadership and burnish their image on sustainability in general as their global economic significance rises. In Europe, higher response rates are almost certainly indicative of stricter EU regulatory regimes.

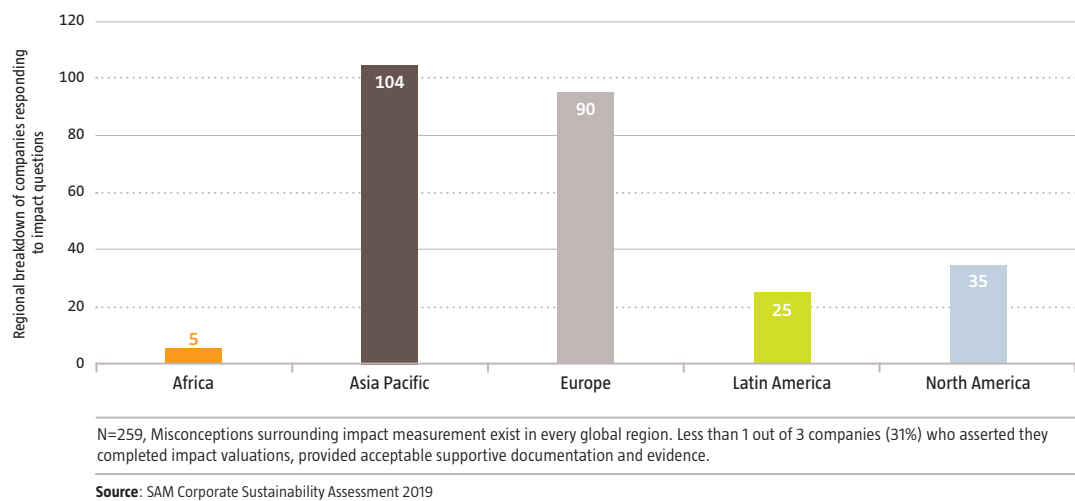
### Misconceptions over Meaning and Measurement of Impact

Correctly completing an impact valuation means companies identified and quantified their external environmental impacts (e.g. air pollution, water pollution, waste production, noise pollution, traffic disturbances) and/or external social impacts (e.g. industrial accidents, inclusive business investments, community education, microfinance loans) and then assessed how these impacts affected natural and social capital indicators.

Some companies even went on to monetize the revenues and costs associated with each impact through IP&L, EP&L or SP&L statements.

Without a strong understanding of how impact valuation can improve a company's value proposition to society, management may think the longer-term benefits are not worth the short-term investment costs.

**Figure 3: Regional breakdown of companies claiming to conduct impact valuation**



The fact that only 31% of companies reporting on impact assessments correctly executed an impact valuation based on the standard definition demonstrates it is still a misunderstood topic – even for sustainability experts. Clearly, there is confusion among companies about its purpose, execution and use.

Impact valuation is meant to measure, quantify, and value externalities (both positive and negative)

that show how value is being created or destroyed as a result of company activities but that are not already incorporated in the company's traditional financial statements. Yet of the 259 companies which positively responded that they were conducting impact valuations, 69% (178 companies) provided evidence on sustainability initiatives that, for the most part, were financial indicators already integrated (and internalized) in the company's balance sheet.

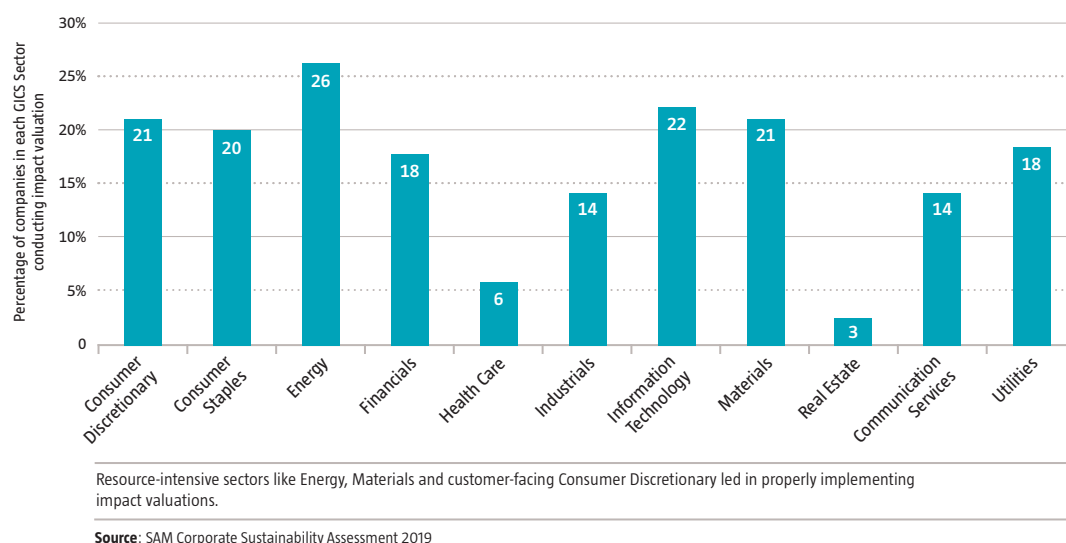
Below is a sample of projects and initiatives that companies cited as impact valuation techniques. While linked to sustainability, alone they do not constitute impact valuation.

- Investments or expenses made by the company to reduce its environmental footprint (e.g. avoided/reduced emissions, material/energy efficiency, capital expenditures or operational expenditures to improve environmental performance, clean up the environment, or to cover remediation costs).
- Revenues from sustainable products and services (e.g. recyclable or degradable materials, reduced use of raw materials, reduced hazardous substances, increased use of recycled or renewable content).
- Philanthropic donations and contributions to community investment programs.
- Responses that focused exclusively on economic externalities (e.g. economic benefit from jobs created, employee wages, taxes paid, contributions to overall GDP) without considering environmental or social externalities.

All of this points to clear and wide-ranging misconceptions regarding not only the practical criteria needed to carry out an impact valuation but also the overarching motivation for conducting them. In response to the former, companies may simply lack the expertise and knowledge required to understand and correctly execute a proper impact assessment. Moreover, even if the knowledge, expertise, and motivation are present, undertaking a proper impact valuation involves multiple levels of complexity and is resource-intensive. Without an imminent threat to business operations and a strong understanding of how impact valuation can improve a company's value proposition to society, management may think the longer-term benefits are not worth the short-term investment costs.

**Impact valuation is still a misunderstood topic – even for sustainability experts.**

Figure 4: An overview of impact valuation across sectors



In terms of sector leadership, companies within the energy, IT, materials, and consumer discretionary sectors led the way in providing accurately implemented impact valuations (See Figure 4). At the other end of the scale, under 10% of companies in the health care and real estate sectors conducted accurate impact valuation in 2019.

The higher participation rate among energy companies comes as no surprise given their well-documented and publicized role in the climate crisis. The direct link between their business activities and negative environmental externalities like greenhouse gas emissions has led stakeholders to place higher demands on the measurement, reporting and disclosure of their environmental footprints. For similar reasons, neither do the relatively high proportions of companies in the materials and consumer discretionary sectors represent a surprise. These sectors are closely linked to environmental pollution and social indicators like human rights and labor abuses, especially in developing markets.

The fact that IT comes second only to energy is an interesting result. This could be, in part, due to company management teams' desire to better understand their social impacts in the wake of bad publicity over gender inequality practices and the lack of diversity among the sector's workforce. In addition, IT companies may be eager to understand and counter the negative effects of digitalization and automation on the workforce.

IT firms also provide the platforms and tools necessary to accelerate social and economic inclusion to previously remote and underserved populations: this can have larger multiplier effects for economic growth in an area or region, thus having a major effect on a firm's total impact. IT companies may wish to make a more concrete connection between these gains and their expansion into new markets to help secure goodwill and financial backing from regional governments, local communities, and investors.

Companies within the energy, IT, materials, and consumer discretionary sectors led the way in providing accurately implemented impact valuations.

### Measuring externalities in the supply chain

Company value chains are notoriously complex and can spread across multiple industries, suppliers, and global regions. Each supplier link within the chain will have its own set of environmental and social externalities.

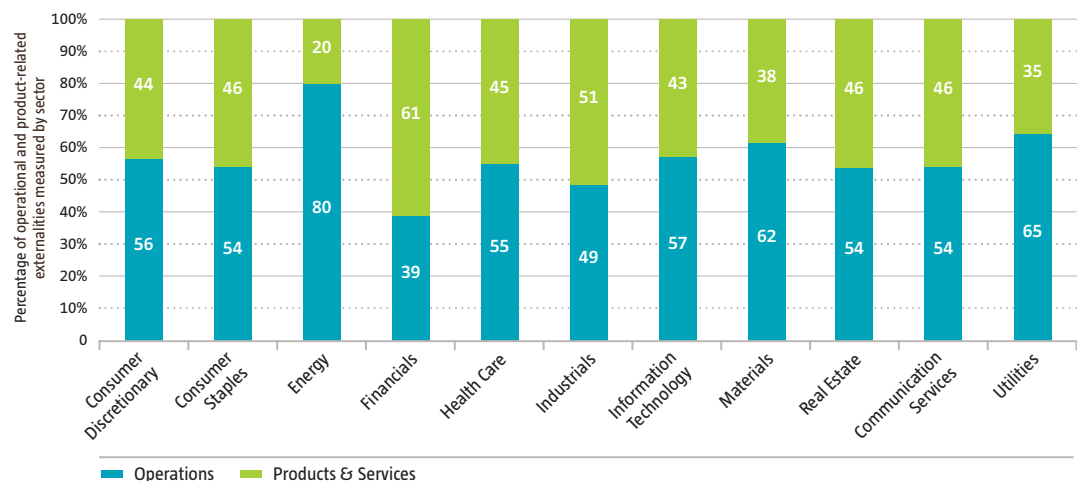
In addition to processing, manufacturing, marketing and distribution links, consumers and post-sale customer service functions are also important links in the chain. Although far removed from a firm's core operations, what happens to products after sale is becoming a critical impact area with the increase in waste volumes that are polluting oceans, land, soil and air. A good deal of research is centering on product life-cycle assessments and the effects of products after their useful life has ended. With this in mind, companies need to specify whether their impact valuation analysis covers the externalities generated by their own operations or by their products or services.

On average, 57% of reported externalities originate from companies' own operations (manufacturing activities, offices, and premises), while 43% of reported externalities originate from their products and services (See Figure 5). On average, around 69% of reported externalities in the energy, materials and utilities sectors are "own operation" impacts. This is an encouraging observation given that these sectors are particularly exposed to environmental externalities in the production process.

Companies in the financial sector primarily focus on the externalities linked to their products and services (61% of reported externalities), which is again encouraging since such firms create externalities mainly through their investments in other companies (e.g. investment funds) or households (e.g. mortgages). Nevertheless, a significant proportion of reported externalities in the financial sector (39%) focus on their own operations (e.g. offices and premises). This raises concerns about whether companies are actually considering impacts in the most important areas of their business.

On average, 57% of reported externalities originate from companies' own operations while 43% of reported externalities originate from their products and services.

Figure 5: Measuring operational externalities is preferred to product externalities



Other than financials, companies across most sectors measure externalities associated with creating products and services (Operations) rather than externalities associated with products and services after sale (Products & Services).

Source: SAM Corporate Sustainability Assessment 2019

### Externalities measured by companies

Of all externalities measured and reported by companies, 62% impact the environmental domain, while 38% impact the social domain (See Figure 6). This is primarily because impact valuation was initially developed within the textiles, chemicals, and construction materials industries, which had considerable exposure to environmental externalities. Companies and investors are now realizing, however, that environmental and social externalities are interwoven.

Of all externalities measured and reported by companies, 62% impact the environmental domain, while 38% impact the social domain.

Chemical companies, for example, have been at the center of some major environmental controversies in recent years as their operations and products have been found to release larger quantities of hazardous chemicals than previously believed. This in turn has not just impacted levels of greenhouse gas emissions and damaged biodiversity; it has had serious consequences on local communities as these toxic substances infiltrate the food chains of both animals and humans, leading to increasing rates of disease and early mortality.

Monetary valuation techniques enable companies and investors to better aggregate and compare impacts and use the data for capital investments or other strategic decisions.

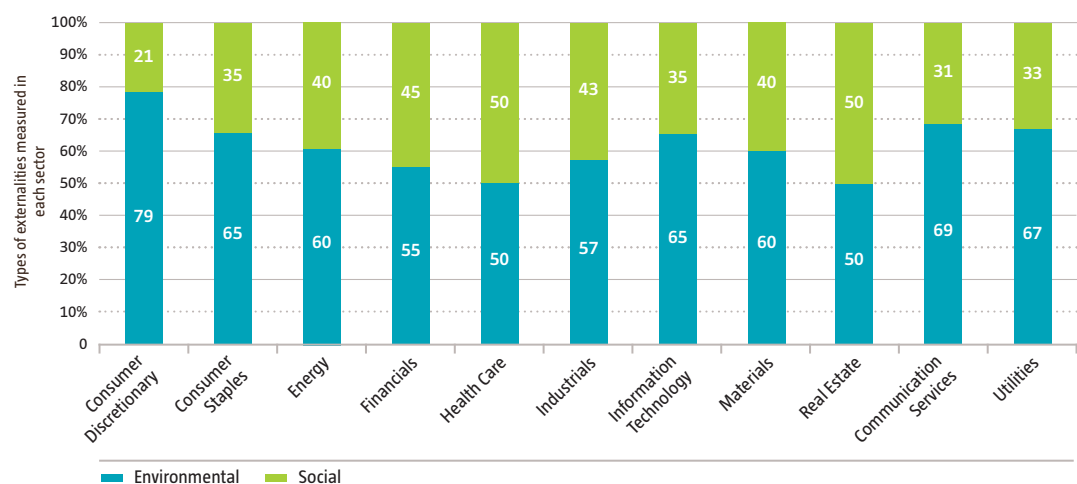
### Impact valuation techniques –

#### Monetization vs. Quantification

Monetary valuation techniques translate costs and/or benefits into monetary units, enabling companies and investors to better aggregate and compare impacts and use the data for capital investments or other strategic decisions. Another approach is quantitative valuation, which uses numerical, non-monetary units to assess the magnitude of a company's impact. Quantification techniques are used when impacts are being addressed in a particular context or to a particular affected group. For example, the value and impact of a company's water consumption will be greater in water-stressed areas than for areas where there is an abundance of water. In these cases it would be more meaningful to report consumption using water volume metrics (m<sup>3</sup>) rather than using a monetized value that is meaningless without regional context.

In addition, quantification is often used when it is difficult to assign monetary values to non-financial impacts like human life, wildlife, and biodiversity. Examples of quantitative valuation of impacts include the number of people and/or species affected by an environmental change, changes to human health measured in disability-adjusted life years (DALYs) or quality-adjusted life years (QALYs), changes in air quality, unemployment rates, and well-being and life satisfaction rates.

Figure 6: Environmental externalities measured more than social externalities



The graph above shows the type of externality (environmental or social) measured by companies within each sector. With the exception of healthcare where both types are equally evaluated, environmental externalities are measured more frequently than social ones.

Source: SAM Corporate Sustainability Assessment 2019

Many companies use both techniques as quantitative measurements are typically needed before an impact

indicator can be monetized. Graphical illustrations of each approach are shown below in Figure 7.

Figure 7: Quantitative Approach

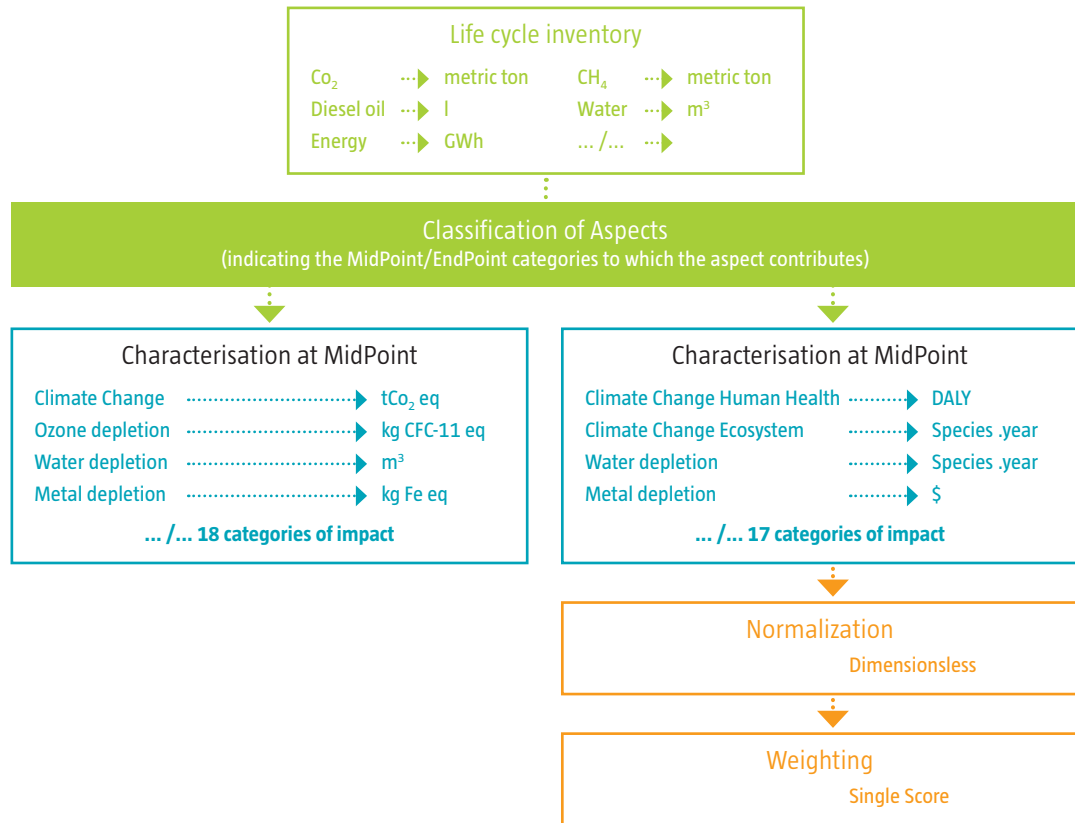


Figure 7 shows an impact valuation assessment using a quantitative technique from a leading electric utilities company. The methodology translates the environmental results into mid-points or end-points. The end-points express the environmental indicators in terms of their consequences for the environment (e.g. harm to human health, damage to ecosystems or depletion of natural resources). Each end-point is assigned an individual weight that contributes to a single score.

Source: SAM Corporate Sustainability Assessment 2019

Figure 8: Monetization Approach

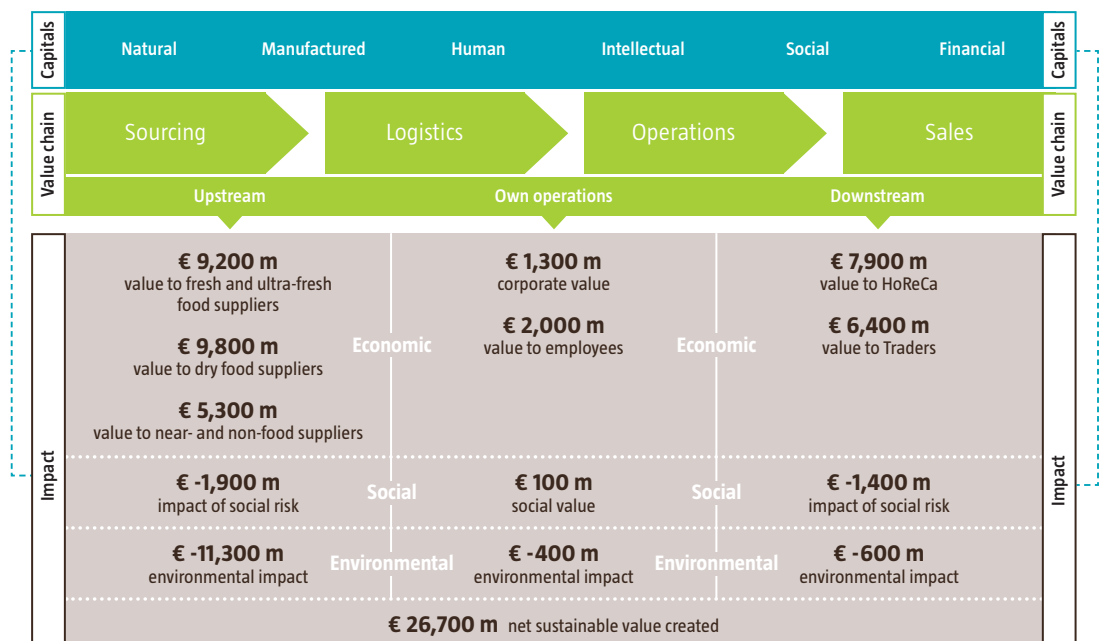


Figure 8 provides an example of a monetized approach to impact valuation from a leading food retailer. The methodology is based on the Natural and Social Capital Protocol's methodologies. Total net impact for society has been evaluated and monetized across the company's value chain in terms of economic, social and environmental impacts.<sup>3</sup>

<sup>3</sup> World Business Council for Sustainable Development (WBCSD), Social & Human Capital Protocol, methodology guidebook

Source: SAM Corporate Sustainability Assessment 2019

CSA data show that on average 81% of companies monetize their externalized impacts. Companies in industries that focus on environmental externalities, such as industrials and materials, primarily adopt monetary techniques.

On average 81% of companies monetize their externalized impacts ... and the most widely used monetary metric is the social cost of carbon.

### Conclusion

The rigor and objectivity of impact valuation assessments decreases the risk of “greenwashing” by companies making subjective sustainability claims without adequate supportive proof. It is advocated by a growing number of finance and accounting experts who wish to reform financial accounting and financial analysis to create a truly sustainable economy populated by companies with positive impact backed up by standardized and comparable impact data. Standardized impact data would make it easier for investors to analyze and compare company sustainability performance between firms.

The rigor and objectivity of impact valuation assessments decreases the risk of “greenwashing” by companies making subjective sustainability claims without adequate supportive proof.

Efforts are underway by sustainability reporting bodies like the WBCSD, GRI, SASB, CDP and even the CFA Institute to develop integrated and “impact-weighted” accounting systems that enable companies to internalize and monetize their negative and positive externalities, much like traditional P&L statements internalize the cost and benefits of their inputs and outputs of production.<sup>4</sup> This should also help reform fundamental and investment analyses by integrating impact into the financial ratios used to generate company forecasts and valuations.<sup>5</sup>

As part of these broader efforts, the CSA aims to add to the growing body of data on impact valuation, specifically on corporate attitudes and adoption activities. Moving forward, we will further develop impact valuation

However, leading companies are also beginning to combine monetary and quantitative approaches to integrate social externalities and impact in their risk-management strategies. In doing so, they are increasingly using disability-adjusted life years (DALY), which measure the years lost by workers, clients or local communities due to ill health, disability or mortality.

criteria to identify the most material externalities for each industry. Asking companies to report on them will help us ensure that the externalities having the greatest impact are being measured, assessed and integrated into risk-management strategies.

In addition, going forward the CSA will aim to assess companies on their negative and positive externalities separately. This will facilitate a better understanding of how negative externalities and impacts influence risk, while at the same time provide insight on companies’ positive impacts in order to assess how they create value for society beyond traditional metrics like products and profits. In future, collaboration with industry standard-setters like the CDP, the WBCSD, the Natural Capital Coalition, and the Social and Human Capital Coalition will expand and deepen.

The journey is still long, and the ultimate goal of fully integrated impact accounting is still distant. Although it is not easy, impact valuation is not an impossible task. Leading companies from every economic sector have already undertaken impact assessments and are diligently collaborating to develop the discipline further. They understand the existential benefits of impact valuation, as well as the existential risk of doing nothing.

Unfortunately, experience from the CSA demonstrates that, for now, the laggards far outnumber the leaders. This ratio needs to invert if we are to keep the triple bottom line of people, profit, and planet from sinking into the red.

### Acknowledgments

A special thank you to Angelo Ferro for his expertise and valuable contributions to this article as well as impact valuation research at RobecoSAM.

<sup>4</sup> WBCSD – World Business Council for Sustainable Development  
GRI – Global Reporting Initiative  
SASB – Sustainability Accounting Standards Board  
CDP – formerly the Carbon Disclosure Project

<sup>5</sup> For an analysis on the need to reform modern portfolio analysis to account for interdependencies and externalities of firms on society, see “No Firm is an Island: using the SDGs to bridge modern portfolio management to the future.” Van der Meer, Michael. RobecoSAM Yearbook 2019 edition.



# **Distant Threats, Present Dangers, and Current Controversies – Exploring the Connection Between Early Risk Perceptions, Risk Management, and Risk Avoidance**

While most businesses are usually good at defining and managing material risks – those that pose clear and present danger – the identification of new and emerging risks is still underdeveloped.

In September 2018, Facebook admitted that an attack on its computer network had exposed the personal data of more than 50 million users – one of the largest data security breaches in history. Just one year earlier Facebook was embroiled in yet another landmark data privacy scandal involving unauthorized access to user data and an attempt to influence voters in the 2016 US presidential election. Facebook has paid billions in connection with both cases and continues to suffer reputational damages from reduced stakeholder trust.

Meanwhile, 3M Company, a US-based industrial conglomerate, faces an increasing number of legal suits related to its use of PFAS,<sup>1</sup> toxic chemical substances widely considered harmful to human health. In February 2018, 3M settled with the state of Minnesota for US \$850 million over PFAS-related pollution and expected liabilities could reach over US \$5 billion.

The severity of the financial and reputational damage suffered by Facebook and 3M casts a spotlight on weaknesses in the links of many companies' risk management processes. The magnitude of the damages (not only to companies but also to society and the environment) led us to ponder how cases like these can arise and, more importantly, how they can be avoided.

### Introduction

While most businesses are usually good at defining and managing material risks – those that pose clear and present danger – the identification of new and emerging risks is still underdeveloped. Emerging risks are uncertain and difficult to quantify and so represent large unknowns to companies. Given these constraints, they have been omitted from traditional risk reporting and financial disclosures to investors. With sustainability themed risks on the rise – often embedded in complex long-term developments and externalities – there is growing demand from investors that companies identify emerging risks early on and transparently communicate on these topics as part of a more holistic risk management approach.

We posit that companies which have a comprehensive risk management process in place that emphasizes the early identification of distant threats, are better positioned to adapt and respond to changes on the external risk landscape when those risks develop into clear, near, and present dangers.

Using data from the SAM Corporate Sustainability Assessment (CSA),<sup>2</sup> we analyzed the risk reporting sequences of companies over the past 5 years (2015-2019) for two key risk areas – 1) climate change and 2) data security & privacy – to test whether companies that first identified emerging risks and then managed it as a material issue were able to avoid or mitigate later controversies and damages.

<sup>1</sup> PFAS, short for per- and polyfluoroalkyl substances, a group of chemicals that the US Environmental Protection Agency has ruled adverse to human health.

<sup>2</sup> A total of 2,974 companies within the CSA were assessed for this study.



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With sustainability themed risks on the rise – often embedded in complex long-term developments and externalities – there is growing demand from investors that companies identify emerging risks early on.

### Risk Definitions & Descriptions

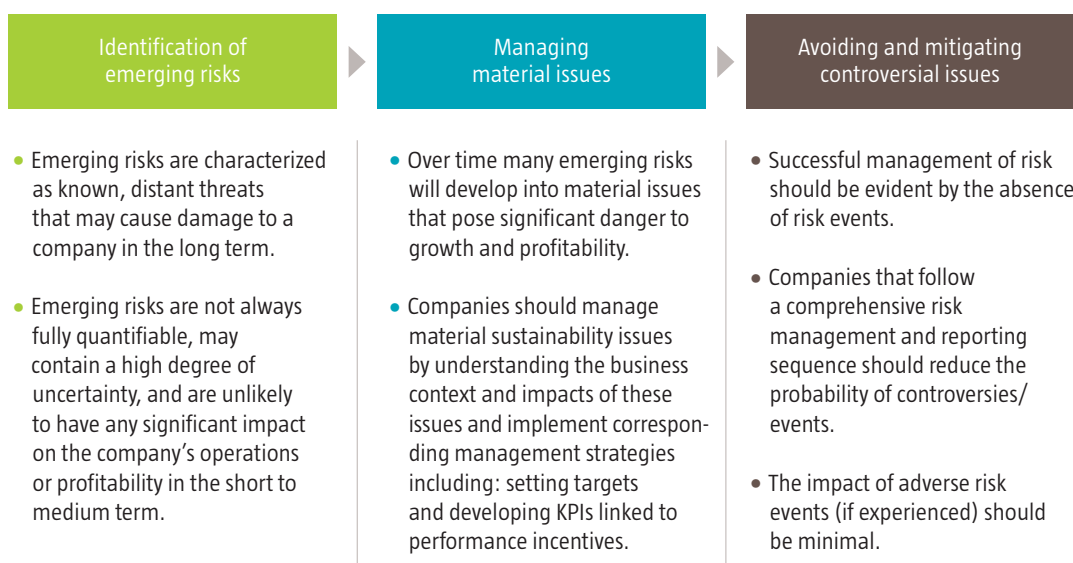
**Emerging Risks** – Since 2015 the Corporate Sustainability Assessment (CSA) has asked companies to indicate significant emerging risks. The CSA defines emerging risks as newly identified areas of potential risk whose impact is unlikely to be felt in the coming three to five years. Emerging risks often reflect uncertain outcomes of upcoming political decisions, legislation changes, or market dynamics that might shape the future competitive landscape for companies. Generally, these risks are not properly accounted for in the company's current financial statements.

**Material Issues** – Since 2012, the CSA has asked companies whether they have conducted a materiality analysis whereby they identify their most important material issues which will impact their ability to generate long-term value. Material issues are defined as a sustainability factor that can have a present or future impact on the company's value drivers, competitive position, and long-term shareholder value creation.

Companies should manage material sustainability issues by defining a business case, implementing management strategies, setting targets, developing progress indicators, and linking targets to performance incentives (e.g. executive compensation). Moreover, as soon as a risk is defined as a material issue it loses its "emerging risk" status.

**Controversial issues** – Controversial issues are realized risks that result in financial and reputational damage for companies. Our analysis of company controversies is carried out through a Media and Stakeholder Analysis (MSA).<sup>3</sup> The MSA process is used to identify controversies and damages that are linked to poor corporate policies, structures, and practice on a range of sustainability issues.

Figure 1: The reporting sequence within a comprehensive risk management process



Source: RobecoSAM

<sup>3</sup> Analyses of controversies are carried out through the CSA Media and Stakeholder Analysis (MSA). An MSA case is created if a company has been involved in a specific negative event related to the company's material sustainability factors. The MSA methodology can be found at <https://www.robecosam.com/csa/csa-resources/csa-methodology.html>

### Climate Strategy – a growing corporate concern

Over the past five years a significant number of companies have reported on climate-related issues and identified specific aspects of climate strategy as emerging risks.<sup>4</sup> Uncertainty around changing environmental regulations, potential water shortages, and the negative impacts of plastic packaging have all been cited as potential risk factors that could influence companies and industries in the future.

### Climate Strategy – frequency of reporting as an emerging risk

Over the last five years, 33.15% of all correctly identified and reported emerging risks<sup>5</sup> have been related to Climate Strategy. Over the same time period, compa-

nies from 51 out of 61 industries have reported at least one climate strategy related topic as an emerging risk.

However, the number of companies reporting climate strategy as an emerging risk, in line with RobecoSAM requirements, decreased drastically over the past five years, with 231 companies reporting climate strategy topics in 2015 against 39 companies in 2019. This steep decline is in line with our expectations and represents a positive shift towards more transparent climate change disclosure.

As companies recognize the potential and severity of climate related risks for future business, the topic has become more mainstream and accepted as a material risk. As a result, fewer companies are identifying it as an emerging risk on the distant horizon and are taking measures to address the risks now – even if the implications are more long-term (see insert, Climate Strategy, for company case examples).

Over the past five years a significant number of companies have reported on climate-related issues as emerging risks citing uncertainty around changing environmental regulations, potential water shortages, and the negative impacts of plastic packaging as potential risk factors.

### Climate Strategy – Emerging Risk vs Material Issue

Below are examples reported in 2019 demonstrating how companies differ in their view of risks related to climate strategy. While it was already considered a material issue by the European arm of food & beverage producer, Coca-Cola, it was still considered emerging by the cement manufacturer, Heidelberg.

#### Climate change as an emerging risk – Heidelberg Cement AG

Cement is a basic raw material for the construction of houses, industrial facilities, and infrastructure. Because cement is energy- and CO<sub>2</sub>-intensive, research projects are being undertaken to develop alternative binders with a more favorable energy and climate footprint; however, we generally do not anticipate that the alternative binders currently being developed will replace traditional cement types on a large scale in the next few years. [As a result,] the risk is not included in our risk reporting.

**Source:** Extract from Heidelberg's 2018 Annual Report

#### Climate change as a material risk – Coca-Cola European Partners

Due to concerns about the environmental impacts of litter, our packaging is under increasing scrutiny by regulators, consumers and customers. This exposes us to the risk of increased regulation or taxation and reputational impacts. As a result, we may have to change our packaging strategy and mix in a short timeframe. This could result in a reduction in demand for single use plastic packaging, and we may be liable for increased costs related to the design, collection, recycling and littering of our packaging. We may be unable to respond in a cost-effective manner and our reputation may be adversely impacted.

**Source:** Extract from Coca-Cola's 2018 Integrated Report

<sup>4</sup> "Climate Strategy" alone is not considered an emerging risk due to its material impact on most companies. However, specific aspects of "Climate Strategy" are considered emerging risks, depending on the industry and the region in which the company and its operations are located.

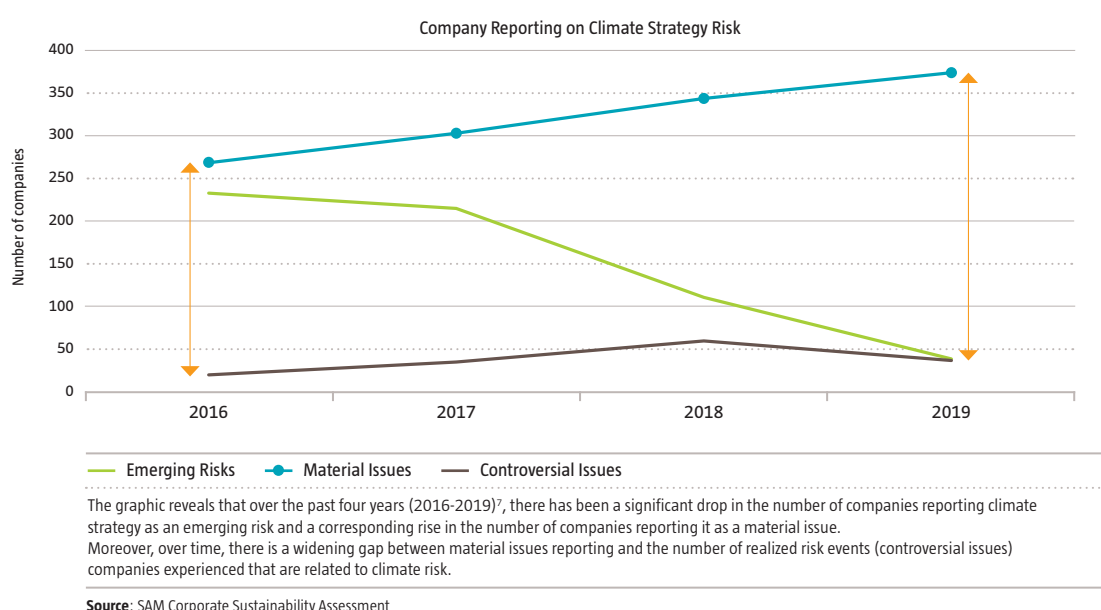
<sup>5</sup> A number of companies have been incorrectly reporting current material risks as emerging risks. Such cases were excluded from consideration in this analysis.

We posit that companies which have a comprehensive risk management process in place that emphasizes the early identification of distant threats, are better positioned to adapt and respond to changes on the external risk landscape.

#### Climate Strategy – frequency of reporting as a material issue<sup>6</sup>

Climate Strategy was the second most reported material issue over the past four years (2016-2019). As can be seen in Figure 2, climate strategy for many companies has evolved from an emerging risk to a material issue that must be strategically managed. Furthermore, the overall proportion of risk events/controversies linked with climate strategy is falling as companies report it as a material issue.

Figure 2: A widening gap – as climate risks become material, the proportion of realized risk events falls



#### Climate Strategy – frequency of realized risk events

In line with our risk identification and management hypothesis, as climate strategy moved from an emerging risk to a material issue on corporate risk assessments, we would expect a decreasing amount of environmental related MSA cases.

Despite an uptick in environmental MSA cases in 2018 (See Figure 2), the trend in MSA cases related to climate strategy and the environment over the past four years has followed a downward trajectory.<sup>8</sup>

<sup>6</sup> Beginning with the 2016 CSA, RobecoSAM modified its material issues criteria for companies making one-to-one comparisons with prior years difficult for the purposes of this study. As a result, the analysis of material issues for climate strategy only considers four years of data (2016-2019).

<sup>7</sup> Ibid. See footnote 6.

<sup>8</sup> MSA statistics as per Q3 2019.

## Data Security & Privacy Risks – companies are sensitized and aware

The WEF Global Risks Report 2019 ranks cyber security as one of the top five business risks, further noting that technology will be a major component in shaping the global risk landscape. Both companies and consumers are concerned by fraud, cyber-attacks and technological weaknesses that leave them vulnerable to rogue hackers, rogue governments and even “rogue” companies.

In addition, the risks associated with fraud and loss of privacy are expected to increase. These topics, which historically have been insignificant in many industries, are taking center stage in terms of the damage they inflict, as our own experience with CSA data reveals. Cybersecurity and data privacy related issues are appearing across a number of new industries as diverse as hotels & tourism and aluminum smelting & manufacturing.

Emerging risks are uncertain and difficult to quantify and so ... have been omitted from traditional risk reporting and financial disclosures to investors.

## Data Security & Privacy – frequency of reporting as an emerging risk

Over the last five years, 46 out of 61 industries have reported data security & privacy at least once as an emerging risk. This underscores the fact that though for some companies data security is still nebulous in nature, the extent of possible damage is clear enough for them to flag it as an emerging risk and proceed with caution. An interesting example within the geopolitical context are utilities.

Utility companies generally face the risk that cyber-attacks may disrupt the energy supply as well as cause safety-related incidents at operational facilities. Furthermore, interruptions with political backing may intentionally target the economic prosperity of an entire region via cyber-attacks on regional power supplies. This would have disastrous implications not only for utilities themselves but also for other companies and industries operating in the region (see insert, Data Security-Atos SE).

In the CSA, between 2015 and 2019, the number of companies reporting data security and privacy as an emerging risk decreased significantly (See Figure 3). This is to be expected as data security risks are more publicized and mainstream.

### Data Security & Privacy as an emerging risk – Atos SE

By 2022, the cybersecurity landscape will be heavily influenced by the challenge of efficiently protecting the myriad of devices that we will engage with in daily life. Although this hyper-connected ecosystem will generate significant opportunities and benefits for individuals and society in general, it will also provide a tempting target for cyber criminals looking to exploit broadened attack surfaces and vulnerabilities that have wide-ranging and critical impacts. The increasing mobility, connectivity, flexibility and versatility of infrastructures and devices will also add layers of complexity to the management and control of autonomous systems, in making them compliant with regulatory and ethical standards throughout a dynamic life cycle.

Source: Atos Registration Document, p. 49-50, Journey 2022, p. 30

## Data Security & Privacy – frequency of reporting as a material issue<sup>9</sup>

Over the past four years, there has been an increasing trend in the number of companies reporting on Data Security & Privacy as a material issue, with 78% more companies reporting on the topic in 2019 compared to 2016. This is a clear signal that the awareness among companies on the topic has increased not only in terms

of the risks to be avoided but also the opportunities to be seized. Our dependency on software and digital solutions and data storage in cyberspace will continue to grow, so many companies are beginning to understand and effectively execute cybersecurity risk management and strategy processes now (see insert, Data Security, Engie SA).

<sup>9</sup> Beginning with the 2016 CSA, RobecoSAM modified its material issues criteria for companies making one-to-one comparisons with prior years difficult for the purposes of this study. As a result, the analysis of material issues for data security & privacy only considers four years of data (2016-2019).

### Data Security & Privacy as an emerging risk – Engie SA

[Engie SA] is continually exposed to new threats from the introduction of new technologies particularly the multiplication of connected objects, the development of industrial control systems, the spread of mobility tools, and the development of new uses (e.g. social networking). Cyber-attacks target both the company and its customers and partners. More generally, IT system failure could result in information losses or leaks, delays and/or extra costs that could be detrimental to the Group's activities or its reputation. In response, the Group continually adjusts its prevention, detection and protection measures for all its information systems and critical data.

Source: Engie 2018 Registration Document

### Data Security & Privacy – frequency as a realized risk event

While companies in a majority of industries identified Data Security & Privacy as an emerging risk and material issue, there were very few MSA cases related to the topic over the time period analyzed.<sup>10</sup> In 2016 only two data security & privacy controversies were identified out of a total of 183 MSA cases. While still low, the number of controversies related to the topic are increasing.

The current or historical absence of controversies is not necessarily indicative of lower risk. The low number of MSA cases can either be an indication that companies are sufficiently managing the risks or that we are only at the beginning stages of an increasing future trend where, despite company risk control efforts, controversies still arise.

A few high-profile cases are enough to demonstrate the potential extremes that can be reached by internal hacking and data breaches (see insert, Two breaches). We also see that many breaches are only found many years after they occur, signaling the need for better early warning systems. This may result in delayed data being reported by companies which results in historical figures being corrected in future years.

We see that many [data security] breaches are only found many years after they occur, signaling the need for better early warning systems.

### Two breaches, millions of customers

The Equifax data breach in September 2017, compromised the personal data of almost one million customers in the US and the UK and cost Equifax US \$700 million in the US alone. Another notable case is illustrated in the flawed micro-processing chips manufactured by Advanced Micro Devices and Intel Corp which supply chips to 90% of computers worldwide. These flaws potentially exposed computers to attacks from hackers to harvest personal information such as passwords or credit card data.<sup>11</sup>

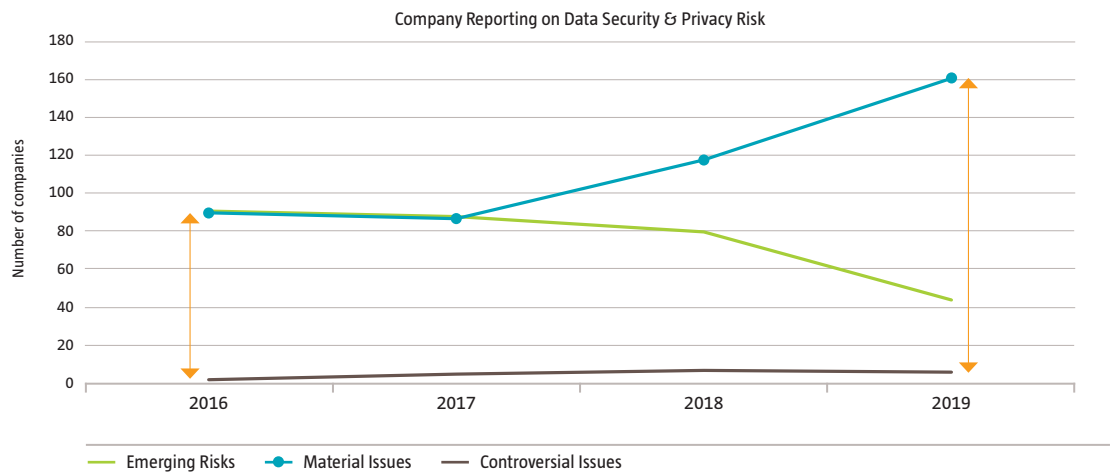
<sup>10</sup> In 2019, the Information Security / Cybersecurity Strategy and Governance criterion was expanded from 11 to 29 industries, explaining the limited industry exposure prior to 2019.

<sup>11</sup> <https://www.weforum.org/reports/the-global-risks-report-2019> (p. 6-7)

Despite the relatively low (and concentrated) number of documented controversies related to data security, we still observe a widening gap between material

issues reporting and realized risk events later on for data security & privacy issues (See Figure 3).

**Figure 3: A widening gap – as data security risks become material, the proportion of realized risk events falls**



The graphic reveals that over the past four years<sup>12</sup>, there has been a significant drop in the number of companies reporting data security & privacy issues as emerging risks and a corresponding rise in the number of companies reporting them as material issues. Moreover, over time, there is a widening gap between material issues reporting and the number of realized risk events (controversies) experienced by companies involving data security.

**Source:** SAM Corporate Sustainability Assessment

Encouraged by these initial findings, we analyzed in greater detail the climate risk and data risk reporting sequences of companies in order to see if there is a

further link between risk reporting and reduced risk controversies.

## Making the Case – Relationship between emerging risk identification, material risk reporting and the development of controversial events

### Our Hypotheses

In this section, we attempt to demonstrate the working hypothesis that companies which identified emerging risks early, and subsequently continued managing, monitoring and reporting on these topics as material issues will experience less controversies.

Taking the working hypothesis a step further, we expect to find that even when companies experience adverse

risk events, those which have reported and managed those risks will have minor controversies with minimal impact in terms of costs and reputational damages. This implies that companies that have taken measures to identify emerging risks early on and managed those risks which they deem material, will be in a better position to take appropriate measures to mitigate the impacts.

**Hypothesis 1)** companies that have identified emerging risks early on and subsequently continued to manage, monitor, and report on these risks as material issues are subject to less controversies.

**Hypothesis 2)** the impact of risk controversies, when experienced by companies with comprehensive risk management frameworks in place, will be minimized in terms of costs and reputational damages.

<sup>12</sup> Beginning with the 2016 CSA, RobecoSAM modified its material issues criteria for companies making one-to-one comparisons with prior years difficult for the purposes of this study. As a result, the analysis of material issues for data security & privacy only considers four years of data (2016-2019).

#### **In-depth analysis on corporate risk reporting**

Knowing that not every company would follow a comprehensive risk reporting process sequence, we used a forward- and backward-looking (retrospective) analyses to capture all possible risk reporting scenarios for each risk issue.

- (1) Forward-looking analysis – start with companies that identified the risk issue as an emerging risk, observe how many reported it later as a material issue and compare with the frequency of controversial MSA cases (realized risk event).
- (2) Retrospective analysis – start with controversial MSA cases and looking backwards analyze whether those companies had targeted and managed the topic as a material issue as well as an emerging risk early on.

[It is] critical for companies to embrace a holistic risk management approach that not only focuses on dangers that are near and clear (i.e. material issues) but also on the uncertain and distant threats on the horizon (e.g. emerging risks).

#### **Forward-looking analysis results – Climate Strategy as a Risk**

Of the 292 companies that reported climate strategy as an emerging risk, 122 (42%) confirmed hypothesis 1 (H1).<sup>13</sup> In these cases, climate strategy risk was first identified as an emerging risk and subsequently as a material issue. Furthermore, none of these companies were subject to any adverse risk events. Additional supportive evidence is shown from a further 21 companies (7%) that identified climate strategy early on as an emerging risk but failed to manage it as a material issue later even as material risks were obviously present. As expected, these companies experienced controversial risk events later (See Figure 4).

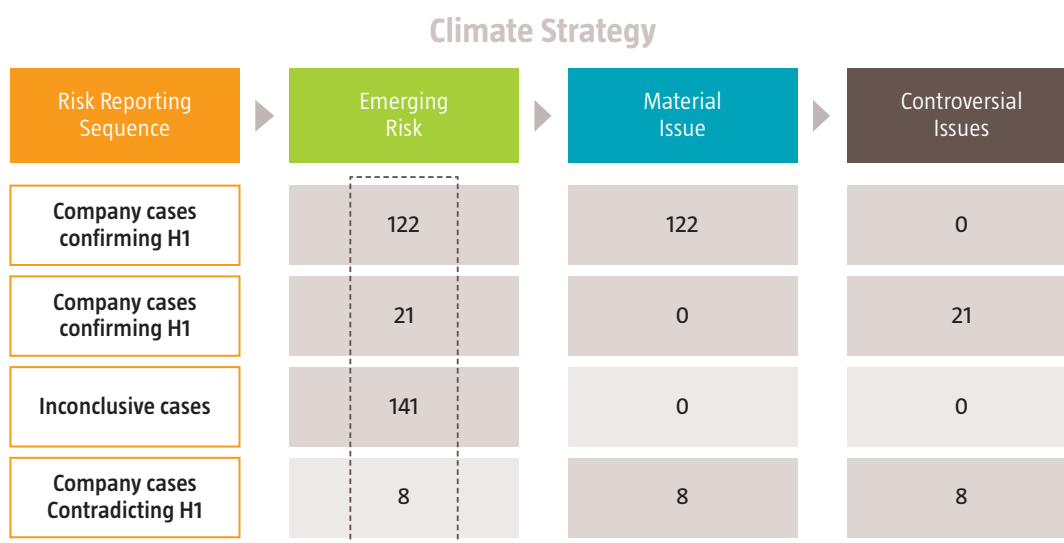
This means a total of 49% (143 of 292 companies) evaluated for climate change risk confirm H1 – that companies that identified climate strategy risk early and managed it, have fewer controversial events. Only 2.7% of company cases assessed, contradict H1 (8 of 292 companies). These companies in spite of having identified climate strategy as an emerging risk as well as a material issue were still subject to MSA cases.

Another 141 cases (48%, 141 of 292 companies) were classified as inconclusive, neither confirming nor contradicting H1. In these cases, companies identified climate strategy as an emerging risk, but not as a material risk. Moreover, no MSA controversies materialized in these cases, so no hard conclusions can be drawn either way.

Further analysis of each MSA case was conducted in order to test hypothesis 2 (H2) that adverse risk events were mitigated when companies had early risk identification, reporting and management mechanisms in place. We found that seven of these eight controversial risk events (88%) were considered minor MSA cases with minimal impact in terms of costs and reputational consequences. These results were strongly supportive of H2.

<sup>13</sup> A 41 further companies identified Climate Strategy as an emerging risk and had no MSA case, but their reporting flow was not consistent; they either reported Climate Strategy as a material issue every second year or reported it in a year before they reported it as emerging risk.

**Figure 4: Forward-looking analysis results – The risk reporting sequence of companies starting with those that initially identified climate strategy as an emerging risk**



--- N=292, The graph above follows the risk reporting sequence of companies that began their risk assessment of climate strategy risk early as an emerging risk. The results seem to confirm the hypothesis (H1) that companies that identified Climate Change risk early and managed it as a material issue, have fewer controversial events (143 companies, or 49%). 141 company cases were inconclusive (48%), neither contradicting or confirming the hypothesis. A total of 8 (less than 3% of all evaluated cases), contradicted the research hypothesis.

Source: SAM Corporate Sustainability Assessment

#### Retrospective Analysis Results – Climate Strategy as a Risk

In the retrospective analysis, we started with companies which had experienced MSA controversies and worked backwards (retrospectively) in order to test hypothesis 1 (H1). We expected to find that companies that experienced MSA controversies had neither identified climate change as an emerging risk nor managed it as a material issue.

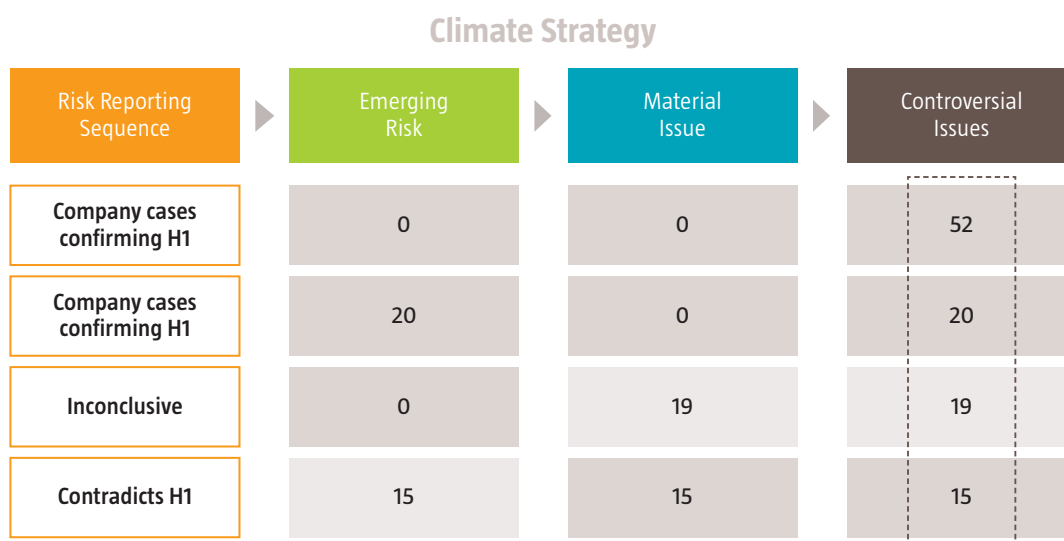
A total of 106 MSA cases were assessed for climate strategy risk using the retrospective approach. Of these, a total of 52 companies (49%) neither reported climate strategy as an emerging risk, nor as a material issue which confirms H1 (See Figure 5). A further 20 companies (19%) reported climate strategy as an emerging risk but not as a material risk bringing the total confirming cases to 72 (68%).

Climate strategy was reported as a material issue and as an emerging risk by 15 companies (14%) before they experienced an MSA case, contradicting H1. In 19 cases (18%) the data results were inconclusive. Companies identified climate strategy only as a material issue but not as an emerging risk.

Furthermore, each MSA case was analyzed in detail to see test hypothesis 2 (H2)– whether the presence of a risk management process mitigated realized risk controversies. In more than two-thirds of cases (10 of 15 companies, 67%), controversies were judged as minimal thus confirming H2.

Risks are moving targets with possible long-term impacts that must be monitored early rather than later.

**Figure 5: Retrospective analysis results – The risk reporting sequence of companies starting with adverse risk event related to climate strategy**



--- N=106, The graph above considers controversial issues as the starting point and works retrospectively to assess the preceding risk management process followed by these companies. Using this retrospective approach, 72 company cases (68%) support the hypothesis (H1), showing that companies that experienced adverse risk events neither identified climate risk as a material issue nor had proper risk policies and processes in place to manage it. Fifteen company cases contradicted H1 (14% of all evaluated cases). Nineteen company cases (18%) were inconclusive.

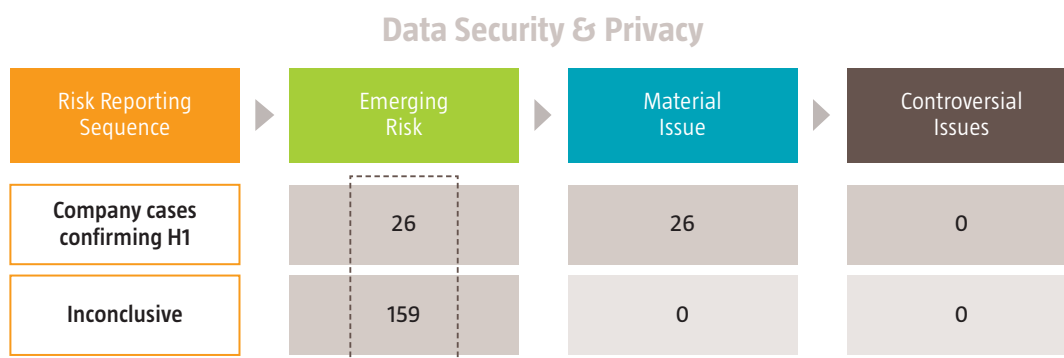
Source: SAM Corporate Sustainability Assessment

#### Forward-looking analysis results – Data Security & Privacy as a Risk

A total of 185 companies were assessed for their risk reporting process on Data Security & Privacy using the same forward-looking and retrospective approaches described above. Of these, only 26 companies (14%)

provided confirmation of working hypothesis 1 (H1). These companies identified data security & privacy early on as an emerging risk, later documented and managed it as a material issue, and never experienced a realized risk event over the period studied (See Figure 6). The rest of the data was far less conclusive.

**Figure 6: Forward-looking Analysis Results – The risk reporting sequence of companies starting with those that initially identified Data Security & Privacy as an emerging risk**



--- N=185, Only 26 company cases (14%) confirm H1 that companies that have proper risk policies and processes in place do not experience controversial issues. The majority of cases, 159 companies (86%) were inconclusive.

Source: SAM Corporate Sustainability Assessment

Of the remaining companies (159 of 185, 86%) that identified Data Security & Privacy as an emerging risk, none went on to subsequently identify it as a key material issue within their risk reporting process. This was a surprising result given the attention which digital security and privacy has received in the last five years. We would have expected more of these companies to have proceeded past the emerging risk stage and reported data security as material risk issue. Moreover, there were no MSA cases linked to any of these companies.

In the absence of company data on material issue reporting and in the absence of MSA cases, we cannot draw any firm conclusions about the risk management process of these firms. We must wait and see how their behaviors and actions play out in the future. Therefore, we rendered these cases inconclusive, neither confirming nor contradicting H1.

### Retrospective analysis results –

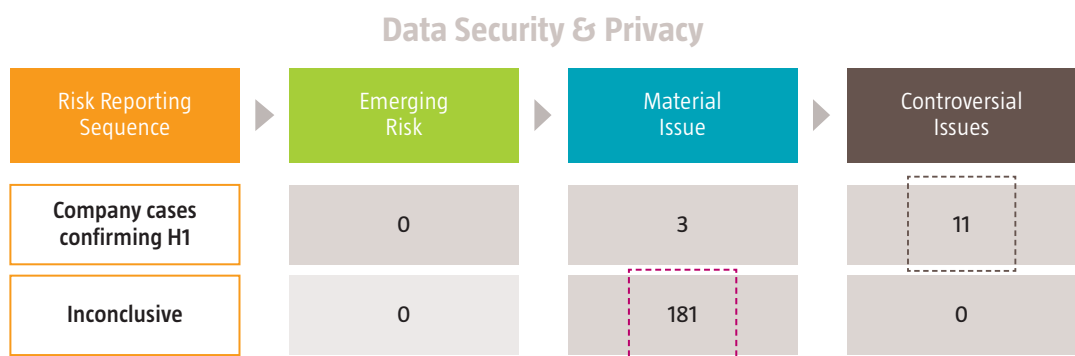
#### Data Security & Privacy as a Risk

Using controversial issues (MSA cases) as the starting point, we looked retrospectively to test working hypothesis 1 (H1) for data and security risks. Again, we expected to find that companies that experienced adverse risk events/controversial issues, had neither reported data security & privacy as an emerging risk early on nor subsequently as a material risk issue.

Only 11 company cases were assessed for retrospective analysis. These companies experienced MSA cases related to data security over the period of study but had gaps in their preceding risk reporting sequence. None of these companies reported data security as a material issue and as an emerging risk. Though the data set is small (11 cases), it still confirms H1 (See Figure 7).

There were no cases in the retrospective approach that allowed us to test hypothesis 2.

**Figure 7: Retrospective Analysis – Results on Data Security & Privacy risk management process**



--- N=11, None of the 11 companies (100%) that experienced adverse risk events / controversial issues, had previously identified data security risk as an emerging risk and as a managed material issue which supports H1.

--- N.B. Included here are also a further 181 companies which were not included in either the forward looking or retrospective analysis as they had no data in either the starting point (emerging risks) or the end point (controversial MSA cases). These cases were judged as inconclusive.

Source: SAM Corporate Sustainability Assessment

The data showed that as more companies accepted and managed material issues for climate strategy and data security & privacy, the overall proportion of controversial risk cases fell.

## Summary

Even the most successful companies fail at correctly predicting from where risks will arise and how fast they will escalate, as the recent cases of Facebook and 3M attest. Further observations on how previously unknown or unanticipated risks have suddenly appeared in new industries and business operations further underscore that risks are moving targets with possible long-term impacts that must be monitored early rather than later. This makes it all the more critical for companies to embrace a holistic risk management approach that not only focuses on dangers that are near and clear (i.e. material issues) but also on the uncertain and distant threats on the horizon (e.g. emerging risks).

Cases like those of Facebook and 3M motivated our desire to better understand the connection between early risk perception and identification and realized controversies in later years. The intuition that guided the construction of our two working hypotheses was that companies with a comprehensive risk identification and management process that included early identification of potential risks together with targeted strategies for mitigating material and present risks, would be better equipped to either avoid controversial risk events altogether or at least minimize their adverse impact.

Using data from the Corporate Sustainability Assessment (CSA),<sup>14</sup> we analyzed general risk reporting patterns of companies over the past 5 years (2015-2019) in the two key risk areas of climate strategy and data security & privacy.

Results of the high-level analysis were encouraging and supported our initial intuitions for both risk topics. First, the data demonstrated that over time, emerging risks fell as companies and industries recognized these as being financially material issues that deserved more attention through robust risk management frameworks. More importantly, the data showed that as more companies accepted and managed material issues for climate strategy and data security & privacy, the overall proportion of controversial risk cases fell.

From these more general findings, we proceeded to look more closely at company reporting sequences across climate strategy and data security privacy risks. Results varied based on the risk issue studied (climate

strategy vs data security) as well as by the direction of analysis (forward-looking or retrospective). For climate strategy risk, more cases confirmed the hypothesis than contradicted it (49% vs 2.7% respectively).

For data security & privacy risk, all (100%) evaluated cases confirmed our primary hypothesis (H1) in the retrospective analysis, however, this compares to only 14% of cases in the forward-looking analysis. Moreover, the majority of cases (159 companies, 86%) were inconclusive due to gaps in companies' reporting processes.

Though we were surprised at the number of inconclusive cases, we were still able to demonstrate correlations that were generally supportive of our hypothesis that a comprehensive risk management and reporting structure that includes early identification and later targeted management of risks as material issues leads to the avoidance and attenuation of realized risk events later on.

Furthermore, results for our secondary hypothesis (H2) were stronger. In more than two-thirds of cases (67%) where a controversial event was experienced with respect to climate strategy, the ultimate impact was minimized when comprehensive risk management structures were in place and the appropriate risk reporting sequence had been followed. Results for H2 with respect to data security and privacy risk were inconclusive due to lack of available cases.

## Outlook

Climate strategy and data security & privacy risks are in different stages in their life cycles. While the urgency of climate-related topics has accelerated dramatically in recent years, the impact of data security and privacy issues still remains largely unknown for many industries. Moreover, rapidly evolving dynamics and technological developments in the digital space make it a moving target for many companies. This could also help to explain the inconclusiveness of findings on data security & privacy, which correlates to the overall lack of transparency.

Moreover, identifying and reporting on data security breaches is complicated and overwhelming for many companies – more time is needed to allow what are now seen as emerging risks to mature into material issues. Only then can stronger inferences be made.

<sup>14</sup> A total of 2,974 companies within the CSA were assessed for this study.



# Interview with CDP

## “Climate Disclosure – a first step to step change”



Faye Bennett-Hart

Associate Director,  
Reporting at CDP

### CDP

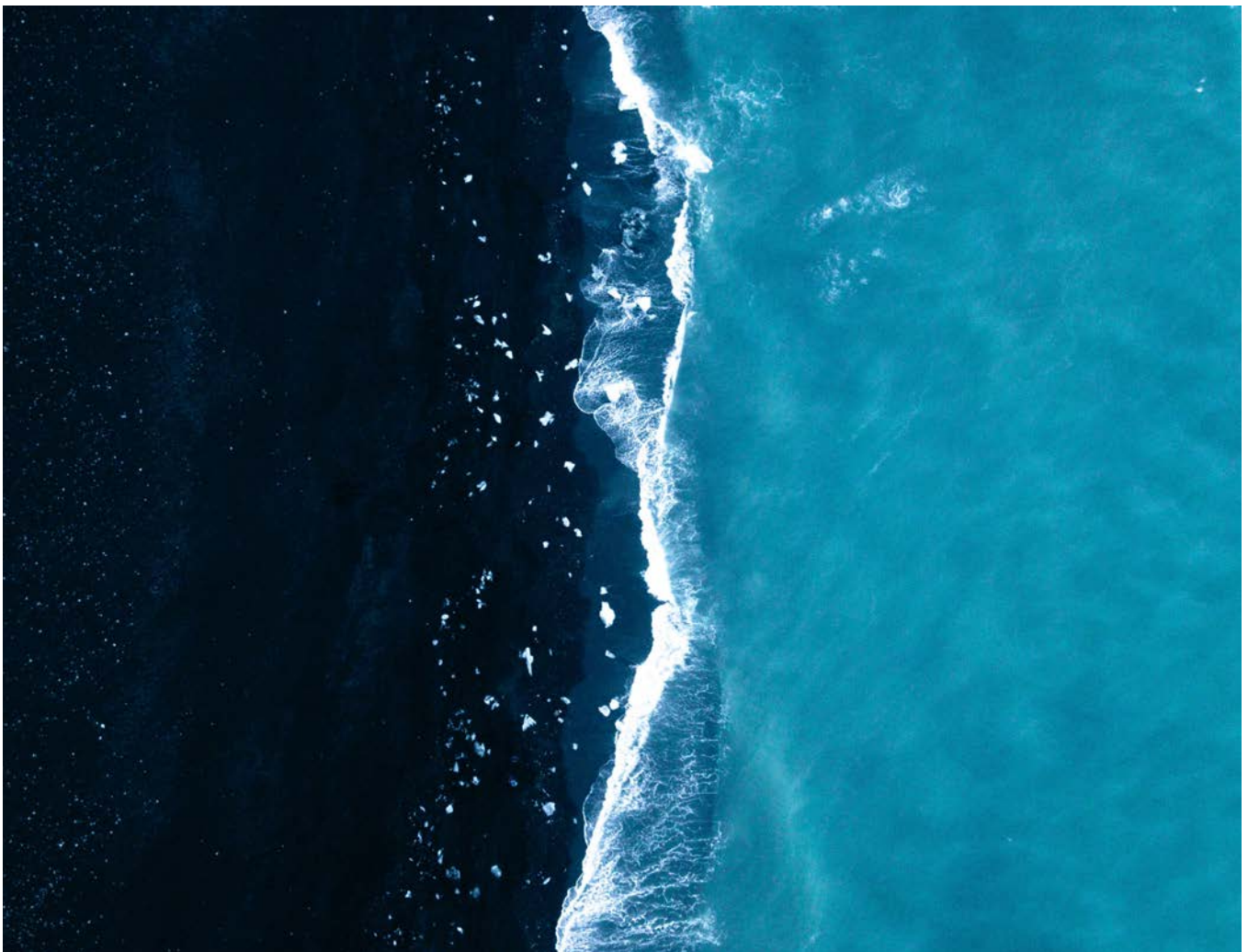
CDP (formerly the Climate Disclosure Project) is a global, environmental non-profit established in 2000 with the goal of linking environmental integrity with fiduciary duty through engagement, measurement and disclosure. Its global disclosure system helps investors, companies, cities, states and regions to manage and report risks and opportunities associated with their environmental impact. CDP's vision is for a thriving economy that works for people and planet.

The 2020 edition of the SAM Yearbook focuses on corporate perceptions of risk and what steps are being taken to identify, measure, and internalize those risks by companies via tools like impact evaluation.

The climate emergency provides a powerful example of the critical need for companies to uncover and evaluate the risks (both seen and unseen) embedded in their operations and products. These risks can have serious negative consequences (impact) for the environment and society. The debate over climate change has radically shifted in the past decade, moving from a potential scenario in strategic planning to an existential threat for not just individual companies but entire industries.

Over the past two decades, CDP has been a champion and pioneer in pushing companies, investors, municipalities, and governments to measure and understand their environmental impact. In the process, it has developed an impressive array of protocols, tools and methods to help these stakeholders in collecting, measuring, benchmarking, and disclosing carbon emissions and other environmental indicators. As a result, CDP has built an influential reputation and network that strengthens its ability to drive change.

Foteini Arpatzoglou of S&P Global ESG Research, recently sat down with CDP's Faye Bennett-Hart, Associate Director, Reporting at CDP, to discuss CDP's founding mission, current strategy, and future vision for reducing environmental damage and achieving net-zero carbon emissions.





**Foteini Arpatzoglou:** For those who are less familiar with CDP's work, can you describe your mission?

**Faye Bennett-Hart:** CDP wants to help build a thriving, sustainable economy that operates in the best interest of people and planet. We focus investors, companies, and cities on actions they can take to prosper in this economy. Disclosure is the main tool – it helps companies and governments measure and understand their environmental impacts and opportunities, and helps them to make informed, strategic action on a global scale. For investors, it provides powerful information for channeling their investments to environmentally responsible companies around the world.

Companies, cities, states, and regions report their environmental disclosures through CDP's climate change, water security, and forests questionnaires. This information provides the basis for environmental transparency and action.

It's a hugely exciting transformational time. This year, over 525 investors with US \$96 trillion in assets requested companies disclose through CDP on climate change, water security, and forest management. Over 8,400 companies responded to this call, an increase of 20% on the previous year.

**"In order to transition to the low carbon economy there needs to be a step change across all areas of business and particularly within the financial sector."**

**FA:** Who are your stakeholders and how do they use and benefit from your data and services?

**FBH:** CDP partners with organizations and companies that provide research, data products, indices, and ratings to companies, investors and consumers. Having the best data available helps companies and governments improve strategic planning and capital investment decisions and helps investors make informed comparisons between companies.

CDP scores are displayed on Bloomberg terminals and CDP data is used across a variety of investment products and strategies. We are also involved in helping index providers construct sustainable indices that base selection on the key environmental challenges of climate change, water security, and deforestation. In this way, we make sure the people making critical financial decisions can access the information they need about environmental risks in a useful, timely format. This helps them future-proof their growth as we transition to a low carbon economy.

**FA:** What do you see as the biggest challenge in transitioning to a sustainable economy?

**FBH:** In order to transition to the low carbon economy there needs to be a step change across all areas of business and particularly within the financial sector. For this reason, CDP is launching Financial Services specific questions in its questionnaire in 2020.

Financial institutions need to disclose in their own right based on their direct emissions and CDP already works with major investors as signatories towards this goal. But the focus is turning towards the emissions they indirectly finance elsewhere in the economy through investments and lending. This is an important change that signals an understanding of the need to urgently shift to a more sustainable low carbon economy.

“CDP has collaborated with RobecoSAM for over 6 years. Our research frameworks reinforce each other, cementing disclosure as a fundamental business norm and driving further positive change.”

**FA: Tell us more about your collaboration with RobecoSAM and more specifically how this strengthens and advances CDP’s mission?**

**FBH:** CDP has collaborated with RobecoSAM for over 6 years. Our research frameworks reinforce each other, cementing disclosure as a fundamental business norm and driving further positive change. We also work together to ensure as much alignment as possible when our frameworks request similar data points.

Alignment means that developments in environmental reporting, such as the Task Force on Climate-related Financial Disclosure (TCFD) recommendations or Scope 3 emissions are approached in a consistent manner.

For companies, this means that there is consistency across our data collection frameworks that facilitates understanding and reduces the effort expended by companies that report against both.

For investors, it is crucial that data becomes more readily available, more reliable, and more comparable in order to make informed investment decisions. Making environmental reporting comparable and consistent in this way significantly strengthens our efforts to prepare companies for a more resilient future.

**FA: How effective are disclosures at reducing company emissions and environmental footprint – does more disclosure really lead to more accountability and company action?**

**FBH:** CDP was founded in 2000 on the premise that environmental disclosure leads to action. Since then, the importance and demand for environmental

disclosure has increased significantly such that for many companies it is a mandatory requirement and central to their business planning. Though that was our goal, it seemed a long way off when we started. In the early years just over 200 companies reported but that figure has continued to rise over the years and in 2019 over 8,400 companies, 800 cities, 120 states and regions responded to CDP questionnaires. Increasingly, key economic decision-makers are using our data to plan for life in a low-carbon economy.

Companies serious about climate change are not just disclosing, they are acting on other fronts as well. CDP is part of the We Mean Business coalition which has created a platform for companies to tackle key environmental issues through a number of initiatives. Since its launch in 2014, more than 1,000 companies, representing every economic sector and geography, have made over 1,700 commitments to ambitious climate action. Meanwhile, over 700 companies have committed to setting a science-based target for reducing their emissions in line with the Paris climate agreement.

As well as driving climate action, disclosures also appear to drive improvements in other areas of business. In a survey in October 2018, 70% of CDP responding companies said that reporting to CDP improves their reputation and nearly half said that reporting to CDP helps their organization to be more competitive. There is also strong evidence of positive outperformance over the past 8 years (2011-2019) from indices that integrate CDP score data compared to standard benchmarks.

**FA: Emission and pollution volumes differ between industries (for example, oil and gas, agriculture and textiles will have larger footprints than banking and insurance). How are disclosures having an impact on actual emissions within industries? Have you identified any interesting trends?**

**FBH:** Operational emissions are smaller in banking and insurance than oil and gas sectors, but they are only a small part of the picture. Emission volumes in these

“As well as driving climate action, disclosures also appear to drive improvements in other areas of business.”



“It’s critically important that financial institutions consider the environmental impact of projects that they finance, underwrite, or manage.”

sectors are much larger than is currently reported once financed emissions’ are accounted. In 2020, this will be the focus of new questions for the finance sector in CDP’s climate change questionnaire.

In 2018 only 15% of financial institutions reported their indirect emissions to CDP, and we estimate that the total Scope 3 emissions would increase a hundredfold if all financial institutions currently reporting to CDP included Scope 3 financed emissions. Therefore, it’s critically important that financial institutions consider the environmental impact of projects that they finance, underwrite, or manage.

“215 of the biggest global companies report almost US \$1 trillion at risk from climate impacts, with many losses likely to hit within the next 5 years. Furthermore, the potential value of sustainable business opportunities is almost 7x their cost.”

Disclosure of the risks and opportunities of climate change from financial companies has improved through the CDP questionnaire since its alignment with Task Force on Climate-related Financial Disclosures (TCFD) recommendations from 2018 onwards. However, there is still much more that companies need to do to address risks and realize opportunities. Our recent research on CDP climate change data revealed that 215 of the biggest global companies report almost US \$1 trillion at risk from climate impacts, with many losses likely to hit within the next 5 years. Furthermore, the potential value of sustainable business opportunities is almost 7x their cost (US \$311 billion in costs, US \$2.1 trillion in opportunities).

**FA: How is increasing public awareness, investor activism, and initiatives like the Task Force for Climate-Related Disclosure (TCFD) influencing company reporting and behavior?**

**FBH:** In the last year, CDP has seen a 20% increase in the number of companies disclosing, so it is likely that the recent increased public awareness and investor activism has contributed to driving up the numbers. The TCFD has brought climate reporting much higher up the agenda for companies and CDP provides a clear structure of reporting against TCFD recommended disclosures.

“The work won’t go unrewarded – it will bring huge opportunities for companies that act now in planning for the long term. How fast companies act will make the difference between extinction, surviving, and thriving in the future.”

CDP understood the step change that the launch of these disclosures would have on the climate reporting landscape which is why we committed to aligning with the TCFD recommendations in 2018. By 2020 all TCFD sectors will be represented in the CDP climate change questionnaire. In addition to Financial Services (including banking, insurance, asset owners and asset managers), our 2020 questionnaire will also cover the Real Estate, Construction, and Capital Goods sectors.

Whilst expanding the questionnaire, CDP also collaborated with several other frameworks including global sustainability standard-setters like GRI, SASB, CDSB, and IIRC, to clearly show the overall alignment with TCFD and each respective framework.<sup>1</sup>

**FA: How is CDP data being used by investors interested in ESG and impact investments?**

**FBH:** Investors use CDP data in a number of different ways including for determining in which companies to invest for the long term. Global asset managers with operations and investments on the ground worldwide use CDP response data to understand how exposed a particular business is to an environmentally changing world and what it is doing to adapt.

Other investors use our data to calculate the carbon footprint of their portfolios. Once the highest emitters have been identified, investors can then more efficiently focus their efforts on driving down overall impact to align with the Paris Agreement through, for example, engagement activities with company management.

CDP data is also used in investor ESG research and risk management. As mentioned previously, CDP data is integrated into the Bloomberg platform and forms the basis for constructing various fund ratings and investment products. To give an idea of the value of CDP disclosure, independent research conducted recently found that businesses that disclosed through CDP had a 19% increase in access to capital than the average company.

**FA: Is it realistic to think we will reach the UN’s goal for global temperatures by 2050?**

**FBH:** Yes, it’s definitely possible, but it won’t be easy. The process requires a seismic shift from “business-as-usual” and for companies to act fast. A vast body of research has been done that supports and guides companies and governments on the way forward. Moreover, success in reducing global warming and transitioning to a low carbon economy will require the work of each and every economic sector. But the work won’t go unrewarded – it will bring huge opportunities for companies that act now in planning for the long term. How fast companies act will make the difference between extinction, surviving, and thriving in the future.

<sup>1</sup> GRI-Global Reporting Initiative, SASB-Sustainability Accounting Standards Board, CDSB-Climate Disclosure Standards Board, IIRC-International Integrated Reporting Council



An aerial photograph showing a diagonal split between a vibrant green agricultural field on the left and a brown, heavily textured plowed field on the right. The green field has distinct dark lines running across it, likely from planting or irrigation. The brown field shows deep, parallel furrows from plowing. A thin line of small yellow markers or fence posts separates the two fields.

# Sustainability Leaders 2020

In 2019, 4,710 companies were assessed in the SAM Corporate Sustainability Assessment (CSA)\*.

Since 1999, SAM has been conducting the annual CSA and has compiled one of the largest and most comprehensive global databases on corporate sustainability.

The 2020 Yearbook is based on the 2019 Corporate Sustainability Assessment.



Within each industry, companies with a minimum total score of 60 and whose score is within 1% of the top performing company's score in their industry receive the SAM Gold Class award.



All companies receiving a total score of at least 57 and whose score is within a range of 1% to 5% of the industry's top performing company's score receive the SAM Silver Class distinction.



Companies whose score is at least 54 and is within a range of 5% to 10% of the industry's top performing company's score receive the SAM Bronze Class distinction.



Within the top 15% of each industry, the company that has achieved the largest proportional improvement in its sustainability performance compared to the previous year is named the SAM Industry Mover.

\*as of November 30th 2019

## Sustainability Yearbook Member

All companies that have been included in the Yearbook, but that have not received a medal distinction, are listed as a Sustainability Yearbook Member. In order to be listed

in the Yearbook, companies must be within the top 15% of their industry and must achieve a score within 30% of their industry's top performing company.

### Sustainability leaders 2020



#### SAM Gold Class

Company	Country
Company	Country



#### SAM Silver Class

Company	Country
Company	Country



#### SAM Bronze Class

Company *	Country
Company	Country

#### Sustainability Yearbook Members

Company	Country
Company	Country

\* SAM Industry Mover

Out of the 458 companies listed in The Sustainability Yearbook, the following distinctions were awarded:

**71 SAM Gold Class**

**64 SAM Silver Class**

**85 SAM Bronze Class**

## SAM ESG Score

As of this year, the Sustainability Yearbook and website discloses Total SAM ESG Scores for all eligible assessed companies. Companies assessed in the SAM Corporate Sustainability Assessment (CSA) receive a SAM ESG Score between 0 – 100. A company's Total SAM ESG Score is the weighted sum of all applicable question scores. The score is used to rank companies in their industry. As the CSA applies 61 industry-specific questionnaires, the resulting scores should not be used to rank companies cross industry and should be reviewed within the context of each SAM industry. A first set of scores was calculated

in September 2019 to select leading companies for inclusion in relevant Dow Jones Sustainability Indices. Additional companies were assessed since for inclusion in the yearbook as part of our continuous assessment process. All scores used for the Yearbook selection and published on the website reflect the results of SAM's Media & Stakeholder Analysis as of December 19, 2019 as well as the most recent decisions regarding company exclusions from the DJSI that have been taken by the Dow Jones Sustainability Index Committee.

## Read more about the Yearbook's methodology

SAM is pleased to see that over the years, participation rates in the SAM Corporate Sustainability Assessment have continuously risen – with a record number of companies taking part in this year's assessment – indicating that sustainability is increasingly rising to the top of corporate agendas and becoming more mainstream.

On the following pages, SAM offers insights highlighting opportunities and risks deriving from economic, environmental and social trends and developments that have an impact on the competitive position of companies in each of the 61 industries analyzed. Companies ranking in the top 15% of each industry are included in The Sustainability Yearbook, and those within the top 10% are classified into three categories: SAM Gold Class, SAM Silver Class and SAM Bronze Class. As the Sustainability Yearbook aims to distinguish those companies that have each demonstrated their strengths in the area of corporate sustainability, we see greater value in rewarding groups

of top performing companies, rather than individual companies. Furthermore, in order to be included in the Yearbook, companies must achieve a score within 30% of their industry's top performing company.

In addition to the companies' sustainability scores derived from the CSA, a qualitative screen based on SAM's Media and Stakeholder Analysis (MSA) is applied to determine eligibility for inclusion in The Sustainability Yearbook. The MSA is based on an examination of media coverage and publicly available stakeholder information provided by RepRisk ESG Business Intelligence and evaluates a company's response to critical sustainability issues that may arise during the year. This process aligns the Yearbook's methodology with any decision by the Dow Jones Sustainability Indices Committee to exclude a company from the DJSI, which is also based on the MSA.

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## Corporate Actions

SAM monitors corporate actions throughout the year. In line with the treatment of corporate actions for the Dow Jones Sustainability Indices, SAM will review corporate actions on a case-by-case basis and apply a consistent methodology. For merged companies, the surviving entity will be considered for the Yearbook based on the score of the company assessed which SAM deems to be the surviving entity. If a company is delisted as a result of a corporate action prior to the end of October, it will

no longer be eligible for inclusion in the Sustainability Yearbook, given that the entity no longer exists.

Company names and countries are reviewed periodically and updated to the best of SAM's knowledge at the time of publication. Changes occurring after this date may not be reflected in the printed version of the Yearbook, but may be updated on the SAM Sustainability Yearbook website.

## Reading Instructions

The information below provides an explanation on how to interpret the various sections contained in each of the Industry Profiles on the following pages.

### 1 Driving forces

Highlights current and future challenges shaping the competitive landscape of each industry and impacting the sources of value creation for companies.

### 2 Highlighted criteria

Highlights selected industry-specific and general criteria that are applied in the 2019 Corporate Sustainability Assessment, including the weights of the three dimensions within the overall score.

### 3 Industry statistics

This section displays the research coverage in 2019 for the respective industry. Assessed companies include those that actively participated in the CSA and companies assessed by SAM based on publicly available information.

### 4 Results at industry level

The chart illustrates the distribution of scores from bottom quartile to top quartile in the industry by showing:

- Highest score
- Top quartile
- 3rd quartile
- Industry average
- 2nd quartile
- Bottom quartile

## This is an example



### Aerospace & Defense

#### Driving forces

Aerospace & defense is heavily reliant on product innovation to develop safer and more (energy) efficient modes of transportation, space exploration technologies and military and defense systems. Operational eco-efficiency is an important focus of R&D due to increasing demand for cleaner and quieter aircraft. Although technological advancement improves performance, it also deepens the complexity of aircraft systems. At the same time OEMs are facing continuous cost pressures from both competitors and customers. The confluence of these factors pushes manufacturers to increase outsourcing which also increases the risks to product quality and safety (eg, third party programmers, or counterfeit parts). In terms of business ethics, aerospace and defense companies are increasingly scrutinized for their weapon-related exposure. Lastly, corruption, bribery and anti-competitive business practices remain primary areas of concern across the industry.

### 2

#### Highlighted criteria & Dimension weight

Economic Dimension ..... 40%  
 – Codes of Business Conduct  
 – Compliance with Applicable Export Control Regimes  
 – Supply Chain Management  
 Environmental Dimension ..... 27%  
 – Climate Strategy  
 – Environmental Policy & Management Systems  
 – Operational Eco-Efficiency  
 – Product Stewardship  
 Social Dimension ..... 33%  
 – Human Capital Development  
 – Occupational Health and Safety

### 3

#### Sustainability leaders 2020

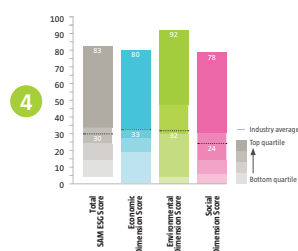
		Total SAM ESG Score
<span style="color: yellow;">●</span> <b>SAM Gold Class</b>		
Leonardo SpA*	Italy	83
<span style="color: blue;">●</span> <b>Sustainability Yearbook Members</b>		
Thales SA	France	74
Rolls-Royce Holdings PLC	United Kingdom	73
Lockheed Martin Corp	United States	70
BAE Systems PLC	United Kingdom	68

\* SAM Industry Mover

#### Industry statistics

Number of companies in universe	38
Number of companies assessed in 2019	34
Assessed companies to total companies in universe	89%
Market of assessed companies to total market	99%

#### Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.

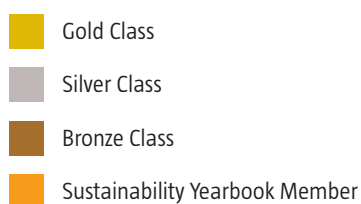
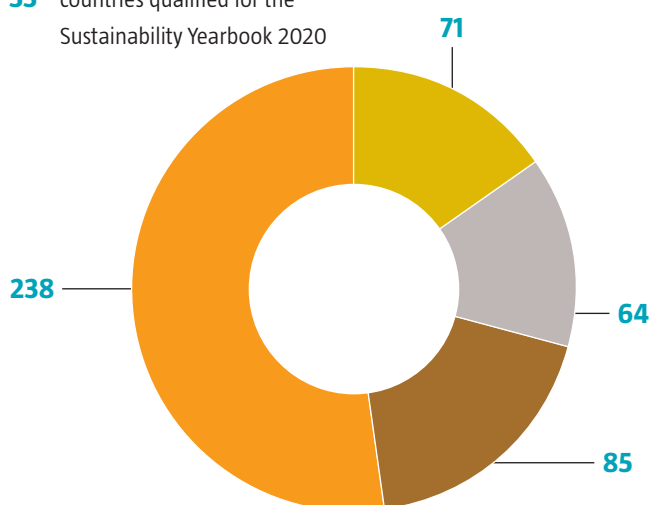
## Where are the world's most sustainable companies located?

**4,710**

companies were assessed in the CSA in 2019\*

\*as of November 30th 2019

**458** companies from  
**33** countries qualified for the  
Sustainability Yearbook 2020



### Market capitalization of assessed companies to total market capitalization (%)

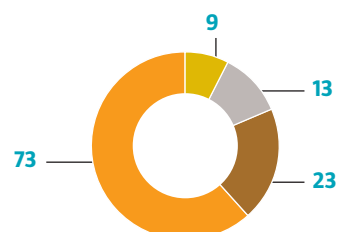
Asia Pacific: 99.1%

Emerging Markets\*: 97.7%

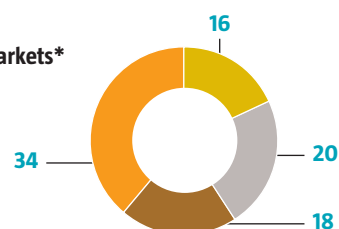
Europe: 95.1%

North America: 96.3%

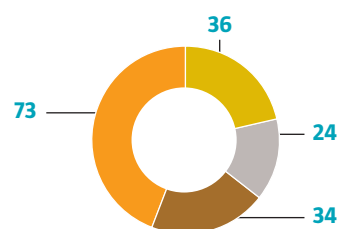
#### Asia Pacific



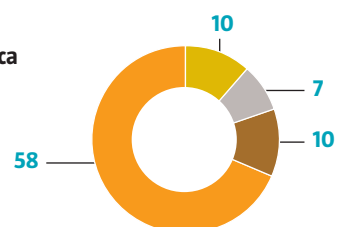
#### Emerging Markets\*



#### Europe



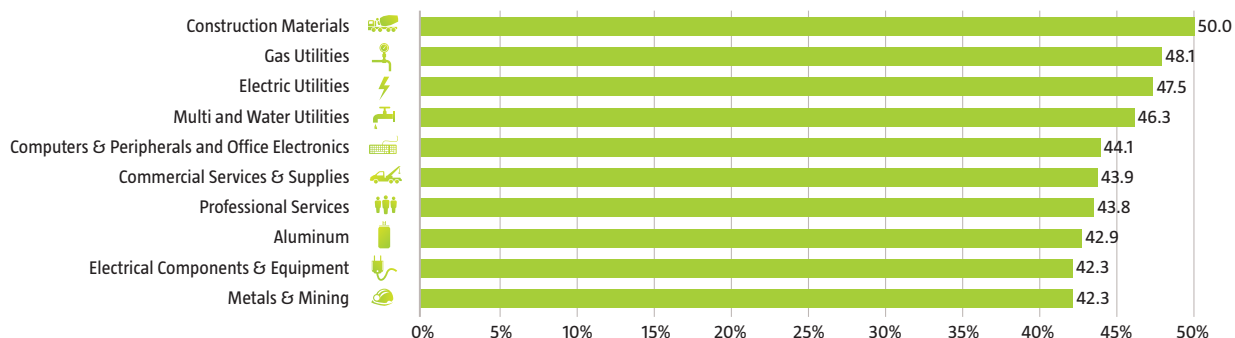
#### North America



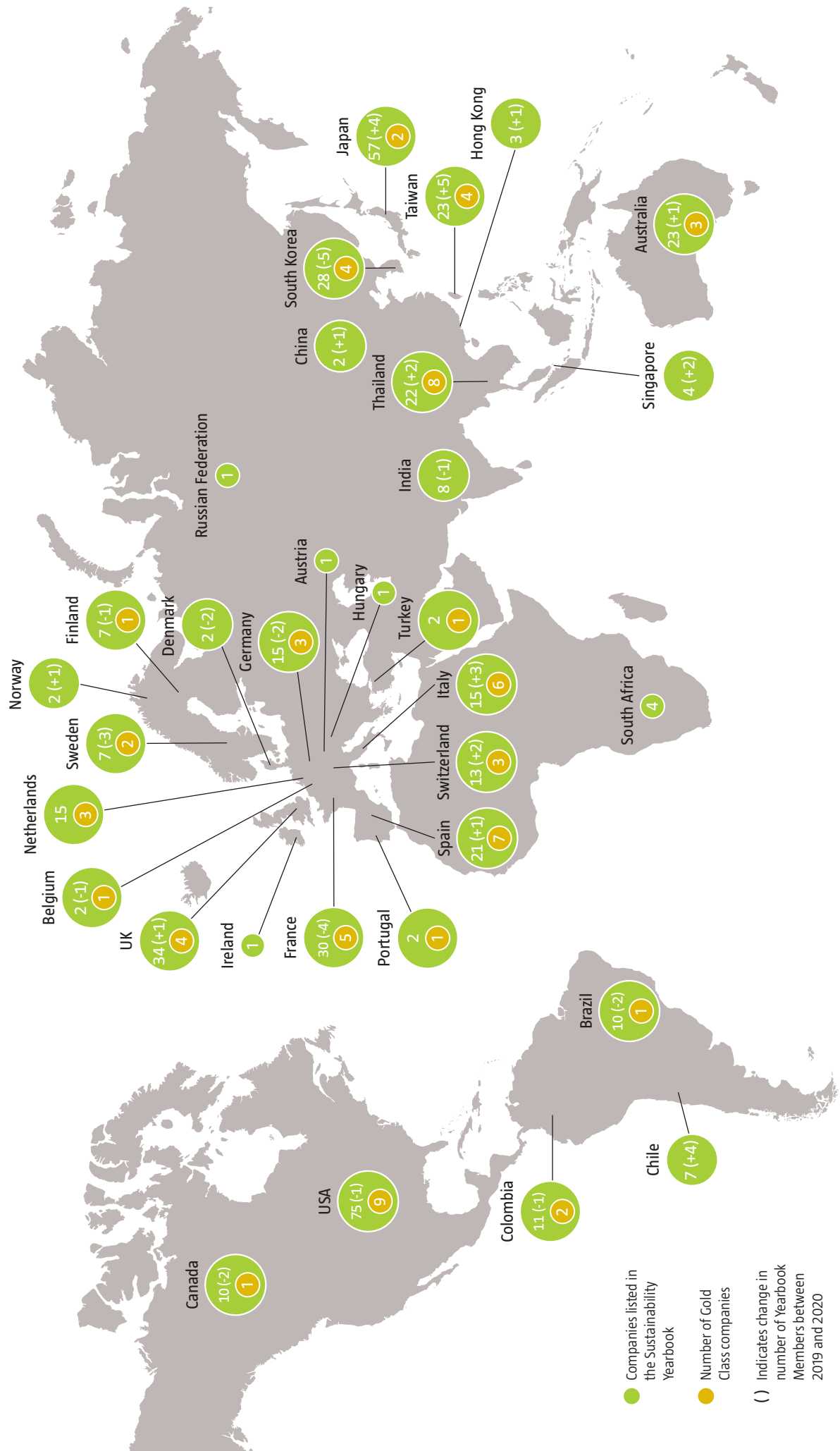
\* Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, United Arab Emirates

### TOP 10 INDUSTRIES BY PARTICIPATION RATE

Percentage of invited companies that actively participated in the CSA in 2019



## Where are the world's most sustainable companies located?



# Industry Profiles:

## 61 Industries at a Glance

Industry	Page	Industry	Page
Aerospace & Defense	51	Household Durables	83
Airlines	52	Household Products	84
Aluminum	53	Industrial Conglomerates	85
Auto Components	54	Insurance	86
Automobiles	55	Interactive Media, Services & Home Entertainment	87
Banks	56	IT services & Internet Software and Services	88
Beverages	58	Leisure Equipment & Products and Consumer Electronics	89
Biotechnology	59	Life Sciences Tools & Services	90
Building Products	60	Machinery and Electrical Equipment	91
Casinos & Gaming	61	Media, Movies & Entertainment	92
Chemicals	62	Metals & Mining	93
Coal & Consumable Fuels	63	Multi and Water Utilities	94
Commercial Services & Supplies	64	Oil & Gas Refining & Marketing	95
Communications Equipment	65	Oil & Gas Storage & Transportation	96
Computers & Peripherals and Office Electronics	66	Oil & Gas Upstream & Integrated	97
Construction & Engineering	67	Paper & Forest Products	98
Construction Materials	68	Personal Products	99
Containers & Packaging	69	Pharmaceuticals	100
Diversified Consumer Services	70	Professional Services	101
Diversified Financial Services and Capital Markets	71	Real Estate	102
Electric Utilities	72	Restaurants & Leisure Facilities	104
Electrical Components & Equipment	73	Retailing	105
Electronic Equipment, Instruments & Components	74	Semiconductors & Semiconductor Equipment	106
Energy Equipment & Services	75	Software	107
Food & Staples Retailing	76	Steel	108
Food Products	77	Telecommunication Services	109
Gas Utilities	78	Textiles, Apparel & Luxury Goods	110
Health Care Equipment & Supplies	79	Tobacco	111
Health Care Providers & Services	80	Trading Companies & Distributors	112
Homebuilding	81	Transportation and Transportation Infrastructure	113
Hotels, Resorts & Cruise Lines	82		



# Aerospace & Defense

## Driving forces

Aerospace & defense is heavily reliant on product innovation to develop safer and more (energy) efficient modes of transportation, space exploration technologies and military and defense systems. Operational eco-efficiency is an important focus of R&D due to increasing demand for cleaner and quieter aircraft. Although technological advancement improves performance, it also deepens the complexity of aircraft systems. At the same time OEMs are facing continuous cost pressures from both competitors and customers. The confluence of these factors pushes manufacturers to increase outsourcing which also increases the risks to product quality and safety (eg. third party programmers, or counterfeit parts). In terms of business ethics, aerospace and defense companies are increasingly scrutinized for their weapon-related exposure. Lastly, corruption, bribery and anti-competitive business practices remain primary areas of concern across the industry.

## Highlighted criteria & dimension weights

Economic Dimension..... 40%

- Codes of Business Conduct
- Compliance with Applicable Export Control Regimes
- Supply Chain Management

Environmental Dimension ..... 27%

- Climate Strategy
- Environmental Policy & Management Systems
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 33%

- Human Capital Development
- Occupational Health and Safety

## Sustainability leaders 2020

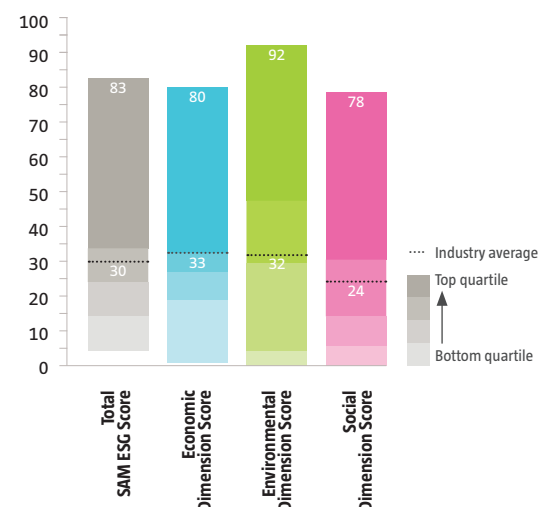
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## Results at industry level



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# Airlines

## Driving forces

Intensified competition in the airline industry challenges companies to balance high consumer expectations with the ability to deliver in an efficient and profitable way. As the full-service and low-cost airlines continue to integrate, companies must better understand their customers and be prepared to adapt their service offerings. Digitalization will play an important role in delivering an enhanced customer experience. Besides the usual expectations of a transportation service (eg. reliability, punctuality, affordability, safety, comfort etc.), consumers are increasingly gravitating towards eco-friendly transport over polluting varieties. Passenger safety is a critical issue demanding transparency to prevent reputational risks in the aftermath of operational incidents. Labor practices remain important considering the highly unionized workforce and the latent risk of strikes, which result in operational disruptions, lower customer satisfaction and ultimately revenue and profit reduction. On the environmental front, operational eco-efficiency drives resource efficiency and lowered air pollution. In the anticipation of future environmental regulations, eco-friendly frontrunners will enjoy higher profitability compared to the environmental laggards.

## Highlighted criteria & dimension weights

Economic Dimension ..... 43%

- Efficiency
- Fleet Management
- Risk & Crisis Management

Environmental Dimension ..... 23%

- Climate Strategy
- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 34%

- Labor Practice Indicators
- Passenger Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

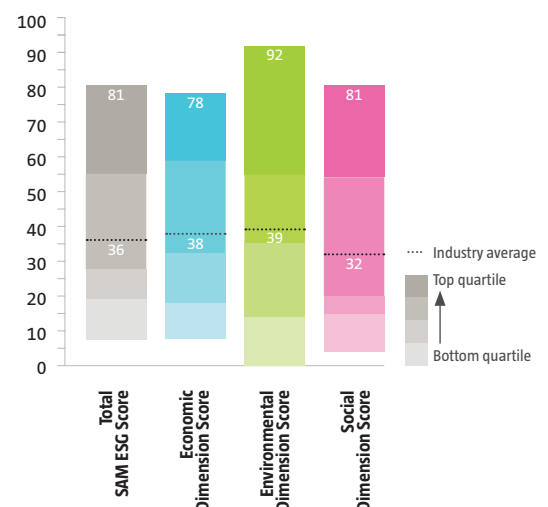
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Air France-KLM	France	81
<b>SAM Silver Class</b>		
ANA Holdings Inc	Japan	78
<b>SAM Bronze Class</b>		
China Airlines Ltd	Taiwan	77
Latam Airlines Group SA*	Chile	75

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	31
Number of companies assessed in 2019	29
Assessed companies to total companies in universe	94%
Market cap value of assessed companies to total market	96%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Aluminum

## Driving forces

Primary production of aluminum continues to have a significant environmental impact due to the energy-intensive nature of processing. Aluminum products can contribute to energy savings, as it is a light weight metal, used in many applications, and its recycling consumes significantly less energy than most other materials. Nevertheless, substantial opportunities exist for sourcing aluminum with a smaller environmental footprint. Managing energy efficiency is critically important given the significant energy costs in aluminum production and the potential for climate regulation to reshape those costs in the future. The responsible management of air emissions, waste, and wastewater discharge are also important for maintaining a license to operate with both environmental regulators and local communities. Consequently, climate strategies, forward-looking energy management and minimizing environmental impact remain high priorities. As in other heavy manufacturing industries, employee and contractor safety is critical.

## Highlighted criteria & dimension weights

Economic Dimension..... 34%

- Codes of Business Conduct
- Corporate Governance
- Supply Chain Management

Environmental Dimension ..... 33%

- Climate Strategy
- Operational Eco-Efficiency
- Water Related Risks

Social Dimension ..... 33%

- Occupational Health and Safety
- Social Impacts on Communities
- Talent Attraction & Retention

## Sustainability leaders 2020

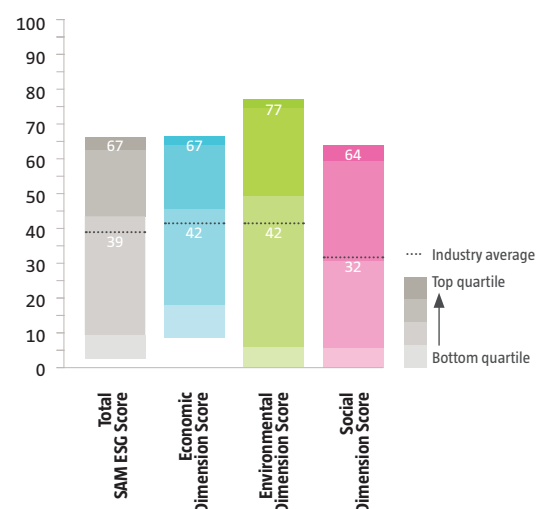
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Alcoa Corp*	United States	67
<b>SAM Bronze Class</b>		
Norsk Hydro ASA	Norway	63

\* SAM Industry Mover

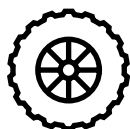
## Industry statistics

Number of companies in universe	7
Number of companies assessed in 2019	6
Assessed companies to total companies in universe	86%
Market cap value of assessed companies to total market	93%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Auto Components

## Driving forces

Auto parts suppliers play a critical role in improving efficiency and safety, making innovation a key differentiating factor to provide a competitive advantage. The goal of adopting a circular economy approach that emphasizes recycling and the reuse of resources is vital because raw materials make up a significant portion of the cost of goods sold and comprise an important waste stream. As such, there is a need to increase recycling and to use product life cycle assessments for selecting the best, most cost-effective and sustainable raw materials. Together with the growing use of conflict minerals and rare earth elements in electric and hybrid vehicles, this puts pressure on manufacturers to identify responsible suppliers, increase transparency, and minimize related risks. Ensuring passenger safety remains critical: auto parts suppliers must detect and respond to any potential safety hazards to protect companies from legal actions or lawsuits that may impact profitability. As many new driver assistance/autonomous driving technologies are developed and supplied by auto component manufacturers this provides a business opportunity but also new quality standard challenges.

## Highlighted criteria & dimension weights

Economic Dimension..... 29%

- Corporate Governance
- Innovation Management
- Supply Chain Management

Environmental Dimension ..... 37%

- Climate Strategy
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 34%

- Human Capital Development
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

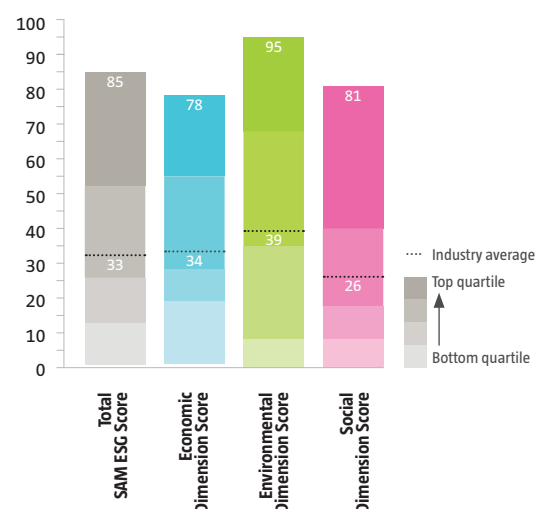
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Pirelli & C SpA	Italy	85
<b>SAM Bronze Class</b>		
Nokian Renkaat OYJ	Finland	79
Hankook Tire & Technology Co Ltd	Republic of Korea	78
Valeo SA	France	77
<b>Sustainability Yearbook Members</b>		
Bridgestone Corp	Japan	72
Hyundai Mobis Co Ltd*	Republic of Korea	69

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	45
Number of companies assessed in 2019	45
Assessed companies to total companies in universe	100%
Market cap value of assessed companies to total market	100%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Automobiles

## Driving forces

The automobile industry continues to face regulatory pressure, both in terms of performance and design. Innovation is essential to companies' long-term success, increasingly moving away from simple engine enhancements or hybrid vehicles to fully electric drivetrains. This will lead to changes in the supply chain so automobile manufacturers must carefully assess risks (such as dependency on critical suppliers and the use of rare earth elements) while also taking advantage of new opportunities (eg. material innovation and recycling) across the entire value chain. Finally, robust corporate governance structures and compliance practices are critical to ensure compliance with environmental standards and to avoid reputational and legal issues.

## Highlighted criteria & dimension weights

Economic Dimension..... 37%

- Corporate Governance
- Innovation Management
- Supply Chain Management

Environmental Dimension .....31%

- Climate Strategy
- Low Carbon Strategy
- Operational Eco-Efficiency

Social Dimension ..... 32%

- Human Capital Development
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

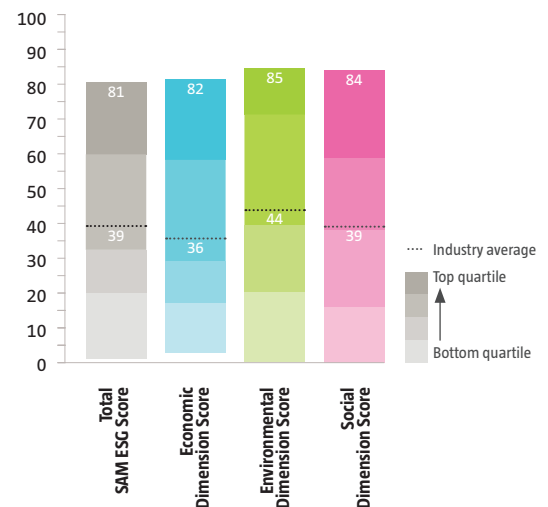
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Peugeot SA	France	81
<b>SAM Silver Class</b>		
Honda Motor Co Ltd	Japan	80
Bayerische Motoren Werke AG	Germany	78
<b>SAM Bronze Class</b>		
General Motors Co	United States	76
Mahindra & Mahindra Ltd*	India	75

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	37
Number of companies assessed in 2019	35
Assessed companies to total companies in universe	95%
Market cap value of assessed companies to total market	93%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Banks

## Driving forces

In response to increased regulatory scrutiny, many banks have transitioned to simplified business models and focused increasingly on the core principles of ethics and customer trust. Much of this strategic change has been initiated at the board level, demonstrating the emphasis investors have placed on effective corporate governance. Banking culture remains one of the foremost items on board agendas, and establishing effective incentive schemes is increasingly viewed as a way of aligning investment professionals' attitudes and behaviors with the long-term interests of shareholders and society as a whole. Leading banks are now using well-designed human capital schemes not only to ensure that the company has the appropriate skill set to execute the business strategy, but also to improve talent attraction and retention, which is of utmost importance in the midst of the sector's digital transition. Additionally, banks are increasingly managing confidential data. Therefore, protecting customers' financial and personal data and minimizing cyber risk are crucial to maintaining client trust. By effectively integrating sustainability with ethical principles and increased customer focus, banks can reduce credit and operational risk, which will further enhance their capacity to generate long-term economic, environmental and social value. The rising demand for ESG products means that banks must redesign their product portfolios to align with customer demands and their own sustainability targets.

## Sustainability leaders 2020

		Total SAM ESG Score			
<b>SAM Gold Class</b>					
Banco Santander SA	Spain	86	Societe Generale SA	France	79
Banco do Brasil SA*	Brazil	86	National Australia Bank Ltd	Australia	79
E.Sun Financial Holding Co Ltd	Taiwan	85	Bank of America Corp	United States	78
<b>SAM Silver Class</b>			Intesa Sanpaolo SpA	Italy	78
Bancolombia SA	Colombia	85	Taishin Financial Holding Co Ltd	Taiwan	78
First Financial Holding Co Ltd	Taiwan	84	<b>Sustainability Yearbook Members</b>		
Shinhan Financial Group Co Ltd	Republic of Korea	84	Bankinter SA	Spain	78
Itaúsa - Investimentos Itaú SA	Brazil	83	Bankia SA	Spain	78
Siam Commercial Bank PCL	Thailand	83	Türkiye Garanti Bankası AS	Turkey	77
Westpac Banking Corp <sup>1</sup>	Australia	83	China Development Financial		
Australia & New Zealand			Holding Corp	Taiwan	76
Banking Group Ltd	Australia	82	Toronto-Dominion Bank	Canada	76
Banco Bradesco SA	Brazil	82	Nedbank Group Ltd	South Africa	76
Banco Bilbao Vizcaya Argentaria SA	Spain	82	Royal Bank of Canada	Canada	75
<b>SAM Bronze Class</b>			CTBC Financial Holding Co Ltd	Taiwan	75
Kasikornbank PCL	Thailand	82	Svenska Handelsbanken AB	Sweden	74
CaixaBank SA	Spain	81	Bank of Nova Scotia	Canada	74
Itaú Unibanco Holding SA	Brazil	81	Banco Davivienda SA	Colombia	73
KB Financial Group Inc	Republic of Korea	80	Standard Chartered PLC	United Kingdom	73
BNP Paribas SA	France	79	KBC Group NV	Belgium	72
ABN AMRO Bank NV	Netherlands	79			

\* SAM Industry Mover

<sup>1</sup> In December 2019, we began a Media & Stakeholder Analysis of Westpac Banking Corp related to the civil proceedings launched by the Australian Transaction Reports and Analysis Centre (AUSTRAC) in relation to alleged breaches related to Anti-Money Laundering and Counter-Terrorism Financing. We continue to closely monitor the developments on this issue and reserve the right to adjust both the company's score and also its Yearbook eligibility.

## Highlighted criteria & dimension weights

Economic Dimension ..... 55%

- Corporate Governance
- Sustainable Finance
- Codes of Business Conduct
- Risk & Crisis Management
- Anti-crime Policy & Measures

Environmental Dimension ..... 13%

- Climate Strategy

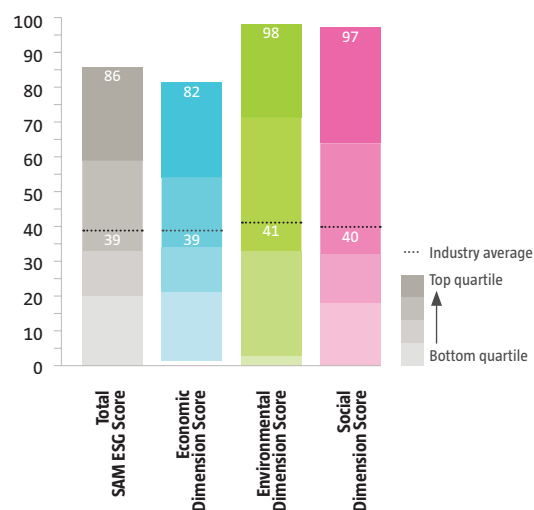
Social Dimension ..... 32%

- Human Capital Development
- Talent Attraction & Retention
- Financial Inclusion

## Industry statistics

Number of companies in universe	250
Number of companies assessed in 2019	228
Assessed companies to total companies in universe	91%
Market cap value of assessed companies to total market	98%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Beverages

## Driving forces

In the global beverage industry, the focus on health and nutrition continues to drive changes both in the market and in companies' strategies. The demand for carbonated soft drinks (CSD) has been in decline, particularly in developed markets, with preferences shifting towards more natural ingredients, healthier alternatives and lower-calorie substitutes. In light of these changes, companies must innovate to re-formulate products which promote well-being by increasing nutritional content while lowering the amounts of artificial additives. Given the large proportion of calories consumed through CSDs, sugar and other ingredients as well as advertising strategies have come under increased scrutiny and face new regulations and taxes. Producers of alcoholic beverages have long faced legal barriers in developed markets, but must also maintain effective and responsible marketing strategies in emerging markets with fewer regulations. Water availability and quality is an ongoing concern for producers and local governments, making the management of water-related risks key to ensuring a sustainable, long-term production base.

## Highlighted criteria & dimension weights

Economic Dimension..... 48%

- Corporate Governance
- Health & Nutrition
- Innovation Management
- Supply Chain Management

Environmental Dimension ..... 26%

- Operational Eco-Efficiency
- Raw Material Sourcing
- Water Related Risks

Social Dimension ..... 26%

- Human Capital Development
- Talent Attraction & Retention

## Sustainability leaders 2020

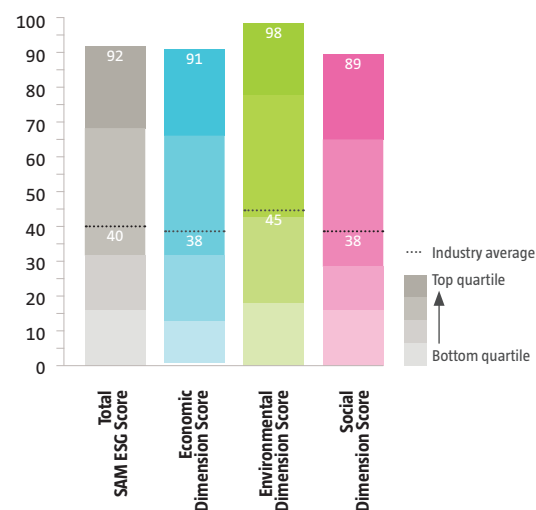
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Thai Beverage PCL	Thailand	92
<b>SAM Silver Class</b>		
Coca-Cola HBC AG*	Switzerland	90
Coca-Cola European Partners PLC	Spain	89
<b>SAM Bronze Class</b>		
Diageo PLC	United Kingdom	86
<b>Sustainability Yearbook Members</b>		
Asahi Group Holdings Ltd	Japan	82
Heineken NV	Netherlands	75

\* SAM Industry Mover

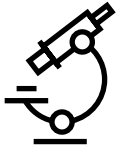
## Industry statistics

Number of companies in universe	44
Number of companies assessed in 2019	43
Assessed companies to total companies in universe	98%
Market cap value of assessed companies to total market	100%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Biotechnology

## Driving forces

Biotechnology companies are facing scrutiny related to the pricing and reimbursement of their products as governments seek to slow the rise in healthcare costs and as public criticism of drug pricing practices remains vocal. Companies must demonstrate the value of their products and ensure that their corresponding pricing is economically and medically justified and sustainable to those paying for them. The biotechnology industry relies heavily on human capital for innovation and the continuous development of novel medicines. The industry is characterized by extensive R&D and a high risk of failure in product development, which makes attracting and retaining the most talented researchers and scientists essential and also means intellectual property management is critical. Finally, business ethics, competitive practices and product quality and safety remain important aspects. Violations have the potential to cause significant reputational and financial damage, the impact of which has grown due to the increased speed of information flow resulting from social media and tighter regulatory oversight.

## Highlighted criteria & dimension weights

Economic Dimension..... 49%

- Codes of Business Conduct
- Innovation Management
- Product Quality and Recall Management

Environmental Dimension ..... 9%

- Climate Strategy
- Operational Eco-Efficiency

Social Dimension ..... 42%

- Addressing Cost Burden
- Health Outcome Contribution
- Strategy to Improve Access to Drugs or Products
- Talent Attraction & Retention

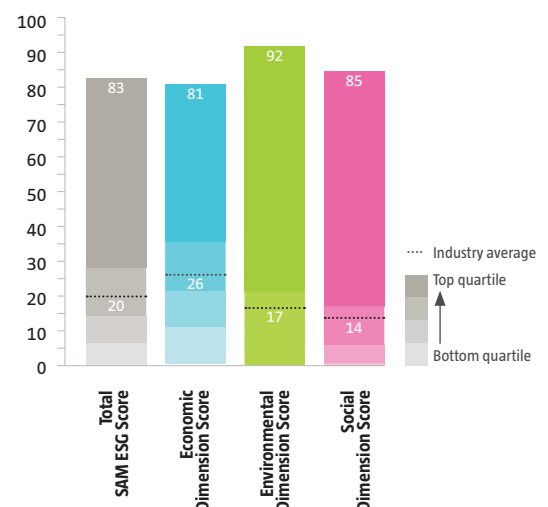
## Sustainability leaders 2020

		Total SAM ESG Score
<b>SAM Gold Class</b>		
Biogen Inc	United States	83
<b>SAM Bronze Class</b>		
AbbVie Inc	United States	76

## Industry statistics

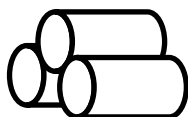
Number of companies in universe	52
Number of companies assessed in 2019	34
Assessed companies to total companies in universe	65%
Market cap value of assessed companies to total market	93%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.

Please note, that due to the high proportion of 0 scores in the environmental dimension for this industry, the values displayed for the



# Building Products

## Driving forces

The manufacturing of building products requires significant energy outlays and minimizing these outlays is a high priority alongside climate strategy, operational eco-efficiency and occupational health and safety. Over their lifetime, buildings are responsible for about 40% of global energy consumption, 25% of global water consumption and 33% of GHG emissions, as reported by the UN Environmental Program. Companies that integrate lifecycle environmental impacts in product design and manufacturing are better positioned to benefit from the demand for more eco-friendly, energy-efficient buildings and greener construction products. Continued areas of focus include: responsibly sourcing raw materials like wood and metal, greater use of recycled materials in production, reducing the use of hazardous substances such as volatile organic compounds, and a greater emphasis on end-of-life management. Taking such an integrated approach also reduces risks of potential product liabilities.

## Highlighted criteria & dimension weights

Economic Dimension..... 34%

- Codes of Business Conduct
- Risk & Crisis Management
- Supply Chain Management

Environmental Dimension ..... 35%

- Climate Strategy
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 31%

- Human Capital Development
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

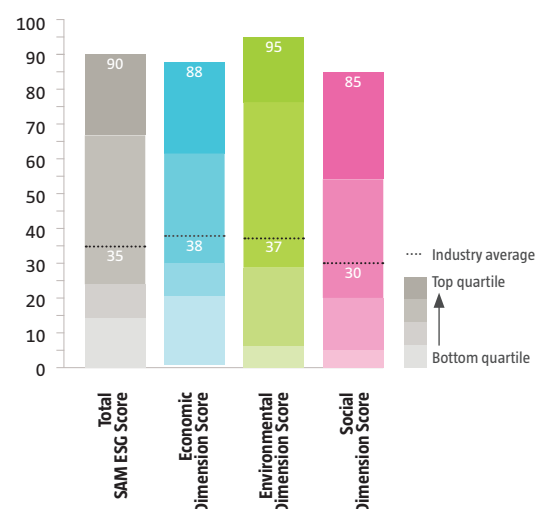
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Owens Corning	United States	90
<b>Sustainability Yearbook Members</b>		
LIXIL Group Corp*	Japan	80
TOTO Ltd	Japan	79

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	25
Number of companies assessed in 2019	23
Assessed companies to total companies in universe	92%
Market cap value of assessed companies to total market	96%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



## Casinos & Gaming

### Driving forces

The casinos and gaming industry consistently remains under intense public and regulatory scrutiny. Companies must address concerns such as money laundering through robust compliance systems and sound governance. Social issues such as gambling addiction and its societal repercussions are managed inconsistently, often limited to regional legislation or voluntary standards. The rapid growth of online gaming poses significant opportunities for operators, but also threats. These include the proliferation of online platforms which has highlighted the need for effective monitoring, however companies in this space are increasingly going beyond the minimum legal requirements and taking a proactive stance in addressing these issues. On the environmental side, companies are increasing their efforts to curb energy consumption while reducing operating costs.

### Highlighted criteria & dimension weights

Economic Dimension ..... 46%

- Anti-crime Policy & Measures
- Codes of Business Conduct
- Corporate Governance
- Customer Relationship Management

Environmental Dimension ..... 17%

- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 37%

- Human Capital Development
- Stakeholder Engagement
- Talent Attraction & Retention

### Sustainability leaders 2020

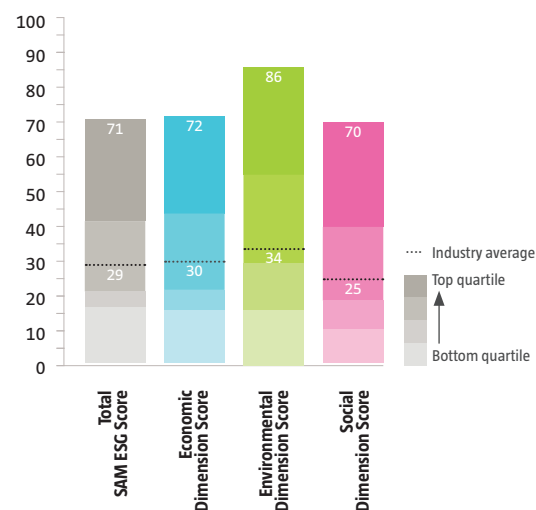
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Star Entertainment Grp Ltd	Australia	71
<b>SAM Bronze Class</b>		
Tabcorp Holdings Ltd	Australia	67
<b>Sustainability Yearbook Members</b>		
Las Vegas Sands Corp*	United States	63
GVC Holdings PLC	United Kingdom	59

\* SAM Industry Mover

### Industry statistics

Number of companies in universe	27
Number of companies assessed in 2019	26
Assessed companies to total companies in universe	96%
Market cap value of assessed companies to total market	100%

### Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Chemicals

## Driving forces

The chemical industry includes companies that manufacture commodity chemicals, industrial gases, agricultural chemicals, and specialty chemicals. Because chemicals serve as inputs for all kinds of end uses, ranging from petroleum refining, food, automobile, textile to electronics, this industry is crucial for all sectors. Today, chemical companies contribute to sustainable development by supplying products with higher levels of performance, efficiency, and safety with lower environmental impact and risk. This requires companies to concentrate on multiple important issues such as innovation, product stewardship, operational eco-efficiency, health and safety, human capital development, and customer relationship management. Chemical companies leading the industry must address product risk assessments to understand their hazardous properties and potential exposure to human and environmental impacts to mitigate and manage product risk. Companies can apply technological innovations not only to product development, but also to operations in their pursuit of enhanced productivity and safety.

## Highlighted criteria & dimension weights

Economic Dimension..... 35%

- Codes of Business Conduct
- Customer Relationship Management
- Innovation Management

Environmental Dimension ..... 33%

- Climate Strategy
- Operational Eco-Efficiency
- Product Stewardship
- Water Related Risks

Social Dimension ..... 32%

- Human Capital Development
- Occupational Health and Safety

## Sustainability leaders 2020

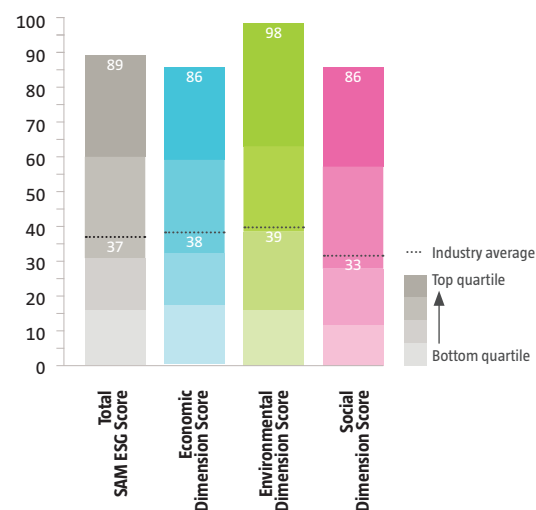
		Total SAM ESG Score
<b>SAM Gold Class</b>		
PTT Global Chemical PCL	Thailand	89
<b>SAM Silver Class</b>		
Indorama Ventures PCL	Thailand	86
Linde PLC	United States	86
LANXESS AG	Germany	85
<b>SAM Bronze Class</b>		
Clariant AG	Switzerland	82
Mitsubishi Chemical Holdings Corp	Japan	80
<b>Sustainability Yearbook Members</b>		
Dow Inc	United States	76
Akzo Nobel NV	Netherlands	76
Koninklijke DSM NV	Netherlands	74
Air Products & Chemicals Inc	United States	73
DIC Corp	Japan	71
International Flavors & Fragrances Inc	United States	71
Ecolab Inc	United States	71
Braskem SA	Brazil	70
Toray Industries Inc	Japan	69
Incitec Pivot Ltd	Australia	69
Mitsui Chemicals Inc*	Japan	68
LG Chem Ltd	Republic of Korea	68

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	120
Number of companies assessed in 2019	108
Assessed companies to total companies in universe	90%
Market cap value of assessed companies to total market	93%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Coal & Consumable Fuels

## Driving forces

Coal producers remain central to the debate about energy access and climate change. As power-generating utilities come under pressure to cut their carbon emissions, the increased use of natural gas and renewables is substantially reducing demand for thermal coal. For uranium producers, higher demand for low-carbon energy is tempered by safety concerns about nuclear power generation. Operationally, both coal and uranium producers face ongoing challenges to minimize their environmental impacts, including the release of pollutants and their effects on biodiversity and water quality. Moreover, incidents involving mineral waste or wastewater can quickly become contentious issues for community relations. Where new mining projects are being considered, clear understanding and management of environmental impacts, land rights issues and community engagement are required. Responsible management of human capital is also a key operational issue, exemplified by occupational health and safety trends and labor practices.

## Highlighted criteria & dimension weights

Economic Dimension..... 33%

- Codes of Business Conduct
- Corporate Governance

Environmental Dimension ..... 32%

- Biodiversity
- Climate Strategy
- Mineral Waste Management
- Operational Eco-Efficiency
- Water Related Risks

Social Dimension ..... 35%

- Occupational Health and Safety
- Social Impacts on Communities

## Sustainability leaders 2020



### SAM Gold Class

Banpu PCL\* Thailand 76

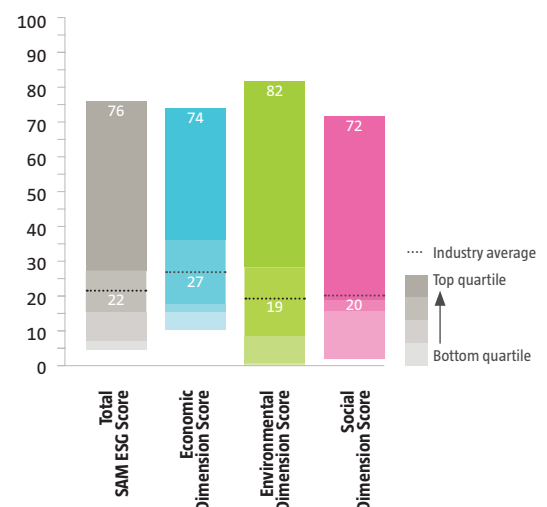
Total SAM ESG Score

\* SAM Industry Mover

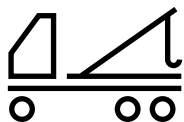
## Industry statistics

Number of companies in universe	12
Number of companies assessed in 2019	11
Assessed companies to total companies in universe	92%
Market cap value of assessed companies to total market	97%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Commercial Services & Supplies

## Driving forces

Commercial service suppliers include companies providing products and services required by enterprises that are not part of their core business activities. Given the industry's sweeping scope, it encompasses both manually-intensive and knowledge-intensive skill sets but consistently relies heavily on human capital. Fair labor practices combined with employee development programs, knowledge management and adequate incentive schemes are important for creating successful, safe and healthy working environments; enhancing productivity; attracting new talent; and retaining employees. On the demand side, customer relationship management plays a crucial role as long-lasting relationships are beneficial to both clients and providers. Corporate governance and management quality help industry leaders maintain diversified business models to leverage internal synergies and to employ cutting-edge technologies. As B2B service partners, commercial service suppliers are ideally placed to spearhead sustainability innovations and to promote them among their client base.

## Highlighted criteria & dimension weights

Economic Dimension..... 37%

- Codes of Business Conduct
- Corporate Governance
- Customer Relationship Management

Environmental Dimension ..... 26%

- Climate Strategy
- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 37%

- Human Capital Development
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

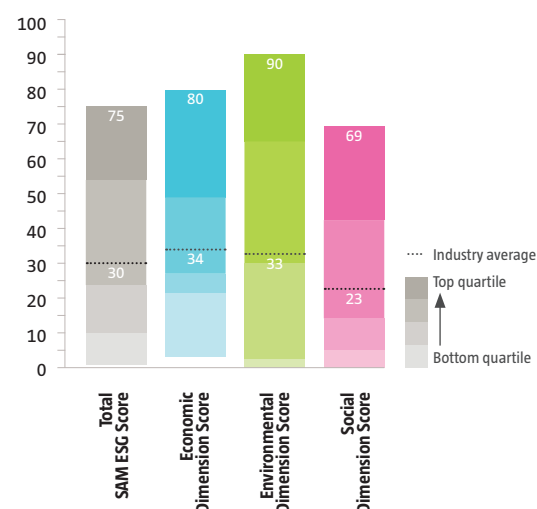
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Waste Management Inc	United States	75
<b>SAM Silver Class</b>		
Brambles Ltd	Australia	72
<b>SAM Bronze Class</b>		
Toppan Printing Co Ltd	Japan	69
<b>Sustainability Yearbook Members</b>		
Republic Services Inc	United States	66
Rentokil Initial PLC*	United Kingdom	65
China Everbright International Ltd	China	62

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	41
Number of companies assessed in 2019	38
Assessed companies to total companies in universe	93%
Market cap value of assessed companies to total market	97%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Communications Equipment

## Driving forces

Responding to the demands of an increasingly interconnected world, the communications equipment industry delivers infrastructure solutions to meet growing data volume demands and to improve network coverage and access while lowering the costs of network operation. With wireless and mobile data traffic growing twice as fast as fixed internet, the deployment of 4G/5G networks will accelerate digital transformation across many industries, leading to new applications using the Internet of Things, automation, big data, and Artificial Intelligence. Products must be designed for low energy consumption and responsibly-sourced 3TG minerals, and systems are shifting from predominantly hardware-only to software-defined networking and cloud-enabled solutions. Increased connectivity brings many benefits, but with the transmission of sensitive data via networks, security concerns are paramount. Communications equipment manufacturers are therefore tasked with preventing successful cyberattacks by adopting a consistent approach to security across their infrastructure offerings.

## Highlighted criteria & dimension weights

Economic Dimension..... 44%

- Customer Relationship Management
- Innovation Management
- Privacy Protection
- Supply Chain Management

Environmental Dimension ..... 31%

- Environmental Policy & Management Systems
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 25%

- Human Capital Development
- Talent Attraction & Retention

## Sustainability leaders 2020



### SAM Gold Class

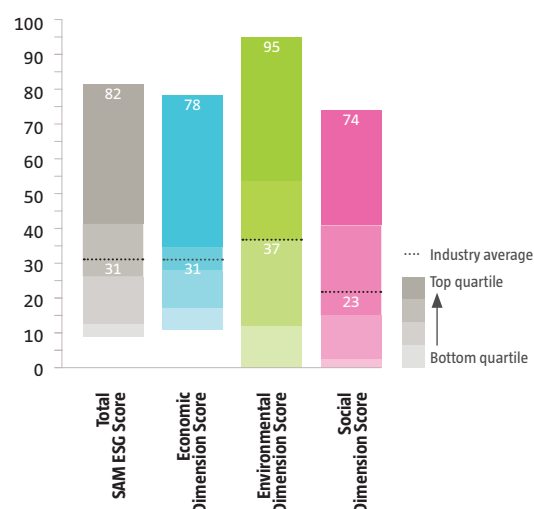
Cisco Systems Inc United States 82

Total SAM  
ESG Score

## Industry statistics

Number of companies in universe	14
Number of companies assessed in 2019	10
Assessed companies to total companies in universe	71%
Market cap value of assessed companies to total market	96%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Computers & Peripherals and Office Electronics

## Driving forces

This industry is characterized by disruptive innovations. Cybersecurity is an increasing strategic priority, requiring products and systems to be developed following “security and privacy by design” principles and resilience to an ever-evolving threat landscape. Effective innovation management requires the right people with the right skills mix. Successful implementation of environmental standards and monitoring of supplier compliance in areas such as the use of hazardous materials and fair working conditions in emerging economies are particularly relevant. Shorter product life cycles and the ubiquity of electronic devices around the world have resulted in increased overall energy consumption by IT hardware as well as in high equipment disposal volumes. To address the issue of energy efficiency, companies must consider energy consumption over the entire product life cycle when designing new products. Electronic waste can be reduced through weight reductions, modular design, use of recycled materials and take-back programs. Furthermore adoption of cloud-based solutions is creating new business opportunities, enabling customers to achieve operational efficiency gains, which contribute to both cost savings and environmental footprint reduction.

## Highlighted criteria & dimension weights

Economic Dimension..... 45%

- Codes of Business Conduct
- Corporate Governance
- Innovation Management
- Privacy Protection
- Supply Chain Management

Environmental Dimension ..... 30%

- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 25%

- Human Capital Development
- Talent Attraction & Retention

## Sustainability leaders 2020

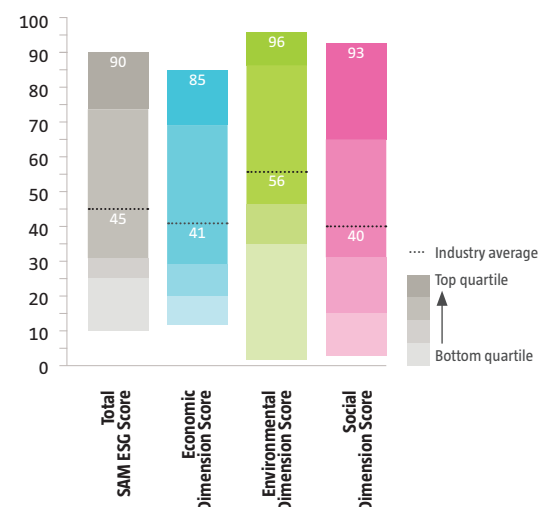
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Hewlett Packard Enterprise Co	United States	90
<b>SAM Silver Class</b>		
Konica Minolta Inc	Japan	88
Acer Inc*	Taiwan	87
HP Inc	United States	86
<b>SAM Bronze Class</b>		
Ricoh Co Ltd	Japan	85

\* SAM Industry Mover

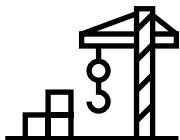
## Industry statistics

Number of companies in universe	34
Number of companies assessed in 2019	34
Assessed companies to total companies in universe	100%
Market cap value of assessed companies to total market	100%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Construction & Engineering

## Driving forces

The construction and engineering industry consumes resources on a massive scale to create infrastructure and the "built environment," a term used to describe the man-made structures supporting human life and activities. The choice of building materials (eg. certified wood or recycled concrete), consideration of lifecycle impacts, and offering energy-efficient buildings provide a competitive advantage through access to green building projects. Along with resource efficiency, other important challenges for the industry include: climate strategy, occupational health and safety, subcontractor management, and the attraction and retention of talent. With increasing infrastructure spending in emerging markets, a company's ability to achieve preferred contractor status depends on its ability to avoid reputational risks associated with antitrust and bribery cases. This makes the establishment and implementation of a rigorous code of conduct a key success factor.

## Highlighted criteria & dimension weights

Economic Dimension ..... 35%

- Codes of Business Conduct
- Corporate Governance
- Supply Chain Management

Environmental Dimension ..... 31%

- Building Materials
- Operational Eco-Efficiency
- Resource Conservation and Resource Efficiency

Social Dimension ..... 34%

- Labor Practice Indicators
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

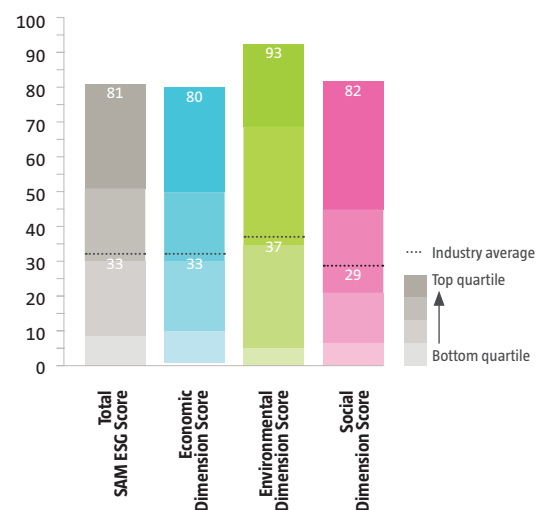
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Ferrovial SA	Spain	81
Hyundai Engineering & Construction Co Ltd	Republic of Korea	80
<b>SAM Silver Class</b>		
CTCI Corp	Taiwan	77
ACS Actividades de Construcción y Servicios SA*	Spain	77
<b>SAM Bronze Class</b>		
HOCHTIEF AG	Germany	76
Samsung Engineering Co Ltd	Republic of Korea	73
<b>Sustainability Yearbook Members</b>		
GS Engineering & Construction Corp	Republic of Korea	70

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	49
Number of companies assessed in 2019	45
Assessed companies to total companies in universe	92%
Market cap value of assessed companies to total market	98%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Construction Materials

## Driving forces

The construction materials industry includes companies that produce cement, aggregates, concrete, and related materials. As cement manufacturing accounts for about 5% of global man-made GHG emissions, a sound climate strategy to reduce GHG emissions remains a top priority for companies. One of the most powerful ways to reduce GHG emissions in cement manufacturing is to convert waste materials into fossil fuel alternatives and other raw materials needed in industrial production. This not only solves a waste problem, but also reduces companies' environmental impact. In addition to waste reduction, other important environmental issues include reducing water usage and minimizing air emissions. For companies with extraction sites, protecting biodiversity and effective water management are key to maintaining both the social and legal licenses to operate. Both in production and transportation, occupational health and safety is still a challenge for the industry. Companies that can deliver products that meet green building specifications and transform their business models to offer affordable housing and other sustainable construction solutions will have a competitive advantage.

## Highlighted criteria & dimension weights

Economic Dimension..... 33%

- Codes of Business Conduct
- Customer Relationship Management
- Risk & Crisis Management

Environmental Dimension ..... 33%

- Climate Strategy
- Operational Eco-Efficiency
- Water Related Risks

Social Dimension ..... 34%

- Human Rights
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

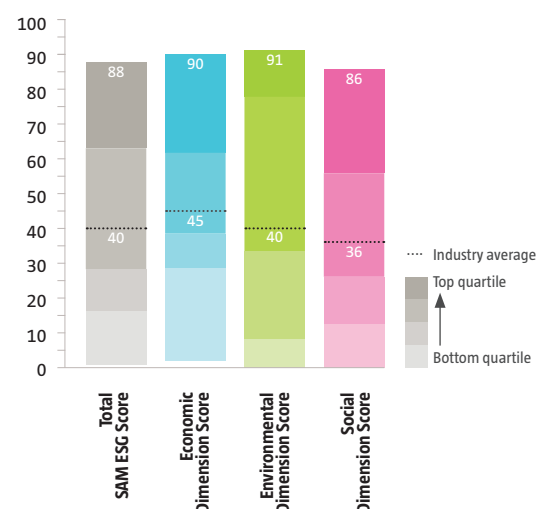
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Grupo Argos SA/Colombia	Colombia	88
Cementos Argos SA	Colombia	87
<b>SAM Silver Class</b>		
Siam Cement PCL	Thailand	86
<b>SAM Bronze Class</b>		
Ambuja Cements Ltd*	India	82
CRH PLC	Ireland	80

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	37
Number of companies assessed in 2019	37
Assessed companies to total companies in universe	100%
Market cap value of assessed companies to total market	100%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Containers & Packaging

## Driving forces

Containers and packaging companies are critical to the global economy and supply virtually every sector with tools to effectively protect, transport, market, and preserve their products for sale and use. Sustainable packaging continues to be a major industry trend driving innovation and differentiation. Markets in which these companies operate remain highly competitive, with substantial downward pressure on both prices and operating margins. Increasingly, companies need to innovate and deliver customized solutions, working collaboratively across the value chain to offer differentiated products. Critical priorities include operational eco-efficiency, climate strategy, occupational health and safety, and engagement with local stakeholders. Demand for more sustainable packaging drives both product development and the sourcing of more recycled, certified, and renewable raw materials.

## Highlighted criteria & dimension weights

Economic Dimension..... 34%

– Corporate Governance

– Customer Relationship

Management

– Supply Chain Management

Environmental Dimension ..... 33%

– Climate Strategy

– Operational Eco-Efficiency

– Product Stewardship

Social Dimension ..... 33%

– Human Rights

– Occupational Health and Safety

– Talent Attraction & Retention

## Sustainability leaders 2020

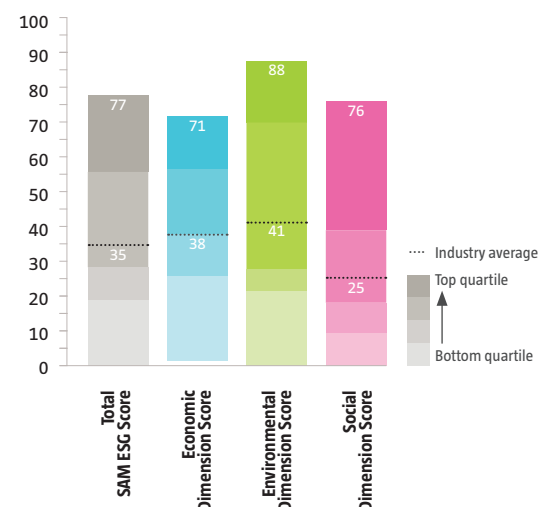
		Total SAM ESG Score
<b>SAM Gold Class</b>		
BillerudKorsnas AB	Sweden	77
<b>SAM Silver Class</b>		
Ball Corp	United States	74
<b>Sustainability Yearbook Members</b>		
Sonoco Products Co*	United States	66

\* SAM Industry Mover

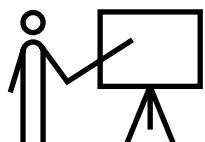
## Industry statistics

Number of companies in universe	26
Number of companies assessed in 2019	21
Assessed companies to total companies in universe	81%
Market cap value of assessed companies to total market	91%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Diversified Consumer Services

## Driving forces

The diversified consumer services industry comprises service providers with a range of business models from education to human resources. Companies operating in this space have direct customer relationships and therefore must develop strategies to retain and increase their customer base in existing and new markets. Technological innovations are transforming the industry at a rapid pace and offer both risks and opportunities. Companies can differentiate themselves by effectively integrating online tools and platforms that enhance the overall experience for target groups. One consequence of such a strategy is that data security has become a key risk for companies in this sector. Strong risk management systems, particularly related to electronic billing, personal data privacy and real-time services are critical to managing risk and offering further growth opportunities. Within service companies, strong employee development and training programs are fundamental to build sustainable businesses and to improve customer satisfaction.

## Highlighted criteria & dimension weights

Economic Dimension ..... 47%

- Codes of Business Conduct
- Customer Relationship Management
- Privacy Protection
- Risk & Crisis Management

Environmental Dimension ..... 17%

- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 36%

- Human Capital Development
- Human Rights
- Talent Attraction & Retention

## Sustainability leaders 2020



### Sustainability Yearbook Members

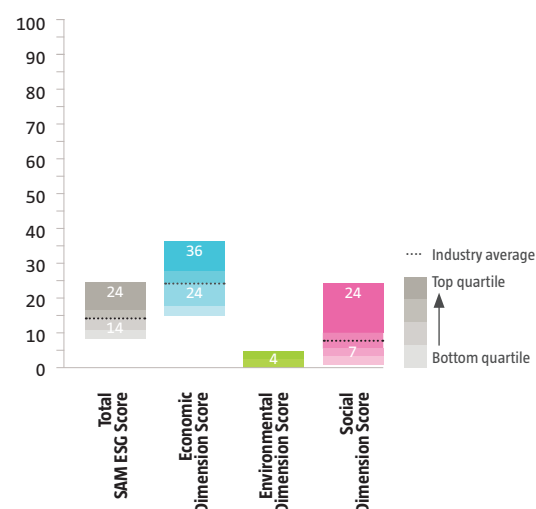
		Total SAM ESG Score
Cogna Educacao	Brazil	24
H&R Block Inc*	United States	18

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	16
Number of companies assessed in 2019	14
Assessed companies to total companies in universe	88%
Market cap value of assessed companies to total market	97%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.

Please note, that due to the high proportion of 0 scores in the



# Diversified Financial Services and Capital Markets

## Driving forces

The diversified financial services and capital markets industry consists of a heterogeneous group of holding companies, credit rating agencies, stock exchanges, asset managers, custody banks, investment banks and brokerage companies. While sub-industry-specific business models expose companies to different sustainability issues, common material themes include corporate governance, risk management, compliance, and customer relationships. As in banking, other leading financial institutions are also using human capital schemes to put in place the necessary skills to best execute business strategy and to find and retain the right talent. With many players also facing digital transformation, these issues have become increasingly critical. The increased volumes of confidential data being handled by financial service providers means that protecting customers' financial and personal data and minimizing cyber risk are crucial to maintaining client trust. Ongoing regulatory pressure, public outcry, publicized litigation and sizeable settlements have sensitized many in the capital markets industry to the very real threats posed by unethical business behavior. In turn, this is leading to greater scrutiny of potentially questionable practices and a re-shaping of corporate culture and employee behavior to better align with client needs and public interests. The growing demand for ESG products means companies need to adjust their product and service offerings to meet customer demands as well as their own sustainability targets.

## Highlighted criteria & dimension weights

Economic Dimension..... 55%

- Corporate Governance
- Sustainable Finance
- Codes of Business Conduct
- Risk & Crisis Management
- Customer Relationship Management

Environmental Dimension .....13%

- Climate Strategy

Social Dimension ..... 32%

- Human Capital Development
- Talent Attraction & Retention
- Financial Inclusion

## Sustainability leaders 2020

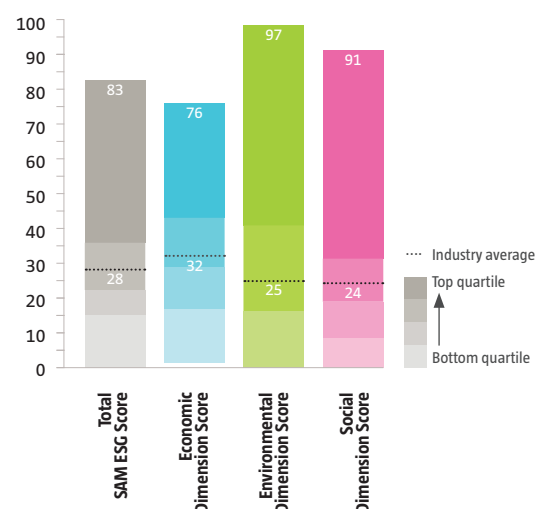
		Total SAM ESG Score
<b>SAM Gold Class</b>		
UBS Group AG	Switzerland	83
<b>Sustainability Yearbook Members</b>		
S&P Global Inc	United States	74
Grupo de Inversiones Suramericana SA	Colombia	73
Standard Life Aberdeen PLC	United Kingdom	72
Samsung Securities Co Ltd	Republic of Korea	70
Mirae Asset Daewoo Co Ltd	Republic of Korea	69
Credit Suisse Group AG	Switzerland	68
Investec PLC	United Kingdom	67
Deutsche Boerse AG	Germany	66
Yuanta Financial Holding Co Ltd*	Taiwan	65
State Street Corp	United States	65
Nomura Holdings Inc	Japan	64
Daiwa Securities Group Inc	Japan	63
Bank of New York Mellon Corp	United States	63
London Stock Exchange Group PLC	United Kingdom	61
Provident Financial PLC	United Kingdom	61
Hong Kong Exchanges & Clearing Ltd	Hong Kong	59
Julius Baer Group Ltd	Switzerland	59

\* SAM Industry Mover

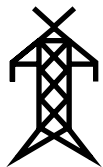
## Industry statistics

Number of companies in universe	166
Number of companies assessed in 2019	153
Assessed companies to total companies in universe	92%
Market cap value of assessed companies to total market	97%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Electric Utilities

## Driving forces

Electric utilities are facing fundamental challenges, from the need to decarbonize generation to the decentralization of the grid and digitalization. This also includes changing regulation as well as market and power grid dynamics due to the rise of cheap renewable electricity generation. One-time oligopolistic utilities operators are now under threat from new market entrants (eg. from the traditional oil and gas sector moving into renewables) offering energy along with other conveniently bundled technologies and services. The increasing integration of renewable energies into the energy mix requires flexible power management and smart, integrated energy solutions. Enormous efforts are also needed to develop and replace an aging grid to prepare for new requirements like expanding EV charging infrastructure. In emerging markets, industrialization and urbanization require large investments to create sustainable generation capacity. In addition, an uncertain and changing regulatory backdrop increases the risks inherent in some of the long-term financing approaches typical in the industry.

## Highlighted criteria & dimension weights

Economic Dimension ..... 32%

- Codes of Business Conduct
- Corporate Governance
- Risk & Crisis Management

Environmental Dimension ..... 39%

- Climate Strategy
- Environmental Policy & Management Systems
- Transmission & Distribution

Social Dimension ..... 29%

- Occupational Health and Safety
- Stakeholder Engagement
- Talent Attraction & Retention

## Sustainability leaders 2020

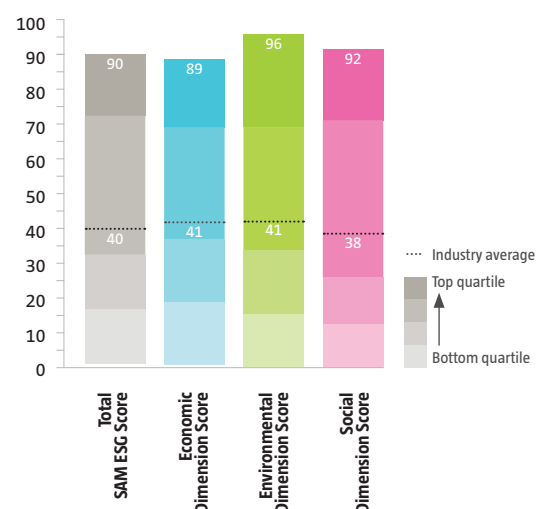
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Terna Rete Elettrica Nazionale SpA	Italy	90
EDP - Energias de Portugal SA	Portugal	90
Acciona SA*	Spain	90
<b>SAM Silver Class</b>		
Iberdrola SA	Spain	87
Enel SpA	Italy	87
Red Electrica Corp SA	Spain	86
EDP Renovaveis SA	Spain	86
<b>SAM Bronze Class</b>		
Cia Energetica de Minas Gerais	Brazil	85
Enel Chile SA	Chile	84
Endesa SA	Spain	83
Celsia SA ESP	Colombia	83
Enel Americas SA	Chile	81
<b>Sustainability Yearbook Members</b>		
Electricite de France SA	France	80
AES Corp/VA	United States	79
AES Gener SA	Chile	78

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	100
Number of companies assessed in 2019	91
Assessed companies to total companies in universe	91%
Market cap value of assessed companies to total market	97%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Electrical Components & Equipment

## Driving forces

Companies in the electrical components and equipment industry support access to power distribution, increasingly renewable energy generation, and also provide solutions for improving energy and resource efficiency in manufacturing and process industries. Companies that succeed in product development with short time-to-market or by lowering costs will be best positioned to capture and retain market share. Investments in smart power distribution and clean power generation will increase as developed markets update aging energy infrastructure and emerging markets expand their power grids. However, exposure to emerging markets and public sector projects can increase the risk of corruption and anti-competitive practices. As components become integrated into wider networks increasing exposure to sophisticated digital security threats, product technologies need to be increasingly secure. A highly complex value chain makes strong supply chain management essential. Monitoring issues such as human rights, conflict minerals and environmental compliance will remain important.

## Highlighted criteria & dimension weights

Economic Dimension ..... 43%

- Codes of Business Conduct
- Corporate Governance
- Innovation Management
- Supply Chain Management

Environmental Dimension ..... 29%

- Climate Strategy
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 28%

- Human Capital Development
- Occupational Health and Safety

## Sustainability leaders 2020

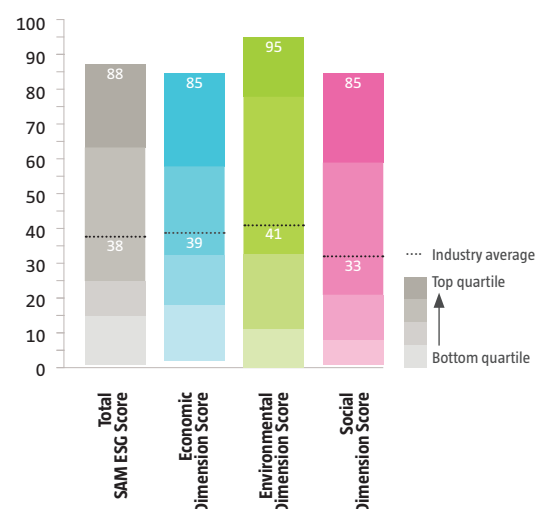
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Signify NV	Netherlands	88
<b>SAM Silver Class</b>		
Prysmian SpA*	Italy	84
<b>SAM Bronze Class</b>		
Schneider Electric SE	France	83
OSRAM Licht AG	Germany	81
Legrand SA	France	80

\* SAM Industry Mover

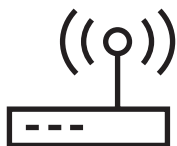
## Industry statistics

Number of companies in universe	26
Number of companies assessed in 2019	25
Assessed companies to total companies in universe	96%
Market cap value of assessed companies to total market	98%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Electronic Equipment, Instruments & Components

## Driving forces

Technological innovations such as 5G; the Internet of Things; Artificial Intelligence; the growth in consumer electronics driving small, light, thin, mobile internet-enabled devices; and maximizing power usage and efficiency are increasing in importance in the electronic equipment, instruments and components industry. Electronic components have complex global supply chains that can lead to issues with unfair labor practices, conflict mineral sourcing and the use of harmful chemicals during manufacturing. The implementation and operation of a transparent, sustainable supply chain is required to address these issues. Superior product stewardship includes measures such as energy-saving features and energy-consumption management as well as security features such as automatic software / firmware upgrades to harden devices against cyberattacks. Products must be designed with an “end of life” strategy (repair/ reuse, downcycle, recycle), and the use of robotics and automation can help improve the efficiency of resource-intensive production processes. Given the industry's oligopolistic market structure, compliance with antitrust regulations is also important.

## Highlighted criteria & dimension weights

Economic Dimension ..... 40%

- Codes of Business Conduct
- Corporate Governance
- Innovation Management
- Supply Chain Management

Environmental Dimension ..... 31%

- Climate Strategy
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 29%

- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

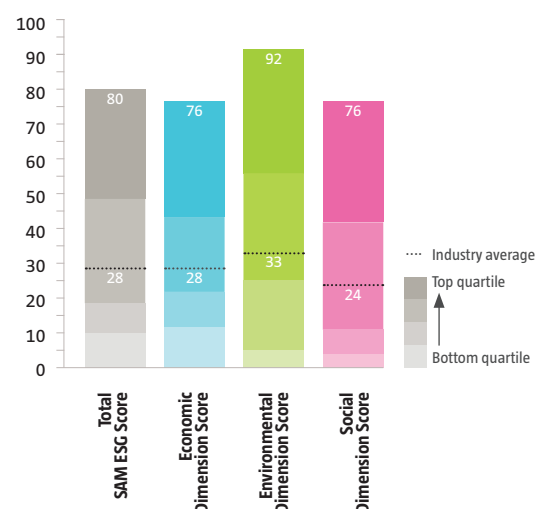
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Delta Electronics Inc	Taiwan	80
<b>SAM Silver Class</b>		
Delta Electronics Thailand PCL	Thailand	78
<b>SAM Bronze Class</b>		
Samsung SDI Co Ltd	Republic of Korea	76
Omron Corp	Japan	75
Samsung Electro-Mechanics Co Ltd	Republic of Korea	75
Innolux Corp	Taiwan	74
<b>Sustainability Yearbook Members</b>		
AU Optronics Corp	Taiwan	72
Yokogawa Electric Corp	Japan	72
Flex Ltd*	Singapore	58
TE Connectivity Ltd	United States	58

\* SAM Industry Mover

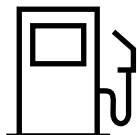
## Industry statistics

Number of companies in universe	67
Number of companies assessed in 2019	63
Assessed companies to total companies in universe	94%
Market cap value of assessed companies to total market	98%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Energy Equipment & Services

## Driving forces

The ability of energy equipment and services companies to attract new business is closely tied to their adherence to environmental, health and safety, and business conduct standards. In providing a variety of services to government-owned and national oil and gas suppliers, companies carry a measure of responsibility for the public perception of exploration and production activities and their clients' reputations. The need for companies to maintain their standing as safe, reliable partners is challenged when they operate in technically difficult areas and where local jurisdictions provide weak legal and regulatory enforcement. Innovation and solutions to address clients' technological and cost challenges are a potential source of competitive advantages and can serve as tools to control risk. At the same time, the industry needs to attract and retain skilled staff and maintain expertise in technology research and development while controlling production costs. Ensuring high occupational and environmental health and safety standards also helps with talent attraction.

## Highlighted criteria & dimension weights

Economic Dimension ..... 38%

- Codes of Business Conduct
- Corporate Governance
- Innovation Management
- Risk & Crisis Management

Environmental Dimension ..... 25%

- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 37%

- Human Capital Development
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

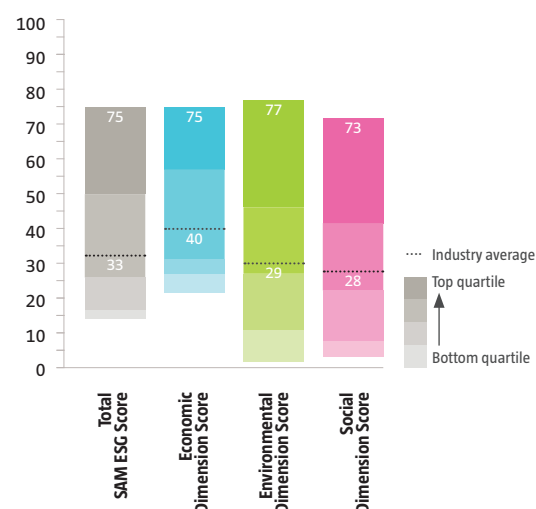
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Saipem SpA*	Italy	75
<b>Sustainability Yearbook Members</b>		
SBM Offshore NV	Netherlands	60

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	16
Number of companies assessed in 2019	16
Assessed companies to total companies in universe	100%
Market cap value of assessed companies to total market	100%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Food & Staples Retailing

## Driving forces

As a result of competition for market share, the food and staples retailing industry has consolidated, maintaining a high level of M&A activity. Incorporating, food retailers, and distributors, as well as drug retailers, this industry is influenced by IT advances that now shape entire business models and value chains. Retailers invest in IT infrastructure to increase efficiency in operations and to improve communication with clients. New technologies potentially enable companies to align with another major industry driver: growing consumer demand for healthy and natural food choices. Food retailers need to enhance transparency in supply chains, integrate environmental, social and governance (ESG) thresholds in procurement policies and increase the share of local, responsibly-produced foodstuffs. The expiration of drug patents will continue to generate revenue and growth as drug retailers in the sector offer consumers generic alternatives to name-brand blockbusters. Drug retailers and consumers alike have already enjoyed significant cost savings with the availability of this wave of generic drugs.

## Highlighted criteria & dimension weights

Economic Dimension ..... 39%

– Customer Relationship Management

– Health & Nutrition

– Supply Chain Management

Environmental Dimension ..... 31%

– Operational Eco-Efficiency

– Packaging

– Raw Material Sourcing

Social Dimension ..... 30%

– Human Capital Development

– Occupational Health and Safety

– Talent Attraction & Retention

## Sustainability leaders 2020

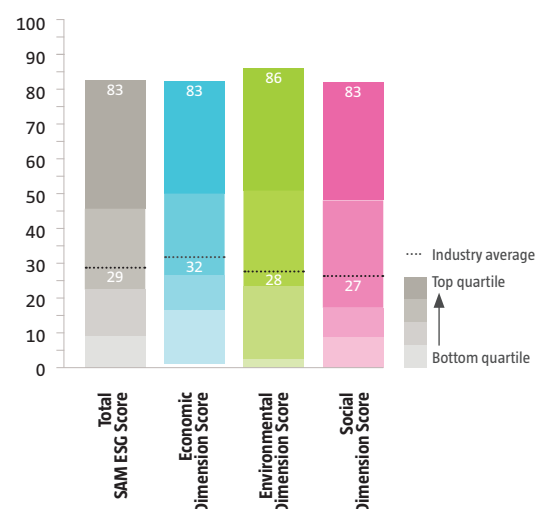
		Total SAM ESG Score
<b>SAM Gold Class</b>		
CP ALL PCL	Thailand	83
<b>SAM Silver Class</b>		
METRO AG	Germany	82
<b>SAM Bronze Class</b>		
President Chain Store Corp*	Taiwan	78
Kesko OYJ	Finland	75
<b>Sustainability Yearbook Members</b>		
Carrefour SA	France	73
Casino Guichard Perrachon SA	France	71
Seven & i Holdings Co Ltd	Japan	69
Koninklijke Ahold Delhaize NV	Netherlands	69
Almacenes Exito SA	Colombia	67

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	66
Number of companies assessed in 2019	63
Assessed companies to total companies in universe	95%
Market cap value of assessed companies to total market	98%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Food Products

## Driving forces

Growth in the food products industry continues to be driven by the increased wealth and consumption of a growing middle class in emerging economies. In the developed world, an intensified consumer focus on diet and healthy lifestyles has prompted product transformations and new innovations centered on natural, wholesome and organic ingredients, especially those that are plant based (vegan). In tandem with an accelerated pace of life, consumer demand for convenient, functional food is expanding. Healthy and organic foods have emerged as major growth categories and will remain in the spotlight for food manufacturers as consumer awareness regarding social and environmental impacts of food products continues to grow. Leading companies in the industry address both issues by sourcing responsibly produced raw materials to create foods of high nutritional value. The industry's major sustainability risks and challenges relate to the procurement of agricultural commodities. Proactive supply chain management, robust procurement and manufacturing standards and increased transparency can help to ensure food safety – a key consumer concern.

## Highlighted criteria & dimension weights

Economic Dimension..... 42%

– Health & Nutrition

– Innovation Management

– Supply Chain Management

Environmental Dimension ..... 28%

– Operational Eco-Efficiency

– Packaging

– Raw Material Sourcing

Social Dimension ..... 30%

– Human Capital Development

– Human Rights

– Occupational Health and Safety

## Sustainability leaders 2020

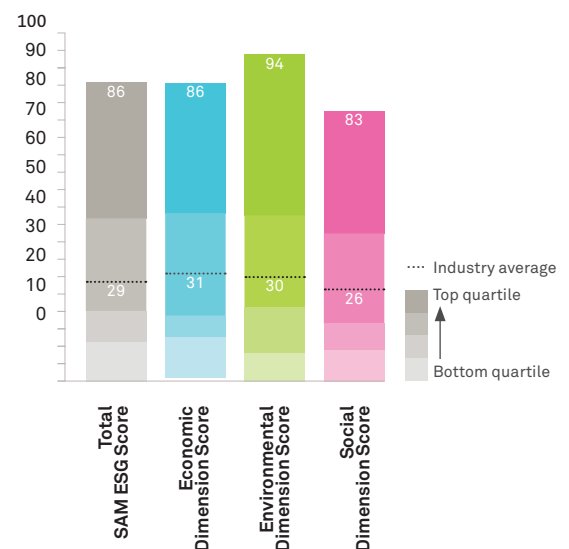
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Thai Union Group PCL	Thailand	86
<b>SAM Silver Class</b>		
Grupo Nutresa SA	Colombia	84
Charoen Pokphand Foods PCL	Thailand	82
<b>SAM Bronze Class</b>		
Nestle SA	Switzerland	81
Mondelez International Inc	United States	77
<b>Sustainability Yearbook Members</b>		
Pulmuone Co Ltd	Republic of Korea	77
Colombina SA	Colombia	77
Ajinomoto Co Inc	Japan	76
Hershey Co	United States	75
Danone SA	France	75
Kellogg Co	United States	74
Mitr Phol Sugar Corporation Limited*	Thailand	73
General Mills Inc	United States	72
CJ CheilJedang Corp	Republic of Korea	72
Nissin Foods Holdings Co Ltd	Japan	71
Archer-Daniels-Midland Co	United States	66
Campbell Soup Co	United States	64

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	120
Number of companies assessed in 2019	112
Assessed companies to total companies in universe	93%
Market cap value of assessed companies to total market	97%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Gas Utilities

## Driving forces

Although natural gas is a main contributor to GHG emissions worldwide, it is also the least carbon-intensive fossil fuel. As a substitute for coal power, or oil in the heating and transportation sectors, it can in fact help reduce CO2 emissions, water consumption and air pollution in the short and medium term. However, as a fossil fuel it still contributes to climate change and therefore is threatened by increased regulatory action. While gas supplies are increasingly readily available – driven by the development of unconventional resources that are reshaping the industry – long-term demand could be threatened by lower-cost alternatives resulting in an increased risk of stranded assets. Gas utilities must therefore explore new business models based on clean energies such as biogas, wind and solar, or power-to-gas technologies. Moreover, high-profile gas accidents have raised public awareness of aging gas infrastructure and leakage risks, therefore building stakeholder trust and increasing the safety, reliability and energy-efficiency of operations are key concerns for the industry.

## Highlighted criteria & dimension weights

Economic Dimension..... 33%

– Corporate Governance

– Market Opportunities

– Supply Chain Management

Environmental Dimension ..... 34%

– Climate Strategy

– Operational Eco-Efficiency

– Transmission & Distribution

Social Dimension ..... 33%

– Occupational Health and Safety

– Stakeholder Engagement

– Talent Attraction & Retention

## Sustainability leaders 2020

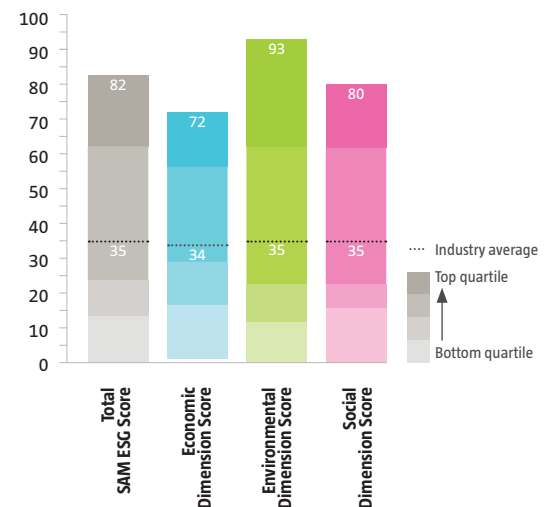
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Naturgy Energy Group SA	Spain	82
<b>Sustainability Yearbook Members</b>		
Grupo Energia Bogota SA ESP	Colombia	67
Italgas SpA*	Italy	67
Osaka Gas Co Ltd	Japan	66

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	29
Number of companies assessed in 2019	27
Assessed companies to total companies in universe	93%
Market cap value of assessed companies to total market	94%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Health Care Equipment & Supplies

## Driving forces

The healthcare equipment and supplies industry develops medical products such as orthopedic implants and cardiovascular devices, as well as medical supplies and instruments. Product quality, safety and collaboration with stakeholders are critical for ensuring the successful marketing of products and to maintaining a company's license to operate. While budget constraints and healthcare reforms have affected pricing, reimbursement and utilization, efforts to broaden healthcare coverage, the emergence of less invasive technologies, and rising income levels have created new growth opportunities. Sustainable companies in this sector focus on developing innovative and highly differentiated products, lowering the skills barrier for care providers, expanding eligible patient population, and on demonstrating their products' clinical and economic benefits. Moreover, they adopt consistent, value- and stakeholder-oriented corporate strategies and governance systems based on effective human and intellectual capital management and transparent reporting frameworks.

## Highlighted criteria & dimension weights

Economic Dimension ..... 53%

- Codes of Business Conduct
- Innovation Management
- Marketing Practices
- Product Quality and Recall Management

Environmental Dimension ..... 10%

- Climate Strategy
- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 37%

- Health Outcome Contribution
- Talent Attraction & Retention

## Sustainability leaders 2020

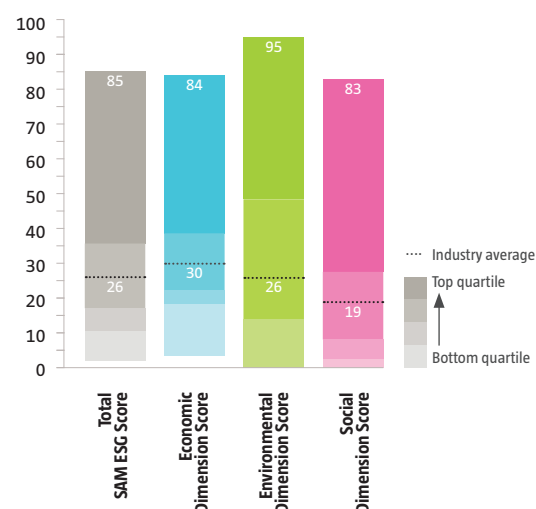
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Abbott Laboratories	United States	85
<b>SAM Silver Class</b>		
Koninklijke Philips NV	Netherlands	82
<b>Sustainability Yearbook Members</b>		
Baxter International Inc	United States	74
Edwards Lifesciences Corp	United States	74
Sonova Holding AG	Switzerland	74
Sysmex Corp	Japan	69
Medtronic PLC*	United States	67
Smith & Nephew PLC	United Kingdom	64

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	70
Number of companies assessed in 2019	66
Assessed companies to total companies in universe	94%
Market cap value of assessed companies to total market	98%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Health Care Providers & Services

## Driving forces

The healthcare providers and services industry includes managed care, insurers, distributors, hospitals, and clinics. Trends such as aging populations, the increasing prevalence of chronic diseases, a shortage of skilled staff, and mounting pressure on healthcare budgets, are key factors affecting this industry. Rising healthcare costs and the growing divide in healthcare access are major societal challenges. Leading companies search for cost-effective, sustainable healthcare systems by engaging with stakeholders including government payers, employers, providers and patients. As the industry moves towards more patient-centric care, companies should focus on labor-saving technologies, human capital management, quality over quantity of care, cost-effective health outcomes over expensive treatments, early intervention and prevention over late-stage treatment and ongoing disease management rather than isolated, disconnected, episodic care. This will lead to an increase in the importance of customer-oriented services, integrative care, and strategic alliances across traditional business boundaries.

## Highlighted criteria & dimension weights

Economic Dimension..... 47%

- Codes of Business Conduct
- Customer Relationship Management
- Marketing Practices
- Supply Chain Management

Environmental Dimension .....10%

- Climate Strategy
- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 43%

- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

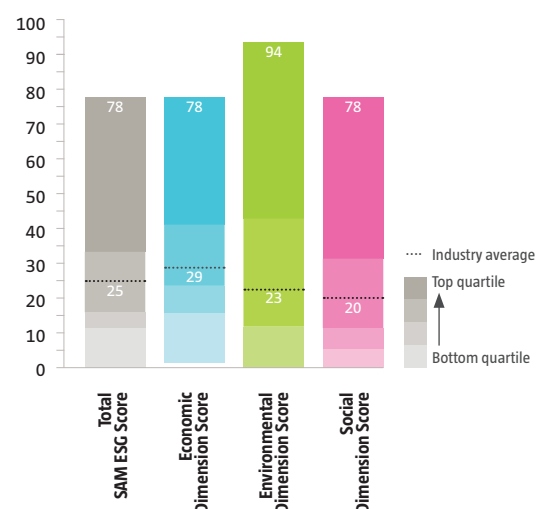
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Cigna Corp	United States	78
<b>SAM Bronze Class</b>		
CVS Health Corp	United States	72
<b>Sustainability Yearbook Members</b>		
UnitedHealth Group Inc	United States	69
Anthem Inc	United States	66
Humana Inc*	United States	62
DaVita Inc	United States	61
Quest Diagnostics Inc	United States	57

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	58
Number of companies assessed in 2019	52
Assessed companies to total companies in universe	90%
Market cap value of assessed companies to total market	98%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Homebuilding

## Driving forces

Growth in the homebuilding industry is largely driven by external factors such as interest rates and general economic conditions, as well as highly specific national and regional housing markets. In addition, price pressures and tighter regulation remain constant challenges. Resource conservation and environmental efficiency are key industry drivers in the building stage and also the use stage of the product lifecycle. As both demand and the regulatory push for green building continues to increase, companies which are able to respond to new technological developments such as low-energy, passive and plus-energy buildings are likely to remain at the forefront of the industry. In addition, companies that are flexible in adapting to regulations regarding social integration - eg. a certain quota of new developments to be designed specifically for lower-income groups or disadvantaged individuals - can gain a competitive advantage. With occupational health and safety risks high in this industry, there is a sustained need for strict management practices to minimize injuries among employees and external contractors.

## Highlighted criteria & dimension weights

Economic Dimension ..... 29%

- Codes of Business Conduct
- Corporate Governance
- Risk & Crisis Management

Environmental Dimension ..... 37%

- Building Materials
- Operational Eco-Efficiency
- Resource Conservation and Resource Efficiency

Social Dimension ..... 34%

- Human Capital Development
- Occupational Health and Safety
- Labor Practice Indicators

## Sustainability leaders 2020

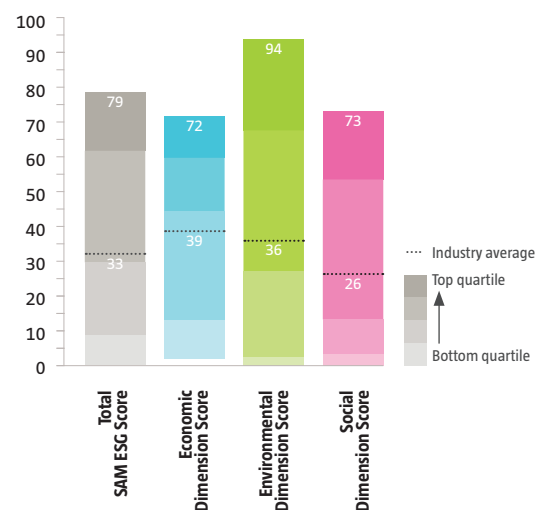
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Sumitomo Forestry Co Ltd	Japan	79
<b>SAM Silver Class</b>		
Sekisui House Ltd	Japan	76
<b>SAM Bronze Class</b>		
Sekisui Chemical Co Ltd*	Japan	72

\* SAM Industry Mover

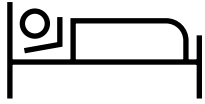
## Industry statistics

Number of companies in universe	18
Number of companies assessed in 2019	16
Assessed companies to total companies in universe	89%
Market cap value of assessed companies to total market	95%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Hotels, Resorts & Cruise Lines

## Driving forces

The travel and tourism industry has embraced sustainability as a means of attracting customers, enhancing product offerings and engaging more actively with stakeholders. Environmental preservation and an increased interest in eco-tourism and volunteer tourism have created new business opportunities while hotels, resorts and cruise operators place greater emphasis on reducing their environmental impact. Increasing the use of indicators to measure the impact of local operations and value generation is essential in identifying areas for improvement and engagement. Human rights issues linked to local employment must continue to be addressed and implementation of local monitoring systems is crucial. Industry-wide efforts to address issues like human trafficking offer an opportunity for companies to consistently and effectively tackle both these concerns. Long-term risk management systems must address economic, geopolitical and climate risks to ensure business continuity and adaptability to changing global conditions.

## Highlighted criteria & dimension weights

Economic Dimension..... 35%

- Codes of Business Conduct
- Customer Relationship Management
- Risk & Crisis Management

Environmental Dimension ..... 23%

- Climate Strategy
- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 42%

- Human Rights
- Occupational Health and Safety
- Stakeholder Engagement

## Sustainability leaders 2020

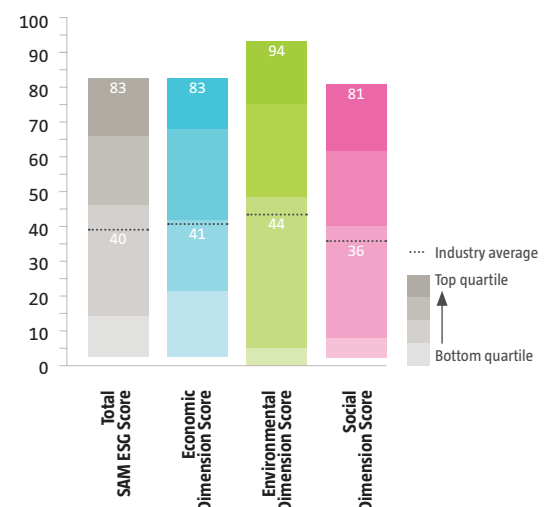
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Melia Hotels International SA*	Spain	83
<b>SAM Silver Class</b>		
Hilton Worldwide Holdings Inc	United States	79
<b>SAM Bronze Class</b>		
InterContinental Hotels Group PLC	United Kingdom	77

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	25
Number of companies assessed in 2019	23
Assessed companies to total companies in universe	92%
Market cap value of assessed companies to total market	94%

## Results at industry level



We are aware of the US legal action against a large number of hotel groups for profiting from human trafficking on their premises and we continue to closely monitor the developments on this issue. As per our Media & Stakeholder Analysis process, we reserve the right to make adjustments to company scores and rankings as necessary.

The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Household Durables

## Driving forces

The cyclical household durables industry includes home electronics, home furnishings and household appliances. It is characterized by constantly changing consumer preferences for customized products, advances in technology (IoT) and automation, and increasing demand for eco-friendly products and smart homes. The industry faces opportunities and challenges related to global trends: a growing world population, an expanding middle class, urbanization, and climate change. Successful companies in this industry stand out themselves through brand management, innovation, product quality and safety and customer service. Leading companies proactively integrate sustainability into their business models by focusing on product stewardship, operational eco-efficiency, responsible sourcing, enhanced transparency and product labeling, as well as end-of-life solutions for customers.

## Highlighted criteria & dimension weights

Economic Dimension ..... 50%

- Customer Relationship Management
- Innovation Management
- Brand Management
- Supply Chain Management

Environmental Dimension ..... 22%

- Environmental Policy & Management Systems
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 28%

- Human Capital Development
- Talent Attraction & Retention

## Sustainability leaders 2020

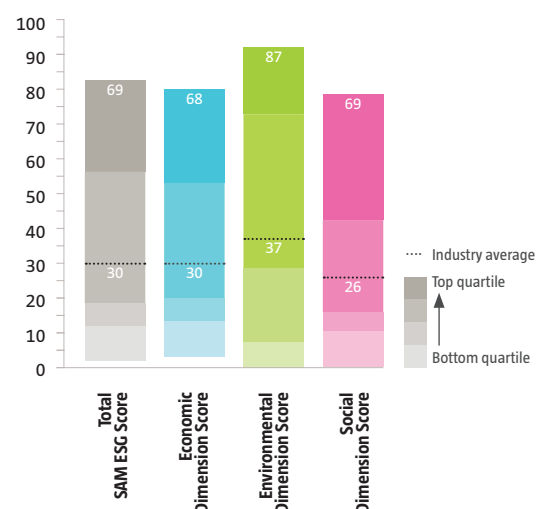
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Arcelik AS	Turkey	69
<b>SAM Silver Class</b>		
Electrolux AB	Sweden	67
Woongjin Coway Co Ltd*	Republic of Korea	66

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	18
Number of companies assessed in 2019	16
Assessed companies to total companies in universe	89%
Market cap value of assessed companies to total market	89%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Household Products

## Driving forces

Producers of household products, such as those for cleaning and related paper-based products, operate in highly competitive markets, where large buyers have the most bargaining power and consumers have low switching costs. Therefore, it is essential for industry participants to strengthen their brands and create products that meet consumers requirements regarding performance, quality and functionality. Hence, product stewardship is a key success factor in the industry. In particular the consideration of environmental and social criteria in product design processes is essential. Manufacturers of household products that phase out substances of concern, choose natural/organic ingredients and develop responsible packaging solutions are better positioned to capitalize on the increasing demand for natural products. By improving social and environmental features in products, industry participants can not only accelerate top-line growth but also respond effectively to regulatory changes, improve margins and enhance brand value.

## Highlighted criteria & dimension weights

Economic Dimension..... 53%

– Customer Relationship

Management

– Innovation Management

– Product Quality and Recall

Management

– Strategy for Emerging Markets

Environmental Dimension ..... 21%

– Operational Eco-Efficiency

– Packaging

– Product Stewardship

Social Dimension ..... 26%

– Human Capital Development

– Occupational Health and Safety

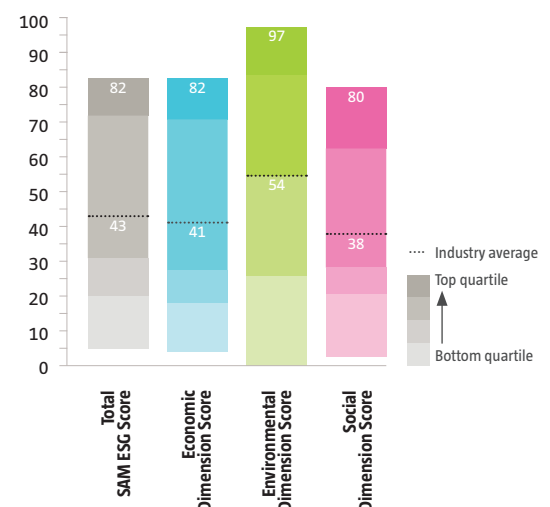
## Sustainability leaders 2020

		Total SAM ESG Score
<b>SAM Gold Class</b>		
Colgate-Palmolive Co	United States	82
<b>SAM Silver Class</b>		
Essity AB	Sweden	80
<b>SAM Bronze Class</b>		
Reckitt Benckiser Group PLC	United Kingdom	76

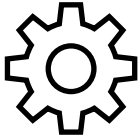
## Industry statistics

Number of companies in universe	15
Number of companies assessed in 2019	15
Assessed companies to total companies in universe	100%
Market cap value of assessed companies to total market	100%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Industrial Conglomerates

## Driving forces

Industrial conglomerates are highly dispersed businesses that rely on strong management and governance structures to achieve company synergies and economies of scale. Resource-efficient and lean manufacturing processes are important aspects of their business strategies, especially if growth is partly driven by acquisitions. Within this framework, the development of new resource-efficient technologies through careful product stewardship is important in gaining market share and increasing growth and profitability. Supply chain management and supplier sustainability risk assessments are particularly important with respect to labor practices. Ensuring business ethics throughout their operations is critical as these companies typically have a global presence extending into emerging markets. Companies must therefore focus on promoting common corporate values that recognize and promote the diversity brought about by multicultural backgrounds. In addition, conglomerates must develop and enforce corporate policies and build strong compliance systems to prevent corruption and illegal market practices.

## Highlighted criteria & dimension weights

Economic Dimension ..... 42%

- Corporate Governance
- Innovation Management
- Supply Chain Management

Environmental Dimension ..... 29%

- Climate Strategy
- Operational Eco-Efficiency
- Environmental Policy & Management Systems

Social Dimension ..... 29%

- Human Capital Development
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

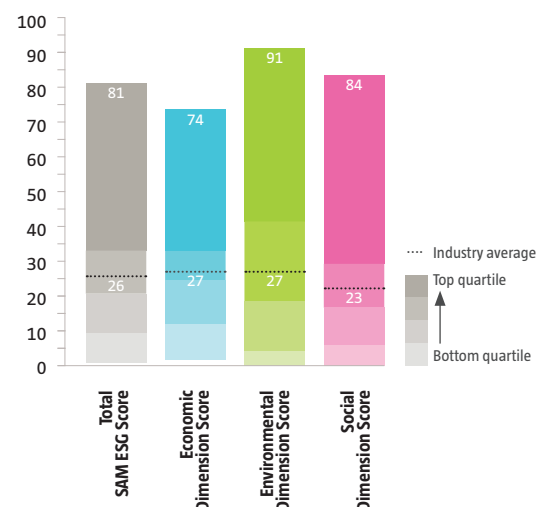
		Total SAM ESG Score
<b>SAM Gold Class</b>		
SK Holdings Co Ltd	Republic of Korea	81
<b>SAM Silver Class</b>		
Siemens AG	Germany	79
<b>Sustainability Yearbook Members</b>		
Doosan Co Ltd*	Republic of Korea	73
Samsung C&T Corp	Republic of Korea	71
Sembcorp Industries Ltd	Singapore	58

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	46
Number of companies assessed in 2019	43
Assessed companies to total companies in universe	93%
Market cap value of assessed companies to total market	84%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Insurance

## Driving forces

The insurance industry's focus on sound risk management has resulted in the relative absence of significant fines and penalties compared to other areas of finance. The industry has also demonstrated leadership in integrating sustainability considerations into its core business. Most notably, leading insurers are increasingly considering long-term sustainability trends and factors in their risk assessments, and claims-management processes - including climate change risk and cybersecurity risk. At the same time as the industry embraces digitalization, it faces both significant threats – but also opportunities. This has provided consumers with increased transparency and choice while simultaneously providing insurers with new direct-to-consumer channels for delivering new products and services. It is also enabling insurers to collect real-time data on consumer behavior. Leading insurers, particularly those in life insurance, are exploring ways to use developments in digital technology to offer innovative products customized to meet the needs of their customers and incentivize healthier lifestyles through lower premiums.

## Highlighted criteria & dimension weights

Economic Dimension..... 54%

- Corporate Governance
- Sustainable Finance
- Codes of Business Conduct
- Risk & Crisis Management
- Principles for Sustainable Insurance

Environmental Dimension .....13%

- Climate Strategy

Social Dimension ..... 33%

- Human Capital Development
- Talent Attraction & Retention
- Financial Inclusion

## Sustainability leaders 2020

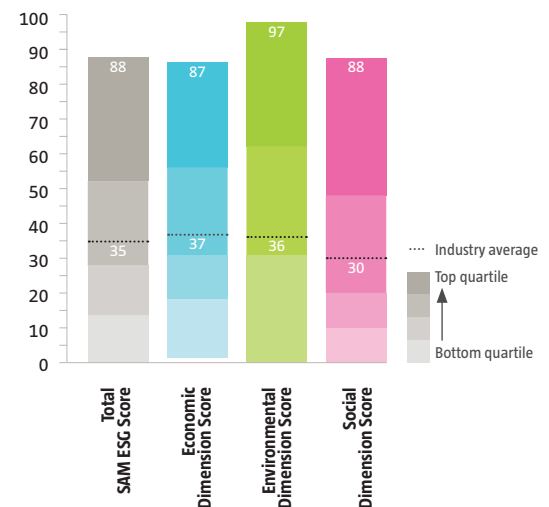
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Allianz SE	Germany	88
<b>SAM Bronze Class</b>		
Zurich Insurance Group AG	Switzerland	83
AXA SA	France	83
Swiss Re AG	Switzerland	81
Fubon Financial Holding Co Ltd	Taiwan	81
Cathay Financial Holding Co Ltd	Taiwan	80
Assicurazioni Generali SpA	Italy	80
<b>Sustainability Yearbook Members</b>		
Muenchener Rueckversicherungs-Gesellschaft AG in Muenchen	Germany	79
Poste Italiane SpA*	Italy	78
Samsung Fire & Marine Insurance Co Ltd	Republic of Korea	78
NN Group NV	Netherlands	78
MS&AD Insurance Group Holdings Inc	Japan	77
Tokio Marine Holdings Inc	Japan	76
Mapfre SA	Spain	76
Sompo Holdings Inc	Japan	75
Storebrand ASA	Norway	75
ASR Nederland NV	Netherlands	73
QBE Insurance Group Ltd	Australia	68
Insurance Australia Group Ltd	Australia	67
Dai-ichi Life Holdings Inc	Japan	67

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	137
Number of companies assessed in 2019	127
Assessed companies to total companies in universe	93%
Market cap value of assessed companies to total market	97%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Interactive Media, Services & Home Entertainment

## Driving forces

This industry includes companies which create and distribute digital content, generating revenues with pay-per-click advertising via search engines, social media and online review portals and also producers of interactive gaming applications. A distinctive characteristic of the industry is that the audience can simultaneously be the consumer, the product (since audiences are sold on to advertisers) and also the content producer. This also requires increased attention to data privacy as a result of regulation and consumers demands for greater transparency about how their personal data is used. Innovation specifically around customer acquisition and experience demands a highly technical and often creative skill set especially for interactive gaming applications. With mobile-based social media consumption added to the increasing preference for visually focused media, new “freemium” business models combining entertainment, social media and ecommerce will emerge in order to reach untapped audiences. Regulatory changes regarding consumer and data protection, content limitations, privacy, network security, encryption, antitrust, taxation and payment laws will also continue to significantly challenge the industry especially as jurisdictions may follow divergent paths.

## Highlighted criteria & dimension weights

- Economic Dimension ..... 52%
- Customer Relationship Management
- Information Security/ Cybersecurity & System Availability
- Innovation Management
- Privacy Protection

Environmental Dimension ..... 21%

- Operational Eco-Efficiency
- Environmental Policy & Management Systems

Social Dimension ..... 27%

- Talent Attraction & Retention
- Human Capital Development
- Labor Practice Indicators

## Sustainability leaders 2020



### Sustainability Yearbook Members

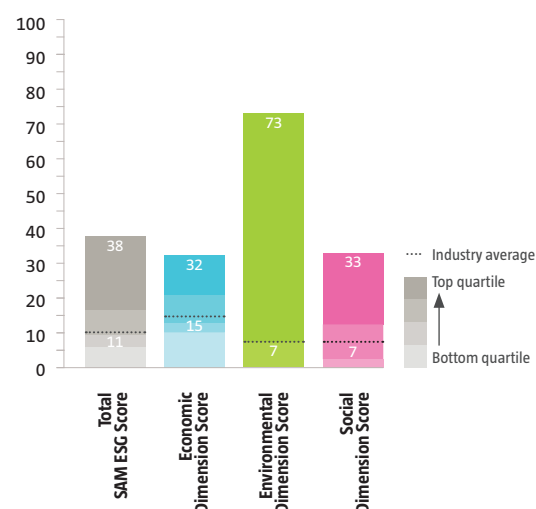
		Total SAM ESG Score
Alphabet Inc*	United States	38
Rightmove PLC	United Kingdom	28

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	46
Number of companies assessed in 2019	41
Assessed companies to total companies in universe	89%
Market cap value of assessed companies to total market	99%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.

Please note, that due to the high proportion of 0 scores in the environmental dimension for this industry, the values displayed for the



# IT services & Internet Software and Services

## Driving forces

The IT services and internet software & services industry consists of companies providing services such as online databases, web design, and registration, as well as services and infrastructure for the internet industry including data centers, cloud infrastructure, and hosting services. It also covers companies delivering specialized IT functions, such as consulting and outsourced services in addition to online payment and financial services companies.

IT services companies are undergoing shifts in their business models, enabled by the existence of cloud business models leading to easier procurement of IT services and integration from lower cost locations, leading to challengers being launched at unprecedented speed with a low-cost base to compete directly with established players. The industry is characterized by companies that place a heavy emphasis on innovation and depend on human and intellectual capital. Talent is therefore the most prominent driver of costs, with investment in skills particularly important. Technological advancements, security vulnerabilities and the increased regulatory landscape (eg. GDPR) are the main factors which will impact companies' future success.

## Highlighted criteria & dimension weights

Economic Dimension ..... 52%

- Customer Relationship Management
- Information Security/ Cybersecurity & System Availability
- Innovation Management
- Privacy Protection

Environmental Dimension ..... 21%

- Operational Eco-Efficiency
- Climate Strategy
- Environmental Policy & Management Systems

Social Dimension ..... 27%

- Talent Attraction & Retention
- Human Capital Development

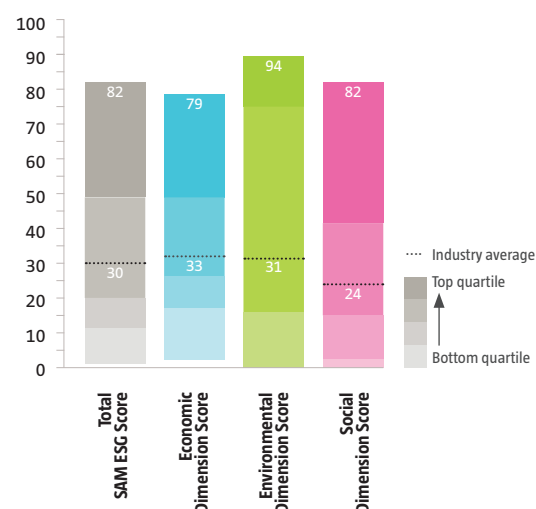
## Sustainability leaders 2020

		Total SAM ESG Score
<b>SAM Gold Class</b>		
Atos SE	France	82
<b>SAM Silver Class</b>		
Wipro Ltd	India	80
NTT Data Corp	Japan	79
Amadeus IT Group SA	Spain	78
<b>SAM Bronze Class</b>		
Nomura Research Institute Ltd	Japan	78
Tech Mahindra Ltd	India	74
<b>Sustainability Yearbook Members</b>		
Fujitsu Ltd	Japan	71
Infosys Ltd	India	71
Cielo SA	Brazil	68
Worldline SA/France	France	67
Indra Sistemas SA	Spain	65
Tata Consultancy Services Ltd	India	63

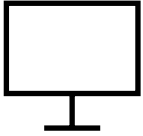
## Industry statistics

Number of companies in universe	82
Number of companies assessed in 2019	72
Assessed companies to total companies in universe	88%
Market cap value of assessed companies to total market	99%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Leisure Equipment & Products and Consumer Electronics

## Driving forces

The leisure equipment & consumer electronics industry is highly competitive. Key industry drivers include product quality, time to market, and brand management. Since new products become commoditized quickly, companies need to focus on innovation, particularly R&D, to maintain their competitive advantage and brand perception. Similarly, many companies in the industry must manage the cyclical nature of new product releases. Given the labor-intensity in manufacturing, companies should closely monitor working conditions along their supply chains, particularly in developing countries. In addition, firms must manage environmental challenges throughout the product lifecycle including product modularity, the use of toxic substances both in the manufacturing process and within products, operational eco-efficiency and recycling through effective take-back programs for the proper disposal of used and obsolete products.

## Highlighted criteria & dimension weights

Economic Dimension ..... 43%

– Customer Relationship

Management

– Innovation Management

– Supply Chain Management

Environmental Dimension ..... 28%

– Environmental Policy &

Management Systems

– Operational Eco-Efficiency

– Product Stewardship

Social Dimension ..... 29%

– Human Rights

– Occupational Health and Safety

– Talent Attraction & Retention

## Sustainability leaders 2020

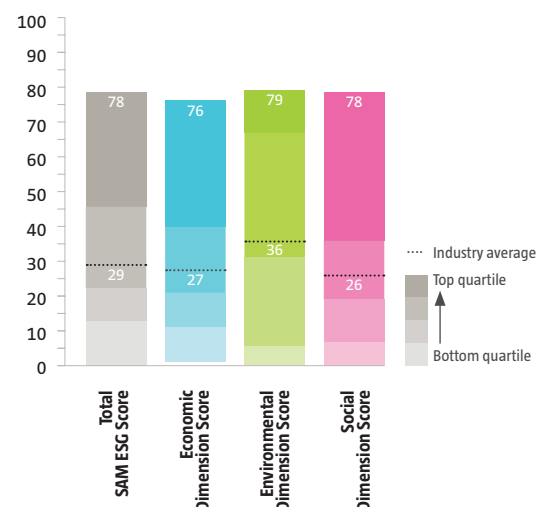
		Total SAM ESG Score
<b>SAM Gold Class</b>		
LG Electronics Inc	Republic of Korea	78
<b>Sustainability Yearbook Members</b>		
Nikon Corp*	Japan	66

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	18
Number of companies assessed in 2019	18
Assessed companies to total companies in universe	100%
Market cap value of assessed companies to total market	100%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Life Sciences Tools & Services

## Driving forces

The life science tools and services industry includes companies developing technologies, instruments and tests that enable scientific and medical progress through research, the development of new medical products, and diagnostic testing and analysis. These companies rely on government spending, academic or private sector R&D budgets, and (to a certain extent) healthcare utilization levels, which makes them sensitive to economic cycles. As a knowledge-intensive industry, its companies depend on a skilled workforce to drive innovation, making human capital management and talent attraction and retention important success factors. Effective client relationship management strategies are also crucial to ensure customer loyalty to established products and technologies and to facilitate the adoption of innovative new technologies. Comprehensive supply chain management strategies that consider environmental and social factors allow companies to minimize the economic, social, and reputational risks associated with their supply chain.

## Highlighted criteria & dimension weights

- Economic Dimension..... 54%
  - Codes of Business Conduct
  - Corporate Governance
  - Innovation Management
  - Supply Chain Management
- Environmental Dimension .....10%
  - Climate Strategy
  - Environmental Reporting
  - Operational Eco-Efficiency
- Social Dimension ..... 36%
  - Human Capital Development
  - Talent Attraction & Retention

## Sustainability leaders 2020



### Sustainability Yearbook Members

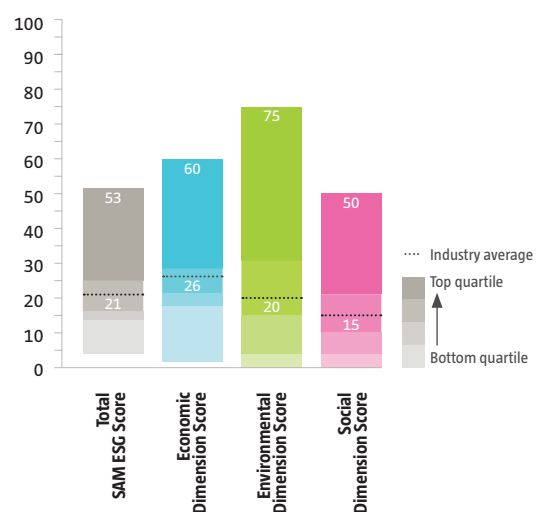
		Total SAM ESG Score
Agilent Technologies Inc	United States	53
Illumina Inc*	United States	51

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	23
Number of companies assessed in 2019	19
Assessed companies to total companies in universe	83%
Market cap value of assessed companies to total market	96%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Machinery and Electrical Equipment

## Driving forces

Machinery companies' ability to innovate through product development is an important determinant of their competitiveness and helps improve their customers' manufacturing productivity through both the equipment itself and value-added services. Manufacturers are shifting from "equipment supplier" to "solution provider" (e.g. automation and connected solutions), delivering integrated systems to their customers and supplementing their hardware offering with software to optimize the use of the asset (eg. GPS-enabled agricultural equipment, performance monitoring and predictive solutions to mitigate downtime). This industry shift opens up opportunities for companies to evolve into high tech players but also poses new challenges such as attracting the right talent. Resource scarcity is spurring the need for improved resource efficiency, particularly with respect to energy and water. Leading companies are using lifecycle analysis to deliver cost savings and mitigate environmental and health impacts for their customers. Lastly, upholding business ethics in their own operations as well as in their supply chain is essential for companies to protect their license to operate.

## Highlighted criteria & dimension weights

Economic Dimension..... 44%

- Corporate Governance
- Innovation Management
- Supply Chain Management

Environmental Dimension ..... 28%

- Climate Strategy
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 28%

- Human Capital Development
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

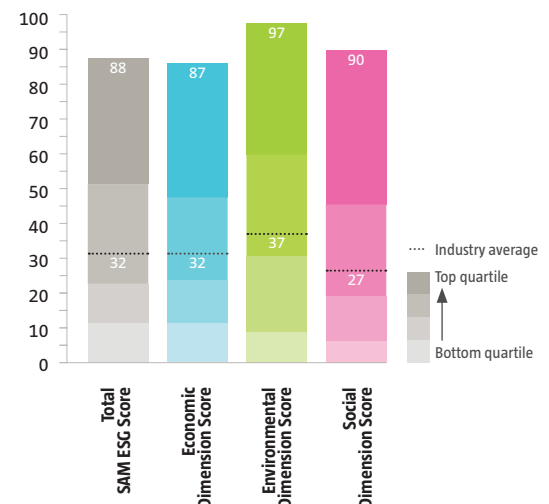
		Total SAM ESG Score
<b>SAM Gold Class</b>		
CNH Industrial NV	Italy	88
<b>SAM Silver Class</b>		
Stanley Black & Decker Inc	United States	85
<b>SAM Bronze Class</b>		
Valmet OYJ	Finland	82
<b>Sustainability Yearbook Members</b>		
Alstom SA	France	79
Sandvik AB	Sweden	79
Nabtesco Corp	Japan	78
Oshkosh Corp*	United States	77
Wartsila OYJ Abp	Finland	76
Caterpillar Inc	United States	76
Cummins Inc	United States	75
Ingersoll-Rand PLC	United States	75
Komatsu Ltd	Japan	73
Mitsubishi Heavy Industries Ltd	Japan	73
Siemens Gamesa Renewable Energy SA	Spain	73
Vestas Wind Systems A/S	Denmark	67
Xylem Inc/NY	United States	66

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	112
Number of companies assessed in 2019	108
Assessed companies to total companies in universe	96%
Market cap value of assessed companies to total market	98%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Media, Movies & Entertainment

## Driving forces

The highly competitive media industry has seen a major shift towards digitalization. Publishing companies that have embraced this trend and have increased their revenue streams from online market segments are industry leaders. The use of new technologies, innovative thinking, tailored content, and channel management are important in creating new business opportunities. In order to produce unique, valuable content or services, companies must continuously invest in retaining a talented, creative, and digitally skilled workforce. The shift towards digitalization has however also significantly increased the risk of cyberattacks. The ability of companies to implement a cybersecurity strategy that prevents, detects and remediates those risks is essential to protecting customer information and companies' own data. Meanwhile, increasing connectivity in developing countries is set to be a growth driver over the coming years. Given media companies' power to shape public opinion, it is freedom of expression, accountability, and the adherence to ethical standards in advertising that will also be important determinants of long-term success.

## Highlighted criteria & dimension weights

Economic Dimension..... 44%

- Codes of Business Conduct
- Customer Relationship Management
- Information Security/ Cybersecurity & System Availability
- Privacy Protection

Environmental Dimension ..... 17%

- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 39%

- Human Capital Development
- Responsibility of Content
- Talent Attraction & Retention

## Sustainability leaders 2020

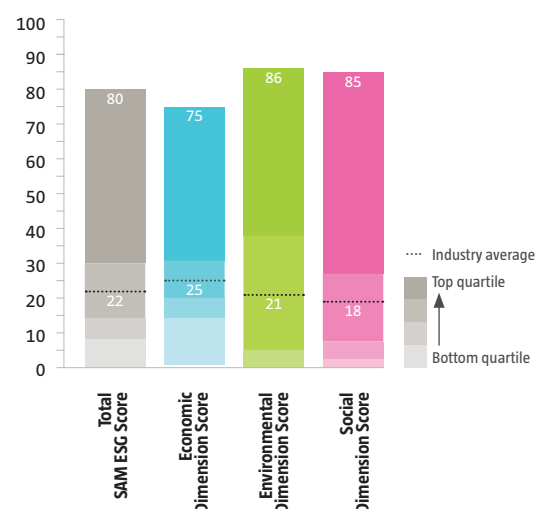
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Telenet Group Holding NV	Belgium	80
<b>Sustainability Yearbook Members</b>		
Pearson PLC	United Kingdom	67
Liberty Global PLC	United States	65
Informa PLC	United Kingdom	65
Television Francaise 1	France	63
Lagardere SCA*	France	59

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	70
Number of companies assessed in 2019	63
Assessed companies to total companies in universe	90%
Market cap value of assessed companies to total market	99%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Metals & Mining

## Driving forces

The mining industry's environmental issues center on land use, mineral waste management, as well as use of energy and water. Workforce challenges include labor conditions and health and safety. All these issues have the potential to expand beyond the confines of the mine, impacting relations with local communities and stakeholders. As a result, mining companies must focus on improving the areas of environmental performance, community interaction (including establishing adequate consultation processes and grievance mechanisms), and minimize human-rights risks. Broader trends are increasing the scale of these challenges: deeper extraction, declining ore grades, and growing volume of waste rock and process tailings. Moreover, regional water scarcity and higher water use in processing ores are increasing the potential for conflict with other water users.

## Highlighted criteria & dimension weights

Economic Dimension..... 33%

- Codes of Business Conduct
- Corporate Governance
- Risk & Crisis Management

Environmental Dimension ..... 32%

- Climate Strategy
- Mineral Waste Management
- Operational Eco-Efficiency
- Water Related Risks

Social Dimension ..... 35%

- Occupational Health and Safety
- Social Impacts on Communities

## Sustainability leaders 2020

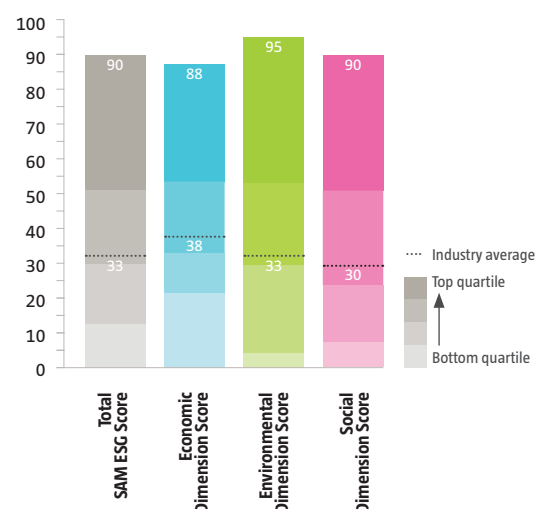
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Teck Resources Ltd	Canada	90
<b>SAM Bronze Class</b>		
Newmont Goldcorp Corp	United States	84
<b>Sustainability Yearbook Members</b>		
Barrick Gold Corp	Canada	79
Gold Fields Ltd	South Africa	79
Hindustan Zinc Ltd	India	77
Anglo American PLC*	United Kingdom	71
Polymetal International PLC	Russian Federation	71
AngloGold Ashanti Ltd	South Africa	69
Kinross Gold Corp	Canada	69
Rio Tinto PLC	United Kingdom	69
Antofagasta PLC	United Kingdom	66

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	79
Number of companies assessed in 2019	74
Assessed companies to total companies in universe	94%
Market cap value of assessed companies to total market	88%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Multi and Water Utilities

## Driving forces

The multi- and water-utilities industry is being transformed on many different fronts. As the electricity market continues to undergo major transformation caused by the decarbonization and decentralization of power generation, utilities need to develop innovative business models. Adapting to new political, economic and technical constraints will be a requirement for these utilities. Gas markets, on the other hand, are being reshaped by the development of unconventional resources and the fact that natural gas is a cleaner and more flexible alternative to coal in power generation. However, gas utilities remain exposed to the risk of the long-term phasing out of all fossil fuels. For water utilities, aging distribution and collection networks and opposition to privatization are key challenges in developed countries. In emerging markets, increasing water stress and deteriorating water quality represent challenges, while increasing consumption and rapid infrastructure expansion are driving market growth. Companies positioned well in this industry are active in resource management, they foster demand-side efficiency, and proactively engage with stakeholders.

## Highlighted criteria & dimension weights

Economic Dimension..... 32%

- Codes of Business Conduct
- Corporate Governance
- Market Opportunities

Environmental Dimension ..... 42%

- Climate Strategy
- Electricity Generation
- Operational Eco-Efficiency
- Water Related Risks

Social Dimension ..... 26%

- Stakeholder Engagement
- Talent Attraction & Retention

## Sustainability leaders 2020

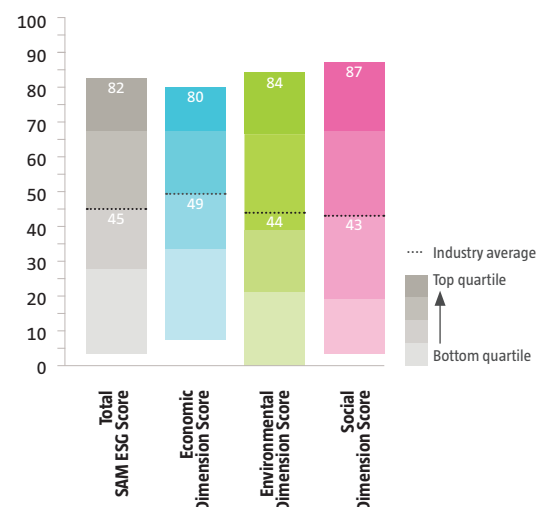
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Engie SA	France	82
<b>SAM Silver Class</b>		
Veolia Environnement SA*	France	81
United Utilities Group PLC	United Kingdom	79
<b>SAM Bronze Class</b>		
Suez	France	76
Sempra Energy	United States	76
<b>Sustainability Yearbook Members</b>		
Aguas Andinas SA	Chile	71

\* SAM Industry Mover

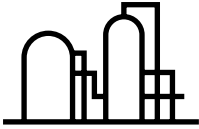
## Industry statistics

Number of companies in universe	41
Number of companies assessed in 2019	33
Assessed companies to total companies in universe	80%
Market cap value of assessed companies to total market	94%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Oil & Gas Refining & Marketing

## Driving forces

The oil refining and marketing industry plays a vital role converting crude oil and alternative feedstocks into a variety of products. Good environmental management of operations comprises reduction of emissions and accidents which is closely linked to cost-competitiveness. This includes maximizing operating availability of refineries and ensuring compliance with operating permits. Vigilant management of environmental and social issues in the supply chain as well as contractor health and safety will reduce reputational risks. The leading companies are those with comprehensive monitoring systems enabling them to minimize these risks and to attract an adept workforce. Another increasingly important issue concerns the need for a sustainable climate strategy due to the required long-term phase out of fossil fuels. Companies need to increase their exposure to sustainable mobility trends such as electric and hybrid vehicles or advanced biofuels, and to strengthen their refinery portfolios through acquisitions and diversification of their feedstocks.

## Highlighted criteria & dimension weights

Economic Dimension..... 34%

- Codes of Business Conduct
- Risk & Crisis Management
- Supply Chain Management

Environmental Dimension ..... 31%

- Climate Strategy
- Operational Eco-Efficiency
- Water Related Risks

Social Dimension ..... 35%

- Human Capital Development
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

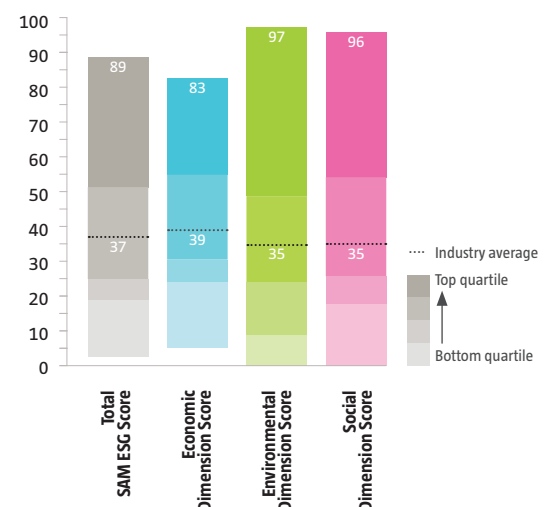
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Thai Oil PCL*	Thailand	89
<b>SAM Silver Class</b>		
IRPC PCL	Thailand	88
<b>SAM Bronze Class</b>		
SK Innovation Co Ltd	Republic of Korea	83
Neste Oyj	Finland	83

\* SAM Industry Mover

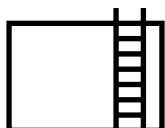
## Industry statistics

Number of companies in universe	31
Number of companies assessed in 2019	28
Assessed companies to total companies in universe	90%
Market cap value of assessed companies to total market	98%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Oil & Gas Storage & Transportation

## Driving forces

For the oil & gas storage and transportation industry, growing demand for the transportation of crude oil and natural gas into demand-intensive urbanized centers is a key value driver. At the same time, lengthening supply chains increase the industry's challenges adding upward pressure to costs. Maintaining the integrity of pipeline and storage systems is vital to minimize environmental impacts, ensure compliance with industry and environmental regulations, and to support community relations. The cost of failure can be significant for operating permits and for obtaining licenses to operate new infrastructure projects. Another significant factor in planning and developing new infrastructure is adequate stakeholder engagement during land acquisition and any physical or economic resettlement. Companies leading in this industry are able to manage the twin demands of maximizing capacity utilization in their networks and minimizing impacts through effective environmental management systems, supported by modern risk and crisis management frameworks.

## Highlighted criteria & dimension weights

Economic Dimension ..... 32%

- Codes of Business Conduct
- Corporate Governance
- Risk & Crisis Management

Environmental Dimension ..... 27%

- Climate Strategy
- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 41%

- Human Capital Development
- Occupational Health and Safety
- Social Impacts on Communities

## Sustainability leaders 2020

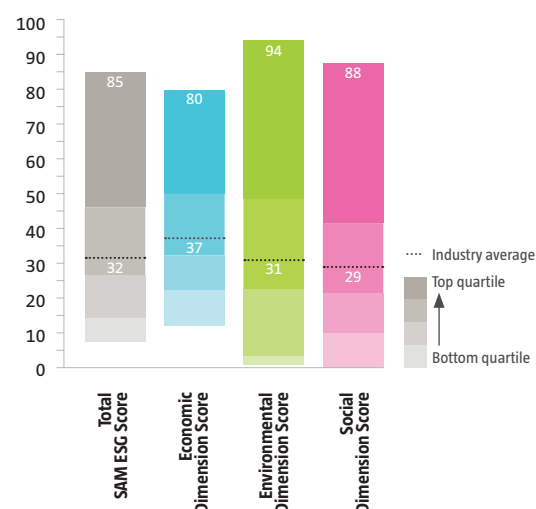
		Total SAM ESG Score
<span style="color: gold;">●</span> <b>SAM Gold Class</b>		
Enagas SA	Spain	85
<span style="color: silver;">●</span> <b>SAM Silver Class</b>		
Snam SpA*	Italy	81

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	22
Number of companies assessed in 2019	22
Assessed companies to total companies in universe	100%
Market cap value of assessed companies to total market	100%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Oil & Gas Upstream & Integrated

## Driving forces

Among upstream and integrated oil & gas companies, there is a need to develop corporate strategies that consider the transition to low-carbon economies. Climate strategy and its link to corporate governance is thus increasing in importance for investors in this sector. At the same time, companies need to ensure that their current businesses can generate cash-flows to cover investment and dividend requirements. Industry leaders have a strong grip on operational eco-efficiency, environmental impacts (including spills) and health and safety. In the upstream segment, this requires adapting to new growth opportunities in natural gas and renewable energies such as wind and solar. In downstream operations, cost-competitiveness is closely linked to environmental and health and safety excellence. In this context, the industry's top performers are those able to manage a broad set of environmental, health and safety, ethical conduct, and stakeholder risks. Taking these risks into account goes also hand in hand with diversifying the fuel mix and discerning the pathway to a low-carbon future.

## Highlighted criteria & dimension weights

Economic Dimension..... 42%

- Corporate Governance
- Energy Mix
- Risk & Crisis Management

Environmental Dimension ..... 26%

- Climate Strategy
- Operational Eco-Efficiency
- Water Related Risks

Social Dimension ..... 32%

- Occupational Health and Safety
- Social Impacts on Communities
- Human Capital Development

## Sustainability leaders 2020

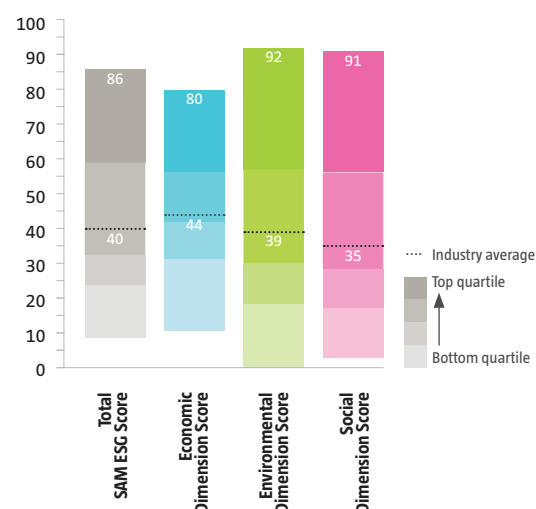
		Total SAM ESG Score
<b>SAM Gold Class</b>		
PTT Exploration & Production PCL	Thailand	86
<b>SAM Silver Class</b>		
PTT PCL	Thailand	84
Galp Energia SGPS SA	Portugal	82
<b>Sustainability Yearbook Members</b>		
Woodside Petroleum Ltd	Australia	76
TOTAL SA	France	72
MOL Hungarian Oil & Gas PLC	Hungary	70
OMV AG	Austria	70
Oil Search Ltd	Australia	69
Petroleo Brasileiro SA*	Brazil	67

\* SAM Industry Mover

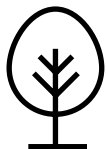
## Industry statistics

Number of companies in universe	65
Number of companies assessed in 2019	59
Assessed companies to total companies in universe	91%
Market cap value of assessed companies to total market	99%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Paper & Forest Products

## Driving forces

The paper and forest products industry consists of companies offering timber, wood products and paper. Responsible management of plantations and sourcing of wood fibers is demonstrated through certification of forest management and chains of custody schemes. These certifications provide assurance and traceability of the preservation of biodiversity, land rights, and equitable sharing of benefits. Engaging with local stakeholders remains essential in maintaining access to land and a social license to operate. Effective management of water-related risks is still crucial in ensuring productive plantations and reliable production. The priorities for paper production include: operational eco-efficiency, climate strategy, and occupational health and safety. Innovations, such as converting waste biomass into bioplastics continue to present new market opportunities and new sources of revenue streams. Moreover, the introduction of new technologies such as enzyme-based processes can open up new sustainable business opportunities.

## Highlighted criteria & dimension weights

Economic Dimension..... 34%

- Corporate Governance
- Supply Chain Management
- Customer Relationship Management

Environmental Dimension ..... 33%

- Sustainable Forestry Practices
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 33%

- Occupational Health and Safety
- Human Capital Development
- Social Impacts on Communities

## Sustainability leaders 2020

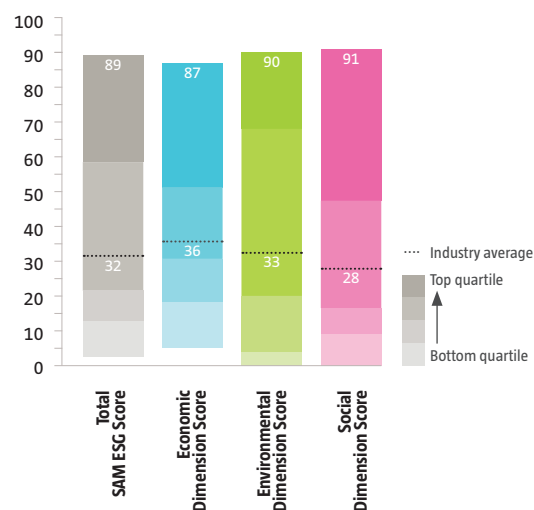
		Total SAM ESG Score
<b>SAM Gold Class</b>		
UPM-Kymmene OYJ*	Finland	89
<b>Sustainability Yearbook Members</b>		
Mondi PLC	United Kingdom	65

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	15
Number of companies assessed in 2019	12
Assessed companies to total companies in universe	80%
Market cap value of assessed companies to total market	99%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Personal Products

## Driving forces

Personal product companies operate in a highly competitive, multi-brand environment. Brand management and product quality are driven by the need to continuously innovate, retain market positioning, or gain market share. Rigorous product stewardship addresses recurring concerns over product safety and a growing demand for advanced products while pushing companies to develop improved and reformulated versions of traditional products. In combination with a changing regulatory environment governing the use of ingredients and chemicals, these pressures drive innovation, which ultimately results in higher quality and safety standards. Natural and sustainably sourced ingredients as well as reducing/avoiding plastic packaging are key themes. These factors, as well as restrictions on emissions, energy consumption, and water use have a strong impact on production and operating costs. Successful companies are establishing R&D centers in regions where they are adapting and developing new products to suit local needs and tastes while structuring flexible, market-specific pricing strategies.

## Highlighted criteria & dimension weights

Economic Dimension ..... 53%

- Customer Relationship Management
- Innovation Management
- Product Quality and Recall Management
- Strategy for Emerging Markets

Environmental Dimension ..... 21%

- Environmental Policy & Management Systems
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 26%

- Human Capital Development
- Occupational Health and Safety

## Sustainability leaders 2020

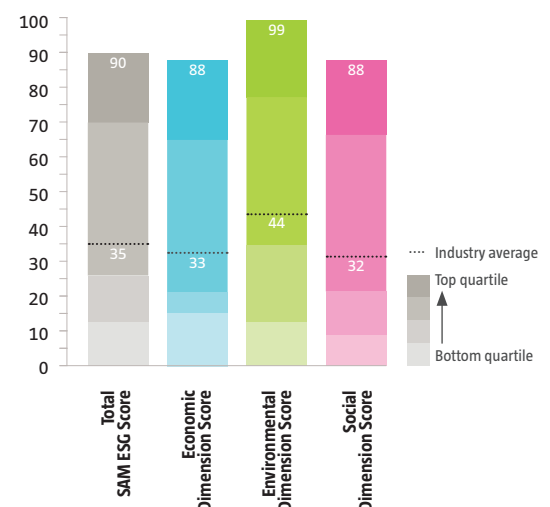
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Unilever NV	Netherlands	90
<b>Sustainability Yearbook Members</b>		
LG Household & Health Care Ltd	Republic of Korea	81
Kao Corp	Japan	78
Shiseido Co Ltd*	Japan	77

\* SAM Industry Mover

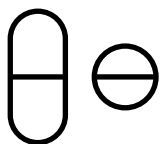
## Industry statistics

Number of companies in universe	28
Number of companies assessed in 2019	26
Assessed companies to total companies in universe	93%
Market cap value of assessed companies to total market	82%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Pharmaceuticals

## Driving forces

Pharmaceutical companies face increasing scrutiny related to pricing and reimbursement of their products as governments seek to slow the rise in healthcare costs, while the incremental value of innovation within traditional pharmaceuticals has declined over time. Companies are under pressure to demonstrate the value of their products and ensure their pricing practices are sustainable. The pharmaceutical industry relies heavily on human capital for innovation, continuous development of novel medicines, and the quality of its marketing strategy. The industry is characterized by extensive capital invested in sales and marketing, R&D, and a high risk of failure in product development, which makes process optimization and human capital management critical. Finally, business ethics, competitive practices and product quality and safety remain important aspects. Violations have the potential to cause significant reputational and financial damage, the impact of which has grown due to the increased speed of information flow resulting from social media and tighter regulatory oversight.

## Highlighted criteria & dimension weights

Economic Dimension ..... 50%

- Codes of Business Conduct
- Innovation Management
- Product Quality and Recall Management

Environmental Dimension ..... 9%

- Climate Strategy
- Operational Eco-Efficiency

Social Dimension ..... 41%

- Addressing Cost Burden
- Health Outcome Contribution
- Strategy to Improve Access to Drugs or Products
- Talent Attraction & Retention

## Sustainability leaders 2020

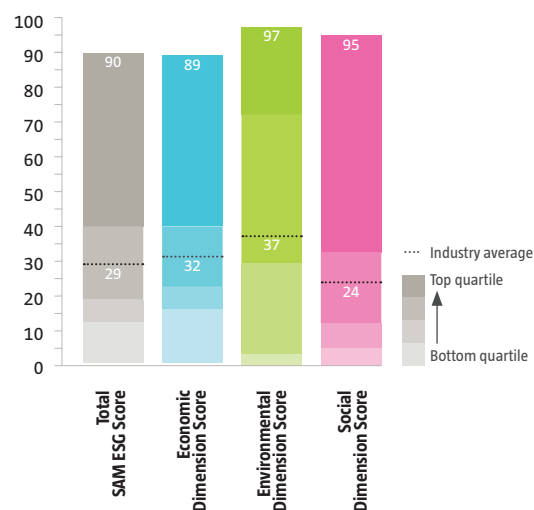
		Total SAM ESG Score
<b>SAM Gold Class</b>		
GlaxoSmithKline PLC	United Kingdom	90
Roche Holding AG	Switzerland	90
<b>SAM Bronze Class</b>		
Sanofi	France	82
<b>Sustainability Yearbook Members</b>		
AstraZeneca PLC	United Kingdom	81
Daiichi Sankyo Co Ltd	Japan	78
Takeda Pharmaceutical Co Ltd	Japan	75
Novartis AG	Switzerland	74
Chugai Pharmaceutical Co Ltd	Japan	73
Eisai Co Ltd*	Japan	68
Mitsubishi Tanabe Pharma Corp	Japan	68
Novo Nordisk A/S	Denmark	65
Sumitomo Dainippon Pharma Co Ltd	Japan	64

\* SAM Industry Mover

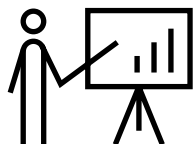
## Industry statistics

Number of companies in universe	87
Number of companies assessed in 2019	79
Assessed companies to total companies in universe	91%
Market cap value of assessed companies to total market	83%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Professional Services

## Driving forces

Professional services companies provide a range of business support services in the areas of staffing, consumer credit ratings, research and analytics, and in the testing, inspection and certification of manufacturing or other business processes. As providers of specialized services, these are knowledge-intensive companies and their success depends on the quality of their workforce, making human capital development and talent attraction and retention particularly important. A reputation for integrity is critical in retaining customers and winning new business. Consequently, companies must ensure that employees comply with their codes of conduct and that services are delivered according to high ethical standards. Professional services companies are entrusted with customer data, making data security and cybersecurity top priorities if they wish to avoid negative reputational impacts.

## Highlighted criteria & dimension weights

Economic Dimension ..... 42%

- Codes of Business Conduct
- Corporate Governance
- Customer Relationship Management

Environmental Dimension ..... 16%

- Environmental Policy & Management Systems
- Operational Eco-Efficiency

Social Dimension ..... 42%

- Human Capital Development
- Labor Practice Indicators
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

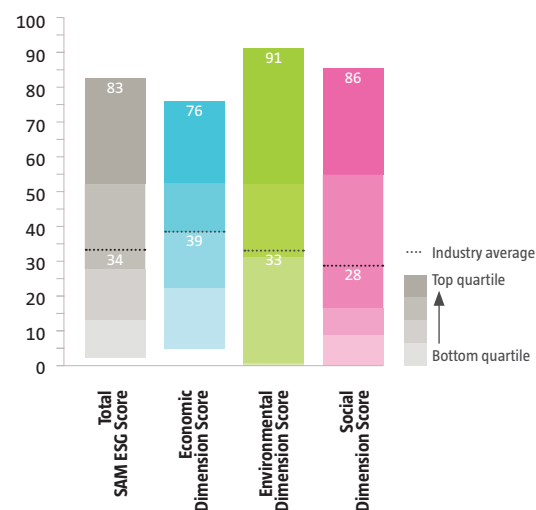
		Total SAM ESG Score
<b>SAM Gold Class</b>		
SGS SA	Switzerland	83
<b>SAM Bronze Class</b>		
Bureau Veritas SA*	France	75
<b>Sustainability Yearbook Members</b>		
Randstad NV	Netherlands	73
RELX PLC	United Kingdom	69

\* SAM Industry Mover

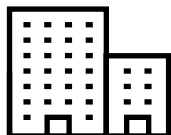
## Industry statistics

Number of companies in universe	32
Number of companies assessed in 2019	30
Assessed companies to total companies in universe	94%
Market cap value of assessed companies to total market	99%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



## Real Estate

### Driving forces

Real estate is a varied industry consisting of developers and maintenance professionals as well as property managers and investors. Building and managing real estate provides social benefits but also depletes natural resources and releases pollutants into the environment bringing regulatory pressure from local governments. Studies estimate that the construction and operation of buildings contributes to around 40% of worldwide greenhouse gas emissions. Sustainable real estate companies use recyclable building materials, improve structural efficiency and consider site aspects during the development stage. Refurbishing existing buildings with energy and water efficient appliances, improving energy management by using smart meters, as well as engaging with tenants on their sustainability impact is important for sustainable real estate managers. Leading companies can validate their sustainability efforts through credible green building certification schemes. Finally, since real estate assets are highly leveraged, corporate governance plays an exceptional role for efficient and prudent capital management.

### Sustainability leaders 2020

		Total SAM ESG Score			
<b>SAM Gold Class</b>					
Dexus	Australia	90	Welltower Inc	United States	71
<b>SAM Bronze Class</b>			Hammerson PLC	United Kingdom	71
Stockland	Australia	83	City Developments Ltd	Singapore	70
GPT Group	Australia	82	CBRE Group Inc	United States	70
Land Securities Group PLC	United Kingdom	82	Host Hotels & Resorts Inc	United States	69
<b>Sustainability Yearbook Members</b>			Prologis Inc	United States	69
Castellum AB	Sweden	79	British Land Co PLC	United Kingdom	68
Vicinity Centres	Australia	78	Healthpeak Properties Inc	United States	68
Kilroy Realty Corp	United States	75	Intu Properties PLC	United Kingdom	68
Swire Properties Ltd	Hong Kong	74	Covivio	France	68
CapitaLand Ltd	Singapore	74	Parque Arauco SA*	Chile	67
Gecina SA	France	74	Charter Hall Group	Australia	66
Central Pattana PCL	Thailand	73	Kimco Realty Corp	United States	65
Ventas Inc	United States	73	Nippon Prologis REIT Inc	Japan	65
Mirvac Group	Australia	72	Lend Lease Group	Australia	63

\* SAM Industry Mover

## Highlighted criteria & dimension weights

Economic Dimension..... 28%

- Corporate Governance
- Risk & Crisis Management
- Supply Chain Management

Environmental Dimension ..... 38%

- Climate Strategy
- Operational Eco-Efficiency
- Resource Conservation and Resource Efficiency

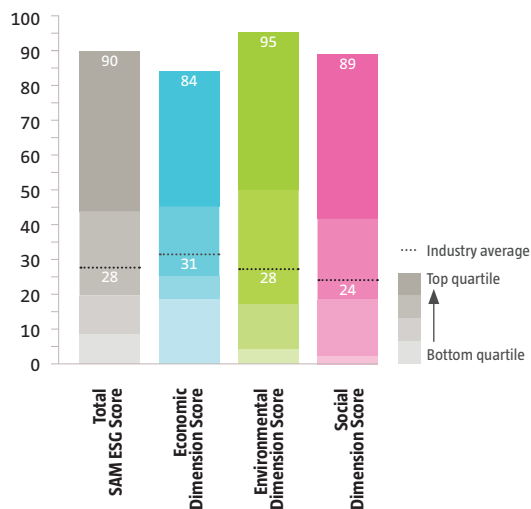
Social Dimension ..... 34%

- Human Capital Development
- Social Integration & Regeneration
- Stakeholder Engagement

## Industry statistics

Number of companies in universe	252
Number of companies assessed in 2019	225
Assessed companies to total companies in universe	89%
Market cap value of assessed companies to total market	95%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Restaurants & Leisure Facilities

## Driving forces

The restaurant and leisure sector continues to be subject to scrutiny over accountability and transparency in its supply chain, including issues of worker welfare, food safety, raw material sourcing, and accurate labeling. Labor issues relating to fair wages and working conditions risk attracting increased attention from regulators and a range of other stakeholders in both developed and emerging markets, putting pressure on existing franchising, licensing and accountability systems. Furthermore, health-conscious consumers in developed markets are pushing companies towards greater innovation in their product and service offerings. Environmental challenges such as energy and water consumption need to be tackled globally, while data from company-owned and franchised locations must be consolidated for companies to effectively implement their global sustainability programs.

## Highlighted criteria & dimension weights

Economic Dimension ..... 42%

– Codes of Business Conduct

– Customer Relationship

Management

– Supply Chain Management

Environmental Dimension ..... 18%

– Environmental Policy &

Management Systems

– Operational Eco-Efficiency

– Raw Material Sourcing

Social Dimension ..... 40%

– Labor Practice Indicators

– Stakeholder Engagement

– Talent Attraction & Retention

## Sustainability leaders 2020

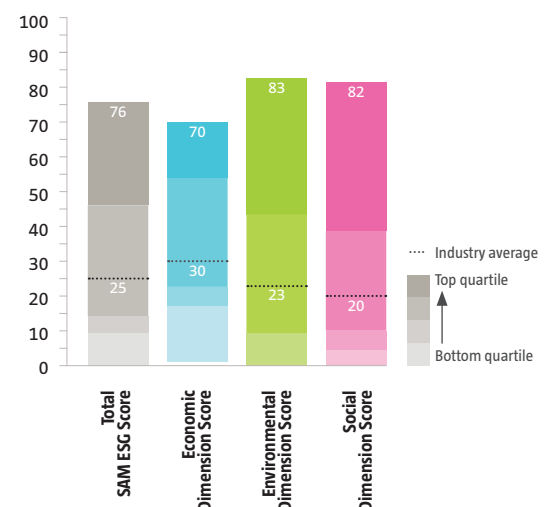
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Sodexo SA	France	76
<b>Sustainability Yearbook Members</b>		
Whitbread PLC	United Kingdom	67
Yum! Brands Inc*	United States	64
Compass Group PLC	United Kingdom	62

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	30
Number of companies assessed in 2019	26
Assessed companies to total companies in universe	87%
Market cap value of assessed companies to total market	97%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Retailing

## Driving forces

The retailing industry is dominated by multinational companies with global supply and distribution networks focused on sophisticated inventory management, marketing strategies and technological development. Brand management is a determining factor and successful retailers develop strategies and technologies to retain and analyze customers' buying habits allowing implementation of more responsive and tailored customer relationship management systems. Distribution channels such as e-commerce platforms, home delivery services, and pick-up systems are key value drivers. Faced with continuous stakeholder scrutiny, companies need to address the efficiency, safety and sustainability of their supply chain management, their distribution systems and the use and disposal of packaging. Labor and human rights issues within the supply chain also pose notable risks. Hence, retailers must establish long-term relationships with suppliers, integrate new technologies, and provide enhanced transparency and environmental awareness to minimize reputational risks and to increase operational efficiency.

## Highlighted criteria & dimension weights

Economic Dimension ..... 50%

- Brand Management
- Customer Relationship Management
- Supply Chain Management

Environmental Dimension ..... 22%

- Environmental Policy & Management Systems
- Operational Eco-Efficiency
- Packaging

Social Dimension ..... 28%

- Human Capital Development
- Human Rights
- Talent Attraction & Retention

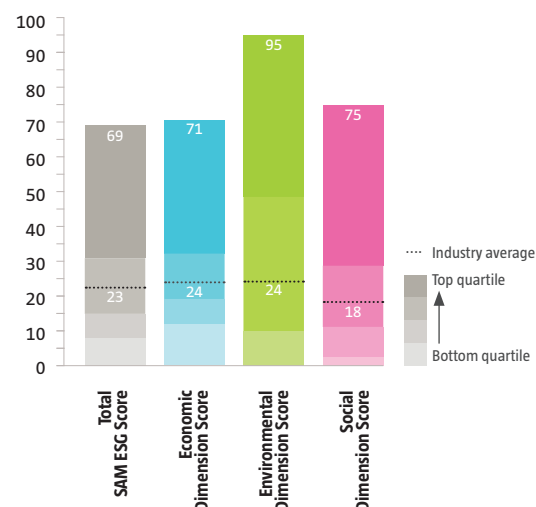
## Sustainability leaders 2020

		Total SAM ESG Score
<b>SAM Gold Class</b>		
Wesfarmers Ltd	Australia	69
Hennes & Mauritz AB	Sweden	69
Industria de Diseno Textil SA	Spain	68
<b>SAM Silver Class</b>		
SACI Falabella	Chile	68
Home Product Center PCL	Thailand	67
Marui Group Co Ltd	Japan	67
<b>SAM Bronze Class</b>		
eBay Inc	United States	63
<b>Sustainability Yearbook Members</b>		
Lojas Renner SA	Brazil	61
Gap Inc	United States	60
Vipshop Holdings Ltd	China	59
Fast Retailing Co Ltd	Japan	57
Woolworths Holdings Ltd/South Africa	South Africa	56
Organizacion Terpel SA	Colombia	56
Canadian Tire Corp Ltd	Canada	54
Best Buy Co Inc	United States	53
Super Retail Group Ltd	Australia	52
Rakuten Inc	Japan	50

## Industry statistics

Number of companies in universe	115
Number of companies assessed in 2019	107
Assessed companies to total companies in universe	93%
Market cap value of assessed companies to total market	99%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Semiconductors & Semiconductor Equipment

## Driving forces

The emerging drivers of the semiconductor industry go far beyond the traditional PC market to now include the Internet of Things, Artificial Intelligence, automotive applications, 5G and high-performance computing. Cybersecurity is increasing in importance as a strategic priority, as security should be included by design during chip R&D. The rate at which the number of transistors on a chip doubles (Moore's Law) is slowing as integrated circuits become smaller so the semiconductor industry must investigate new architectures, materials and packaging to go beyond current scaling and performance constraints while also addressing the demand for low energy-consumption products. To sustain a rapid pace of innovation, the industry will need to increase R&D investment, in turn necessitating talent development while also attracting and retaining a skilled workforce. The industry must continue to improve its usage of: ultra-pure water, sourcing of conflict minerals, energy and waste management, pollution prevention, and must also increase promotion of projects to substitute hazardous materials.

## Highlighted criteria & dimension weights

Economic Dimension ..... 43%

- Corporate Governance
- Innovation Management
- Supply Chain Management

Environmental Dimension ..... 34%

- Climate Strategy
- Environmental Policy & Management Systems
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 23%

- Human Capital Development
- Talent Attraction & Retention

## Sustainability leaders 2020

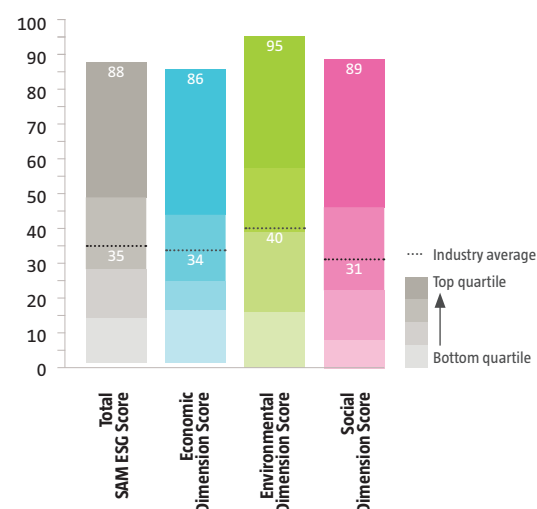
		Total SAM ESG Score
<b>SAM Gold Class</b>		
ASE Technology Holding Co Ltd	Taiwan	88
Taiwan Semiconductor Manufacturing Co Ltd	Taiwan	87
<b>SAM Silver Class</b>		
Nanya Technology Corp	Taiwan	86
STMicroelectronics NV	Italy	83
<b>SAM Bronze Class</b>		
United Microelectronics Corp	Taiwan	83
ASML Holding NV	Netherlands	79
Infineon Technologies AG	Germany	79
<b>Sustainability Yearbook Members</b>		
Tokyo Electron Ltd	Japan	78
SK Hynix Inc	Republic of Korea	77
Win Semiconductors Corp*	Taiwan	73

\* SAM Industry Mover

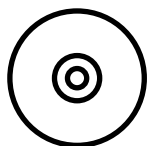
## Industry statistics

Number of companies in universe	67
Number of companies assessed in 2019	61
Assessed companies to total companies in universe	91%
Market cap value of assessed companies to total market	99%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Software

## Driving forces

Innovation and human capital are important sustainability aspects for the software industry. Rapid technological innovation, demanding a highly qualified and innovative workforce to identify disruptive trends and develop new products are characteristics of this industry. Managing, training and developing employees is therefore crucial for profitability and growth. Customer loyalty and retention are also key drivers for long-term profitability. Furthermore, companies must ensure data security. As a growing amount of confidential data is processed and stored, there is increased regulation concerning data privacy (eg. GDPR). On the consumer side, data security and privacy issues are starting to affect users' choices. Environmental footprint has traditionally not been viewed as a critical issue for the software industry, but energy use is a future source of scrutiny as data centers require a constant supply of energy to avoid disruption. The industry is competitive with dominant players in each segment. Scale is no longer the barrier that it used to be. Software can be easily procured and integrated from lower cost locations, leading to challengers being launched at unprecedented speed with a low-cost base and able to compete directly with established players.

## Highlighted criteria & dimension weights

Economic Dimension..... 52%

- Customer Relationship Management
- Information Security/ Cybersecurity & System Availability
- Innovation Management
- Privacy Protection

Environmental Dimension ..... 21%

- Operational Eco-Efficiency
- Climate Strategy
- Environmental Policy & Management Systems

Social Dimension ..... 27%

- Talent Attraction & Retention
- Human Capital Development

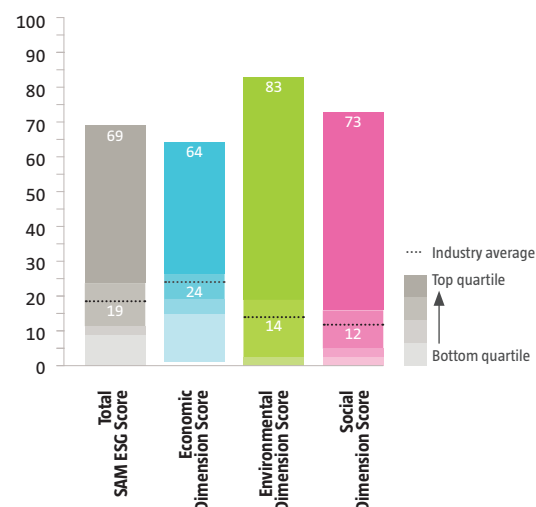
## Sustainability leaders 2020

		Total SAM ESG Score
<b>SAM Gold Class</b>		
SAP SE	Germany	69
<b>SAM Silver Class</b>		
Adobe Inc	United States	67
NortonLifeLock Inc	United States	66
<b>Sustainability Yearbook Members</b>		
Microsoft Corp	United States	57
Temenos AG	Switzerland	54

## Industry statistics

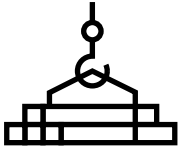
Number of companies in universe	76
Number of companies assessed in 2019	67
Assessed companies to total companies in universe	88%
Market cap value of assessed companies to total market	99%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.

Please note, that due to the high proportion of 0 scores in the environmental dimension for this industry, the values displayed for the



# Steel

## Driving forces

The recyclable properties of steel provide opportunities for lowering production costs by reducing raw material inputs, energy use, and GHG gas emissions. Some grades of high-strength steel also offer opportunities for reducing energy consumption in the use phase. Primary production, however, continues to have significant environmental effects as steel production is energy intensive. Blast furnace production of steel leads to significant direct GHG emissions and other environmental outputs. Community concerns may also arise due to the presence of large production facilities that create excessive noise and air pollution as well as potential negative impact on land and property rights. For this industry, employee and contractor health and safety is also a critical indicator of operational excellence.

## Highlighted criteria & dimension weights

Economic Dimension..... 34%

- Codes of Business Conduct
- Corporate Governance
- Supply Chain Management

Environmental Dimension ..... 33%

- Climate Strategy
- Operational Eco-Efficiency
- Water Related Risks

Social Dimension ..... 33%

- Occupational Health and Safety
- Social Impacts on Communities
- Talent Attraction & Retention

## Sustainability leaders 2020

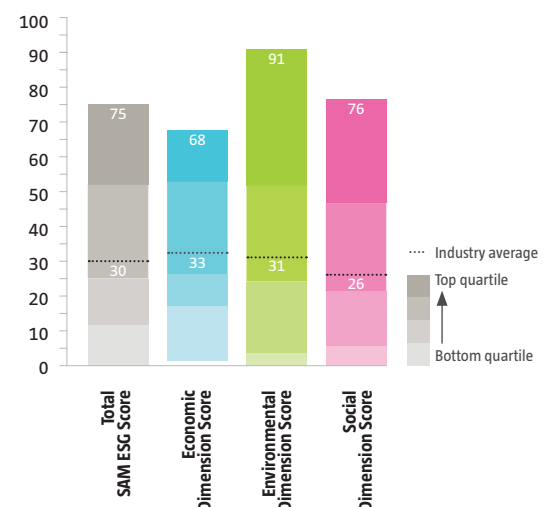
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Hyundai Steel Co	Republic of Korea	75
<b>SAM Bronze Class</b>		
Fortescue Metals Group Ltd*	Australia	68
POSCO	Republic of Korea	67
<b>Sustainability Yearbook Members</b>		
Tata Steel Ltd	India	66
China Steel Corp	Taiwan	59
Outokumpu Oyj	Finland	57

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	43
Number of companies assessed in 2019	37
Assessed companies to total companies in universe	86%
Market cap value of assessed companies to total market	76%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Telecommunication Services

## Driving forces

The telecommunications industry operates in a highly competitive, albeit heavily regulated environment, where exposure to anti-trust action is pronounced. In order to remain competitive in a market consistently subject to rapid technological change, companies need to adopt efficient and flexible business models enabling them to integrate next-generation technologies such as 5G and to produce innovative solutions that address social and environmental issues. Implementation of resilient systems to assure customers' data privacy is important in retaining customers and avoiding regulatory issues. The increased use of smart devices has also increased the attention that consumers pay to data privacy. Insufficient database and network protection could further expose companies to reputational and legal risks. Cybersecurity and physical threats to network infrastructure (eg. extreme weather events) can have significant economic impact. Investing in data security and upgrading network infrastructure are therefore crucial.

## Highlighted criteria & dimension weights

Economic Dimension..... 47%

- Customer Relationship Management
- Information Security/ Cybersecurity & System Availability
- Network Reliability
- Privacy Protection
- Risk & Crisis Management

Environmental Dimension ..... 20%

- Climate Strategy
- Operational Eco-Efficiency

Social Dimension ..... 33%

- Human Capital Development
- Talent Attraction & Retention

## Sustainability leaders 2020

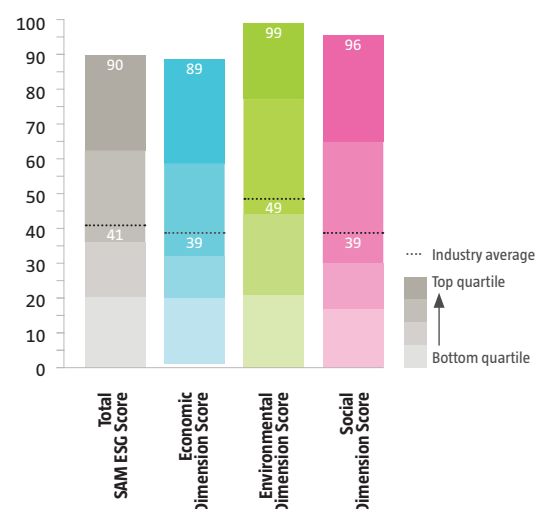
		Total SAM ESG Score
<b>SAM Gold Class</b>		
True Corp PCL	Thailand	90
Koninklijke KPN NV	Netherlands	90
<b>SAM Silver Class</b>		
Taiwan Mobile Co Ltd	Taiwan	89
Far EasTone Telecommunications Co Ltd*	Taiwan	88
Deutsche Telekom AG	Germany	86
<b>SAM Bronze Class</b>		
NTT DOCOMO Inc	Japan	85
SK Telecom Co Ltd	Republic of Korea	84
Advanced Info Service PCL	Thailand	84
Nippon Telegraph & Telephone Corp	Japan	84
TELUS Corp	Canada	82
<b>Sustainability Yearbook Members</b>		
Telecom Italia SpA/Milano	Italy	80
KT Corp	Republic of Korea	78

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	86
Number of companies assessed in 2019	79
Assessed companies to total companies in universe	92%
Market cap value of assessed companies to total market	99%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Textiles, Apparel & Luxury Goods

## Driving forces

Textile, apparel and luxury goods companies leverage strong recognition of their brands, effective supply chain management, and marketing and sales strategies to expand into new markets, product categories and consumer segments. Fast fashion and the expansion of online shopping platforms have resulted in continuous customer engagement. Faced with stakeholder scrutiny of occupational health and safety, human rights and labor law violations, and immense negative environmental impact in the supply chain, companies are under pressure to boost transparency throughout all tiers of their operations. Sustainability leaders in the industry integrate environmental considerations into the whole life-cycle process, from product design, and raw material sourcing at the front end, to recycling of used products at the back end. Businesses must not only engage with suppliers and subcontractors on sustainability issues, but also actively monitor various practices and disclose the results to stakeholders to protect their reputation and ultimately, their brand and company value.

## Highlighted criteria & dimension weights

Economic Dimension ..... 41%

- Customer Relationship Management
- Risk & Crisis Management
- Supply Chain Management

Environmental Dimension ..... 21%

- Environmental Policy & Management Systems
- Operational Eco-Efficiency
- Product Stewardship

Social Dimension ..... 38%

- Human Capital Development
- Human Rights
- Occupational Health and Safety

## Sustainability leaders 2020

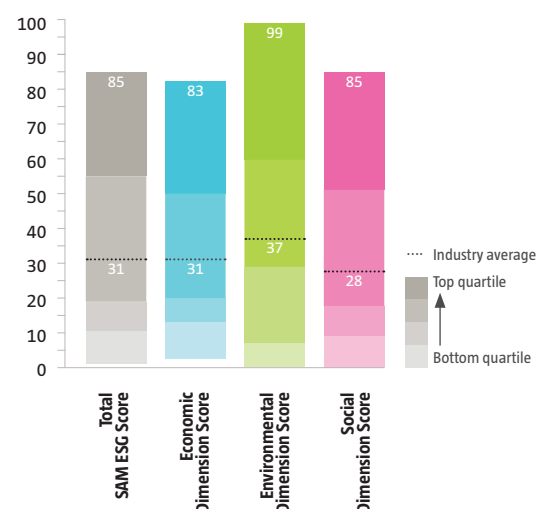
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Moncler SpA*	Italy	85
adidas AG	Germany	85
Burberry Group PLC	United Kingdom	85
<b>SAM Silver Class</b>		
Kering SA	France	81
<b>SAM Bronze Class</b>		
HUGO BOSS AG	Germany	77
Gildan Activewear Inc	Canada	77
<b>Sustainability Yearbook Members</b>		
Asics Corp	Japan	65

\* SAM Industry Mover

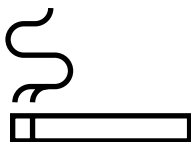
## Industry statistics

Number of companies in universe	48
Number of companies assessed in 2019	45
Assessed companies to total companies in universe	94%
Market cap value of assessed companies to total market	98%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Tobacco

## Driving forces

According to the WHO, global smoking rates and sales are decreasing, but not uniformly. The tobacco industry's relationship with the public sector is critically important with regard to tax policies, regulations and efforts aimed at reducing cigarette smoking, especially among vulnerable groups like the young and the poor. The industry is under constant scrutiny by policymakers, the media and NGOs, which demand well-managed supply and distribution chains and a high degree of transparency. Following new tobacco control measures, it is becoming increasingly important for tobacco companies to diversify their product mix. This means moving away from traditional tobacco products and exploring innovative alternatives such as non-combustible (smokeless) tobacco and reduced-harm nicotine products (with low to zero tobacco) which claim to have lower health risks.

## Highlighted criteria & dimension weights

Economic Dimension..... 42%

- Risk & Crisis Management
- Supply Chain Management
- Codes of Business Conduct

Environmental Dimension ..... 24%

- Operational Eco-Efficiency
- Environmental Policy & Management Systems
- Raw Material Sourcing

Social Dimension ..... 34%

- Occupational Health and Safety
- Human Capital Development
- Talent Attraction & Retention

## Sustainability leaders 2020

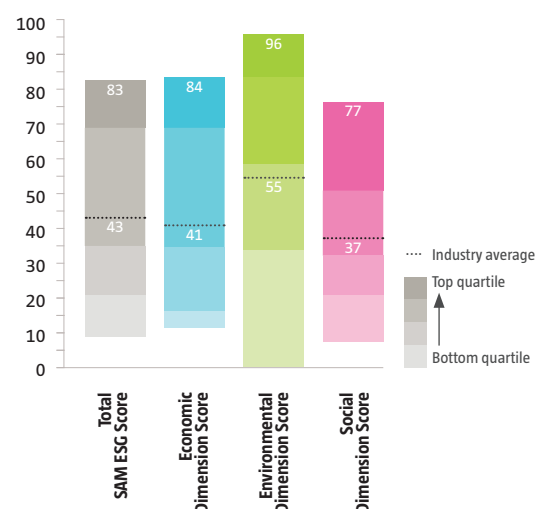
		Total SAM ESG Score
<b>SAM Gold Class</b>		
British American Tobacco PLC	United Kingdom	83
<b>SAM Bronze Class</b>		
Japan Tobacco Inc*	Japan	76

\* SAM Industry Mover

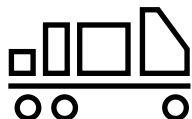
## Industry statistics

Number of companies in universe	11
Number of companies assessed in 2019	11
Assessed companies to total companies in universe	100%
Market cap value of assessed companies to total market	100%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Trading Companies & Distributors

## Driving forces

The trading companies and distributors industry includes companies operating in wholesale and in the distribution of multiple goods. Due to their diverse business lines, companies rely heavily on corporate governance and management skills to operate. It is a knowledge-intensive industry, so fair labor practices, talent attraction and retention and human capital development are key to productivity and business success. Operating across a diverse range of business areas, companies in this industry face considerable exposure to environmental and social risks, either directly through their own operations or indirectly in the supply chain. As a result, defining clear policies and risk management processes remains important for long-term value creation. Environmental and social impact assessments and transparency with stakeholders are key to mitigate future operational and reputational risks.

## Highlighted criteria & dimension weights

Economic Dimension..... 43%

- Corporate Governance
- Customer Relationship Management
- Supply Chain Management

Environmental Dimension .....19%

- Environmental Policy & Management Systems
- Environmental Reporting
- Operational Eco-Efficiency

Social Dimension ..... 38%

- Human Capital Development
- Occupational Health and Safety
- Talent Attraction & Retention

## Sustainability leaders 2020

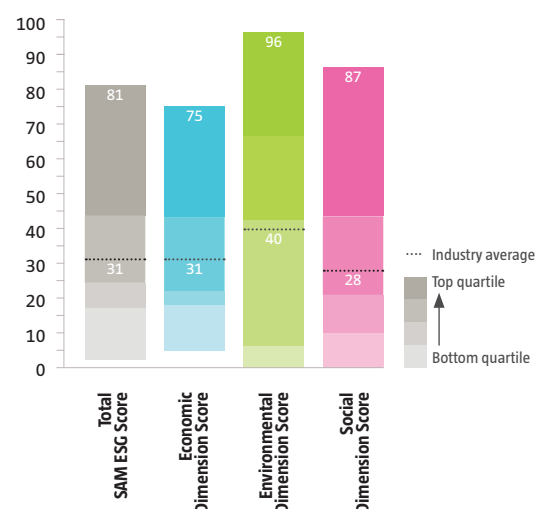
		Total SAM ESG Score
<b>SAM Gold Class</b>		
ITOCHU Corp	Japan	81
<b>SAM Silver Class</b>		
Sojitz Corp	Japan	79
<b>Sustainability Yearbook Members</b>		
Mitsui & Co Ltd	Japan	70
Rexel SA*	France	69

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	33
Number of companies assessed in 2019	31
Assessed companies to total companies in universe	94%
Market cap value of assessed companies to total market	97%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Transportation and Transportation Infrastructure

## Driving forces

The transportation industry consists of a number of sub-industries, each with distinctive dynamics, competitive landscapes and sustainability issues. But the most important material factor across the industry remains the same: safe and efficient movement of goods and passengers. Additional key factors include fuel efficiency, operational eco-efficiency, and occupational health and safety. Effectively managing transportation and ports contributes to cost advantages which influence companies' ability to offer competitive pricing and gain market share. Lower-carbon and more efficient transportation options provide an opportunity to acquire new customers and retain existing ones as more companies commit to reducing their carbon footprint along the entire value chain. Meanwhile, offering a high-quality, reliable service requires companies to develop an engaged and motivated workforce through effective human capital development programs. Finally, corruption and bribery remain an inherent issue when dealing with governmental organizations that could result into material impact in terms of monetary penalties or blacklisting.

## Highlighted criteria & dimension weights

Economic Dimension ..... 34%

- Codes of Business Conduct
- Customer Relationship Management
- Risk & Crisis Management

Environmental Dimension ..... 27%

- Climate Strategy
- Fuel Efficiency
- Operational Eco-Efficiency

Social Dimension ..... 39%

- Occupational Health and Safety
- Stakeholder Engagement
- Talent Attraction & Retention

## Sustainability leaders 2020

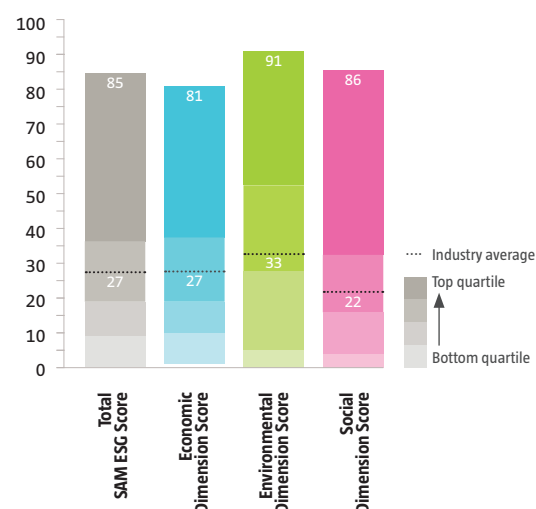
		Total SAM ESG Score
<b>SAM Gold Class</b>		
Royal Mail PLC	United Kingdom	85
<b>SAM Silver Class</b>		
BTS Group Holdings PCL	Thailand	83
<b>SAM Bronze Class</b>		
PostNL NV	Netherlands	79
Transurban Group	Australia	78
<b>Sustainability Yearbook Members</b>		
Hyundai Glovis Co Ltd*	Republic of Korea	76
Canadian National Railway Co	Canada	74
Airports of Thailand PCL	Thailand	73
Deutsche Post AG	Germany	72
Sydney Airport	Australia	71
Aéroports de Paris	France	66
Nippon Yusen KK	Japan	65
MTR Corp Ltd	Hong Kong	64
United Parcel Service Inc	United States	62
Firstgroup PLC	United Kingdom	60
CSX Corp	United States	60

\* SAM Industry Mover

## Industry statistics

Number of companies in universe	105
Number of companies assessed in 2019	98
Assessed companies to total companies in universe	93%
Market cap value of assessed companies to total market	97%

## Results at industry level



The chart above illustrates the distribution of scores from bottom quartile to top quartile in the industry. More information is available in the Reading Instructions in the introduction.



# Company Overview

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Abbott Laboratories	Health Care Equipment & Supplies	United States	●		81
AbbVie Inc	Biotechnology	United States	●		61
ABN AMRO Bank NV	Banks	Netherlands	●		58
Acciona SA	Electric Utilities	Spain	●	●	74
Acer Inc	Computers & Peripherals and Office Electronics	Taiwan	●	●	68
ACS Actividades de Construcción y Servicios SA	Construction & Engineering	Spain	●	●	69
adidas AG	Textiles, Apparel & Luxury Goods	Germany	●		112
Adobe Inc	Software	United States	●		109
Advanced Info Service PCL	Telecommunication Services	Thailand	●		111
Aéroports de Paris	Transportation and Transportation Infrastructure	France			115
AES Corp/VA	Electric Utilities	United States			74
AES Gener SA	Electric Utilities	Chile			74
Agilent Technologies Inc	Life Sciences Tools & Services	United States			92
Aguas Andinas SA	Multi and Water Utilities	Chile			96
Air France-KLM	Airlines	France	●		54
Air Products & Chemicals Inc	Chemicals	United States			64
Airports of Thailand PCL	Transportation and Transportation Infrastructure	Thailand			115
Ajinomoto Co Inc	Food Products	Japan			79
Akzo Nobel NV	Chemicals	Netherlands			64
Alcoa Corp	Aluminum	United States	●	●	55
Allianz SE	Insurance	Germany	●		88
Almacenes Exito SA	Food & Staples Retailing	Colombia			78
Alphabet Inc	Interactive Media, Services & Home Entertainment	United States		●	89
Alstom SA	Machinery and Electrical Equipment	France			93
Amadeus IT Group SA	IT Services	Spain	●		90
Ambuja Cements Ltd	Construction Materials	India	●	●	70
ANA Holdings Inc	Airlines	Japan	●		54
Anglo American PLC	Metals & Mining	United Kingdom		●	95
AngloGold Ashanti Ltd	Metals & Mining	South Africa			95
Anthem Inc	Health Care Providers & Services	United States			82
Antofagasta PLC	Metals & Mining	United Kingdom			95
Arcelik AS	Household Durables	Turkey	●		85
Archer-Daniels-Midland Co	Food Products	United States			79
Asahi Group Holdings Ltd	Beverages	Japan			60
ASE Technology Holding Co Ltd	Semiconductors & Semiconductor Equipment	Taiwan	●		108
Asics Corp	Textiles, Apparel & Luxury Goods	Japan			112
ASML Holding NV	Semiconductors & Semiconductor Equipment	Netherlands	●		108
ASR Nederland NV	Insurance	Netherlands			88
Assicurazioni Generali SpA	Insurance	Italy	●		88

● SAM Gold Class

● SAM Silver Class

● SAM Bronze Class

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
AstraZeneca PLC	Pharmaceuticals	United Kingdom			102
Atos SE	IT Services	France	●		90
AU Optronics Corp	Electronic Equipment, Instruments & Components	Taiwan			76
Australia & New Zealand Banking Group Ltd	Banks	Australia	●		58
AXA SA	Insurance	France	●		88
BAE Systems PLC	Aerospace & Defense	United Kingdom			53
Ball Corp	Containers & Packaging	United States	●		71
Banco Bilbao Vizcaya Argentaria SA	Banks	Spain	●		58
Banco Bradesco SA	Banks	Brazil	●		58
Banco Davivienda SA	Banks	Colombia			58
Banco do Brasil SA	Banks	Brazil	●	●	58
Banco Santander SA	Banks	Spain	●		58
Bancolombia SA	Banks	Colombia	●		58
Bank of America Corp	Banks	United States	●		58
Bank of New York Mellon Corp	Diversified Financial Services and Capital Markets	United States			73
Bank of Nova Scotia	Banks	Canada			58
Bankia SA	Banks	Spain			58
Bankinter SA	Banks	Spain			58
Banpu PCL	Coal & Consumable Fuels	Thailand	●	●	65
Barrick Gold Corp	Metals & Mining	Canada			95
Baxter International Inc	Health Care Equipment & Supplies	United States			81
Bayerische Motoren Werke AG	Automobiles	Germany	●		57
Best Buy Co Inc	Retailing	United States			107
BillerudKorsnas AB	Containers & Packaging	Sweden	●		71
Biogen Inc	Biotechnology	United States	●		61
BNP Paribas SA	Banks	France	●		58
Brambles Ltd	Commercial Services & Supplies	Australia	●		66
Braskem SA	Chemicals	Brazil			64
Bridgestone Corp	Auto Components	Japan			56
British American Tobacco PLC	Tobacco	United Kingdom	●		113
British Land Co PLC	Real Estate	United Kingdom			104
BTS Group Holdings PCL	Transportation and Transportation Infrastructure	Thailand	●		115
Burberry Group PLC	Textiles, Apparel & Luxury Goods	United Kingdom	●		112
Bureau Veritas SA	Professional Services	France	●	●	103
CaixaBank SA	Banks	Spain	●		58
Campbell Soup Co	Food Products	United States			79
Canadian National Railway Co	Transportation and Transportation Infrastructure	Canada			115
Canadian Tire Corp Ltd	Retailing	Canada			107
CapitalLand Ltd	Real Estate	Singapore			104
Carrefour SA	Food & Staples Retailing	France			78

● SAM Gold Class    ● SAM Silver Class    ● SAM Bronze Class

Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Casino Guichard Perrachon SA	Food & Staples Retailing	France			78
Castellum AB	Real Estate	Sweden			104
Caterpillar Inc	Machinery and Electrical Equipment	United States			93
Cathay Financial Holding Co Ltd	Insurance	Taiwan	●		88
CBRE Group Inc	Real Estate	United States			104
Celsia SA ESP	Electric Utilities	Colombia	●		74
Cementos Argos SA	Construction Materials	Colombia	●		70
Central Pattana PCL	Real Estate	Thailand			104
Charoen Pokphand Foods PCL	Food Products	Thailand	●		79
Charter Hall Group	Real Estate	Australia			104
China Airlines Ltd	Airlines	Taiwan	●		54
China Development Financial Holding Corp	Banks	Taiwan			58
China Everbright International Ltd	Commercial Services & Supplies	China			66
China Steel Corp	Steel	Taiwan			110
Chugai Pharmaceutical Co Ltd	Pharmaceuticals	Japan			102
Cia Energetica de Minas Gerais	Electric Utilities	Brazil	●		74
Cielo SA	IT Services	Brazil			90
Cigna Corp	Health Care Providers & Services	United States	●		82
Cisco Systems Inc	Communications Equipment	United States	●		67
City Developments Ltd	Real Estate	Singapore			104
CJ CheilJedang Corp	Food Products	Republic of Korea			79
Clariant AG	Chemicals	Switzerland	●		64
CNH Industrial NV	Machinery and Electrical Equipment	Italy	●		93
Coca-Cola European Partners PLC	Beverages	Spain	●		60
Coca-Cola HBC AG	Beverages	Switzerland	●	●	60
Cogna Educacao	Diversified Consumer Services	Brazil			72
Colgate-Palmolive Co	Household Products	United States	●		86
Colombina SA	Food Products	Colombia			79
Compass Group PLC	Restaurants & Leisure Facilities	United Kingdom			106
Covivio	Real Estate	France			104
CP ALL PCL	Food & Staples Retailing	Thailand	●		78
Credit Suisse Group AG	Diversified Financial Services and Capital Markets	Switzerland			73
CRH PLC	Construction Materials	Ireland	●		70
CSX Corp	Transportation and Transportation Infrastructure	United States			115
CTBC Financial Holding Co Ltd	Banks	Taiwan			58
CTCI Corp	Construction & Engineering	Taiwan	●		69
Cummins Inc	Machinery and Electrical Equipment	United States			93
CVS Health Corp	Health Care Providers & Services	United States	●		82
Dai-ichi Life Holdings Inc	Insurance	Japan			88
Daiichi Sankyo Co Ltd	Pharmaceuticals	Japan			102

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Daiwa Securities Group Inc	Diversified Financial Services and Capital Markets	Japan			73
Danone SA	Food Products	France			79
DaVita Inc	Health Care Providers & Services	United States			82
Delta Electronics Inc	Electronic Equipment, Instruments & Components	Taiwan	●		76
Delta Electronics Thailand PCL	Electronic Equipment, Instruments & Components	Thailand	●		76
Deutsche Boerse AG	Diversified Financial Services and Capital Markets	Germany			73
Deutsche Post AG	Transportation and Transportation Infrastructure	Germany			115
Deutsche Telekom AG	Telecommunication Services	Germany	●		111
Dexus	Real Estate	Australia	●		104
Diageo PLC	Beverages	United Kingdom	●		60
DIC Corp	Chemicals	Japan			64
Doosan Co Ltd	Industrial Conglomerates	Republic of Korea		●	87
Dow Inc	Chemicals	United States			64
E.Sun Financial Holding Co Ltd	Banks	Taiwan	●		58
eBay Inc	Retailing	United States	●		107
Ecolab Inc	Chemicals	United States			64
EDP - Energias de Portugal SA	Electric Utilities	Portugal	●		74
EDP Renovaveis SA	Electric Utilities	Spain	●		74
Edwards Lifesciences Corp	Health Care Equipment & Supplies	United States			81
Eisai Co Ltd	Pharmaceuticals	Japan		●	102
Electricite de France SA	Electric Utilities	France			74
Electrolux AB	Household Durables	Sweden	●		85
Enagas SA	Oil & Gas Storage & Transportation	Spain	●		98
Endesa SA	Electric Utilities	Spain	●		74
Enel Americas SA	Electric Utilities	Chile	●		74
Enel Chile SA	Electric Utilities	Chile	●		74
Enel SpA	Electric Utilities	Italy	●		74
Engie SA	Multi and Water Utilities	France	●		96
Essity AB	Household Products	Sweden	●		86
Far EasTone Telecommunications Co Ltd	Telecommunication Services	Taiwan	●	●	111
Fast Retailing Co Ltd	Retailing	Japan			107
Ferrovial SA	Construction & Engineering	Spain	●		69
First Financial Holding Co Ltd	Banks	Taiwan	●		58
Firstgroup PLC	Transportation and Transportation Infrastructure	United Kingdom			115
Flex Ltd	Electronic Equipment, Instruments & Components	Singapore		●	76
Fortescue Metals Group Ltd	Steel	Australia	●	●	110
Fubon Financial Holding Co Ltd	Insurance	Taiwan	●		88
Fujitsu Ltd	IT Services	Japan			90

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Galp Energia SGPS SA	Oil & Gas Upstream & Integrated	Portugal	●		99
Gap Inc	Retailing	United States			107
Gecina SA	Real Estate	France			104
General Mills Inc	Food Products	United States			79
General Motors Co	Automobiles	United States	●		57
Gildan Activewear Inc	Textiles, Apparel & Luxury Goods	Canada	●		112
GlaxoSmithKline PLC	Pharmaceuticals	United Kingdom	●		102
Gold Fields Ltd	Metals & Mining	South Africa			95
GPT Group	Real Estate	Australia	●		104
Grupo Argos SA/Colombia	Construction Materials	Colombia	●		70
Grupo de Inversiones Suramericana SA	Diversified Financial Services and Capital Markets	Colombia			73
Grupo Energia Bogota SA ESP	Gas Utilities	Colombia			80
Grupo Nutresa SA	Food Products	Colombia	●		79
GS Engineering & Construction Corp	Construction & Engineering	Republic of Korea			69
GVC Holdings PLC	Casinos & Gaming	United Kingdom			63
H&R Block Inc	Diversified Consumer Services	United States		●	72
Hammerson PLC	Real Estate	United Kingdom			104
Hankook Tire & Technology Co Ltd	Auto Components	Republic of Korea	●		56
Healthpeak Properties Inc	Real Estate	United States			104
Heineken NV	Beverages	Netherlands			60
Hennes & Mauritz AB	Retailing	Sweden	●		107
Hershey Co	Food Products	United States			79
Hewlett Packard Enterprise Co	Computers & Peripherals and Office Electronics	United States	●		68
Hilton Worldwide Holdings Inc	Hotels, Resorts & Cruise Lines	United States	●		84
Hindustan Zinc Ltd	Metals & Mining	India			95
HOCHTIEF AG	Construction & Engineering	Germany	●		69
Home Product Center PCL	Retailing	Thailand	●		107
Honda Motor Co Ltd	Automobiles	Japan	●		57
Hong Kong Exchanges & Clearing Ltd	Diversified Financial Services and Capital Markets	Hong Kong			73
Host Hotels & Resorts Inc	Real Estate	United States			104
HP Inc	Computers & Peripherals and Office Electronics	United States	●		68
HUGO BOSS AG	Textiles, Apparel & Luxury Goods	Germany	●		112
Humana Inc	Health Care Providers & Services	United States		●	82
Hyundai Engineering & Construction Co Ltd	Construction & Engineering	Republic of Korea	●		69
Hyundai Glovis Co Ltd	Transportation and Transportation Infrastructure	Republic of Korea		●	115
Hyundai Mobis Co Ltd	Auto Components	Republic of Korea		●	56
Hyundai Steel Co	Steel	Republic of Korea	●		110

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Iberdrola SA	Electric Utilities	Spain	●		74
Illumina Inc	Life Sciences Tools & Services	United States		●	92
Incitec Pivot Ltd	Chemicals	Australia			64
Indorama Ventures PCL	Chemicals	Thailand	●		64
Indra Sistemas SA	IT Services	Spain			90
Industria de Diseno Textil SA	Retailing	Spain	●		107
Infineon Technologies AG	Semiconductors & Semiconductor Equipment	Germany	●		108
Informa PLC	Media, Movies & Entertainment	United Kingdom			94
Infosys Ltd	IT Services	India			90
Ingersoll-Rand PLC	Machinery and Electrical Equipment	United States			93
Innolux Corp	Electronic Equipment, Instruments & Components	Taiwan	●		76
Insurance Australia Group Ltd	Insurance	Australia			88
InterContinental Hotels Group PLC	Hotels, Resorts & Cruise Lines	United Kingdom	●		84
International Flavors & Fragrances Inc	Chemicals	United States			64
Intesa Sanpaolo SpA	Banks	Italy	●		58
Intu Properties PLC	Real Estate	United Kingdom			104
Investec PLC	Diversified Financial Services and Capital Markets	United Kingdom			73
IRPC PCL	Oil & Gas Refining & Marketing	Thailand	●		97
Italgas SpA	Gas Utilities	Italy		●	80
Itau Unibanco Holding SA	Banks	Brazil	●		58
Itausa - Investimentos Itau SA	Banks	Brazil	●		58
ITOCHU Corp	Trading Companies & Distributors	Japan	●		114
Japan Tobacco Inc	Tobacco	Japan	●	●	113
Julius Baer Group Ltd	Diversified Financial Services and Capital Markets	Switzerland			73
Kao Corp	Personal Products	Japan			101
Kasikornbank PCL	Banks	Thailand	●		58
KB Financial Group Inc	Banks	Republic of Korea	●		58
KBC Group NV	Banks	Belgium			58
Kellogg Co	Food Products	United States			79
Kering SA	Textiles, Apparel & Luxury Goods	France	●		112
Kesko OYJ	Food & Staples Retailing	Finland	●		78
Kilroy Realty Corp	Real Estate	United States			104
Kimco Realty Corp	Real Estate	United States			104
Kinross Gold Corp	Metals & Mining	Canada			95
Komatsu Ltd	Machinery and Electrical Equipment	Japan			93
Konica Minolta Inc	Computers & Peripherals and Office Electronics	Japan	●		68
Koninklijke Ahold Delhaize NV	Food & Staples Retailing	Netherlands			78
Koninklijke DSM NV	Chemicals	Netherlands			64
Koninklijke KPN NV	Telecommunication Services	Netherlands	●		111
Koninklijke Philips NV	Health Care Equipment & Supplies	Netherlands	●		81

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
KT Corp	Telecommunication Services	Republic of Korea			111
Lagardere SCA	Media, Movies & Entertainment	France			94
Land Securities Group PLC	Real Estate	United Kingdom			104
LANXESS AG	Chemicals	Germany			64
Las Vegas Sands Corp	Casinos & Gaming	United States			63
Latam Airlines Group SA	Airlines	Chile			54
Legrand SA	Electrical Components & Equipment	France			75
LendLease Group	Real Estate	Australia			104
Leonardo SpA	Aerospace & Defense	Italy			53
LG Chem	Chemicals	Republic of Korea			64
LG Electronics Inc	Leisure Equipment & Products and Consumer Electronics	Republic of Korea			91
LG Household & Health Care Ltd	Personal Products	Republic of Korea			101
Liberty Global PLC	Media, Movies & Entertainment	United States			94
Linde PLC	Chemicals	United States			64
LIXIL Group Corp	Building Products	Japan			62
Lockheed Martin Corp	Aerospace & Defense	United States			53
Lojas Renner SA	Retailing	Brazil			107
London Stock Exchange Group PLC	Diversified Financial Services and Capital Markets	United Kingdom			73
Mahindra & Mahindra Ltd	Automobiles	India			57
Mapfre SA	Insurance	Spain			88
Marui Group Co Ltd	Retailing	Japan			107
Medtronic PLC	Health Care Equipment & Supplies	United States			81
Melia Hotels International SA	Hotels, Resorts & Cruise Lines	Spain			84
METRO AG	Food & Staples Retailing	Germany			78
Microsoft Corp	Software	United States			109
Mirae Asset Daewoo Co Ltd	Diversified Financial Services and Capital Markets	Republic of Korea			73
Mirvac Group	Real Estate	Australia			104
Mitr Phol Sugar Corporation Limited	Food Products	Thailand			79
Mitsubishi Chemical Holdings Corp	Chemicals	Japan			64
Mitsubishi Heavy Industries Ltd	Machinery and Electrical Equipment	Japan			93
Mitsubishi Tanabe Pharma Corp	Pharmaceuticals	Japan			102
Mitsui & Co Ltd	Trading Companies & Distributors	Japan			114
Mitsui Chemicals Inc	Chemicals	Japan			64
MOL Hungarian Oil & Gas PLC	Oil & Gas Upstream & Integrated	Hungary			99
Moncler SpA	Textiles, Apparel & Luxury Goods	Italy			112
Mondelez International Inc	Food Products	United States			79
Mondi PLC	Paper & Forest Products	United Kingdom			100
MS&AD Insurance Group Holdings Inc	Insurance	Japan			88

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
MTR Corp Ltd	Transportation and Transportation Infrastructure	Hong Kong			115
Muenchener Rueckversicherungs-Gesellschaft AG in Muenchen	Insurance	Germany			88
Nabtesco Corp	Machinery and Electrical Equipment	Japan			93
Nanya Technology Corp	Semiconductors & Semiconductor Equipment	Taiwan	●		108
National Australia Bank Ltd	Banks	Australia	●		58
Naturgy Energy Group SA	Gas Utilities	Spain	●		80
Nedbank Group Ltd	Banks	South Africa			58
Neste Oyj	Oil & Gas Refining & Marketing	Finland	●		97
Nestle SA	Food Products	Switzerland	●		79
Newmont Goldcorp Corp	Metals & Mining	United States	●		95
Nikon Corp	Leisure Equipment & Products and Consumer Electronics	Japan		●	91
Nippon Prologis REIT Inc	Real Estate	Japan			104
Nippon Telegraph & Telephone Corp	Telecommunication Services	Japan	●		111
Nippon Yusen KK	Transportation and Transportation Infrastructure	Japan			115
Nissin Foods Holdings Co Ltd	Food Products	Japan			79
NN Group NV	Insurance	Netherlands			88
Nokian Renkaat OYJ	Auto Components	Finland	●		56
Nomura Holdings Inc	Diversified Financial Services and Capital Markets	Japan			73
Nomura Research Institute Ltd	IT Services	Japan	●		90
Norsk Hydro ASA	Aluminum	Norway	●		55
NortonLifeLock Inc	Software	United States	●		109
Novartis AG	Pharmaceuticals	Switzerland			102
Novo Nordisk A/S	Pharmaceuticals	Denmark			102
NTT Data Corp	IT Services	Japan	●		90
NTT DOCOMO Inc	Telecommunication Services	Japan	●		111
Oil Search Ltd	Oil & Gas Upstream & Integrated	Australia			99
Omron Corp	Electronic Equipment, Instruments & Components	Japan	●		76
OMV AG	Oil & Gas Upstream & Integrated	Austria			99
Organizacion Terpel SA	Retailing	Colombia			107
Osaka Gas Co Ltd	Gas Utilities	Japan			80
Oshkosh Corp	Machinery and Electrical Equipment	United States		●	93
OSRAM Licht AG	Electrical Components & Equipment	Germany	●		75
Outokumpu Oyj	Steel	Finland			110
Owens Corning	Building Products	United States	●		62
Parque Arauco SA	Real Estate	Chile		●	104
Pearson PLC	Media, Movies & Entertainment	United Kingdom			94
Petroleo Brasileiro SA	Oil & Gas Upstream & Integrated	Brazil		●	99
Peugeot SA	Automobiles	France	●		57
Pirelli & C SpA	Auto Components	Italy	●		56

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Polymetal International PLC	Metals & Mining	Russian Federation			95
POSCO	Steel	Republic of Korea	●		110
Poste Italiane SpA	Insurance	Italy		●	88
PostNL NV	Transportation and Transportation Infrastructure	Netherlands	●		115
President Chain Store Corp	Food & Staples Retailing	Taiwan	●	●	78
Prologis Inc	Real Estate	United States			104
Provident Financial PLC	Diversified Financial Services and Capital Markets	United Kingdom			73
Prysmian SpA	Electrical Components & Equipment	Italy	●	●	75
PTT Exploration & Production PCL	Oil & Gas Upstream & Integrated	Thailand	●		99
PTT Global Chemical PCL	Chemicals	Thailand	●		64
PTT PCL	Oil & Gas Upstream & Integrated	Thailand	●		99
Pulmuone Co Ltd	Food Products	Republic of Korea			79
QBE Insurance Group Ltd	Insurance	Australia			88
Quest Diagnostics Inc	Health Care Providers & Services	United States			82
Rakuten Inc	Retailing	Japan			107
Randstad NV	Professional Services	Netherlands			103
Reckitt Benckiser Group PLC	Household Products	United Kingdom	●		86
Red Electrica Corp SA	Electric Utilities	Spain	●		74
RELX PLC	Professional Services	United Kingdom			103
Rentokil Initial PLC	Commercial Services & Supplies	United Kingdom		●	66
Republic Services Inc	Commercial Services & Supplies	United States			66
Rexel SA	Trading Companies & Distributors	France		●	114
Ricoh Co Ltd	Computers & Peripherals and Office Electronics	Japan	●		68
Rightmove PLC	Interactive Media, Services & Home Entertainment	United Kingdom			89
Rio Tinto PLC	Metals & Mining	United Kingdom			95
Roche Holding AG	Pharmaceuticals	Switzerland	●		102
Rolls-Royce Holdings PLC	Aerospace & Defense	United Kingdom			53
Royal Bank of Canada	Banks	Canada			58
Royal Mail PLC	Transportation and Transportation Infrastructure	United Kingdom	●		115
S&P Global Inc	Diversified Financial Services and Capital Markets	United States			73
SACI Falabella	Retailing	Chile	●		107
Saipem SpA	Energy Equipment & Services	Italy	●	●	77
Samsung C&T Corp	Industrial Conglomerates	Republic of Korea			87
Samsung Electro-Mechanics Co Ltd	Electronic Equipment, Instruments & Components	Republic of Korea	●		76
Samsung Engineering Co Ltd	Construction & Engineering	Republic of Korea	●		69

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Samsung Fire & Marine Insurance Co Ltd	Insurance	Republic of Korea			88
Samsung SDI Co Ltd	Electronic Equipment, Instruments & Components	Republic of Korea	●		76
Samsung Securities Co Ltd	Diversified Financial Services and Capital Markets	Republic of Korea			73
Sandvik AB	Machinery and Electrical Equipment	Sweden			93
Sanofi	Pharmaceuticals	France	●		102
SAP SE	Software	Germany	●		109
SBM Offshore NV	Energy Equipment & Services	Netherlands			77
Schneider Electric SE	Electrical Components & Equipment	France	●		75
Sekisui Chemical Co Ltd	Homebuilding	Japan	●	●	83
Sekisui House Ltd	Homebuilding	Japan	●		83
Sembcorp Industries Ltd	Industrial Conglomerates	Singapore			87
Sempra Energy	Multi and Water Utilities	United States	●		96
Seven & i Holdings Co Ltd	Food & Staples Retailing	Japan			78
SGS SA	Professional Services	Switzerland	●		103
Shinhan Financial Group Co Ltd	Banks	Republic of Korea	●		58
Shiseido Co Ltd	Personal Products	Japan		●	101
Siam Cement PCL	Construction Materials	Thailand	●		70
Siam Commercial Bank PCL	Banks	Thailand	●		58
Siemens AG	Industrial Conglomerates	Germany	●		87
Siemens Gamesa Renewable Energy SA	Machinery and Electrical Equipment	Spain			93
Signify NV	Electrical Components & Equipment	Netherlands	●		75
SK Holdings Co Ltd	Industrial Conglomerates	Republic of Korea	●		87
SK Hynix Inc	Semiconductors & Semiconductor Equipment	Republic of Korea			108
SK Innovation Co Ltd	Oil & Gas Refining & Marketing	Republic of Korea	●		97
SK Telecom Co Ltd	Telecommunication Services	Republic of Korea	●		111
Smith & Nephew PLC	Health Care Equipment & Supplies	United Kingdom			81
Snam SpA	Oil & Gas Storage & Transportation	Italy	●	●	98
Societe Generale SA	Banks	France	●		58
Sodexo SA	Restaurants & Leisure Facilities	France	●		106
Sojitz Corp	Trading Companies & Distributors	Japan	●		114
Sompo Holdings Inc	Insurance	Japan			88
Sonoco Products Co	Containers & Packaging	United States		●	71
Sonova Holding AG	Health Care Equipment & Supplies	Switzerland			81
Standard Chartered PLC	Banks	United Kingdom			58
Standard Life Aberdeen PLC	Diversified Financial Services and Capital Markets	United Kingdom			73
Stanley Black & Decker Inc	Machinery and Electrical Equipment	United States	●		93
Star Entertainment Grp Ltd	Casinos & Gaming	Australia	●		63

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
State Street Corp	Diversified Financial Services and Capital Markets	United States			73
STMicroelectronics NV	Semiconductors & Semiconductor Equipment	Italy	●		108
Stockland	Real Estate	Australia	●		104
Storebrand ASA	Insurance	Norway			88
Suez	Multi and Water Utilities	France	●		96
Sumitomo Dainippon Pharma Co Ltd	Pharmaceuticals	Japan			102
Sumitomo Forestry Co Ltd	Homebuilding	Japan	●		83
Super Retail Group Ltd	Retailing	Australia			107
Svenska Handelsbanken AB	Banks	Sweden			58
Swire Properties Ltd	Real Estate	Hong Kong			104
Swiss Re AG	Insurance	Switzerland	●		88
Sydney Airport	Transportation and Transportation Infrastructure	Australia			115
System Corp	Health Care Equipment & Supplies	Japan			81
Tabcorp Holdings Ltd	Casinos & Gaming	Australia	●		63
Taishin Financial Holding Co Ltd	Banks	Taiwan	●		58
Taiwan Mobile Co Ltd	Telecommunication Services	Taiwan	●		111
Taiwan Semiconductor Manufacturing Co Ltd	Semiconductors & Semiconductor Equipment	Taiwan	●		108
Takeda Pharmaceutical Co Ltd	Pharmaceuticals	Japan			102
Tata Consultancy Services Ltd	IT Services	India			90
Tata Steel Ltd	Steel	India			110
TE Connectivity Ltd	Electronic Equipment, Instruments & Components	United States			76
Tech Mahindra Ltd	IT Services	India	●		90
Teck Resources Ltd	Metals & Mining	Canada	●		95
Telecom Italia SpA/Milano	Telecommunication Services	Italy			111
Telenet Group Holding NV	Media, Movies & Entertainment	Belgium	●		94
Television Francaise 1	Media, Movies & Entertainment	France			94
TELUS Corp	Telecommunication Services	Canada	●		111
Temenos AG	Software	Switzerland			109
Terna Rete Elettrica Nazionale SpA	Electric Utilities	Italy	●		74
Thai Beverage PCL	Beverages	Thailand	●		60
Thai Oil PCL	Oil & Gas Refining & Marketing	Thailand	●	●	97
Thai Union Group PCL	Food Products	Thailand	●		79
Thales SA	Aerospace & Defense	France			53
Tokio Marine Holdings Inc	Insurance	Japan			88
Tokyo Electron Ltd	Semiconductors & Semiconductor Equipment	Japan			108
Toppan Printing Co Ltd	Commercial Services & Supplies	Japan	●		66
Toray Industries Inc	Chemicals	Japan			64
Toronto-Dominion Bank	Banks	Canada			58
TOTAL SA	Oil & Gas Upstream & Integrated	France			99
TOTO Ltd	Building Products	Japan			62

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Company name	Industry	Country	SAM Distinction	SAM Industry Mover	Page
Transurban Group	Transportation and Transportation Infrastructure	Australia	●		115
True Corp PCL	Telecommunication Services	Thailand	●		111
Turkiye Garanti Bankasi AS	Banks	Turkey			58
UBS Group AG	Diversified Financial Services and Capital Markets	Switzerland	●		73
Unilever NV	Personal Products	Netherlands	●		101
United Microelectronics Corp	Semiconductors & Semiconductor Equipment	Taiwan	●		108
United Parcel Service Inc	Transportation and Transportation Infrastructure	United States			115
United Utilities Group PLC	Multi and Water Utilities	United Kingdom	●		96
UnitedHealth Group Inc	Health Care Providers & Services	United States			82
UPM-Kymmene OYJ	Paper & Forest Products	Finland	●	●	100
Valeo SA	Auto Components	France	●		56
Valmet OYJ	Machinery and Electrical Equipment	Finland	●		93
Ventas Inc	Real Estate	United States			104
Veolia Environnement SA	Multi and Water Utilities	France	●	●	96
Vestas Wind Systems A/S	Machinery and Electrical Equipment	Denmark			93
Vicinity Centres	Real Estate	Australia			104
Vipshop Holdings Ltd	Retailing	China			107
Wartsila OYJ Abp	Machinery and Electrical Equipment	Finland			93
Waste Management Inc	Commercial Services & Supplies	United States	●		66
Welltower Inc	Real Estate	United States			104
Wesfarmers Ltd	Retailing	Australia	●		107
Westpac Banking Corp	Banks	Australia	●		58
Whitbread PLC	Restaurants & Leisure Facilities	United Kingdom			106
Win Semiconductors Corp	Semiconductors & Semiconductor Equipment	Taiwan		●	108
Wipro Ltd	IT Services	India	●		90
Woodside Petroleum Ltd	Oil & Gas Upstream & Integrated	Australia			99
Woolworths Holdings Ltd/South Africa	Retailing	South Africa			107
Woongjin Coway Co Ltd	Household Durables	Republic of Korea	●	●	85
Worldline SA/France	IT Services	France			90
Xylem Inc/NY	Machinery and Electrical Equipment	United States			93
Yokogawa Electric Corp	Electronic Equipment, Instruments & Components	Japan			76
Yuanta Financial Holding Co Ltd	Diversified Financial Services and Capital Markets	Taiwan		●	73
Yum! Brands Inc	Restaurants & Leisure Facilities	United States		●	106
Zurich Insurance Group AG	Insurance	Switzerland	●		88

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## About the SAM CSA

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