EVALUESERVE



Whitepaper:

Lessons from 20 Years of ESG Data Production

October 2023

Executive Summary

This report, "Lessons from 20 Years of ESG Data Production," offers valuable insights into the evolving landscape of ESG (Environmental, Social, and Governance) data, drawing on Evalueserve's over two decades of specialized expertise in this domain.

PART 1	PART 2	PART 3
Lessons Learned on ESG Reporting delineates the persisting challenges in ESG data production, notably the lack of a uniform ESG rating system and standardized disclosure frameworks.	Lessons Learned from the Production of ESG Data delves into the lessons learned from Evalueserve's ESG data production. It underscores the need for a specialized team, continuous training, a global approach, rigorous quality control, and the integration of technology to enhance the ESG data production process.	what the Data Tells Us provides unique observations derived from Evalueserve's 20 years of ESG data production. It highlights significant variations in ESG reporting across different industry sectors and the three ESG pillars. The report discusses the challenges associated with environmental reporting and the discrepancies in reporting at the sub-theme level. Furthermore, it addresses product involvement data and the complexities involved in assessing business conduct and alignment with ESG and sustainability requirements.

In conclusion, the report offers valuable insights into the challenges and trends in ESG reporting, highlighting the importance of expertise, training, and technology in producing high-quality ESG data. It serves as a valuable resource for businesses navigating the intricate world of ESG reporting and underscores Evalueserve's extensive experience in this domain.

Part 1 - Lessons Learned on ESG Reporting

A transportation revolution commenced with the simple patent for a gas engine-powered vehicle filed by Carl Benz in 1886. Since then, the automobile has advanced from its humble beginnings, with today's EVs evolving from Benz's initial effort. Today, a comparable revolution is happening in the field of ESG data. The term "ESG" was first introduced in the 2004 United Nations Report "Who Cares Wins." Nearly twenty years later, ESG has grown tremendously in scope and application, expanding beyond its humble origins.

Today, ESG is a crucial business consideration for companies for several reasons, including investor and stakeholder pressure, understanding double materiality, complying with emerging ESG regulations, and aligning with the plethora of ESG frameworks. The constantly changing landscape means ESG presents persisting challenges for companies in managing the competing demands and bearing additional cost burdens. On the other side of the ESG equation, investors also must integrate ESG factors to understand the negative and positive financial impacts on their portfolios. The methods investors use to integrate ESG into their investment decisions come in many shapes, sizes, and flavors, further adding to the complexity of how ESG data is utilized.

For over 20 years, Evalueserve has played an integral role in the ESG data value chain. We have developed a hyper-specialization in producing data aligned with ESG frameworks (e.g., GRI, TCFD, SASB) and regulatory requirements. Our two decades of experience have taught us many lessons about the ongoing ESG data challenges and how best to produce credible ESG data and extract meaningful insights. Two of the most persisting challenges are the lack of a uniform ESG rating system and the lack of standardised ESG disclosure frameworks.



Lack of a uniform ESG rating system: As of 2022, there were over 140 ESG data providers. Each has its own research and scoring methodologies for calculating ESG scores. An OECD investigation of various rating agencies found notable variations in ESG ratings from the agencies for the same company. In our experience, we also find notable differences between expectations and guidelines from various ESG data providers.

For instance, corporate policies related to ESG can be treated and assessed very differently across providers. Some may consider all publicly available data, while others only use company-provided data. Some providers might focus only on actual numbers for emissions and other quantitative data, while others want to consider intensity data as well. A further illustration of this point is how to assess disclosures regarding policies. While some providers look for a detailed, separate policy addressing a specific issue, others will accept generic catchall statements from sustainability reports or other documents. For example, on climate-related commitments, one client was looking for a policy specifically addressing the issue. Meanwhile, another client wanted coverage of policy statements from CSR reports but also wanted evidence of a specific focus on reducing the impact. For this same issue, one client was okay with mere adherence to legal requirements, and another wanted to focus on company statements going beyond the law.

Nestlé, the Swiss-based multinational food, and drink company, provides an example of a company striving to meet or exceed ESG reporting expectations. The company's ESG reporting efforts are well received by third-party ESG raters, having earned a spot on the FTSE4Good Index since 2011 and rated AA by MSCI ESG Research in 2022. A reason for Nestlé's effective performance is the strategic approach it appears to take towards ESG disclosures. Like many companies, it uses multiple frameworks for reporting, providing data according to the GRI, SASB, and TCFD framework requirements. Nestlé also regularly conducts stakeholder engagement to assess issue materiality. In addition to standard ESG disclosures, Nestlé also provides reporting on an issue of particular concern for their industry, specifically regarding the production of baby formula or Breast Milk Substitutes (BMS). Nestlé reports on its compliance with World Health Organization (WHO) guidelines and its policies to ensure implementation of the WHO International Code of Marketing of Breast Milk Substitutes and corresponding national regulations. 4

Lack of Standardised ESG Disclosure Frameworks: Research shows that almost half (45%) of valuation experts feel that the absence of a standardized reporting framework is the biggest obstacle for companies when disclosing their ESG data. In our experience, the GRI framework historically has been the most followed reporting framework, with many companies further supplementing that information with SASB or reporting according to TCFD requirements and sometimes reporting data for all three. While reporting according to a single framework, like the GRI, can satisfy multiple stakeholders, saving time and effort, it inevitably means falling short of other expectations captured by other frameworks. Indeed, rather than using just one, most companies use multiple frameworks when reporting their ESG data. Indeed, according to a survey by Duff & Phelps, companies employ more than 14 different combinations of frameworks for their ESG reporting. This means companies often report the same data multiple times, depending on the frameworks followed. Not only does this increase the chance for confusion by end users as well as reporting errors, but more importantly, it increases the costs in time and effort for companies.

A positive development towards framework standardization is the IFRS' creation of the International Sustainability Standards Board (ISSB), which recently issued two reporting standards, IFRS1 and IFRS2. This effort effectively aligns and merges SASB and TCFD to streamline and standardize reporting. With the consolidation by the IFRS, Evalueserve expects a leveling of the playing field for corporations by easing the reporting burden and improving consistency across disclosures.

As a result of these challenges, producing ESG data requires special tools, dedicated training of a specialized team, and a rigorous approach to ensure reliability and completeness, and to provide clients with output that meets their business needs. These topics will be covered in more detail in

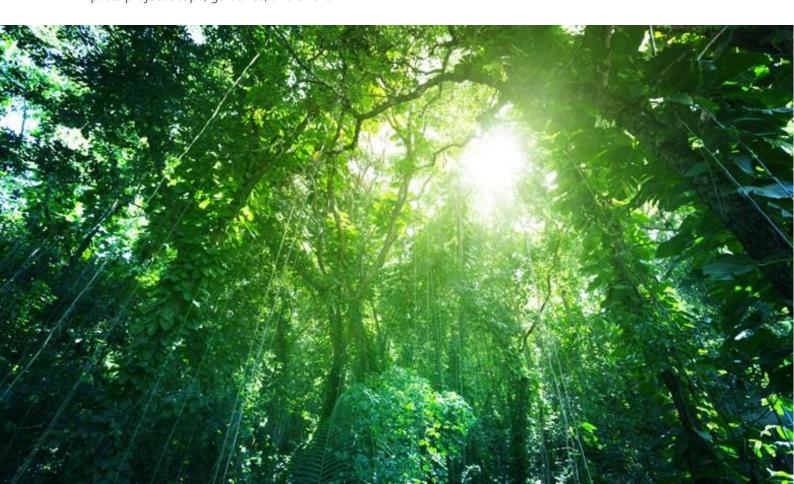
Part 2 - Lessons Learned from the production of ESG data.

Part 2 - Lessons Learned from the production of ESG data.

As discussed in Part 1, companies face challenges disclosing ESG data due to a lack of standardized frameworks, rating systems, and differing methodologies from various providers. In this part, we focus on the challenges researchers face when assessing ESG data and how technology is helping to enhance the process. Some key takeaways based on our experience include understanding that clients are looking for something unique that addresses a specific business need, constant training is essential, a globally-based team is indispensable in providing coverage across time zones as well as language and cultural knowhow, the critical role of quality control, and the importance of leveraging technologies.

No two projects are the same. Every client has unique data needs, with no two sharing the exact requirements given the various business objectives. Client ESG data engagements range from the production of fundamental, raw ESG performance data, such as tons of CO2e or a health and safety incident rate, to data covering ESG controversies, business involvement (positive and negative), and SDG impact, to name a few. Meeting these various needs requires a talented team of ESG analysts with a strong understanding of fundamental concepts and adaptability to meet client-specific needs. A requirement for any project is a clear line of communication with the client's team to establish project scope and guidance to ensure the final deliverable provides maximum impact and value for the client. For instance, collecting and producing numeric indicators is relatively straightforward, whereas the inclusion of qualitative policy and implementation indicators requires more robust quidelines.

One example of ESG data production, where the client requirements vary, is the collection and analysis of product involvement data used by investors to screen (negative or positive) potential investments. Sometimes, clients merely require a binary "yes or no" regarding a company's involvement in a product, such as alcohol, tobacco, or military weapons. Increasingly, investors seek more nuanced and granular data for product involvement that indicate percentages of revenues linked to controversial products and further delineates the direct/indirect connection – is a company a direct manufacturer, supplier, retailer, or part of the flow of commerce? Unsurprisingly, the differing data required in these instances significantly impacts project scope, guidance, and effort.



Training, Training. In keeping up with the ever-changing ESG landscape, continuous training is essential. At Evalueserve, training focuses on developing specialized skills and knowledge for producing ESG data and recognizing the diverse data needs of clients. This means ongoing training that supplements initial instruction conducted for incoming analysts and encourages the pursuit of external credentials from groups like the GRI, SASB, and CFA. Aside from general ESG instruction, analysts undergo project-specific training, which can take weeks, depending on the requirements of a given engagement. Such project-based training is done in coordination with the client, often developed and perfected through pilot phases to refine the scope and guidance.

In the case of one of Evalueserve's more extensive ongoing engagements for ESG data production, analysts undergo over three weeks of specialized training. Depending on the team makeup, newly onboarded and junior members receive training covering ESG fundamentals and engagement-specific preparation, including project guidance, review of covered indicators, and examples of correct and incorrect applications. As part of this training, analysts work up a mock assessment for an actual company and receive feedback to ensure their understanding of the project guidance and ability to apply it in a real work scenario.

The global nature of ESG requires a global approach. ESG reporting is increasingly global in nature, with companies based in more countries publishing ESG reports. This means dealing with reports in several languages. To tackle this challenge, Evalueserve hires ESG data production specialists with multilingual abilities. Equally important as possessing the necessary language capabilities is having boots on the ground with analysts based in the specific locale. A benefit of having local-based analysts is their inherent language ability, especially in the case of Chinese and Japanese or other exotic languages, where hiring language specialists can be difficult and comes at a substantial cost. Having locally-based ESG analysts helps to reduce potential costs and increase efficiency by avoiding the additional step of language translation. Over the course of many engagements, we have found creating teams in the same country or region as the assessed companies to be a significant benefit.

Can't Skimp on the QC. The value of the final output is only as good as the rigor of the quality control and related processes. A sound review process involves two key features. First, it is crucial to have an experienced analyst who can conduct the review process. Second, it is essential to continuously review and improve processes over time to ensure efficiency and effectiveness and adapt to changing circumstances.

At Evalueserve, we have created a clear career path for our Quality Control analysts. All QC analysts begin as junior analysts, ideally elevated from our internal team. Generally, eligibility for a QC role requires approximately two years of ESG data experience. Previous experience can be critical in selecting analysts suited for QC roles for a particular project. Given the variety of engagements, noted above, the type of projects they have worked on can matter. Are their experiences coming from primary, quantitive data collection projects or more specialized projects, such as ESG controversies or product involvement, where more subjective, qualitative judgment was required? Individuals are selected based on the combination of a track record of producing high-quality work and demonstrating a keen understanding of project requirements.

Over the course of a project, Evalueserve uses a two-layered QC process where senior managers will periodically review samples of work that have already undergone an initial quality check to ensure the overall reliability of QC analysts' performance. Further, checks are also performed, as possible, comparing YOY data. This allows for flagging any abnormalities or sudden changes in the data that suggest potential errors. Incorporating AI-powered tools (discussed further below) enhances the QC process by enabling rapid searches for ESG data in publicly accessible documents to ensure the completeness and accuracy of analysts' reporting. Of course, this standard QC process is subject to adaptations and changes based on client demands and the nature of the work performed.

Embracing Technology to gain efficiencies. Humans can analyze the data, but harnessing technology can help improve the speed of the process. Evalueserve believes in a Mind+Machine approach that combines human expertise with best-in-class technologies to design and manage data-centric processes and analytics for our clients. We recognize the imperative to support complex data management and production with Al-powered technologies. This Mind+Machine approach is particularly relevant to the production of ESG data, given the unstructured and qualitative nature of much of it.

To this end, Evalueserve's DIR (Digital Intelligence & Robotics) and AIRA (AI for Research and Analytics) teams have created several proprietary tools to accelerate the production of ESG data. One of these AI tools, Canvass, helps to streamline and expedite the search for relevant ESG information across the public domain. Another tool, Infinity, enables the qualitative interrogation of textual information to aid in creating more rapid and robust assessments.

At Evalueserve, our two decades of experience have taught us that it is best to develop rigorously scoped and structured data production campaigns with clear output targets, led by a hyper-specialized team adhering to a robust methodology backed by Al-powered automation. Next, in Part 3, we review some of the more interesting findings of **What the Data Tells Us** after 20 years of producing ESG data.

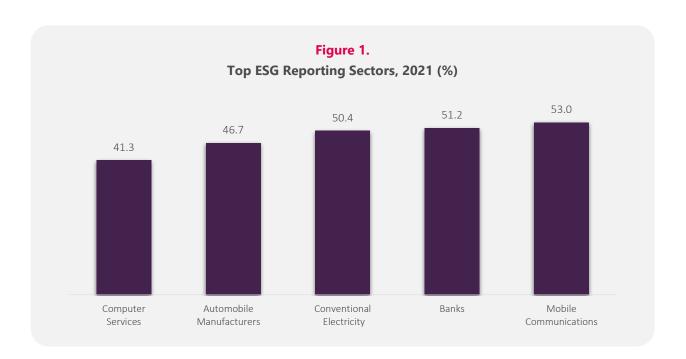


Part 3 - What the Data Tells Us.

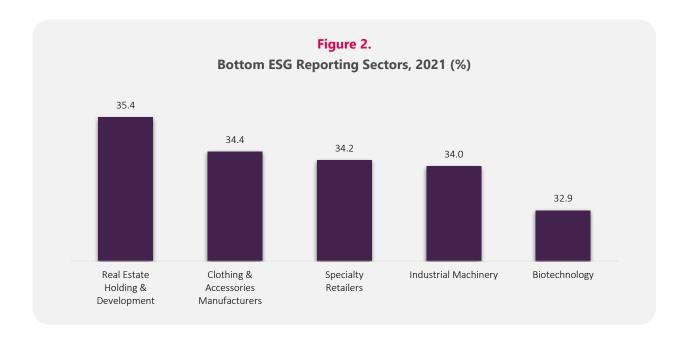
Over the past 20 years, Evalueserve has produced ESG data on thousands of companies across the globe. These engagements include fundamental ESG assessments based on corporate disclosures covering hundreds of specific KPIs and metrics, tracking ESG controversies, and reporting on product involvement. From the aggregation of these data, we can offer several observations about the extent and nature of companies' ESG disclosures.

ESG Data Reported by Sector. There has been a significant increase in ESG data available over the years with the surging interest in ESG and sustainability. Increased company ESG reporting is partly fueled by the proliferation of reporting expectations placed on companies, both voluntary and mandatory. Indeed, one can expect reporting linked to government regulations to continue growing, given the surge in ESG-related regulations, which have increased by 155% over the past decade. Nevertheless, there is still a great deal of variation in the degree of reporting across different industry sectors, as noted by Evalueserve.

Based on 2021 reporting of the global companies Evalueserve examined, when further grouped by sectors, we observe more than a 20% difference in the ESG reporting levels by the highest reporting sector versus the lowest reporting sector (reporting percentage based on expected reporting for a given sector). The leading industry for ESG reporting was the Mobile Communications sector, with a 53% reporting rate. Rounding out the list of the top reporting industries are banks (51.2%), Conventional Electricity (50.4%), Automobiles Manufacturers (46.7%), and Computer Services (41.3) (see Figure 1). As can be seen, even across the leaders, there is a 12% difference from the number one spot to the fifth, with two of the top 5 registering at below 50%. The average for the group comes in below 50% at 48.5%.



Meanwhile, the bottom five reporting sectors were Real Estate Holding and Development, Clothing and Accessories Manufacturers, Specialty Retailers, Industrial Machinery, and Biotechnology (see Figure 2). The reporting average for this group was only 34.1%. There was a smaller spread across this group compared to the top five, with only a 2.5% difference between Real Estate Holding and Development (35.4%) and Biotechnology (32.9%).



So, what are the companies in these industries reporting, or more critically, what aren't they reporting that results in the difference overall? Through a closer examination of the actual reporting across the E, S, and G pillars, Evalueserve found that while generally reporting across the pillars was better for the top five group, there were two areas where the differences were most demonstrable (see Figure 3). First, the top reporting sectors had a much greater level of disclosure on governance. Mobile Communications leads the way in governance reporting at 70.8%. Collectively, the group's average for governance reporting is 65.7%. For the bottom five, governance reporting was much better than their overall mark with a group average of 61.4%, with two sectors, Real Estate Holding & Development (63%) and Specialty Retailers (66.2%), reaching levels surpassing some members of the top five group.

Reporting on the social pillar was the second area where notable differences occurred. The top five had higher social reporting scores, except for Computer Services. With an average score of 45.2%, this group exceeded the bottom five (32%) average by more than 13%. Indeed, none of the sectors in the bottom five group exceeded 40% regarding social reporting. However, it is notable that neither group's environmental reporting surpassed 50%. Instead, companies in each group, except Conventional Electricity (41.6%), did not break the 40% threshold for reporting on the E pillar.

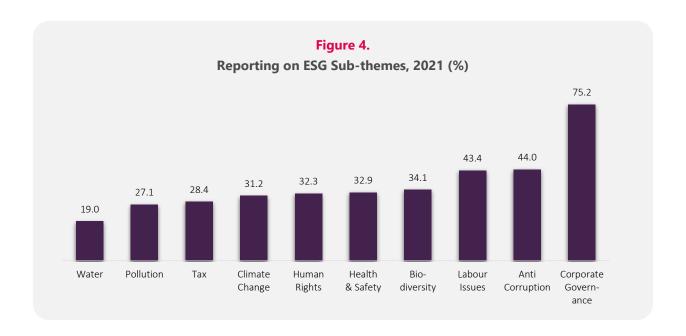
Figure 3.
Best and Worst Sectors for ESG Reporting 2021 (%)

	Industry Sector	Overall	Governance	Environment	Social
Top 5	Mobile Communications	53.0	70.8	35.2	52.9
	Banks	51.2	62.6	37.6	45.1
	Conventional Electricity	50.4	68.7	41.6	49.4
	Automobile	46.7	61	39	44.9
	Computer Services	41.4	66.7	21.9	33.6
Bottom 5	Real Estate Holding & Development	35.4	63	19.5	35.2
	Clothing & Accessories	34.4	59.6	22	31.8
	Specialty Retailers	34.2	66.2	20.5	39.2
	Industrial Machinery	34.0	59.3	21.7	29.7
	Biotechnology	32.9	58.8	15.1	24

What might account for the variation in reporting across these sectors? Finding fairly robust performance for the G pillar coincides with the fact that governance has been a focus of investors demanding companies demonstrate internal management processes, like risk management functions, long before the rise of ESG. Although environmental reporting was the poorest of the three pillars, this is not necessarily unexpected. The environmental area has grown the most of late due to reporting expectations from investors and external stakeholders. This is the area where firms have struggled in data collection and reporting, such as with Scope 1, 2, and 3 GHG emissions.

ESG Data Reporting by Sub-Themes: Drilling down further into company-reported ESG data, Evalueserve's analysts discovered persistent discrepancies in ESG reporting when evaluated at the sub-theme level. Sub-themes are the constitutive elements or issues making up the larger, comprehensive E, S, and G pillars. In the case of the social pillar, some of its various sub-themes include Human rights, community impact, labor standards, health and safety, and philanthropic activity. In reviewing data on sub-themes from across industry sectors, the emerging trend is that environment sub-themes are typically less reported than sub-themes for Social and Governance (see Figure 4). In 2021, companies did well in reporting on Corporate Governance and Anti-Corruption themes. As alluded to in the previous section above, reporting on Corporate Governance (75.2%) was pronounced, exceeding all other examined

sub-themes by more than 35%. Again, governance issues, like legal affairs, audit processes, and compliance actions, benefit from being of longstanding interest to regulators and investors alike.

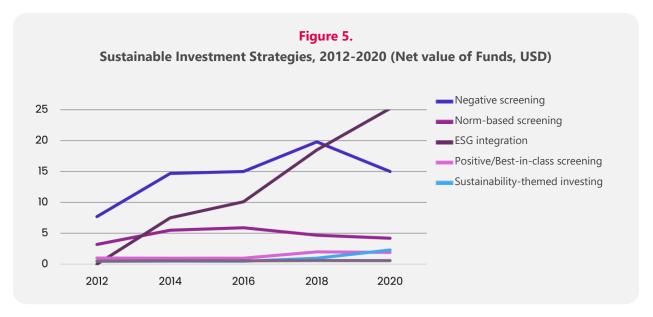


The lowest reporting was for the environmental sub-themes of Water (19%) and Pollution, Waste & Resources (27.1%). Moreover, three of the four lowest reported themes belong to the environmental pillar. These results are surprising given the potential for fines and litigation linked to companies' actions on pollution and waste and that water usage is an acute factor for several industries, including food and beverages, dairy and agriculture, refineries, textile manufacturing, pulp and paper mills, oil and gas, the automotive industries, and many others.

Reporting on environmental sub-themes appears correlated to the level of regulation and external stakeholder expectations. For instance, the increased popularity and interest in the climate-related financial disclosure recommendations of the TCFD, introduced in 2017, aligns with the growth of Climate Change reporting. Similarly, the high level of Bio-diversity reporting may be attributable to the recent focus of new reporting expectations such as the Taskforce on Nature-Related Financial Disclosures (TNFD) and CDSB's Biodiversity Application Guidance.

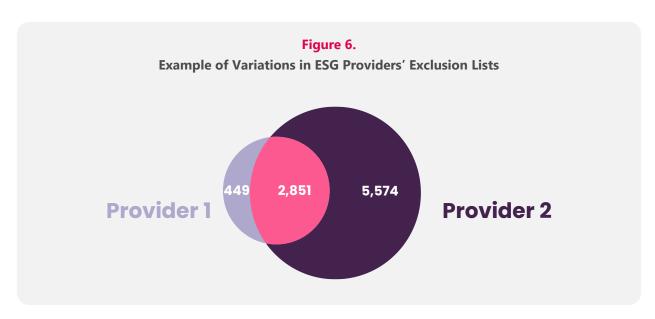
Product Involvement data

Evalueserve is also heavily engaged in producing ESG data on Product Involvement (PI) and business conduct. This work, performed for asset managers, investors, and index providers, provides data on companies' activities to determine eligibility for portfolios, funds, and indices with ESG and sustainability requirements. While ESG integration is the most popular investment strategy for sustainable-focused funds, screening strategies such as negative, positive, norms-based, and sustainable-theme investing are widely used (see Figure 5). These other approaches require investors to know companies' business activities to ensure alignment with investment objectives.



Source: Deutsche Bank Research

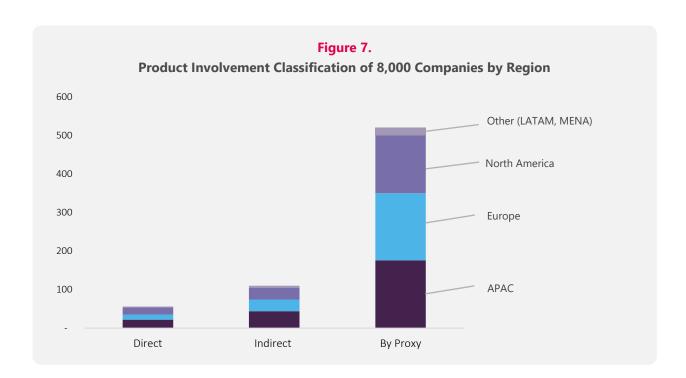
While straightforward, these strategies require an expert approach that carefully evaluates what constitutes "involvement" plus the degree of exposure. For example, should the data look at retailers, franchisees, manufacturers, or suppliers when seeking to screen a product? Moreover, what is the adequate threshold for involvement? Even if these involvement criteria are clearly understood, the necessary information is often opaque, with involvement only found by going beyond an examination of traditional financial disclosures.



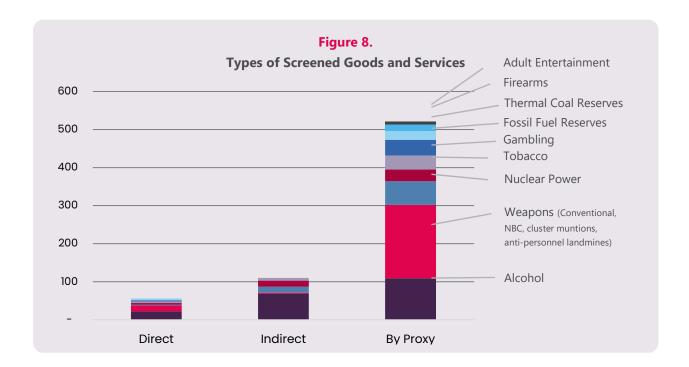
Source: Adapted from <u>Demystifying negative screens: The full implications of ESG exclusions</u>

Moreover, these projects require a thorough understanding of client requirements to deliver on what are often precise and unique screening criteria. Unless already precisely aligning with a user's needs, one-size-fits-all data sets typically come up short of satisfying investment objectives as providers' different coverage universes, definitions, and methodologies result in wildly dissimilar exclusion lists. Figure 6 shows how two providers offer very different exclusion lists based on definitions and company coverage.

Evalueserve has conducted product involvement research on 8,000 companies worldwide, requiring collecting and analyzing company reports and other public sources. As noted above, a comprehensive PI assessment requires more than a simple binary approach, demanding nuanced classification schemes dependent on clients' needs. For the purposes here, we identify three groupings – Direct Involvement, Indirect Involvement, and Involvement by Proxy. Direct Involvement results when a company, through integrated, fully controlled business ventures, derives revenues from prohibited products or services (e.g., tobacco production, sale of alcohol, operation of a casino). Companies that generate revenues from products or services that support the manufacture or sale of prohibited products or services receive the Indirect Involvement classification (e.g., producing packaging for alcohol and tobacco products, manufacture of gaming machines used in casinos). However, when a company's activity does not fit neatly into these two categories, it's tagged as Involvement by Proxy. Examples are goods or services with dual uses, such as parts capable of use in military and civilian aircraft. While not resulting in exclusion, based on screening criteria, these activities are flagged for ongoing monitoring.



Based on our research, we can offer unique observations regarding PI levels, the locations of the involved companies, and the activities discovered across the three categories. Of the 8,000 companies, a small number fall into the Direct and Indirect columns, numbering 56 and 110 companies, respectively (see Figure 7). However, 520 companies fall into the By Proxy classification. This reinforces the notion that producing PI data requires context and expertise in evaluating activities not falling neatly into yes or no buckets. As for geographic distinctions, APAC companies are the most numerous in all three classifications (22 Direct, 44 Indirect, and 176 By Proxy), with Europe and North America placing as close second and third. However, based on the overall number of companies assessed for each region, Europe has the highest percentage of companies screened at nearly 15%. North America comes in second at 12%. In contrast, APAC comes in at only 5%, given the over 4,500 regional companies assessed.



This PI data also reveals the types of goods and services discovered (see Figure 8). Weapons (including conventional, Nuclear, Biological, and Chemical (NBC), cluster munitions, and anti-personnel landmines) were the most commonly screened activity, accounting for 31% (212) of all screened goods and services. Alcohol comes in at a close second with 199 recorded instances (29%). Notably, the largest screening classification for Military Weapons is By Proxy, at 193 cases, indicative of the dual-use nature of many goods and services in the stream of commerce. Indeed, the By Proxy classification is by far the largest, with 520 (76%) of the total 686 recorded instances. Combined with the information on regions, we find that products linked to Weapons constituted the main screen found for North America. At the same time, Alcohol is the main tripwire for APAC and Europe. Evalueserve's experience in PI data reinforces that context is critical to ensure clients, especially investors, have the essential information to make final decisions in line with their business needs.

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In summary, Evalueserve's work in ESG data production shows considerable variation in ESG reporting across different industry sectors and the three pillars. While Environmental reporting has grown the most in recent years, companies struggle with collecting and reporting the necessary data. Analysis at the sub-theme level further underscores this discrepancy with environmental sub-themes typically less reported than sub-themes for Social and Governance. This appears due to several factors, such as the complexity of environmental data, the lack of standardized reporting frameworks, and lower levels of regulatory and stakeholder pressure for environmental reporting. As for product involvement, Evalueserve's experience in PI data highlights the complexity and expertise necessary to offer the critical context to ensure clients have the essential information to make final decisions in line with their business needs.

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