Trucost
ESG Analysis

S&P Global

Discovering Business Value in the United Nations Sustainable Development Goals (SDGs)

Insights from the Inaugural Application of the Trucost SDG Evaluation Tool

Prepared by Trucost
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Credits

Project Director:
Libby Bernick Managing Director, Global Head of Corporate Business

Lead Authors:
Rick Lord Manager | ESG Analytics and Client Delivery, and SDG Evaluation Project Manager
Rochelle March Senior Analyst | ESG Analytics and Client Delivery

Trucost Project Contributors:
Sarah Aird Marketing Director
Steven Bullock Global Head of Research
Rebecca Edwards Marketing Manager
Nikol Ioannou Senior Speciality | ESG Analytics and Client Delivery
David McNeil Senior Analyst | ESG Analytics and Client Delivery
Teri Mendelsohn Senior Product Lead
Gautham P Senior Analyst | ESG Analytics and Client Delivery
Deepti Panchratna Senior Analyst | ESG Analytics and Client Delivery
Miriam Tarin Senior Analyst | ESG Analytics and Client Delivery
Byford Tsang Senior Analyst | ESG Analytics and Client Delivery
Alasdair Wilson Model and Valuations Manager

About Trucost

Trucost is part of S&P Global. A leader in carbon and environmental data and risk analysis, Trucost assesses risks relating to climate change, natural resource constraints, and broader environmental, social, and governance (ESG) factors. Companies and financial institutions use Trucost intelligence to understand their ESG exposure to these factors, inform resilience, and identify transformative solutions for a more sustainable global economy. S&P Global's commitment to environmental analysis and product innovation enables its team to deliver essential ESG investment-related information to the global marketplace. For more information, visit www.trucost.com.

About S&P Global

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Contacts

UK: trucostinfo@spglobal.com
North America: trucostnorthamerica@spglobal.com
Europe: trucostemea@spglobal.com
Asia: trucostasiapacific@spglobal.com
South America: trucostsouthamerica@spglobal.com
Telephone (UK): +44 (0) 20 7160 9800
Telephone (North America): +1 800 402 8774
www.trucost.com

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Company practitioners: Aguas Andinas, AMD, Arm, CLP Holdings, HP Inc., Iberdrola, Ingersoll Rand, Ørsted, ROCKWOOL Group, S&P Global, Spectrum Brands Holdings, Inc., Tarkett, and Walgreens Boots Alliance.

Advisory panel: American Chemistry Council, APG, Calvert Research and Management, Impax Asset Management LLC/Pax World Funds, London School of Economics, Nordic Investment Bank, PGGM, S&P Dow Jones Indices, UN Global Compact, and World Business Council for Sustainable Development.

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Foreword

193 countries, 9000 companies, and investors with more than $4 trillion[1] in assets have pledged their support to the United Nations Sustainable Development Goals (SDGs). But while the SDGs garner widespread backing for their effective harmonization of the three dimensions of sustainable development – social inclusion, environmental protection, and economic growth – a challenge prevails in transitioning to transformative action on SDG-aligned business strategies and capital allocation.

When the United Nations released its annual report last June, it was delivered with a strong call to action from Secretary-General António Guterres who said, *"With just 12 years left to the 2030 deadline, we must inject a sense of urgency".*[2]

Earlier this year, we embarked on a journey with multiple companies, supported by an advisory panel of investment professionals, interest group representatives, and academics to develop a holistic set of SDG metrics that would provide market participants with the data transparency needed to accelerate progress on SDGs. A set of metrics encompassing the entire corporate value chain, from raw material inputs to product use and disposal, within the context of a company's geographic operations.

The result? Among our inaugural cohort of company program participants, we uncovered almost $233 billion SDG-aligned business revenues – equivalent to 87% of total revenues generated by the companies. And, underpinning our findings was a tool for market participants to identify SDG-aligned business value, prioritize risks and opportunities, and inform sustainable growth strategies.

We are grateful for the support of our program participants in contributing their time and expertise, and look forward to the opportunity to continue to develop our insights with market engagement and collaboration.

Our mission: Providing essential intelligence to power the markets of the future.

Martina Cheung

Executive Managing Director for Risk Services at S&P Global Market Intelligence, and oversees ESG products and services for S&P Global.

[1] All numbers in the report are in US dollars, unless otherwise stated.
[2] United Nations, 2018b, *The Sustainable Development Goals Report 2018,* https://unstats.un.org/sdgs/files/report/2018/TheSustainableDevelopmentGoalsReport2018.pdf.

Executive Summary

Context

- The SDGs offer a blueprint for a more sustainable world, launched by the UN and agreed to by 193 countries in 2015.
- Interest in the SDGs is rising in the business and investor communities, with one in four of the world's largest companies referencing the SDGs in reporting, and major investors with $4 trillion in assets making commitments to the SDGs.[3]
- Businesses face challenges in prioritizing action on the SDGs and, to date, have most commonly focused reporting on their positive contributions, rather than their holistic impact. Investors seek consistent frameworks and quality data on company SDG performance to inform SDG investment strategies.

The SDG Evaluation Project

- In March 2018, Trucost launched a collaborative initiative to develop and demonstrate a new approach to understanding and benchmarking company performance on the SDGs, considering both risks and opportunities arising from a company's positive and negative impacts.
- The project was launched in partnership with 13 leading companies, with market capitalization of $324 billion and global revenues of over $266 billion, and a panel of distinguished advisors from the investor, NGO, and academic communities.
- The Trucost SDG Evaluation Tool assesses company performance on the SDGs by building a map of SDG exposure across the value chain, based on a company's geographic footprint and key markets. It then evaluates company efforts to manage and mitigate their exposure to each SDG, and assesses the positive impacts created by a company through its products and services, charitable activities, contributions to economic growth and employment, and commitments to transform business models in line with the SDGs. The output of this analysis is an overall SDG Evaluation score for use in benchmarking against peers and tracking performance over time, plus a series of visualizations to aid businesses in targeting and enhancing their SDG strategy.
- The SDG Evaluation methodology was applied to 34 companies based in the Americas, Europe, and Asia (13 company participants and 21 selected peers), and spanning the technology, financial services, utilities, and manufacturing sectors.

[3] S&P Global, 2017, *Moving Forward With SDGs: Metrics for Action*, https://www.trucost.com/publication/moving-forward-with-sdgs-metrics-for-action/.

Results

- SDG Evaluation scores across the inaugural cohort ranged from 50 to 85 out of 100,[4] with an average score of 67 out of 100. The results show no bias for or against any particular sector, with representatives of each sector featured at the top and bottom of the score range.
- The inaugural cohort was most active in managing SDG risks associated with Responsible Consumption and Production – waste and resource efficiency (SDG 12), Gender Equality (SDG 5), and Peace, Justice, and Strong Institutions – corruption and governance (SDG 16)). The group was least active on issues linked to Life Below Water – ocean health (SDG 14), and tackling Zero Hunger – hunger and malnutrition (SDG 2). The group was most active in managing SDG risks in their direct operations, but with some activity targeting direct suppliers on issues such as Decent Work and Economic Growth – worker conditions (SDG 8), Peace, Justice, and Strong Institutions – corruption and bribery (SDG 16), and Climate Action – climate change (SDG 13).
- Analysis of the inaugural cohort revealed that over 79% of company revenues were derived from products and services that contribute to the SDGs, and companies created positive contributions across all 17 SDGs, but most significantly in relation to Affordable and Clean Energy (SDG 7), Decent Work and Economic Growth (SDG 8), and Climate Action (SDG 13).

Conclusions

- **Balance Risk and Positive Impact.** When evaluating company performance on the SDGs, it is important to consider the positive contributions they make to the SDGs, but also their actual or potential negative impacts, and the effectiveness with which these impacts are managed.
- **Focus on Important SDG Needs in a Company's Own Operating Context.** Leading companies are already taking significant action to address many of the issues underlying the SDGs, but performance varies greatly with some issues being addressed robustly, while action is limited on others. Understanding exposure to SDG issues across the sectors and countries in which a company operates can aid in prioritising action and the deployment of scarce resources to target those SDGs most closely tied to a company's business model and operations.
- **Align Business Models with the SDGs and Expand Access.** Aligning business models with the SDGs by focusing on the delivery of products, services, and technologies that address specific SDG needs is critical. In addition, the impact of such efforts can be maximised by pursuing new markets that expand access to SDG-aligned products and services in those countries that need them the most.

[4] SDG Evaluation scores range from 0 (worst performance) to 100 (best performance) and represent the overall alignment of the company with the SDGs, taking account of both positive SDG contributions and SDG risks.

- **Take a Value-Chain Approach**. Effective management of ESG risks in company operations is critical, but will not necessarily safeguard the company against hidden SDG risks in the supply chain, and ultimate product use or disposal. Modelling techniques can offer an effective means to screen value chains for SDG risks that may not be immediately visible.
- **SDG Business Opportunities Abound.** Analysis of the 13 inaugural company participants reveals that they are already capturing over $232.98 billion in revenue from SDG-aligned products, services, and technologies, highlighting the opportunities to grow by serving the needs of the SDGs.
- **SDGs Can Guide Better ESG Disclosure.** The SDGs can encourage companies to consider SDG-related issues that are not commonly monitored and reported in the corporate community, but are still important to the achievement of the SDGs. For example, engaging beyond the sustainability department to target issues of tax transparency and corporate governance that are critical to Peace, Justice and Strong Institutions (SDG 16), and Partnerships for the Goals (SDG 17).
- **Data and Modelling as a Tool for Action.** Data and modelling can be an effective and efficient means to better understand SDG risks and opportunities where direct engagement with suppliers and customers is challenging. The results must be placed within the company context, however, and be considered with reference to the corporate strategy and financial materiality.

A. INTRODUCTION

The SDG Evaluation Project

The SDGs represent a blueprint for a more sustainable world, launched by the UN and agreed to by 193 countries. The 17 SDGs set objectives to end poverty, hunger, and inequality, while tackling climate change and improving health and education, and strengthening institutions globally. In contrast to the earlier Millennium Development Goals, the SDGs not only emphasize the role of government and non-government sectors, but of business to operate responsibly and pursue opportunities to solve societal challenges.

Interest in the SDGs in the corporate and investor sectors has been rising in recent years, with one in four of the world's largest companies referencing the SDGs in their reporting. According to KPMG,[5] however, challenges remain in utilizing information on the SDGs in business and investment decisions.

- Businesses report challenges in addressing all the SDGs simultaneously, but also in prioritizing their effort on the SDGs that are most relevant to their business. In addition, many have focused their SDG disclosure only on the positive impact they create for the SDGs.
- Investors report challenges in accessing quality data on corporate SDG performance for use in informing investment strategies.

Trucost sought to address these challenges through the development of the Trucost SDG Evaluation Tool – a standardized and data-driven approach to the assessment of corporate performance on the SDGs. This can be applied across sectors and considers impacts that are both positive and negative. The Trucost SDG Evaluation Tool can help companies:

1. Identify SDG issues that represent risks and opportunities for the business, prioritize action, and track performance in contributing to the SDGs over time and in comparison to peers.
2. Inform company reporting on the SDGs, focusing on the positive impacts that are created, as well as the actual and potential negative impacts, and how these are effectively managed by the company.

[5] KPMG, 2017, *The road ahead: Survey of Corporate Responsibility Reporting,* https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2017/10/kpmg-survey-of-corporate-responsibility-reporting-2017.pdf.

The Trucost SDG Evaluation Tool was developed in conjunction with a group of 13 leading companies, with a combined market capitalization of $324 billion and annual revenues of $266 billion. Contributors also included an advisory panel of leading investment professionals, interest group representatives, and academics. The insights and case studies presented in this report are the result of the application of the Trucost SDG Evaluation framework to 37 companies, spanning diverse sectors and geographic distributions.

Table 1: SDG Evaluation Project Inaugural Participants

Inaugural Client	Sector	Headquarters
Aguas Andinas	Water Utilities	Chile
AMD	Semiconductors	US
Arm	Semiconductors and Software Design	UK
CLP Holdings	Electric Utilities	Hong Kong
HP Inc.	Information Technology	US
Iberdrola	Electric Utilities	Spain
Ingersoll Rand	Industrial Manufacturing	US
Ørsted	Electric Utilities	Denmark
ROCKWOOL Group	Industrial Manufacturing	Denmark
S&P Global	Financial Services	US
Spectrum Brands Holdings Inc	Diversified Consumer Goods	US
Tarkett	Flooring and Sports Surface Solutions	France
Walgreens Boots Alliance	Retail and Pharmacy	US

Table 2: SDG Evaluation Advisory Group

Organisation	Advisor	Role
American Chemistry Council	Bryan Kuppe	Director, Sustainability
APG AM	Els Knoope	Senior Responsible Investment and Governance Specialist
Calvert	John Streur	President and Chief Executive Officer
Impax Asset Management LLC	Julie Fox Gorte	Senior Vice President, Sustainable Investing & Portfolio Manager
London School of Economics	Dr Nick Robins	Professor in Practice – Sustainable Finance, Grantham Institute on Climate Change and the Environment
Nordic Investment Bank	Lars Eibeholm	Head of Treasury & Member of the Executive Committee
PGGM	Piet Klop	Senior Advisor Responsible Investment
S&P Dow Jones Indices	Hannah Skeates	Senior Director, Product Management
UN Global Compact	Laura Palmeiro	Senior Advisor to the UN Global Compact
World Business Council for Sustainable	Filippo Veglio	Managing Director

Evaluating Corporate SDG Performance

The Trucost SDG Evaluation Tool provides a framework for assessing both the positive impacts and the potential or actual negative impacts that companies have on the SDGs. The framework is aligned with the concept of 'Principled Prioritization' set out by the UN Global Compact and Global Reporting Initiative, which calls for companies to consider and report on their SDG impact with respect to:

- Actual or potential **risks to people and the environment** directly or indirectly connected with the company's value chain, such as greenhouse gas (GHG) emissions, or the risk of child labor being used in the supply chain.
- **Positive impacts or contributions** to the SDGs associated with products, services, investments, and other activities.

This approach offers a balanced perspective on the holistic impact and alignment of a company to the SDGs.

The Trucost SDG Evaluation Tool framework is based on the principle that the role of business in achieving the SDGs is to:

- Adapt their business models to maximise the positive SDG impact created per dollar of revenue.
- Effectively manage and mitigate the most important negative SDG impacts and dependencies to which they are exposed directly or indirectly.

Thus, the Trucost SDG Evaluation framework outcome for a given company will be determined by the degree to which that company:

- Takes effective action to address its most material SDG risk exposures across the value chain.
- Maximises revenue from SDG-aligned products and services, and other contributions in areas aligned with the SDGs.

The Trucost SDG Evaluation: Understanding SDG Risk and Positive Impact

The Trucost SDG Evaluation aims to assess holistic corporate alignment with the SDGs and follows a four-step process, as illustrated in Figure 1 and described briefly below. A more detailed explanation of the methodology, assumptions, and data sources is provided in the Technical Appendix to this report.

A. SDG Exposure: Understanding Exposure to SDG Risks

The SDGs encompass a broad range of ESG issues that may be of greater or lesser relevance to any given company based on the nature of their operations and business model, and the different countries in which they operate, source materials, and sell their products. For example, the issue of air, land, and water pollution may be highly material to the heavy industrial and energy sectors, but less so to professional services or retail. Similarly, issues of corruption and bribery, child labor, and unsafe working conditions vary in prevalence across the world. Given this, it is possible to assess a company's exposure to each SDG based on the sectors it operates in, and the geographic distribution of its value chain.

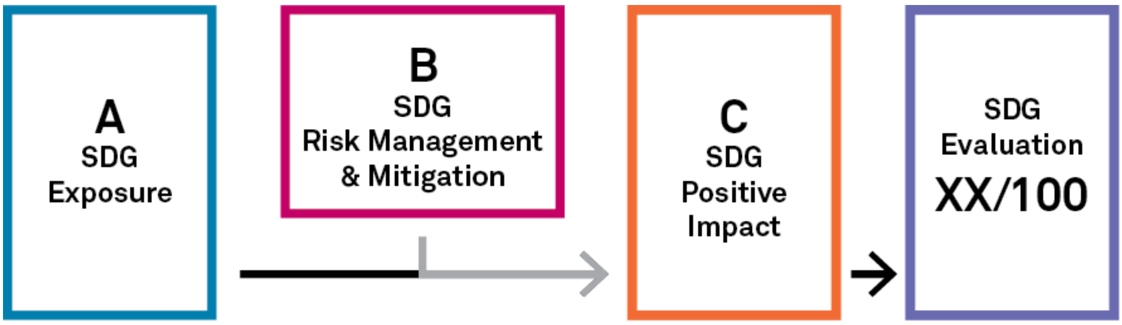


Figure 1: SDG Evaluation Framework Overview

Source: Trucost

Few companies disclose, or even have access to, detailed information on their impacts on the broad range of issues represented by the SDGs across their full value chain. Accordingly, Trucost developed a model-based approach to evaluate the baseline exposure of a company to each SDG. In the context of the Trucost SDG Evaluation, 'SDG Exposure' refers to the risk that a company may be directly or indirectly causing a negative impact on the SDGs (such as environmental pollution emissions in the supply chain), or the risk that a company may be dependent on practices and activities that conflict with the SDGs (such as underpayment of wages or use of child labour). SDG Exposure is assessed using Trucost's 'SDG-Extended Multiregional Input-Output Model' (SDGEI-O) that models economic flows and associated SDG Exposures across countries and sectors globally. This forms the basis for assessing 45 unique metrics linked to the SDG targets. (Note that 169 different targets make up the 17 SDGs.)

B. SDG Risk Management and Mitigation

Many leading companies have adopted policies and actions to reduce or eliminate adverse impacts on a range of ESG issues. Trucost evaluates company SDG Risk Management and Mitigation efforts using a criteria-based assessment, focusing on:

- **Transparency**: Disclosure of relevant quantitative information in line with relevant national, international, or sector-recognised standards.
- **Action and Targets**: Setting ambitious targets and taking action to improve performance.
- **Continuous Improvement**: Disclosure of quantitative information demonstrating improvement in performance over time.
- **Verification**: Verification of disclosures by a relevant auditor or standards organisation.
- **Scope**: Policies and actions adopted covering all value chain stages (indirect suppliers, direct suppliers, direct operations, and customers).

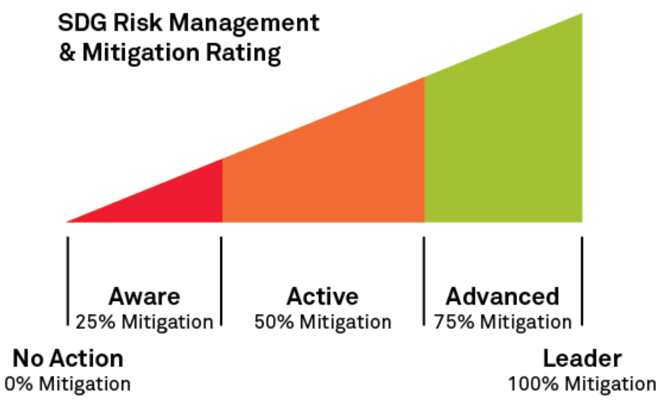


Figure 2: SDG Evaluation: SDG Risk Management and Mitigation

Source: Trucost

On each of the 45 SDG Evaluation metrics, companies are rated on a spectrum ranging from 'No Action' to 'Leader', representing the degree to which they are actively managing the risks associated with each metric. The combination of SDG Exposure and SDG Risk Management and Mitigation (as shown in Figure 1) provides an assessment of the SDG risk remaining after consideration of the steps already taken by the company. SDG risk can be a useful measure to guide a company in focusing its efforts to improve its SDG alignment.

C. SDG Positive Impact: Evaluating Positive Contributions to the SDGs

Trucost evaluates the positive impact on the SDGs created by companies across five themes:

1. **Revenue from products and services that contribute to the SDGs**, adjusted for the level of need for such products in key sales markets **(All SDGs).**
2. **Contributions to economic growth** measured as the three-year average EBIT growth rate **(SDG 8)**.
3. **Contributions to full employment**, measured based on a company's labor intensity compared to the average across the sectors and countries in which it operates **(SDG 8)**.
4. **Contributions to corporate philanthropy,** including product donations, volunteering, and other activities compared with a benchmark of 1% of profit **(All SDGs).**
5. Public commitments to specific, substantial, and time-bound targets to **transform business models** to better align with the SDGs **(All SDGs)**.

While these five themes do not necessarily encompass all ways in which a business may make a positive contribution to the SDGs, Trucost believes that they capture the most significant means.

D. SDG Evaluation: Evaluating Holistic SDG Performance

Building on the assessment of SDG Exposure, SDG Risk Management and Mitigation, and SDG Positive Impact (again, as shown in Figure 1), Trucost applies analytics to build a profile of corporate alignment with the SDGs, balancing positive contributions against risk exposures. This analysis can be summarized with an overall performance score (from 0 to 100, where 0 is the poorest performance and 100 is the best), and utilized to produce a series of metrics and insights to aid a company in strengthening and optimizing its SDG strategy.

B. RESULTS

The following sections present summary results and key insights gained from the application of the Trucost SDG Evaluation Tool to 37 companies in 2018. The results are non-attributable and are based on data collected on each company for the year 2017.

The SDG Evaluation Project: Summary Results

As mentioned, the inaugural application of the Trucost SDG Evaluation Tool was conducted in partnership with 13 leading companies across the technology, utilities, financial services, and manufacturing sectors. Each company selected peers for inclusion in the study to form the basis for a comparative benchmark. Through this process, Trucost has evaluated 34 companies across the range of sectors. Figure 3 presents the non-attributable scores by sector of operation.

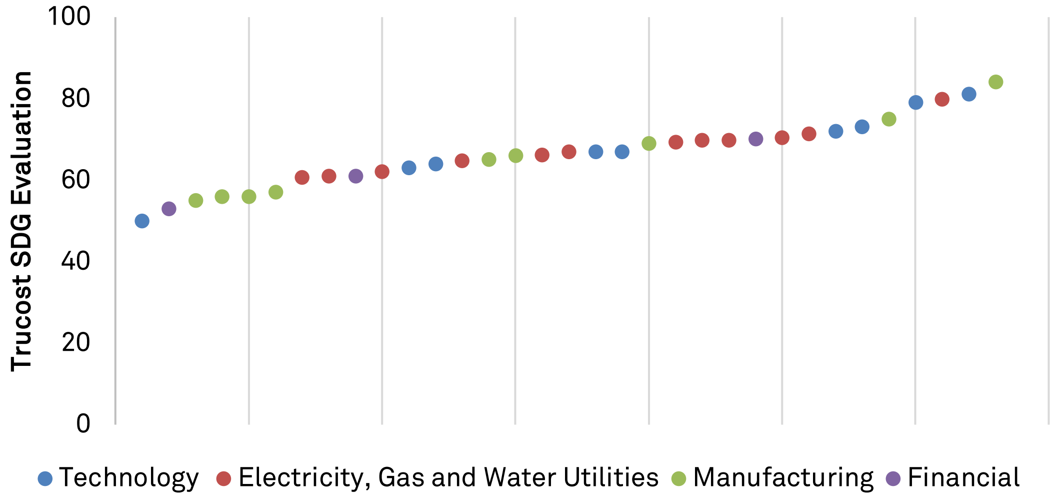


Figure 3: SDG Evaluation Project: Evaluation Results

Source: Trucost Analysis

The SDG Evaluation scores in the cohort range from 50 to 85, with an average of 67 out of 100. As shown in Figure 3, there is no clear bias towards or against any particular sector, with companies in the technology, manufacturing, and utilities sector being at both the upper and lower end of the range. The results are also reflective of the above-average level of performance seen among the inaugural client cohort and their selected peers, with no companies scoring less than 50 out of 100.

Managing Key SDG Risks

A key focus of the Trucost SDG Evaluation Tool is the assessment of the effectiveness with which companies are working to manage and mitigate negative impacts on the SDGs across their value chains. This evaluation was based on a systematic review of company reporting to rate performance on each SDG based on the criteria of transparency, actions and targets, continuous improvement, verification, and scope.

Figure 4 presents the average Management and Mitigation performance across the SDG Evaluation project cohort for each of the 17 SDGs, with scores again ranging from 0 to 100.

Among the analysis cohort, companies were most active in managing issues associated with Responsible Consumption and Production – resource efficiency and waste management (SDG 12), Gender Equality (SDG 5), Peace, Justice, and Strong Institutions – corruption, governance, and transparency (SDG 16).

Companies were least active on Sustainable Cities and Communities (SDG 11), Life Below Water (SGD 14), and Zero Hunger (SDG 2). This pattern was consistent across the four sectors, with some distinct exceptions. Companies in the electric utilities sector were less active than the cohort average on Responsible Consumption and Production (SDG 12), while companies in the manufacturing sector were less active on Gender Equality (SDG 5).

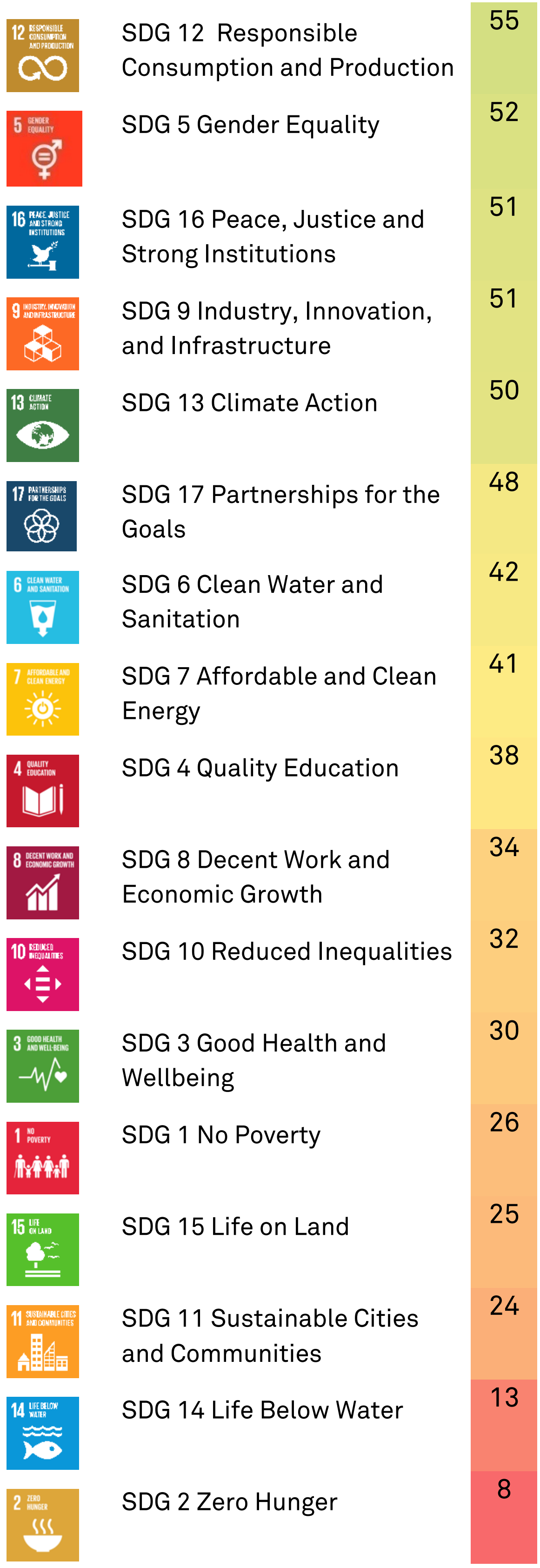


Figure 4: SDG Evaluation: Management and Mitigation Performance by SDG

Source: Trucost Analysis

SDG Risk Management and Mitigation efforts in the inaugural cohort were primarily focused on a company's direct operations (65% of metrics on average), but with significant activity in the direct supply chain (25% of metrics) (Figure 5). Engagement with direct suppliers was most common on issues related to Decent Work and Economic Growth (SDG 8), including forced labour and modern slavery, labour rights, and occupational health and safety. They were also common for Climate Action – GHG emissions (SDG 13), and Peace, Justice, and Strong Institutions – corruption and bribery (SDG 16).

Much less focus was placed on the indirect supply chain (6% of metrics) and the product use and disposal phase (13% of metrics). This is understandable given the limited influence companies hold over these value-chain stages and the need to engage with disparate stakeholders. Actions to address risks in product use largely included mitigation activities, such as the design of Affordable and Clean Energy – products with reduced energy use (SDG 7) and, thus, Climate Action – GHG emissions (SDG 13).

Figure 6 highlights the proportion of the 45 SDG metrics where average company performance was rated at each level of the performance scale, from No Action (the lowest rating on this scale at 1) to Leader (the highest rating on this scale at 5). The majority of metrics across the group were rated as 'Active' (36%), with a smaller proportion rated as 'Advanced' (17%). Around 4% of metrics were rated as Leader, and a substantial number were rated as No Action, with no relevant disclosures identified in company reporting. This largely includes a combination of non-material metrics for a given sector, and some metrics which may be important, but are not yet commonly used in corporate reporting.

Figure 7 presents a comparison of the level of SDG Exposure (blue) with the degree to which this Exposure has been addressed by company SDG Risk Management and Mitigation (red) activities. The blue

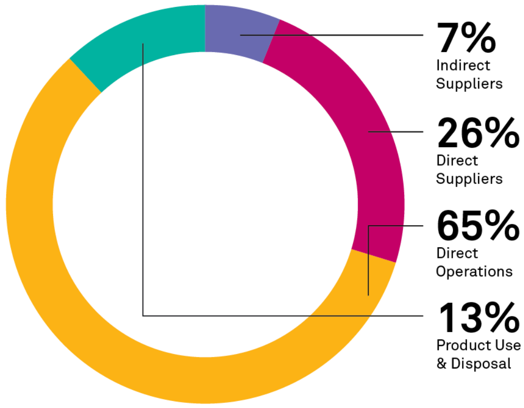


Figure 5: SDG Risk Management and Mitigation; Percentage of SDG metrics addressed at each stage of the value chain

Source: Trucost Analysis

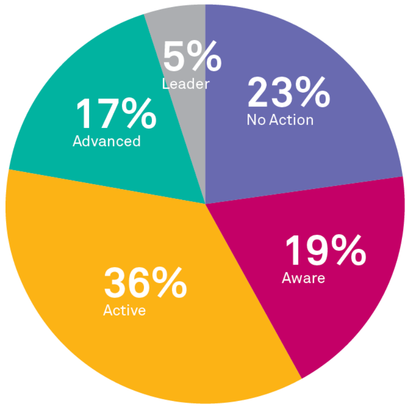


Figure 6: SDG Risk Management and Mitigation Performance; Proportion of varying levels of mitigation performance

Source: Trucost Analysis

line represents the average of the country and sector SDG Exposure profiles for all companies in the analysis cohort, while the red line represents the proportion of the SDG Exposure that has been addressed by company actions and policies. The red line is, therefore, a representation of the focus of SDG Risk Management and Mitigation efforts for the analysis cohort. This visualisation can yield useful insights on areas where further action may be needed to address important SDG risks. Instances where the red and blue lines intersect represent full management of the issues linked to the relevant SDG, while instances where the red line falls short of the blue line indicate a need for greater action.

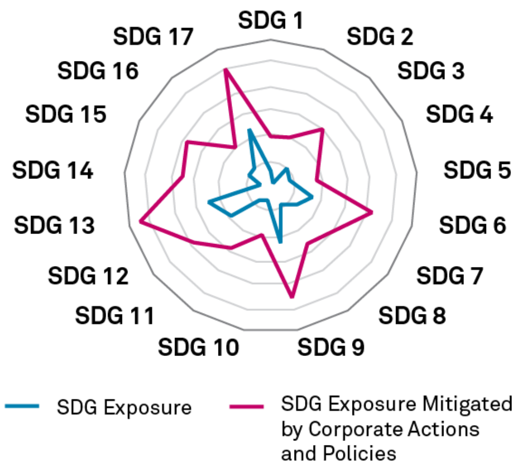


Figure 7: SDG Strategy Gap Assessment – SDG Exposure versus SDG Risk Mitigation

Source: Trucost Analysis

As illustrated in Figure 7, the greatest misalignment between SDG Exposure and SDG Risk Management and Mitigation activities is associated with Life Below Water – marine pollution (SDG 14), Life on Land – land pollution and deforestation (SDG 15), Climate Action – climate adaptation (SDG 13), and Clean Water and Sanitation (SDG 6). Thus, these SDGs represent priority areas for increased mitigation and management action in the future. In contrast, SDG Exposure and SDG Risk Management and Mitigation are most closely aligned for Gender Equality (SDG 5), Quality Education (SDG 4), and Peace, Justice, and Strong Institutions (SDG 16), indicating good current performance, but the need for further action to fully mitigate risks associated with these SDGs.

Figure 8 presents the SDG strategy gap assessments for three sectors represented in the inaugural cohort. The following observations can be made when comparing between sectors:

- **Technology Sector**: The greatest misalignment between SDG Exposure and SDG Risk Management and Mitigation and, therefore, the greatest need for action, relates to Partnerships for the Goals – tax transparency (SDG 17) and Affordable and Clean Energy – energy efficiency and renewable energy use (SDG 7). Exposure and Mitigation are most closely aligned for Quality Education (SDG 4) and Gender Equality (SDG 5).
- **Manufacturing Sector**: The need for action is greatest for Life on Land - land pollution and deforestation (SDG 15), Life Below Water – marine pollution (SDG 14), Climate Action – GHG emissions and climate adaptation (SDG 13), and Clean Water and Sanitation – water consumption and pollution (SDG 6). Company risk mitigation strategies in this sector were most aligned with SDG Exposure for Quality Education (SDG 4) and Peace, Justice, and Strong Institutions (SDG 16).
- **Utilities Sector**: The need for action is greatest for Zero Hunger (SDG 2) and Life Below Water (SDG 14). Company risk mitigation strategies in this sector were most aligned with SDG Exposure for Peace, Justice, and Strong Institutions (SDG 16) and Gender Equality (SDG 5).

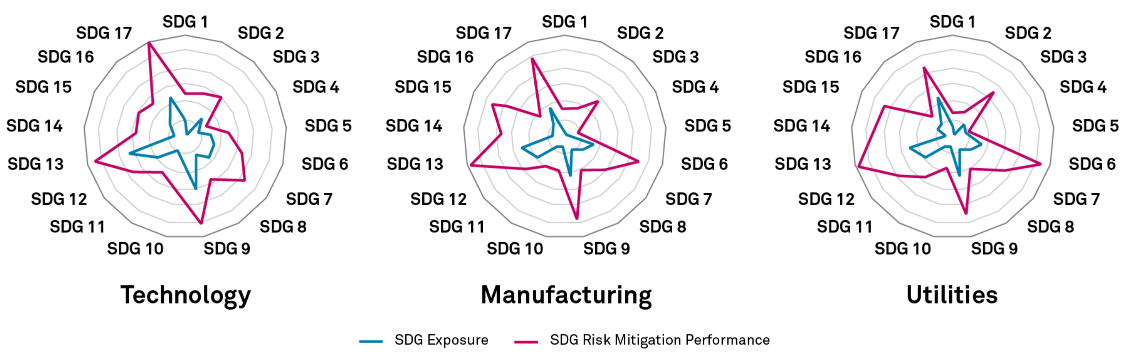


Figure 8: SDG Strategy Gap Assessment – Cross-Sector Comparison

Source: Trucost Analysis

Evaluating Positive Impact

Understanding how a business contributes positively to the SDGs is a complex process. While contributions to corporate philanthropy and partnerships are important, aligning corporate value creation with positive impact is critical to achieving the SDGs in a systematic and sustainable way. As stated earlier, Trucost assesses this alignment across five themes that represent key means by which companies can positively benefit the SDGs. The most important theme is SDG Positive Revenue Share – the share of company revenues derived from products, services, and technologies that contribute to the SDGs. Trucost assesses SDG Positive Revenue Share by mapping a company's revenue from key product categories to a Trucost database of SDG-aligned products, services, and technologies. Trucost then analyses the degree to which these products are sold in the countries of greatest need.

Figure 9 illustrates the average contribution of each of Trucost's SDG Positive Impact themes to the overall Positive Impact performance of all companies studied in the project. As shown, at 52% SDG Positive Revenue Share is by far the most significant contributor to the overall SDG Positive Impact score across all companies. Approximately 79% of all revenue for the inaugural cohort was determined to be SDG-aligned, ranging from 98% in utilities to 85% in the technology sector to 69%in manufacturing to 66% for financial. Corporate philanthropy, including charitable cash and product donations and employee volunteering, accounted for 16% of the SDG Positive Impact score, on average, and commitments to business model transformation accounted for a further 13%.

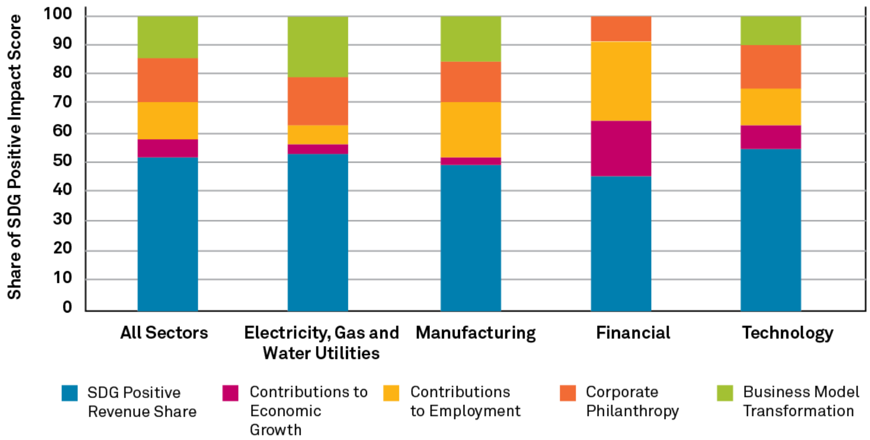


Figure 9: SDG Positive Impact: Score Contribution by Theme and Sector

Source: Trucost Analysis

The pattern is similar across sectors, but with a number of notable exceptions. Commitments to business model transformation – ambitious, time-bound, and public commitments to transform business models to better align with the SDGs – represented a greater share of SDG Positive Impact for the utilities sector, linking to the significant commitments to decarbonisation seen in this group. Contributions to economic growth – measured as three-year average growth in margins – was greatest for the financial and technology sectors, but less significant for utilities and manufacturing.

Figure 10 illustrates the average contribution to each SDG across the analysis cohort. Affordable and Clean Energy (SDG 7), Decent Work and Economic Growth (SDG 8), and Climate Action (SDG 13) were the most significant beneficiaries of SDG Positive Impact activities, while Life Below Water (SDG 14) and Gender Equality (SDG 5) were least often the focus of Positive Impact activities.

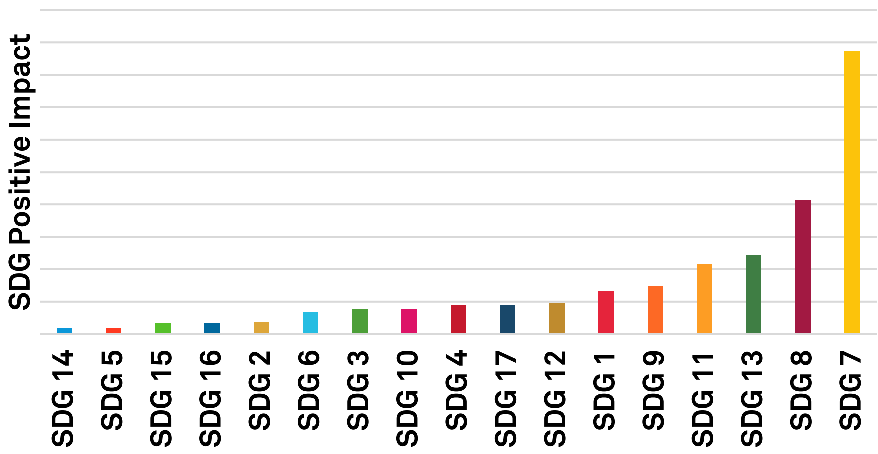


Figure 10: SDG Positive Impact per SDG

Source: Trucost Analysis

As mentioned, 79% of company revenue is aligned with the SDGs; however, not all of this revenue is generated in the countries where the need for such products and services is greatest. For example, the sale of water storage equipment may be beneficial in all countries, but will be most beneficial in those countries where water is scarce and water utility infrastructure is poor.

Figure 11 presents two maps: the left map presents the distribution of revenue linked to Industry, Innovation, and Infrastructure (SDG 9), while the right map presents data from the SDG Index[6] illustrating the relative need for solutions linked to SDG 9 in each country. As shown, revenue from SDG solutions for SDG 9 are concentrated in the US, China, and, to a lesser degree, Europe, whereas the need for solutions to SDG 9 is much more broadly distributed and greatest in Africa, Central Asia, and Latin America. Figure 11 highlights the need to expand the dissemination of SDG solution products and services into new markets where the gap to the achievement of the SDGs is greatest. This expansion represents an opportunity to accelerate progress into the highest-need markets with business models that are tailored to the economic and social characteristics of each market.

[6] Bertelsmann Stiftung and Sustainable Development Solutions Network, 2018, *SDG Index and Dashboards Report 2018: Global Responsibilities, Implementing the Goals*, http://www.sdgindex.org/assets/files/2018/01%20SDGS%20GLOBAL%20EDITION%20WEB%20V9%20180718.pdf#page=22

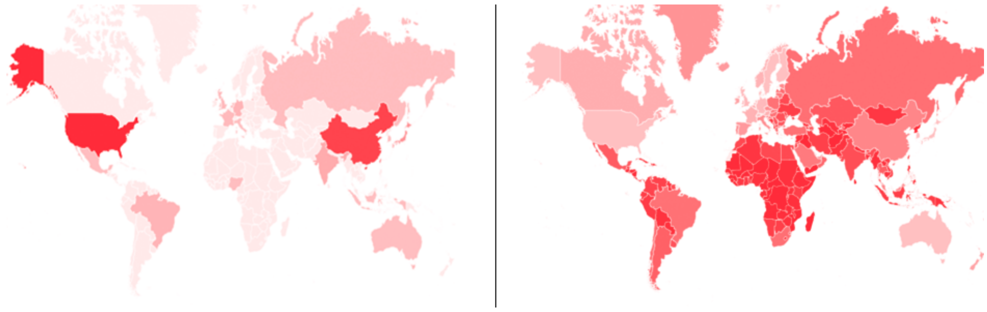


Figure 11: SDG Sales of Products versus Need for Products Related to Industry, Innovation, and Infrastructure (SDG 9)

Left – Source: Trucost Analysis of Inaugural Clients' Sales related to SDG 9
Right – Source: Bertelsmann Stiftung and Sustainable Development Solutions Network, 2018

The 13 company participants in the project generated a higher share of revenue from SDG-aligned products and services, at 87% of total revenue, compared to 79% for the broader cohort. This equates to over $233 billion in revenue captured through the delivery of solutions aligned to the SDGs. Figure 12 highlights the proportion of SDG-aligned revenue among the 13 companies. Combined corporate philanthropy aligned with the SDGs totalled $150 million in 2017.

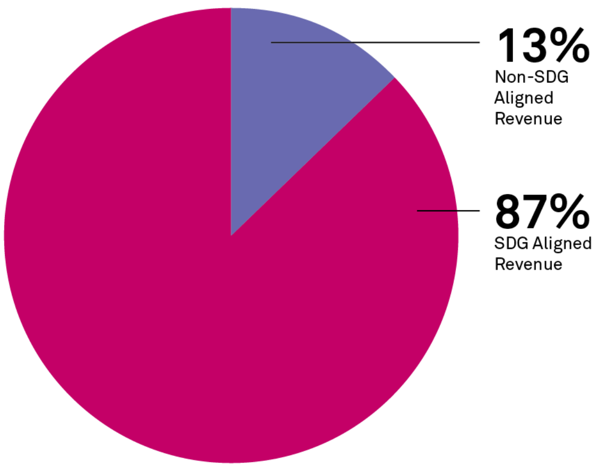


Figure 12: Breakdown of SDG-Aligned Revenue among the Inaugural 13 Company Practitioners

Source: Trucost Analysis

Prioritising Risk and Opportunities in the Near Term

The Trucost SDG Evaluation offers a holistic view of SDG Positive Impact and real or potential SDG risks across global value chains. Although many companies today want to focus more on achieving the SDGs, it is unlikely that businesses will be able to focus their efforts towards all SDGs simultaneously. To address this challenge, the SDG Evaluation offers an alternative lens to aid in prioritising the SDGs based on financial materiality in the near term. Company alignment with each SDG (positive or negative) is plotted against the relative degree of financial materiality of each SDG for a company's sector, based on the Sustainability Accounting Standards Board's (SASB) materiality map.[7] This presentation highlights SDGs that are more likely to be financially material to a company and could be prioritised in the near term, and identifies others that may be less financially material and could be addressed as part of a longer-term strategy.

Figure 13 presents a prioritization matrix for an electric utility. SDGs in the top right-hand quadrant ('Enhance') are both positively aligned with the company and linked to financially-material issues for the sector and, thus, could represent good opportunities to maximise positive impact. As an electric utility, the company provides Affordable and Clean Energy – energy access (SDG 7), as well as contributing to Descent Work and Economic Growth – employment and economic growth (SDG 8). The bottom right-hand quadrant ('Address') highlights SDGs where the company is negatively aligned, which are linked to issues that are financially material. This sample company is reliant largely on fossil fuel power generation and, thus, has a negative impact on Climate Action – climate change (SDG 13), Responsible Consumption and Production – waste (SDG12), and Good Health and Wellbeing – human health (SDG 3). The left-hand quadrants highlight SDGs where the company is having a positive impact ('Maintain') or is exposed to risks ('Monitor'), but in areas that are not considered to be financially material for the sector today and could be part of a longer-term strategy.

[7] The SASB Foundation, 2018, *SASB Materiality Map™*, https://materiality.sasb.org/.

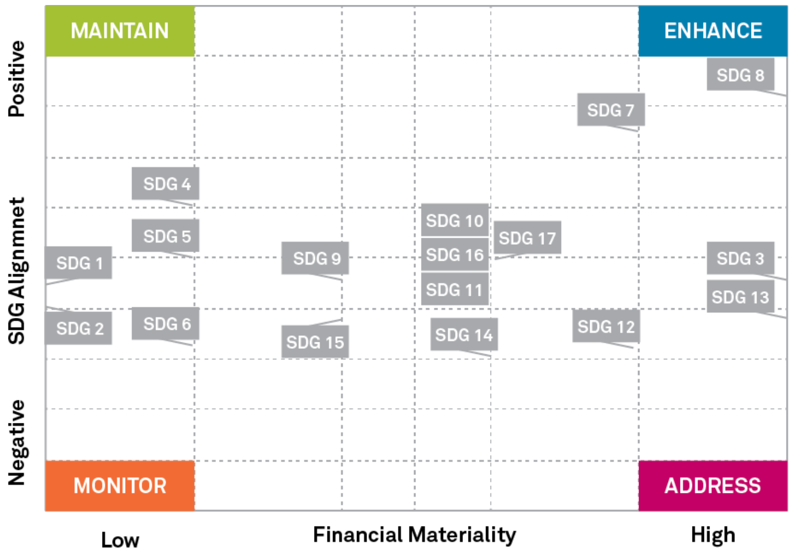


Figure 13: Prioritization Matrix – An electric utility's current SDG impacts and financial materiality of the issues underlying each SDG

Source: SASB, 2018, and Trucost Analysis

C. KEY LEARNINGS FOR COMPANIES AND INVESTORS

Through our analysis of the initial cohort of companies, and in consultation with the SDG Evaluation Tool advisors, Trucost has identified a series of key learnings regarding the measurement of corporate performance on the SDGs, from both the corporate and investor perspective.

Investment Opportunities are Identifiable

According to the UNCTAD World Investment Report,[8] a $5 to $7 trillion annual investment is needed to achieve the SDGs by 2030, with $1.6 to $2 trillion dedicated to lower- and middle-income countries.[9] Twelve years from now, near the end of the third decade of the millennium, this investment could reach $76 trillion, or nearly the size of current global GDP.[10] It is imperative for investors to go beyond merely alignment to raise and direct new capital towards progress on the SDGs. An outstanding challenge remains regarding how to focus investment to areas where the risk of falling short of the SDGs is greatest, and where the greatest opportunities exist to enhance or develop new revenue streams.

[8] UNCTAD, 2014, *UNCTAD World Investment Report 2014: Investing in the SDGs: An Action Plan,* https://unctad.org/en/PublicationsLibrary/wir2014_en.pdf.
[9] Traub-Schmidt, G, 2015, *Investment Needs to Achieve the Sustainable Development Goals,* Sustainable Development Solutions Network, http://unsdsn.org/resources/publications/sdg-investment-needs/.
[10] World Bank Group, 2018, *GDP (current US$),* https://data.worldbank.org/indicator/NY.GDP.MKTP.CD .

Figure 14 highlights the current opportunity across all SDGs to invest in transforming economies towards becoming more sustainable, equitable, and SDG-aligned. Investors can also tailor their focus towards specific SDGs, such as Climate Action (SDG 13), by allocating capital towards low-carbon and resilient products, services, and industries.

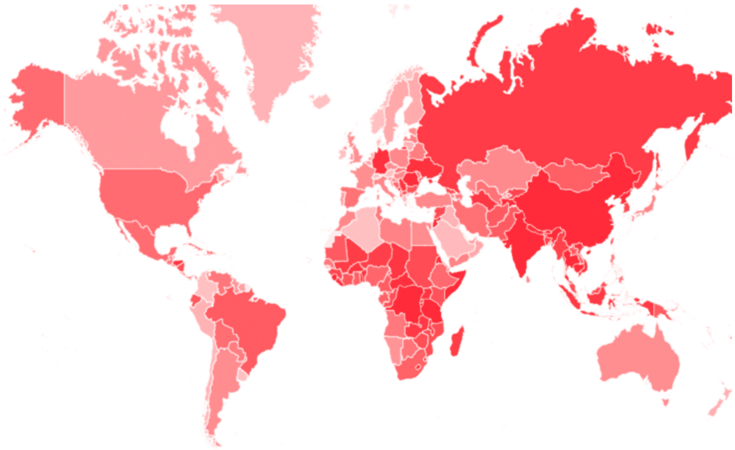


Figure 14: SDG Investment Heat Map

Source: Trucost SDGEI-O Model

Figure 15 illustrates the current global opportunity to invest in initiatives to reduce emissions and adapt to climate change.

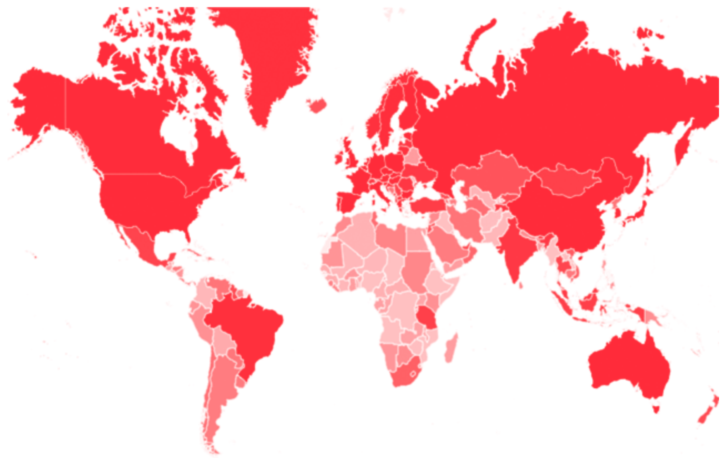


Figure 15: SDG Investment Heat Map, Climate Action (SDG 13)

Source: Trucost SDGEI-O Model

SDG Risks and Opportunities are Local

The SDGs present a set of global objectives to build a more sustainable, equitable, and prosperous world However, the need for progress on each SDG varies greatly from country to country. As highlighted in the annual SDG Index and Dashboards,[6] each country faces a unique set of challenges and has made progress to varying degrees on each of the 17 SDGs. From the corporate perspective, the need for action on each SDG could vary greatly based on the geographic footprint of the business, its supply chain, and its customer base.

Figure 16 presents a value-chain SDG Exposure assessment for two companies in the food and beverage sector, one based in the UK and the other in Thailand. While high exposure to some SDGs, such as Climate Action (SDG 13) and Industry, Innovation, and Infrastructure (SDG 13), is common to both countries, exposure to others varies based on the local conditions in each country. For example, the UK-based company is more exposed to Climate Action (SDG 13) and Industry, Innovation, and Infrastructure (SDG 9) than its Thai counterpart. The Thailand-based company is more exposed to social and governance issues, such as No Poverty (SDG 1), Zero Hunger (SDG 2), and Peace, Justice, and Strong Institutions – corruption (SDG 16). This analysis highlights the importance of considering SDG risks within the context of geography, taking account of the local conditions and needs in key geographies represented in the corporate value chain.

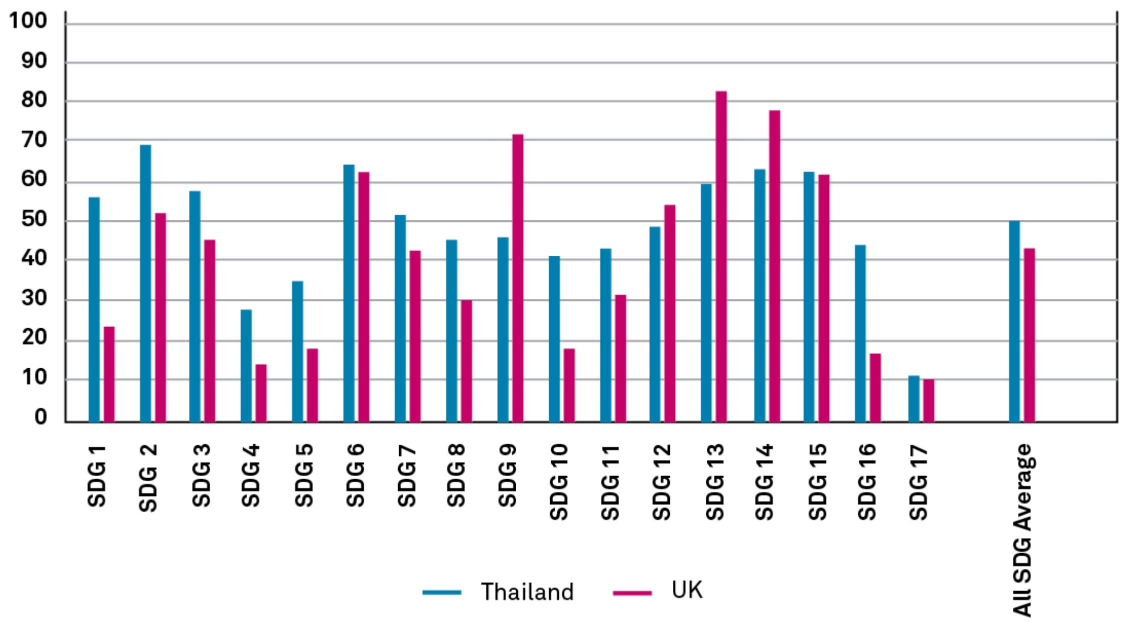
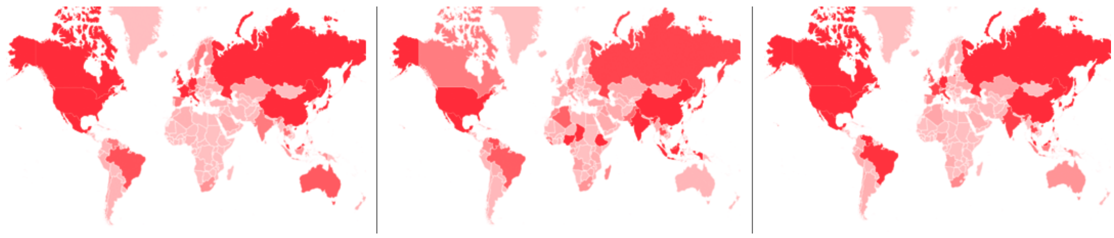


Figure 16: SDG Exposure for Food and Beverage Companies Based in the UK and Thailand

Source: Trucost Analysis

Take a Whole of Value Chain Perspective

While leading companies have a good understanding of the risks and positive-impact opportunities linked to their operations, additional SDG risks may be hidden within the supply chain. Global trade flows expose businesses to suppliers in a broad range of geographies, each with their own unique set of SDG challenges and opportunities. As an example, Figure 17 illustrates the exposure of an electronics manufacturer to the issues of Climate Action – climate change vulnerability (SDG 13), Gender Equality (SDG 5), and Peace, Justice and Strong Institutions – rule of law (SDG 16) within the supply chain. The exposure analysis represents the combination of the geographic distribution of the supply chain, and the level of risk associated with each metric in each geography. Significant hotspots of climate change vulnerability are shown in North America, Central Europe, China, and Russia, while lower-level exposure is present in Brazil, Africa, and Australia. Each hotspot highlights potential disruptions to the supply chain due to climate-related severe weather events, flooding, heat waves, or water shortages.



Climate Change Vulnerability and Adaptation | **Gender Equality** | **Rule of Law**

Figure 17: Exposure to SDG Risks in the Value Chain

Source: Notre Dame Global Adaptation Initiative, 2018; Social Hotspots Database, 2018; World Justice Project, 2018; and Trucost Analysis

In the case of Gender Equality (SDG 5), hotspots are concentrated in China and India, along with select countries in South East Asia and Africa, while Peace, Justice and Strong Institutions – rule of law (SDG 16) risks are seen in China, Russia, and Brazil. Rule of law is a governance metric composed of several parameters regarding absence of corruption, open government, civil justice, and regulatory enforcement. This analysis demonstrates that even where a company may be highly effective in managing ESG risks within its own operations, it may still be exposed to such risks through its direct suppliers and extended supply chain.

Gathering reliable information on SDG risks in the supply chain can be costly and challenging for many businesses, however a modelled approach can be an effective and efficient first step to identify potentially material issues. Trucost's SDGEI-O model is capable of modelling financial flows in corporate supply chains across sectors and countries globally, and estimating the degree of ESG risks associated with these transactions.

Broadening the Focus of ESG Strategy

A deeper focus on SDG risks and opportunities can provide an impetus for the expansion of the focus of corporate ESG strategies to include emerging topics that have gained less traction in the corporate community. One example is the focus of corporations on climate change mitigation and climate change adaptation under Climate Action (SDG 13). Corporate reporting, targets, and action on reducing GHG emissions has accelerated rapidly in recent years. However, many companies in our sample analysis provided only limited disclosure on their efforts to plan for, and adapt to, climate change vulnerabilities and disaster risks. Figure 18 presents the average SDG Risk Mitigation score by sector for climate change mitigation versus climate change vulnerability and adaptation, highlighting the disclosure gap on these topics. With the recent publication and growing interest in the recommendations of the Taskforce on Climate Related Financial Disclosures, Trucost expects that corporate disclosure on climate change adaptation will increase in the coming years.

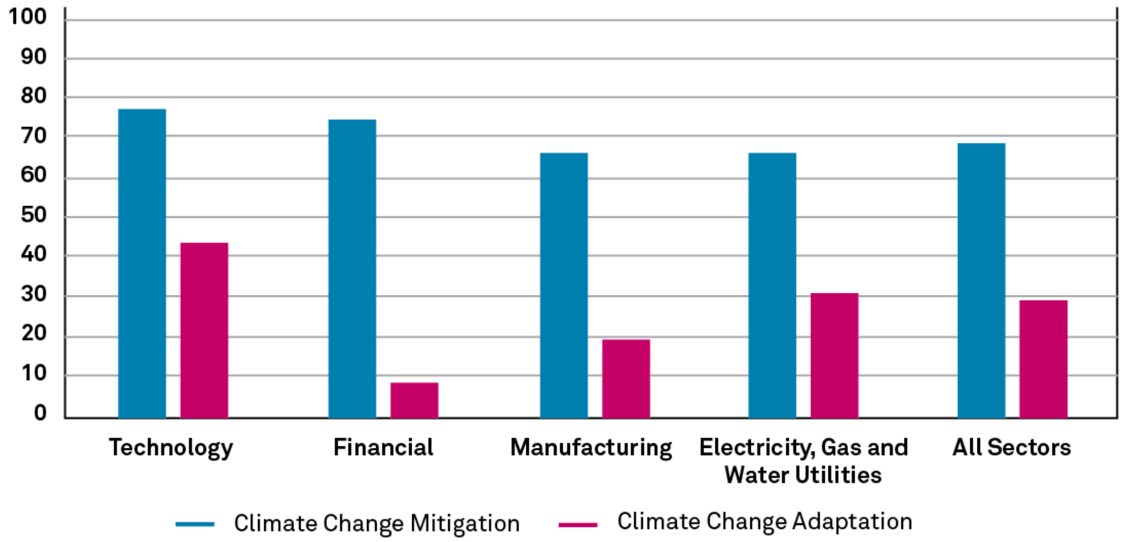


Figure 18: Action of SDG 13 – Climate Change Mitigation versus Adaptation

Source: Trucost Analysis

Engaging Beyond the Sustainability Department

The SDGs cover a broad range of ESG issues that are the responsibility of corporate sustainability teams – from efforts to mitigate pollutant emissions and reduce waste to supply chain codes of conduct and auditing to prevent child labour, underpayment, and unsafe working conditions. However, the SDGs also touch upon a range of additional issues that extend into the domain of other corporate functions. One striking example is the issue of tax transparency linking to Partnerships for the Goals (SDG 17), which may cross into the domain of the financial, risk, and governance functions of many businesses.

SDG 17 target 17.1 calls for countries to strengthen their capacity for domestic tax collection to finance actions to address the SDGs, and this effort can be hindered by opaque corporate tax policies. Corporations can take steps to ensure that tax policies are transparent, provisions are provided for whistle-blowers to highlight unethical practices, and information on the effective tax rates paid across a corporation's operations are disclosed, including any tax concessions granted to the business. Many of the businesses evaluated through this project provided only limited disclosure on their tax affairs, with a few notable high-performing exceptions.

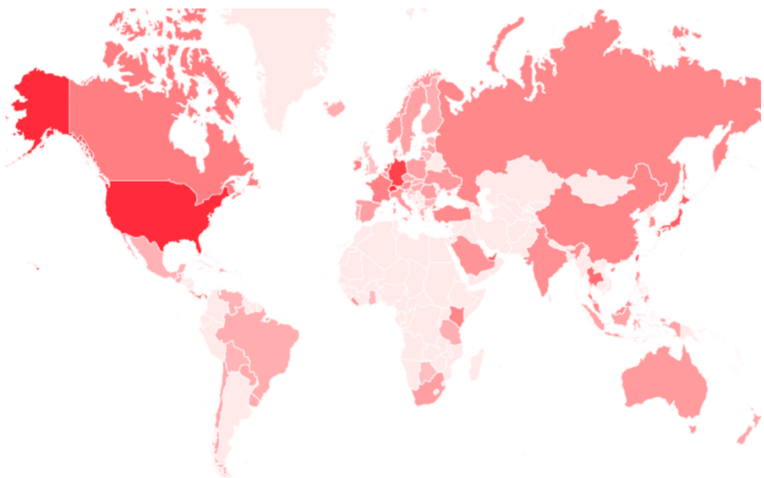


Figure 19: Financial Secrecy around the World
No data for countries in light red

Source: Tax Justice Network, 2018, and Trucost Analysis

D. INAUGURAL CLIENT CASE STUDIES

Aguas Andinas

www.aguasandinas.cl

Aguas Andinas is the largest water utility company in Chile and one of the most important in the world. **We are a multi-service company who, at the core of our business, delivers potable water, sewerage and wastewater treatment services to more than 2 million residential, commercial, and industrial customers.**

We are an environmental services company, dedicated to our clients and our community. To our clients, because we work day and night, every day of the year to assure that almost 8.5 million people have continuous supply of water, quality service, and the most agile and efficient attention. To the community, because we do this sustainably and with social responsibility. This is translated through actions that create value and progress for the country, contributing society's development whilst taking care of the environment.

SDG Approach

In accordance to Aguas Andinas's commitment to the sustainable development of the city, its rural sector, and its inhabitants, we have defined and designed a long-term strategy, called Santiago Deserves a 7 (SM7).

SM7 consists of seven strategic pillars or axes, which identify the roadmap and the challenges of the company's management, gathering and integrating the commitments assumed into its sustainability policy and strategy.

Pillar 1. Business Model

Focus: Economic sustainability.

Objective: To be a profitable, responsible and transparent company.

Pillar 2. Resilience

Focus: 100% continuity.

Objective: Guarantee supply in conditions of drought and climate change, preserving water as a source of life.

Pillar 3. Digitalization

Focus: Agility.

Objective: Accelerating the digital revolution at the service of its citizens, operation and internal culture.

Pillar 4. Circular Economy

Focus: Zero impact.

Objective: Leading the fight against climate change, contributing to the global goal of limiting global temperature increase to 2°C.

Pillar 5. Social Legitimacy

Focus: Shared value.

Objective: Increase stakeholder satisfaction with the company by strengthening dialogue and promoting shared value.

Pillar 6. Innovation and People

Focus: Great place to work.

Objective: To promote diversity and well-being at work, guaranteeing occupational health and safety, encouraging the development and promotion of talent and fostering a collaborative and innovative culture.

Pillar 7. Water and Quality of Life

Focus: Water benefits.

Objective: Encourage the improvement in the quality of life of citizens and promote the creation of healthy environments.

Key Learnings from the SDG Evaluation Initiative

In 2017 we changed our outlook towards the circular economy, initiating a path that leads us to rethink and redesign sustainable solutions and initiatives for Chile and its citizens. We want to achieve zero emissions, zero waste, and minimal environmental impact in our operations, looking for shared value in a future that begins today. In this context, the Trucost SDG Evaluation has helped validate many of our current efforts as well as provide data-driven, quantitative insight into where we can extend our plans for the future.

The Evaluation has given Aguas Andinas a foundation to use as a benchmark for comparing our progress over time, the success of our efforts and how our business sector can contribute to achieving the Goals.

Results Highlights

SDG Positive revenue and Business model transformation are the most important drivers of Aguas Andinas' positive impact evaluation.

As a water utility company, 100% of Aguas Andinas' revenue is classified as SDG Positive, and mainly aligned with SDG 6 (Clean water and sanitation); there is also a contribution from SDG 7 (Affordable and clean energy) due to energy generated from waste.

In relation to the Business model, Aguas Andinas' time-bound, defined commitment to implement a business model based on the Circular Economy supports its positive contribution in these impact theme. The company has set time-bound and quantitative objectives focused on GHG, renewable energy consumption and waste recovery. Furthermore, additional objectives will be set in 2018 and will include the decrease of the company water footprint.

Statement from Aguas Andinas

"On September 26, 2018, during the celebration of the Climate Week in New York, 15 ground-breaking projects from around the world were announced as winners of the United Nations 'Momentum for Change' climate action award. Aguas Andinas, won because of transforming Santiago's three wastewater treatment plants into "biofactories" that convert wastewater and sewer sludge, a wastewater treatment byproduct, into clean energy.

This award helps us validate many of our current efforts to go beyond water, generating social and environmental value and strengthens our commitment to be the best allies of Chile for the achievement of the goals of the 2030 Agenda for Sustainable Development.

In this context, the evaluation of Trucost SDG is a very important tool for us, because it provides us with quantitative information based on data on where we can expand our plans for a greater future contribution in the achievement of the Goals."

HP Inc.

www.hp.com

HP Inc. creates technology that makes life better for everyone, everywhere. Through our portfolio of printers, PCs, mobile devices, solutions, and services, we engineer experiences that amaze.

SDG Approach

At HP, we believe our actions should address some of the greatest challenges we face as a society. This belief is reflected in our Sustainable Impact strategy, which supports our company efforts to reinvent everything we do – from how we run our operations to how we conduct business with our partners, suppliers, and customers to how we design, deliver, and recover our products.

We are committed to making a positive, enduring impact by: protecting the planet, supporting our people, and strengthening the communities where we live, work, and do business, all while aligning to the UN SDGs.

As an IT company, we know that technology can have a profound effect on reducing environmental impact, and it is one of the reasons we are driving progress toward a more efficient, circular, and low-carbon economy in support of Responsible Consumption and Production (SDG 12). At the same time, technology can open up economic opportunities and drive sustainable development. This is particularly true with regards to manufacturing, where industrialization can drive economic development and raise standards of living.

We are investing in disruptive technologies, such as 3D printing that will help drive a more sustainable Fourth Industrial Revolution in support of Industry, Innovation, and Infrastructure (SDG 9). We believe our 3D printing technology is poised to disrupt the $12 trillion global manufacturing industry by transforming how whole industries design, make, and distribute products – helping people turn ideas into finished products in a more efficient, economical, and environmentally-conscious way.

Among the key economic and environmental benefits of 3D printing is the ability to remove waste in manufacturing and enable the reuse of materials, thereby lowering costs per part, decreasing energy and resource consumption, and reducing GHG emissions. For example, when we used 3D technology to replace an aluminium part with a redesigned 3D printed nylon part in one of our HP Latex printer models, the results were impressive – a 93% decrease in weight and a 95% reduction in GHG emissions, while also cutting costs by 50%.

At the same time, 3D printing will reinvent traditional supply chains by allowing companies to better match supply and demand. Companies can create virtual inventories in which products are made as needed, rather than physically stored for later use, or worse, never used at all. And, since companies can now transmit digital files for production locally, rather than shipping physical goods, 3D printing can also reduce emissions related to distribution.

Finally, 3D printing will transform whole economies and societies by changing how companies design, produce, and distribute products. This will help reduce market-entry barriers for small and medium businesses, expand opportunities for emerging economies and those that have struggled to establish a manufacturing base, and accelerate new innovations in diverse fields, such as education, healthcare, and humanitarian relief.

In addition to our technology innovations, we are committed to lessening our impact on the planet across our value chain, creating an inclusive workplace where all workers are treated with respect and dignity, and making a difference in communities around the world.

For example:

- We are reducing GHG emissions in our operations in support of Climate Action (SDG 13). In 2017, we exceeded a science-based target to reduce Scope 1 and

Scope 2 GHG emissions from our global operations by 25% by 2025, compared to 2015 – decreasing emissions by 35%.

- We are promoting social and economic inclusion for our workers and those in our supply chain through policies, programs, and partnerships in support of Reduced Inequalities (SDG 10). In 2015, we set a goal to develop the skills and improve the wellbeing of 500,000 factory workers by 2025
- We are building technology-based education solutions for millions around the world, including women and girls, and underrepresented and marginalized groups, in support of Quality Education (SDG 4). Since the beginning of 2015, we have been working to reach a goal of enabling better learning outcomes for 100 million people by 2025.

Key Learnings from the SDG Evaluation Initiative

This initiative provides new ways for us to think about opportunities and risks, assess the impact of our business and value chain, and inform our priorities and programs. The evaluation offers an external perspective on which SDGs are material and how well we address them through our business strategy. By focusing the assessment on what we communicate publicly, we can see how others view our efforts, revealing strengths and gaps in both our performance and our reporting.

This evaluation indicates:

- A strong alignment in our revenue and business model transformation with SDGs 8, 9, 11, and 12, with an opportunity to commit to or communicate more.
- Our risk mitigation efforts have significantly reduced our SDG Exposure, especially in SDGs 7, 10, 13, and 14.
- We outperformed our benchmarked competitors in terms of positive impact and risk mitigation.

Statement from HP Inc.

"By applying the SDGs as a common framework for evaluating business impact and value, we can advance our Sustainable Impact strategy in a way that connects our business strategy and core values, while supporting a global agenda for the future of humanity and the planet."

Iberdrola

www.iberdrola.com

The Iberdrola group has undergone a major transformation over the last 15 years, staying clearly ahead of the energy transition in order to tackle the challenges posed by climate change and the need for clean electricity.

Iberdrola's mission is focused on providing a quality service with clean energy sources, spearheading the digital transformation process, combating climate change, and generating social dividend.

Our mission is to create value sustainably in carrying out our activities for society, citizens, customers, employees, shareholders, and other stakeholders. As a leading multinational group in the energy sector, Iberdrola provides a quality service through the use of environmentally-friendly energy sources, which engages in innovation, leads the process of digital transformation in its area of activity, and is committed to the fight against climate change through all its business activities. This is done with a social dividend and the generation of employment and wealth, while considering employees to be a strategic asset.

SDG Approach

Iberdrola's strategy is fully aligned with the SDGs, in particular Affordable and Clean Energy (SDG 7) to promote access to affordable and non-polluting energy and Climate Action (SDG 13), focusing on the fight against climate change. These challenges have been at the forefront of the group's strategy for more than 15 years, and now the SDGs promote new drivers and opportunities to form strategies to achieve new targets.

The company has continued to expand its commitment to society, reflected in the By-Laws under the concept of social dividend, which includes all actions directed towards the creation of sustainable value for its stakeholders: shareholders, customers, employees, suppliers, and society at large.

Iberdrola has also set out in its current Strategic Bonus 2017-2019, approved by shareholders at the General Shareholders' Meeting on March 31st 2017, the inclusion in the Board's long-term variable remuneration the achievement of goals that support Affordable and Clean Energy (SDG 7) and Climate Action (SDG 13), which makes the reduction of CO2 emissions a strategic goal.

Iberdrola contributes to other SDGs as well, including Life on Land – protection of biodiversity (SDG 15), Clean Water and Sanitation – water consumption (SDG 6), Industry, Innovation, and Infrastructure (SGD 9), and, the engine of everything, Partnerships for the Goals (SDG 17).

Key initiatives are described below.

Affordable and Clean Energy (SDG 7)

Electricity for all program: 4M beneficiaries achieved in June 2018, and 16M beneficiaries as a target to achieve by 2030.

World leader in wind power: 16,077 MW in 2017.

Energy efficiency: 59 million tons of CO2 emissions avoided in the last three years.

The company's CO2 intensity emissions are already 70% less than average for the European electricity sector (Continental Europe, 2016).

Climate Action (SDG 13)

Iberdrola's commitments for carbon emission reduction are:

- To reduce the intensity of its emissions in 2030 by 50% compared to 2007 levels.
- To become carbon neutral by 2050.

Iberdrola has also set out to close all its coal-fired power plants.

Partnerships for the Goals (SDG 17)

Iberdrola recognizes partnerships as the most powerful tool to achieve the transformation the world needs, and is aware that they are absolutely necessary to go further on every single commitment.

Among all of Iberdrola's actions framed in the environment of partnerships, we highlight the Chair for the SDGs. The Chair, between Iberdrola and the Centre for Innovation in Technologies for Human Development at the Polytechnic University of Madrid (itd UPM), is a strategic tool to pursue the challenges of the international sustainability agenda. This Chair is configured as a shared learning space and a means to support the implementation of the SDGs at Iberdrola.

Key Learnings from the SDG Evaluation Initiative

For Iberdrola, the SDGs represent an opportunity to respond to the expectations and aspirations of the society in which we live, and to develop strategies and innovative business models and adapt them to a world in deep transformation. We took the opportunity to participate in the SDG Evaluation to learn how we can improve our contribution and to understand new business markets. In addition, having an external overview of our SDG approach and related project performance provides us new points of view and gaps to be analyzed internally.

Results Highlights

The result of this assessment found that Iberdrola contributes most significantly to Affordable and Clean Energy (SDG 7), Climate Action (SDG 13), and Sustainable Cities and Communities (SDG 11) through the sales of our products and services, our business transformation model, and contributions to charitable causes aligned with the SDGs.

Thanks to the results obtained from the exhaustive analysis of Trucost, we can assess our contribution to Agenda 2030. We believe that it is a very useful, as well as innovative, exercise that can help improve the disclosure of how our activity impacts the SDGs.

Statement from Iberdrola

"Companies like Iberdrola are agents of development, essential in any discussion that arises about the economic, social, and environmental future of humanity. That is why business involvement is necessary to achieve the global transformation towards a sustainable scenario. Reasons for this include:

1. *The involvement of companies plays an essential role due to the need for large-scale changes. The business sector is able to scale solutions globally, and can develop joint solutions with different actors to have the necessary impact.*
2. *The commitment of companies such as Iberdrola, with the introduction of more sustainable models in their value chains, will be an essential determinant of the achievement of the SDGs related to production and consumption.*
3. *Innovation will be key to respond to the complex challenges posed by the Agenda. Iberdrola is the most innovative Spanish utility, the second in Europe, and the fourth in the world in terms of resources allocated to R&D."*

Ingersoll Rand

https://company.ingersollrand.com/

We heat, cool, and automate homes and buildings; enhance commercial and industrial productivity; keep transported food and perishables safe and fresh; and, deliver fun, efficient, and reliable transportation solutions. Diversity, engagement, and teamwork drive innovation and fuel our passion for exceeding customer expectations. Together with principled leadership and ethical business practices, our high-engagement culture delivers enduring results that lead to a sustainable world.

SDG Approach

Recognizing the global impact of the SDGs – a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity – and the personal commitment of our employees, we moved quickly to align our already established 2020 Sustainability Goals to the SDGs to illustrate how our efforts fit within a larger context for social change. Today, we align with 11 out of the 17 SDGs, including Zero Hunger (SDG 2), Gender Equality (SDG 5), Clean Water and Sanitation (SDG6), Affordable and Clean Energy (SDG 7), Sustainable Cities and Communities (SDG 11), and Climate Action (SDG 13). More information is available on our website.

Key Learnings from the SDG Evaluation Initiative

The work of Trucost has given us deeper insight into the role that Ingersoll Rand plays in the context of global sustainability priorities. This tool will help us think bigger and bolder to do more for our customers, create long-term value for our shareholders, and contribute to a more sustainable world.

Statement from Ingersoll Rand

"We are currently developing our next generation of sustainability targets, to take us to 2030. In addition to aligning with the science and assessing which topics are most material to Ingersoll Rand, we are using the SDGs as a framework to help us align with global social and environmental priorities."

ROCKWOOL Group

www.rockwoolgroup.com

Stone is our core raw material and the bedrock on which our business is based. Our purpose is to release the natural power of stone to enrich modern living, which we have been doing since 1937.

With sales of €2.4 million in 2017, we are the world's leading manufacturer of stone wool products, and we deliver specialist solutions for the building, horticultural, marine, and offshore sectors. Our main markets are Europe, Russia, North America, and Asia. We produce and distribute our fully-recyclable products overwhelmingly locally, with an average shipping distance of approximately 300 km. Our company has 11,000 employees, with more than 60 different nationalities in 39 countries and at 45 manufacturing facilities.

Every week, about 1.5 million people move to urban environments. By 2030, there will be 41 megacities around the globe, defined as cities with more than 10 million inhabitants. And, by 2050, the earth's population will be around nine billion, 70% of whom will live in cities. The combination of more people living in more densely populated urban areas and the worsening consequences of climate change will increase the demand for modern housing and energy. At the same time, the world will have to feed its growing population using fewer resources, while also managing the effects of more frequent extreme weather events, particularly in urban environments.

At ROCKWOOL Group we are driven by a passion for sustainably converting these global trends into profitable business opportunities by creating superior solutions to protect life, assets, and the environment, and to create comfortable, healthy, and attractive spaces. In other words, by enriching modern living.

SDG Approach

We entered into a collaboration with Trucost on the SDG Evaluation Tool with the aim that it will provide ROCKWOOL Group with data-led insights to better understand our quantitative performance against the SDGs, as well as help guide our efforts to achieve the greatest possible impact.

At present, the prevailing methods to measure a company's performance against the SDGs often has too strong a focus on "do less harm". There is a need to develop better methods to measure how to "do good", particularly with respect to products.

It has been very useful to be challenged by peers and independent researchers in this project. We are happy to contribute to the continued need for research and better understanding of corporate impact on SDGs.

Results Highlights

Trucost assessed ROCKWOOL Group with an SDG Evaluation score of 84 out of 100, based on a Positive Impact score of 84 and an SDG risk score of -15.

SDG Positive Revenue: 100% of ROCKWOOL's revenue is classified as SDG Positive and is closely aligned with Climate Action (SDG 13) and Affordable and Clean Energy (SDG 7) through the sales of our insulation products and services. ROCKWOOL also contributes to Zero Hunger (SDG 2), Good Health and Wellbeing (SDG 3), and Clean Water and Sanitation (SDG 6) through the sales of our precision-growing and acoustic products.

ROCKWOOL Group also scores highly on Decent Work and Economic Growth (SDG 8) through high economic growth and the creation of many jobs relative to our revenue. ROCKWOOL also contributes to Quality Education (SDG 4) through donations.

ROCKWOOL's SDG risk profile is typical for the manufacturing industry and our mitigation activities is broadly targeted across the value chain addressing operations, supply chain, and downstream customers.

Statement from ROCKWOOL Group

"We are proud to be recognized by Trucost for our proactive approach to the SDGs by achieving the highest SDG impact score amongst all pilot companies, with 100% of our products classified as SDG Positive.

ROCKWOOL is committed to increasing its positive sustainability impacts and minimizing its negative impacts, thereby maximizing its overall impact on the SDGs over time.

We strongly believe that companies should focus on product impacts in relation to the SDGs. This is where we can make a big difference. For example, over their lifetime, our technical insulation products save thousands of times more energy and CO2 than is consumed or emitted from their raw material extraction, transport, and production."

S&P Global

https://www.spglobal.com/en/

S&P Global is a leading provider of transparent and independent ratings, benchmarks, analytics, and data to the capital and commodity markets worldwide. ESG is a fundamental business priority for S&P Global, responding to client needs and business considerations across all sectors. Our comprehensive view of ESG throughout global markets provides companies, financial institutions and governments with financially relevant analytics and timely data to assess risk, uncover opportunities, and inform long-term sustainable growth.

SDG Approach

At S&P Global, Corporate Responsibility is more than philanthropy – our essential intelligence powers inclusive sustainable economies and thriving global communities. It is making a real difference by finding the essential connections between our own skills and the needs of society, making meaningful change to bridge the skills gap, promoting a sustainable future, and creating an inclusive economy.

Bridging the Global Skills Gap

Globally, we are committed to building a stronger workforce of tomorrow by helping people develop vital science, technology, engineering, and math (STEM) and digital skills. We are meeting this challenge head on by investing in STEM programs and helping people from underrepresented groups become leaders in technology. When we bring underrepresented populations into our sector, the diversity of skill, experience, and creative thinking makes the workforce stronger.

Our highly-skilled employees donate their time and expertise to mentor the next generation of leaders. One key partner is For the Inspiration and Recognition of Science and Technology (FIRST), a global NGO that supports and inspires students from diverse backgrounds to be science and technology leaders and innovators. Additional partners include: Upwardly Global, which helps skilled immigrants and refugees overcome employment barriers and join the U.S. workforce; East London Business Alliance (ELBA), which places skilled, but disadvantaged people into employment; Lead India 2020, which focuses on training and leadership development for youth; and American Corporate Partners (ACP), which helps military veterans succeed in the civilian workforce.

Promoting a Sustainable Future

We aim to decrease our own footprint by reducing the environmental impact of operations. We use site-based environmental management systems (EMS) to identify environmental impacts, establish performance targets, and collect, monitor, and report environmental data. Eighteen major S&P Global facilities are energy-efficient certified, including 10 LEED® Certified™ buildings and five that are

ISO 14001 EMS certified, including our New York, London, and Hyderabad offices. Since 2013, we have reduced paper use by 48% and energy use by 18%, and increased waste diversion from landfill to 78%.

S&P Global also supports global, long-term change by providing ESG tools and solutions to promote sustainable markets. For example, S&P Global Ratings offers Green Evaluations to assess the impact and climate risks of investor portfolios. S&P Global Market Intelligence delivers actionable intelligence for the power and renewable energy sectors. S&P Dow Jones Indices offers more than 150 ESG indices, including the Dow Jones Sustainability Indices. Finally, S&P Global Platts provides specialized products covering GHG emissions and renewables, including energy outlooks and scenario analysis. Trucost's ESG data and analysis is leveraged across our divisions and is integral to our commitment to deliver essential ESG intelligence to the global marketplace.

Creating an Inclusive Economy

Our focus is to expand economic opportunities for the underserved and support advancement for women. We achieve this by leveraging our data, technology, and insights, supporting partners that provide the financial tools to meet their distinct needs, and sharing our collective knowledge and experience through employee-led mentorships.

When women are in business, economies grow. At S&P Global, we tackle the challenges women face in launching and developing their businesses – from gender bias to systemic lack of access to capital – with the same skills and insights that make us effective in delivering essential intelligence to our clients.

S&P Global partners with MicroMentor, a growing online community of entrepreneurs and volunteer mentors, to match our employees' skills and talents to support budding women entrepreneurs in the U.S. and around the world. S&P Global also supports Upwardly Global. Through this valuable partnership, employees have engaged in roundtables, mock interviews, and mentoring to successfully connect companies with diverse, skilled, STEM job seekers.

Key Learnings from the SDG Evaluation Initiative

The Trucost SDG Evaluation provided a new lens to understand all of our SDG risks and opportunities. This includes our full exposure to SDG risks across our value chain and operating regions, as well as deeper insights to help us manage and report how we address these risks. The SDG Evaluation showed us, in a quantitative way, the extent to which our initiatives have helped address risk in our operations, supply chain, and the markets where we sell our products. For example, the results highlighted our exposure to issues around Gender Equality (SDG 5), and quantified the impact of our proactive strategies to address these risks by empowering women in the workplace and supply chain. The Evaluation also highlighted exposure to issues concerning Industry, Innovation, and Infrastructure – material and energy efficiency (SDG 9) where we have already made significant progress in managing impact by reducing energy and material consumption over time.

In the Evaluation results, it was exciting to see the strong overlap between the SDGs considered to be most material for S&P Global and the SDGs on which we are making a positive impact. Our assessment also highlighted areas to consider as we seek to continue to contribute towards a more sustainable future.

Through the SDG Evaluation, we found that S&P Global's product portfolio strongly aligns with the SDGs by promoting accountability and transparency in financial markets and economies (SDG 10 and 17). Through our products, skills-based volunteering, and philanthropic giving, we have been a consistent supporter of community development, sustainability, and women entrepreneurship (SDGs 5, 8, 11, and 17). As a global business, we are also proud to see our results reflect the strength of S&P Global's contributions to meaningful employment and economic opportunity around the world (SDG 8).

Statement from S&P Global

"We are proud to see our results reflect the strength of S&P Global's contributions to meaningful employment and economic opportunity around the world. Through our products, community development programs, philanthropic giving, and commitment to sustainability, we strongly align with the SDGs and make a positive impact."

– Courtney Geduldig, Executive Vice President, Public Affairs, S&P Global

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Tarkett

www.tarkett.com

With net sales of more than €2.8 billion in 2017, Tarkett is a worldwide leader of innovative flooring and sports surface solutions. Offering a wide range of products, including vinyl, linoleum, carpet, rubber, wood, laminate, synthetic turf, and athletic tracks, Tarkett serves customers in more than 100 countries worldwide. With approximately 13,000 employees and 34 industrial sites, the firm sells 1.3 million square meters of flooring every day, for hospitals, schools, housing, hotels, offices, stores, and sports fields. Committed to "Doing Good. Together", Tarkett has implemented an eco-innovation strategy based on Cradle to Cradle® (C2C) principles, and promotes circular economy, with the ultimate goal of contributing to people's health and wellbeing and preserving the natural capital.

SDG Approach

Through its Corporate Environmental & Social Responsibility initiatives, Tarkett contributes positively to UN SDGs by focusing on eco-design and circular economy, applying the C2C principles (specifically with Material Health) aimed at giving old materials new life through the take-back, reuse, and recycling of products, enabling the floors we produce today to become the raw materials used in the flooring of tomorrow, or as resources for other industries.

Tarkett addresses the different SDGs through measurable actions:

- **Designing for life:** We develop products based on C2C principles that contribute to people-friendly spaces (SDG 3 and 11) and respect the natural capital (SDG 15) and climate change (SDG 13). We assess and select materials according to C2C principles that respect people's health and the environment (71% of our raw materials do not contribute to resource scarcity, being abundant, rapidly renewable, or recycled). We create products that contribute to indoor air quality (96% of our floorings are low Total Volatile Organic Compounds (VOC)) and healthier spaces (100% of our vinyl production sites in Europe, North America, and China use non-phthalate plasticizer technology). We responsibly steward resources at our production sites thanks to our World-Class Manufacturing Program (i.e., closed-loop water circuits, energy consumption reduction, and renewable energy) thus reducing GHG emissions).
- **Closing the loop**: We strive to transition from a linear model to an inclusive circular model through the collection, recycling, and re-use of products and the elimination of waste (SDG 12). We use recycled materials, turning wastes into resources, including from other industries. We deploy our ReStart program to collect post-installation and post-use floorings (99,000 tons of flooring collected from 2010 to 2017 by Tarkett in Europe and North-America). We recycle our production scrap and strive to reduce production waste going to landfill. Our circular initiatives also positively contribute to the climate change challenge.
- **Driving collaboration:** Enhancing internal and external collaboration by building partnerships (established for several years with the World Economic Forum, Ellen Mac Arthur Foundation, Circular Economy platform, and CE 100, among others) that help us achieve our objectives, and by collaborating with key stakeholders to face global challenges (SDG 17) together.
- **Supporting communities**: Being recognized as a 'good neighbour', contributing to the development of local communities in which we are active, and making sure our business is inclusive by bringing together various stakeholders, namely suppliers, and encouraging them to take part in our responsible value chain. This also means contributing to charity actions: in 2017, over 140 initiatives with 1,400 employees and more than €500,000 (values of financial and product donations and employee hours donated) were deployed as part of our Tarkett Cares program (SDG 11).
- **Developing talents**: At Tarkett, we strive to create a diverse and inclusive environment where people feel respected, comfortable, and developed, therefore attracting and retaining talent (SDG 8).

Key Learnings from the SDG Evaluation Initiative

Trucost's analysis shows that Tarkett is performing well towards SDGs. The study demonstrates that Tarkett has the most positive impact on Sustainable Cities and Communities (SDG 11), Responsible Consumption and Production (SDG 12), and Climate Action (SDG 13) through our products and services, contributions to economic growth, and contributions to philanthropy, as illustrated by Tarkett Cares.

The study also demonstrates how Tarkett can further improve its performance towards SDG's. The residual risk that was identified by Trucost regarding Tarkett is in Climate Action (SDG 13) and Partnerships for Goals (SDG 17). Both of these areas were already identified by Tarkett, but the Trucost Evaluation shows where Tarkett has opportunities to improve and where it needs to maintain strength to keep up with the good performance. One of the areas where Tarkett can further increase its performance is in the supply chain, which is being addressed currently via the consolidation of the firm's responsible sourcing program.

In addition, Tarkett's existing risk mitigation efforts have strongly reduced its SDG risk exposure, based primarily on actions targeting air, land and water pollution, waste, and GHG emissions. In a nutshell, through its strategy and its activities, Tarkett not only reduces its environmental footprint, but anticipates its global impact upstream and mitigates risk well and appropriately.

Statement from Tarkett

"At Tarkett, we are 'Doing Good. Together.', connecting our sustainability efforts with what our customers value and our world needs. As part of our business model and our global strategy, we are positively contributing to different SDGs and aiming at delivering meaningful improvements in these areas. The Trucost study allows us to better understand where we stand now, how our efforts are impacting the SDG's, how we can increase our positive impact across the globe, and where our risks are situated."

– Raphaël Bauer, Chief Financial Officer, Tarkett Group

Walgreens Boots Alliance

www.walgreensbootsalliance.com

Walgreens Boots Alliance (Nasdaq: WBA) is the first global pharmacy-led, health and wellbeing enterprise. The company's heritage of trusted health care services through community pharmacy care and pharmaceutical wholesaling dates back more than 100 years.

Walgreens Boots Alliance is the largest retail pharmacy, health, and daily living destination across the U.S. and Europe. Walgreens Boots Alliance and the companies in which it has equity method investments together have a presence in more than 25 countries and employ more than 415,000 people. The company is a global leader in pharmacy-led, health and wellbeing retail and, together with its equity method investments, has more than 18,500 stores in 11 countries. It also has one of the largest global pharmaceutical wholesale and distribution networks, with more than 390 distribution centres delivering to more than 230,000 pharmacies, doctors, health centres, and hospitals each year in more than 20 countries. In addition, Walgreens Boots Alliance is one of the world's largest purchasers of prescription drugs and many other health and wellbeing products.

The company's portfolio of retail and business brands includes Walgreens, Duane Reade, Boots, and Alliance Healthcare, as well as increasingly global health and beauty product brands, such as No7, Soap & Glory, Liz Earle, Sleek MakeUP, and Botanics.

Walgreens Boots Alliance is proud to be a force for good, leveraging many decades of experience and its international scale to care for people and the planet through numerous social responsibility and sustainability initiatives that have an impact on the health and wellbeing of millions of people.

SDG Approach

We believe that active participation of businesses is essential for the SDGs to be achieved. Walgreens Boots Alliance's overall Corporate Social Responsibility (CSR) strategy and our 12 CSR goals work to achieve the SDGs. In 2016, Walgreens Boots Alliance was honoured with the UN Foundation's Global Leadership Award, recognizing our ongoing commitment to the SDGs.

Our CSR strategy is built around healthcare, reflecting the nature of our business and the area where we can have the greatest impact. Some of our key successes that benefit Good Health and Wellbeing (SDG 3), ensuring healthy lives and promoting wellbeing for all at all ages, include the following:

- In the US, Walgreens has expanded its efforts to help combat the opioid epidemic, complementing our existing safe medication disposal kiosk program with a year-round safe drug disposal option at every one of our more than 9,500 pharmacies. We have collected more than 400 tons of medications at our kiosks, and we continue to increase access to naloxone, a potentially life-saving medication that can reverse the effects of an opioid overdose.
- Globally, through partnerships with organizations that deliver lifesaving vaccines and life-changing vitamins we have had an impact on millions of lives around the world, especially on children and pregnant women in at-risk populations.
- Through long-term partnerships with cancer organizations, we have raised millions of dollars for cancer research and implemented specialized training for our pharmacists so that they are a better resource for cancer patients, as well as their loved ones and caretakers.

- We have the ability to drive large-scale initiatives and positively impact our environment. We have benefited Climate Action (SDG 13) by taking urgent action to combat climate change and its impacts.
- We have reduced our carbon footprint through energy-efficiency projects in our retail pharmacies and support offices, and through fuel-efficiency programs for our wholesale delivery fleets. Our innovative EnergyCare program educates employees about energy waste and encourages an energy conscious culture.

Key Learnings from the SDG Evaluation Initiative

Given our global presence and the scope of our business activities, we have historically taken the approach of addressing all 17 of the SDGs. Through our participation in the SDG Evaluation initiative we hope to gain insight that will help us to prioritize and narrow our focus on a number of high-priority SDGs where we have the greatest impact and can effectively measure our progress.

E. STATEMENTS FROM SDG EVALUATION PARTICIPANTS

"At AMD, we develop greater technology for the greater good, creating high-performance semiconductor solutions that are designed to help solve some of the world's toughest challenges. This is our driving motivation – to enable the world's creators, researchers, inventors and explorers to transform the lives of those around them through immersive and instinctive computing."

– AMD

"The SDG Evaluation methodology's Positive Impact assessment achieves a significant step forward in evaluating opportunity through sustainability as a critical compliment to traditional risk mitigation and assessment. Insights from the assessment could be invaluable for industry leaders in sustainability to identify a more comprehensive range of value potential, and for investors seeking to more adequately differentiate those leaders."

– Bryan Kuppe, Director, Sustainability, American Chemistry Council

"The SDGs are goals for the world. It's important that we progress ways of measuring companies' contribution to – or subtraction from – achieving these goals. With robust measures in place, we can start designing tools which will aid the development of financial products focused on flowing investment towards these goals."

– **Hannah Skeates, Senior Director for ESG Indices, S&P Dow Jones Indices**

"Companies that measure their impact on society can reap medium- and long-term benefits by strengthening their accountability, generating trust from their stakeholders, and contributing to improve the enabling environment in which they operate. In line with the UN Global Compact's principle-based approach, the Trucost SDG Evaluation Tool framework can help investors evaluate companies' performances on both their positive and negative impacts on the SDGs, thus helping drive investments in the right direction to make a significant contribution to the advancement of the 2030 Agenda."

– Laura Palmeiro, Senior Advisor, UN Global Compact

F. CONCLUSIONS

This study presents the results of the inaugural application of an innovative approach to evaluating company alignment and performance in contributing to the SDGs. The findings show that this collaborative initiative has yielded a new way to track company efforts to address the SDGs, and to guide investors in directing capital toward the Goals. While this approach will continue to evolve as it is applied more broadly across companies and sectors, the following important conclusions may be drawn from this inaugural application:

- **Balance Risk and Positive Impact:** When evaluating company performance on the SDGs, it is important to consider the positive contributions they make to the SDGs, but also their actual or potential negative impacts, and the effectiveness with which these impacts are managed.
- **Focus on Important SDG Needs in a Company's Own Operating Context.** Leading companies are already taking significant action to address many of the issues underlying the SDGs, but performance varies greatly with some issues addressed robustly, while action is limited on other important issues. Understanding exposure to SDG issues across the sectors and countries in which a company operates can aid in prioritising action and the deployment of scarce resources to target those SDGs most closely tied to a company's business model and operations.
- **Align Business Models with the SDGs and Expand Access.** Aligning business models with the SDGs by focusing on the delivery of products, services, and technologies that address specific SDG needs is critical, and the impact of such efforts can be maximised by pursuing new markets that expand access to SDG-aligned products and services in those countries that need them the most.
- **Take a Value-Chain Approach.** Effective management of ESG risks in company operations is critical, but will not necessarily safeguard the company against hidden SDG risks in the supply chain, and ultimate product use or disposal. Modelling techniques can offer an effective means to screen value chains for SDG risks that may not be immediately visible.
- **SDG Business Opportunities Abound.** Analysis of the 13 inaugural company participants reveals that they are already capturing over $232.98 billion in revenue from SDG aligned products, services, and technologies, highlighting the opportunities to grow by serving the needs of the SDGs.
- **SDGs Can Guide Better ESG Disclosure.** The SDGs can encourage companies to consider SDG-related issues that are not commonly monitored and reported in the corporate community, but are still important to achievement of the SDGs. For example, engaging beyond the sustainability department to target issues of tax transparency and corporate governance that are critical to Peace, Justice and Strong Institutions (SDG 16) and Partnerships for the Goals (SDG 17).

- **Data and Modelling as a Tool for Action.** Data and modelling can be an effective and efficient means to better understand SDG risks and opportunities where direct engagement with suppliers and customers is challenging. The results must be placed within the company context, however, and be considered with reference to the corporate strategy and financial materiality.

TECHNICAL APPENDIX

Appendix 1. Methodology and Key Sources

This Appendix describes in detail the methodology and important data sources that underpin the Trucost SDG Evaluation Tool, and the SDG Evaluation assessments conducted with the inaugural cohort of companies.

SDG Evaluation Score Calculation

The SDG Evaluation is calculated based on the balance between SDG Risk and SDG Positive Impact to produce an overall score between 0 and 100 representing a company's holistic alignment with the SDGs. The SDG Evaluation score is calculated as follows:

$$\text{SDG Evaluation (Score 0–100)} = \frac{(100 - (E \times M) + P)}{2}$$

Where:

- **E** is the output of the **SDG Exposure Assessment**, a modelled assessment of company exposure to 45 SDG metrics based on the countries and sectors in which a company operates and markets its products, services, and technologies. This assessment is based on the Trucost SDGEI-O Model and provides a baseline assessment of company exposure to each of the 17 SDGs.
- **M** is the output of the **SDG Risk Mitigation and Management Assessment**, a standardized and criteria-based assessment of company performance across the 45 SDG metrics. This assessment is based on the Trucost SDG Evaluation framework.
- **P** is the output of the **SDG Positive Impact Assessment**, comprising five key dimensions representing the most important, and readily evaluated, means by which companies can positively impact the SDGs. The most important dimension is the assessment of the alignment of corporate business models with the SDGs, based on the share of revenue derived from SDG positive products, services and technologies. This assessment is based on the Trucost SDG Positive Product Database.

The SDG Evaluation score may be useful as a summary metric for application in tracking progress over time and in comparing between companies as part of a benchmarking assessment.

The following sections describe the calculation of each component in detail, including the data sources and assumptions employed in the analysis.

SDG Exposure Assessment (E)

The SDGs encompass a broad range of ESG issues that may be of greater or lesser relevance to any given company based on the nature of their operations and business model, and the different countries in which they operate, source materials, and sell their products. Given this, it is possible to assess a company's exposure to each SDG based on the sectors in operates in, and the geographic distribution of its value chain. Few companies disclose, or even have access to, detailed information on their impacts on the broad range of issues represented by the SDGs across their full value chain, and so Trucost developed a model-based approach to evaluate the baseline exposure of a company to each SDG. In the context of the SDG Evaluation, 'SDG exposure' refers to the risk that a company may be directly or indirectly causing a negative impact on the SDGs. SDG exposure is assessed using Trucost's SDGEI-O that models economic flows and associated SDG risks across countries and sectors globally. The SDGEI-O comprises two key components:

- A multi-regional input output table. Trucost used the EORA26 multi-regional input-output table[11] which documents financial flows between 26 sectors and 190 countries in the global economy.
- A set of SDG metrics and satellite accounts to enable the modelling of SDG Exposure based on financial flows within companies and sectors.

These components and their application in the SDG Evaluation analysis are described in the following sections.

Multi-Regional Input-Output Model

Input-output models provide a simple and robust method for the evaluation of the linkages between economic activities in one sector and/or country, and those of all other sectors and countries in the economy. Thus, input-output models describe the financial flows within the economy as the outputs of one sector are used as inputs to another sector. Input-output models may be extended with a set of satellite accounts describing environmental or social resource consumption or emissions associated with activities in each sector, allowing the estimation of the environmental and social impacts associated with complex cross-sectoral and international supply chains. Trucost converted the EORA26 input-output table to an input-output model describing the direct and indirect supply chains of each sector and country combination in the model. The model was inverted to approximate the downstream markets in which the outputs of each sector and country are consumed. In combination, the input-output model represents the full value chain of a company based on its operating sector and locations, and the end markets for its products and services.

[11] Lenzen M, Kanemoto K; Moran D, and Geschke A., 2012, *Mapping the structure of the world economy,* Environmental Science & Technology 46(15) pp 8374–8381. DOI: 10.1021/es300171x.

SDG Metrics and SDGEI-O Extensions

The Trucost SDGEI-O model includes a set of 45 extensions describing the impacts or dependency of each sector in each country on a series of ESG issues linked to the SDGs. The metric set was identified based on a detailed bottom-up review of the 169 targets that make up the 17 SDGs, with a view to selecting a series of metrics that are:

- **Representative of corporate exposure** to an SDG target through a plausible impact or dependency pathway. For example, impacts on GHG emissions via the use of fossil fuels, or dependency on unsafe working conditions via the indirect workforce in a company's supply chain.
- **Amenable to geographic and sector-specific exposure modelling** with appropriate modelling techniques and data sets available. Complete monitoring and disclosure of information on the full range of issues underlying the SDGs for company operations is rare, and rarer still for the full value chain given the complexities inherent in gathering this data. Consequently, the selection of a set of metrics that can be reliably modelled for all companies, regardless of the quality of their disclosure, was critical.

Appendix 2 describes the 45 metrics included in the SDG Exposure Assessment Model, including the metric definition, estimation approach, data sources, and linked SDGs. While the majority of metrics apply to all sectors, a small selection are limited to one or more sectors, including:

- Metric 5: Agricultural Practices (food and beverage, agriculture and fishing sectors)
- Metric 15: Energy Access (electricity, gas, and water sector)
- Metric 24: Sustainable Tourism (hotels and restaurants sector)
- Metric 25: Financial Services Access (financial Intermediation and business activities sector)
- Metric 37: Overfishing (fishing sector)

Company Exposure Assessment

The combination of the multi-regional input-output model and the SDG metric extensions forms the SDGEI-O, which enables the modelling of company impacts and dependencies on each of the 45 SDG metrics across four stages of the value chain: direct operations, direct suppliers, indirect suppliers, and downstream or product use and disposal.

The SDGEI-O model is used to develop impact and dependency profiles for each country and sector combination (e.g. retail trade in the US, food and beverage in Egypt) in the model, at each stage of the value chain. These profiles are then combined to reflect the sectoral and geographic composition of a given company to produce a company-specific SDG Exposure profile.

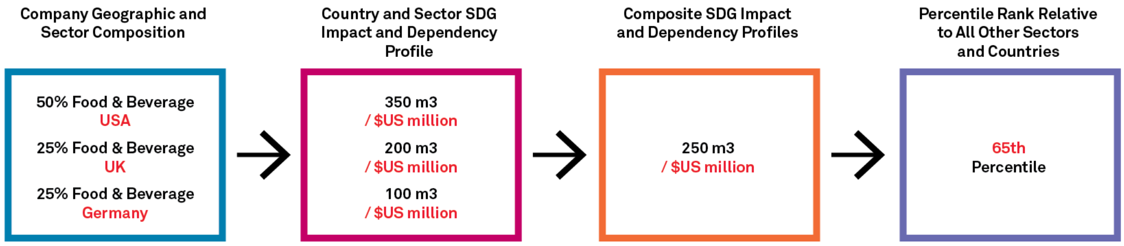

Figure A-1: SDG Exposure Analysis Example: Water Consumption Metric for XYZ Company Operations

Source: Trucost analysis. For illustrative purposes only

Since each metric in the SDGEI-O is quantified in its own unique units – cubic meters for the water consumption metric, or employees at risk of underpayment for the fair wages metric – it is necessary to design an approach to compare the relative level of exposure to each metric given a company's particular sectoral and geographic composition. As shown in A-1, the composite SDG impact and dependency profiles for a given company are compared with that of all other countries and sectors in the SDGEI-O to rank the level of exposure for the company to each metric, relative to the global economy. This allows for the comparison of the relative magnitude of exposure of a company to each metric. This process is repeated for the four stages of the value chain to produce an average exposure profile for the company at the metric level, and aggregated to the SDG level based on the metrics linked to each SDG.

SDG Risk Mitigation and Management Assessment

The SDG Exposure Model produces a heat map of company exposure to each SDG based on its geographies and sectors of operation, but does not take account of the actions already adopted by a company to manage and mitigate the SDG risks to which it is exposed. Many leading companies have adopted, or plan to adopt, strategies, policies, and actions to reduce or eliminate adverse impacts on a range of ESG issues. Trucost applies a structured and criteria-based methodology to assess a company's Management and Mitigation efforts across each of the 45 SDG metrics, and rank companies on a scale from No Action to Leader for each metric.

The assessment focuses on the following four criteria for best practice in the management of ESG risks:

- **Transparency**: Disclosure of relevant quantitative information in line with relevant national, international, or sector recognised standards.
- **Action and Targets:** Setting ambitious targets and taking action to improve performance.
- **Continuous Improvement:** Disclosure of quantitative information demonstrating improvement in performance over time.
- **Verification:** Verification of disclosures by a relevant auditor or standards organisation.
- **Scope:** Policies and actions adopted covering all value chain stages (indirect suppliers, direct suppliers, direct operations, and customers).

These criteria form the basis of a scorecard including 10 questions for each of the 45 SDG metrics. A number of metrics are assessed against alternative criteria, including:

- **Metric 33:** Sustainability Reporting. This metric is assessed based on whether or not the company publishes a sustainability report that is consistent with a recognized standard, such as the Global Reporting Initiative or International Integrated Reporting Council.
- **Metric 42:** Rule of Law. This metric is assessed against a set of criteria relating to disclosure of legal action against the company, the establishment of a code of conduct requiring compliance with local laws by the company and its suppliers, and the auditing of suppliers against the code of conduct.
- **Metric 44:** Fair-Share Taxation. This metric is assessed against a set of best practice criteria for tax transparence published by the UN Principles for Responsible Investment (PRI, 2018).

Table A-1: **SDG Risk Mitigation and Management Assessment – Scorecard Questions for Fair Wages Metric**

Source: Trucost Analysis

N.O.	Criteria	Question	Answer	Score
1	Transparency	Does the company reference fair wages in the public disclosures reviewed?	Yes/No	1 Point
2	Transparency	Does the company disclose quantitative information in relation to fair wages?	Yes/No	1 Point
3	Transparency	Is the company's disclosure on fair wages reported in line with a relevant national, international, or sector recognised standard?*	Yes/No	1 Point
4	Action and Targets	Has the company reported on any actions, policies, or procedures implemented to address or improve performance on the issue of fair wages?	Yes/No	1 Point
5	Action and Targets	Has the company set a quantitative target to improve performance on the issue of fair wages?	Yes/No	1 Point
6	Action and Targets	Is the company's target on fair wages informed by relevant scientific models or evidence?*	Yes/No	1 Point
7	Impact	Does the company report that it has improved its performance on fair wages in the past 5 years?	Yes/No	1 Point
8	Impact	Does the company report quantitative information (physical quantities, financial values, percentages) on improvements in performance relating to fair wages?	Yes/No	1 Point
9	Verification	Has the company's reporting on fair wages been verified by a relevant auditor, standards organisation, or other organisation?	Yes/No	1 Point
10	Scope	Which stages of the value chain does the company's disclosure, actions, or impact on fair wages cover?	Operations Direct Suppliers Indirect Suppliers Downstream	1 Point per Value Chain Stage

* denotes questions that are relevant for selected metrics only.

Companies are assigned a cumulative score for each metric based on the number of relevant criteria met for each metric. SDG Risk Mitigation scores are converted to performance rankings as shown in Table A-2.

The SDG Risk Management and Mitigation ratings are used to adjust the SDG Exposure assessment for a company based on the degree to which the company is managing and mitigating risks associated with each metric. The exposure reduction percentage associated with each rating is shown in Table A-2. The adjusted exposure profile for a company is used to calculate the SDG Risk associated with each SDG, and as an overall average for the company.

Table A-2: SDG Risk Mitigation and Management Assessment – Performance Rankings

Performance Ranking	SDG Risk Mitigation and Management Score Range	Percentage Reduction in SDG Exposure
No Action	0% of maximum score	0%
Aware	1-33% of maximum score	25%
Active	34-66% of maximum score	50%
Advanced	67-99% of maximum score	75%
Leader	100% of maximum score	100%

SDG Positive Impact Assessment

As stated earlier, the Trucost SDG Evaluation considers the positive impacts companies create for the SDGs across five themes:

1. Revenue from products and services that contribute to the SDGs, adjusted for the level of need for such products in key sales markets.
2. Contributions to economic growth measured as the three-year average Earnings before Interest and Tax (EBIT) growth rate.
3. Contributions to full employment, measured based on the company labor intensity compared to the average across the sectors and countries in which the company operates.
4. Contributions to corporate philanthropy, including product donations, volunteering, and other activities compared with a benchmark of 1% of profit.
5. Public commitments to specific, substantial, and time-bound targets to transform business models to better align with the SDGs.

While these five themes do not necessarily encompass all ways in which a business may make a positive contribution to the SDGs, it is Trucost's position that the five themes selected capture the most significant means. The analysis of each of the five SDG Positive Impact themes is described in the following sections.

Revenue from SDG Positive Products and Services

Trucost evaluates company revenue from SDG positive products and services based on a two-step process:

- Evaluating the share of revenue derived from products, services, and technologies that contribute to the SDGs.
- Weighting SDG-aligned revenue based on the level of need for solutions to relevant SDGs in the company's key markets.

The share of SDG-aligned revenue is determined by mapping company revenue by product category to a database of SDG Positive Impact products and services. This database was developed by Trucost based on a bottom-up review of the 169 SDG targets to identify categories of products, services, and technologies that directly contribute to the achievement of each target. Products and services may be relevant to multiple SDG targets due to the interrelationships inherent in the SDGs. An example of the SDG Positive Product Database is shown in Table A-3. A score for SDG-aligned revenue is assigned to the company based on the following formula:

$$\text{SDG-Aligned Revenue Score} = \frac{\text{(Sum (Percentage Revenue from SDG Aligned Products) * 100)}}{2}$$

This methodology produces a maximum score of 50 for companies that derive 100% of their revenue from SDG-aligned products and services.

Table A-3: SDG Positive Impact – SDG-Aligned Product and Service Category Examples

SDG Product or Service Category	Relevant SDG(s)	Example SDG Impact Multiplier		
		US	Bangladesh	China
Wastewater Treatment Services	SDG 6	105%	128%	116%
Vaccine Products and Services	SDG 3	128%	154%	127%
Infant and Children's Food	SDG 2	138%	173%	142%

A weighting is assigned to company SDG-aligned revenue scores based on the degree of need for solutions to SDGs of relevance to the company's product portfolio. Trucost applies an SDG impact weighting to reflect the additional benefit associated with delivering products and services in those geographies where they are most needed. Trucost has developed a weighting scheme based on the SDG Index produced by the Sustainable Development Solutions Network that ranks countries based on relative progress in the achievement of each SDG. SDG Impact weights are expressed as a multiplier ranging from 100% to 200% applied to the company's share of SDG aligned revenue. Products and services contributing to GHG emissions reductions (such as renewable energy or emissions reduction technologies) are not weighted by country of sale since GHG emissions reductions are equivalent in all locations with respect to the impact on climate change.

The combined score for revenue from SDG positive products and services is calculated as follows:

SDG Positive Impact Score (SDG Positive Revenue) = SDG Aligned Revenue Score X SDG Impact Multiplier

Contributions to Economic Growth

Decent Work and Economic Growth (SDG 8) includes a target to sustain per capita economic growth in accordance with national circumstances, and to at least 7% per annum in the least developed countries (Target 8.1).[12] A key means by which companies can contribute to this goal is through growth in value addition over time by the development and sale of goods and services in high demand in the global economy. Trucost assesses company contributions to economic growth based on the three-year average growth rate for EBIT. The contributions to economic growth score is calculated as follows:

SDG Positive Impact Score (Economic Growth) = 3 year average EBIT Growth (%) X 100*

*bounded with a maximum score of 100 and minimum score of 0

Contributions to Employment

Decent Work and Economic Growth (SDG 8) includes a target to achieve full and productive employment for all by 2030.[13] A key means by which companies can contribute to this goal is to tailor business models to balance profitability against the creation of quality employment opportunities. Trucost assesses company contributions to employment by comparing the company labour intensity (headcount per million of revenue) with a benchmark representing the average labor intensity in the countries and sectors where the company operates. Country and sector labor-intensity benchmarks were calculated by Trucost based on data from

[12] United Nations, 2018a, Sustainable Development Goals Knowledge Platform, https://sustainabledevelopment.un.org/sdg8.
[13] United Nations, 2018a, Sustainable Development Goals Knowledge Platform, https://sustainabledevelopment.un.org/sdg8.

the International Labor Organisation[14] and the UN.[15] The contribution to employment score is calculated as follows:

$$\text{SDG Positive Impact Score (Employment)} = \frac{\text{Labour intensity (headcount/\$US million)}}{\text{Country sector benchmark}}$$

Contributions to Corporate Philanthropy

Many companies contribute to corporate philanthropy activities through cash donations to charitable and community organizations, employee volunteering initiatives, and donations of products and services. Trucost assesses company contributions to corporate philanthropy initiatives by calculating the total value of philanthropic spending on causes aligned with the SDGs, and then comparing this with a corporate philanthropy benchmark of 1% of net income. The contributions to corporate philanthropy score is calculated as follows:

$$\text{SDG Positive Impact Score (Philanthropy)} = \frac{\text{Sum (SDG-aligned corporate philanthropy spend)}}{\text{(Net income x 1\%)}}$$

Business Model Transformation

The business model transformation theme is intended to recognize companies that have made substantial, forward-looking and time-bound commitments to transform their business model to address one or more issues linked to the SDGs. Examples of business model transformation include the decarbonisation of electric utilities, or the transition of automobile manufacturing to electric vehicle technology.

[14] International Labor Organisation, 2018, *Employment by sex and economic activity (Thousands),* https://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page27.jspx;ILOSTATCOOKIE=pFSq0hQcAqgcAFyQA1zVmc1drQlwoidM0rbnWWUss84uB3tCXfFx!774218261?indicator=EMP_TEMP_SEX_ECO_NB&subject=EMP&datasetCode=A&collectionCode=YI&_adf.ctrl-state=1bym9mow98_4&_afrLoop=849390286381647&_afrWindowMode=0&_afrWindowId=null#!%40%40%3Findicator%3DEMP_TEMP_SEX_ECO_NB%26_afrWindowId%3Dnull%26subject%3DEMP%26_afrLoop%3D849390286381647%26datasetCode%3DA%26collectionCode%3DYI%26_afrWindowMode%3D0%26_adf.ctrl-state%3D192t6md9p7_4.

[15] UN Data, 2018, *Employed population by status in employment, industry and sex*, http://data.un.org/Data.aspx?d=POP&f=tableCode%3a323

Trucost assesses company commitments to business model transformation against five criteria with companies assigned a score of 20 per criteria met, to a maximum score of 100:

- Has the company made a forward-looking commitment to transform its business model in a way that is expected to benefit an important SDG issue for the company?
- Is the commitment quantitative? That is, does the commitment include a quantitative future target?
- Is the commitment time bound?
- Is the commitment public?
- Does this commitment cover at least 50% of the company's activity or revenue?

SDG Positive Impact Score

Trucost calculates an overall SDG Positive Impact score as a weighted average of the five themes, applying the weights shown in A-4.

Table A-4: SDG Positive Impact – Positive Impact Theme Weighting

SDG Positive Impact Theme	Weight
SDG Positive Revenue	50%
Contributions to Economic Growth	12.5%
Contribution to Employment	12.5%
Contribution to Corporate Philanthropy	12.5%
Business Model Transformation	12.5%

Limitations

The scope of this analysis necessitates a range of simplifying assumptions and methodological choices, which present some limitations that must be considered when interpreting the results.

- **Sector and Geographic Granularity.** The EORA26 input-output tables selected as the basis for the Trucost SDGEI-O offers the most extensive geographic coverage available in the market, but is limited to 26 unique sectors within each geography. As such, in many cases the social and environmental extensions included in the model represent averages for a range of sub-sectors contained within each high-level sector.
- **ESG Data Availability.** Availability of detailed country and sector specific information on the broad range of ESG issues represented by the SDGs is variable. While extensive and detailed datasets are available on the environmental performance across countries and sectors (such as those

developed by Trucost), datasets focusing on environmental and social issues are more limited. As such, the Trucost SDGEI-O incorporates a mix of country- and sector-specific datasets where available. The data sources used in the calculation of each SDG metric are described in Appendix 2.

- **Peer Benchmarking**. The results presented in this report include the outcomes of one-to-one engagements with 13 leading companies, and arms-length assessments of 24 peer companies selected by the program participants. While the SDG Evaluation assessment relies primarily on publically available data, Trucost was able to clarify any queries or uncertainties with the program participants. This was not the case for the peer companies, which were assessed based on public information only. This discrepancy may confer a marginal advantage to the program participants in the analysis.
- **Metric Selection**. In designing the SDG Evaluation, Trucost has sought to select a set of metrics that are broadly representative of the issues underlying the SDGs, with a focus on metrics that are amenable to modelling and representative of company exposure to a given issue through a plausible impact pathway. Due to data constraints, it was not possible to design metrics linked to all 169 of the SDG targets, many of which are not quantitative or are primarily directed to governments.

Appendix 2. SDG Metrics and Data Sources

Table A-5: Metrics and Data Sources

No.	SDG Metric	Linked SDGs	Definition	Estimation Method	Data Sources
1	Poverty Risk	SDG 1	Risk of poverty (income of less $2 per day) among workers engaged in direct operations and the value chain.	Sector and country average labour intensity multiplied by country average poverty risk	ILO (2018) UN Data (2018), Lenzen et al (2012) New Earth (2018) Benoit Norris and Norris (2015) Trucost Analysis
2	Fair Wages	SDG 1	Risk of underpayment of fair wages among workers engaged in direct operations and the value chain.	Sector and country average labour intensity multiplied by country average underpayment risk	ILO (2018) UN Data (2018) Lenzen et al (2012) New Earth (2018) Benoit Norris and Norris (2015) Trucost Analysis
3	Indigenous Rights	SDG 1 SDG 10	Risk of infringement of indigenous rights by country and sector in direct operations and the value chain.	Sector and country average labour intensity multiplied by country average indigenous rights risk	ILO (2018) UN Data (2018) Lenzen et al (2012) New Earth (2018) Benoit Norris and Norris (2015) Trucost Analysis
4	Undernourishment Risk	SDG 2	Risk of undernourishment among workers engaged in direct operations and the value chain.	Sector and country average labour intensity multiplied by country average prevalence of undernourishment	ILO (2018) UN Data (2018) Lenzen et al (2012) World Bank (2018a) Trucost Analysis

5	Agricultural Practices	SDG 2	Risk of exposure to unsustainable agricultural practices due to dependence on agriculture and fisheries commodities.	Assumed of relevance to all companies operating in the agriculture, fisheries and food and beverage sectors	Lenzen et al (2012) Trucost Analysis
6	Non-Communicable Disease Risk	SDG 3	Risk of non-communicable disease among workers engaged in direct operations and the value chain	Sector and country average labour intensity multiplied by country average percentage of deaths caused by non-communicable disease	ILO (2018) UN Data (2018) Lenzen et al (2012) World Bank (2018b) Trucost Analysis
7	Communicable Disease Risk	SDG 3	Risk of communicable disease among workers engaged in direct operations and the value chain	Sector and country average labour intensity multiplied by country average percentage of deaths caused by communicable disease	ILO (2018) UN Data (2018) Lenzen et al (2012) World Bank (2018) Trucost Analysis
8	Air Pollution	SDG 3 SDG 11 SDG 12	Health consequences of air pollution created in the direct operations and the value chain.	Sector average emissions factor for particulate matter, ammonic, sulphur dioxide, nitrous oxides, and non-methane volatile organic compounds multiplied by country-specific externality valuation factor	Lenzen et al (2012) Trucost proprietary data
9	Land and Water Pollution (Health Impact)	SDG 3	Health consequences of land and water pollution created in the direct operations and the value chain.	Sector average emissions factor for toxic organic compounds and metals multiplied by country-specific externality valuation factor	Lenzen et al (2012) Trucost proprietary data
10	Healthcare Access Risk	SDG 3	Risk of inadequate access to healthcare among workers engaged in direct operations and the value chain.	Sector and country average labour intensity multiplied by country-specific Institute for health metric and evaluation healthcare access index	ILO (2018) UN Data (2018) Lenzen et al (2012) IHME (2018) Trucost Analysis

11	Education Access	SDG 4	Risk of inadequate access to early childhood, primary, and secondary education among the families of workers engaged in direct operations and the value chain.	Sector and country average labour intensity multiplied by country average UN Development Program education index	ILO (2018) UN Data (2018) Lenzen et al (2012) UNDP (2018) Trucost Analysis
12	Gender Equality	SDG 5 SDG 10	Risk of gender inequality among workers engaged in direct operations and the value chain.	Sector and country average labour intensity multiplied by country average gender equality metric	ILO (2018) UN Data (2018) Lenzen et al (2012) New Earth (2018) Benoit Norris and Norris (2015) Trucost Analysis
13	Water Consumption	SDG 6	Health and ecosystem impacts of water consumption in direct operations and the value chain.	Sector average water consumption multiplied by country-specific externality valuation factor	Lenzen et al (2012) Trucost proprietary data
14	Water Pollution	SDG 6	Health and ecosystem consequences of water pollution created in the direct operations and the value chain.	Sector average emissions factors for organic and metal pollutants to water multiplied by country-specific externality valuation factor	Lenzen et al (2012) Trucost proprietary data
15	Energy Access	SDG 7	Responsibility to contribute to the extending access to energy infrastructure to underserved populations.	Assumed relevant for all companies operating in the electricity, water, and gas sector	Lenzen et al (2012) Trucost Analysis
16	Renewable Energy	SDG 7	Responsibility to contribute to the extending access to renewable energy, and to support the use of renewable energy in direct operations and the value chain.	Inverse of country average renewable energy consumption	Lenzen et al (2012) World Bank (2018d) Trucost Analysis
17	Energy Consumption	SDG 7 SDG 9	Energy intensity of business operations and value chain.	Sector and country average energy intensity	Lenzen et al (2012) Trucost Analysis

18	Forced Labour and Modern Slavery Risk	SDG 8	Risk of forced labour among employees in the direct operations and the value chain.	Sector and country average labour intensity multiplied by country average forced labour risk metric	ILO (2018) UN Data (2018) Lenzen et al (2012) New Earth (2018) Benoit Norris and Norris (2015) Trucost Analysis
19	Labour Rights Risk	SDG 8	Risk of inadequate labour rights protections among employees in the direct operations and the value chain.	Sector and country average labour intensity multiplied by country average labour rights risk metric	ILO (2018) UN Data (2018) Lenzen et al (2012) New Earth (2018) Benoit Norris and Norris (2015) Trucost Analysis
20	Occupational Health and Safety Risk	SDG 8	Risk of occupational health and safety incidents among employees in the direct operations and the value chain.	Sector and country average labour intensity multiplied by country average occupational health and safety risk metric	ILO (2018) UN Data (2018) Lenzen et al (2012) New Earth (2018) Benoit Norris and Norris (2015) Trucost Analysis
21	Freedom of Association	SDG 8	Risk of inadequate freedom of association among employees in the direct operations and the value chain.	Sector and country average labour intensity multiplied by country average freedom of association risk metric	ILO (2018) UN Data (2018) Lenzen et al (2012) New Earth (2018) Benoit Norris and Norris (2015) Trucost Analysis
22	Economic Development in the Least Developed Countries	SDG 8	Economic contributions to the least developed countries as classified by the UN.	Assumed relevant to all operational and supply chain activities in the least developed countries, as defined by the UN	United Nations Committee for Development Policy (2018) Trucost Analysis

23	Waste	SDG 8	Health and ecosystem consequences of waste disposal in the direct operations and the value chain.	Sector average emissions factors waste multiplied by country-specific externality valuation factor	Lenzen et al (2012) Trucost proprietary data
24	Sustainable Tourism	SDG 8	Risk of exposure to unsustainable tourism practices.	Assumed relevant for all companies operating in the Hotels and Restaurants sector	Lenzen et al (2012) Trucost Analysis
25	Financial Service Access	SDG 8	Responsibility to extend financial services to underserved populations and communities.	Assumed relevant for all companies operating in the financial services and business intermediation sector	Lenzen et al (2012) Trucost Analysis
26	Greenhouse Gas Intensity	SDG 13	Greenhouse gas emissions in the direct operations and the supply chain.	Country average GHG emissions intensity	Lenzen et al (2012) Trucost Analysis
27	Research and Development Investment	SDG 9	Private sector responsibility to invest in research and development.	Inverse of country-specific percentage of GDP spent on research and development	Lenzen et al (2012) World Bank (2018) Trucost Analysis
28	Migrant Worker Rights	SDG 10	Risk of migrant discrimination among workers engaged in direct operations and the value chain.	Sector and country average labour intensity multiplied by country average migrant workers' rights risk metric	ILO (2018) UN Data (2018) Lenzen et al (2012) New Earth (2018) Benoit Norris and Norris (2015) Trucost Analysis
29	Housing Access	SDG 11	Risk of inadequate access to safe housing for direct and indirect employees in the direct operations or the value chain.	Country-specific percentage of urban population living in slums	Lenzen et al (2012) World Bank (2018) Trucost Analysis
30	Disaster Risk	SDG 11	Risk of exposure to natural disasters among employees in the direct operations or the value chain.	Country-specific disaster risk index	Lenzen et al (2012) Institute for Spatial Planning and Development Planning (2018) Trucost Analysis
31	Material Footprint	SDG 9 SDG 12	Material intensity of activities in the direct operations and value chain.	Country average material footprint index	Lenzen et al (2012) Weidmann et al (2013)

					Trucost Analysis
32	Land and Water Pollution (Total Impact)	SDG 12	Health and ecosystem consequences of land and water pollutant emissions in the direct operations and the value chain.	Sector average emissions factors for organic and metal emissions to land and water multiplied by country-specific externality valuation factor	Lenzen et al (2012) Trucost proprietary data
33	Sustainability Reporting	SDF 12	Transparent sustainability reporting is the responsibility of all businesses.	Assumed relevant for all sectors	Lenzen et al (2012) Trucost Analysis
34	Sustainability Awareness	SDG 12	Promotion of sustainability awareness is the responsibility of all businesses.	Assumed relevant for all sectors	Lenzen et al (2012) Trucost Analysis
35	Climate Change Vulnerability and Adaptation Readiness	SDG 13	Vulnerability of business operations and supply chain to climate related hazards and natural disasters.	Country-specific climate vulnerability index	Lenzen et al (2012) Notre Dame Global Adaptation Institute (2018) Trucost Analysis
36	Marine Pollution (Total Impact)	SDG 14	Health and ecosystem consequences of marine pollutant emissions in the direct operations and the value chain.	Sector average emissions factors for organic and metal emissions to marine environments multiplied by country-specific externality valuation factor	Lenzen et al (2012) Trucost proprietary data
37	Overfishing	SDG 14	Exposure to the risk of overfishing in the direct operations or the supply chain.	Assumed relevant to the fisheries sector	Lenzen et al (2012) Trucost Analysis
38	Land Pollution (Ecosystem Impact)	SDG 15	Ecosystem consequences of land pollutant emissions in the direct operations and the value chain.	Sector average emissions factors for organic and metal emissions to land multiplied by country-specific externality valuation factor	Lenzen et al (2012) Trucost proprietary data
39	Deforestation	SDG 15	Risk of exposure to deforestation risks in the direct operations or supply chain, i.e. active involvement in deforestation or procurement of goods produced by companies engaged in deforestation.	Sector average land use multiplied by country average forest cover	Lenzen et al (2012) World Bank (2018) Trucost proprietary data

40	Corruption and Bribery	SDG 16	Risk of corruption and bribery in the direct operations and supply chain.	Country perceptions of corruption index	Lenzen et al (2012) Transparency International (2017) Trucost proprietary data
41	Child Labour Risk	SDG 16	Risk of child labour in the direct operations and value chain.	Sector and country average labour intensity multiplied by country average child labour risk metric	ILO (2018) UN Data (2018) Lenzen et al (2012) New Earth (2018) Benoit Norris and Norris (2015) Trucost Analysis
42	Rule of Law	SDG 16	Exposure to countries with inadequate rule of law through the direct operations and value chain.	Country average rule of law index	Lenzen et al (2012) World Justice Project (2018) Trucost proprietary data
43	Governance and Transparency	SDG 16	All businesses are responsible for good corporate governance and transparency.	Assumed relevant for all sectors	Lenzen et al (2012) Trucost Analysis
44	Fair Share Taxation	SDG 17	Exposure to jurisdictions with high financial secrecy and risk of tax evasion.	Country financial secrecy index	Lenzen et al (2012) Tax Justice Network (2018) Trucost Analysis
45	Partnerships for the Goals	SDG 17	All businesses are responsible for supporting multilateral partnerships to achieve the SDGs.	Assumed relevant for all sectors	Lenzen et al (2012) Trucost Analysis

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