Straive™

Connecting the dots

Integrating ESG Datasets into Investment Operations

WHITEPAPER

The Link Between Data Sets and Investment Decisions

A key reason for investors to consider environmental, social, and governance (ESG) criteria is to arrive at investment decisions based on a set of well-defined ESG factors. ESG's growing popularity stems from the real, positive fiscal implications of ESG-driven decision-making seen by investors. For some investors, sustainability may take greater precedence over financial returns alone. Companies with lower ESG scores concurrently realize the lower value and net worth, further driving the need to track ESG data.

Although requiring the parsing, analyzing, and transforming of a lot of data, reliable ESG scores are essential irrespective of investors' motivations. However, analyzing—or even collecting—ESG data is not a simple task. One avenue for companies to attain some of these data is reaching out to data providers, but companies often do not get the nuanced data they need to integrate into their investment operations. Obtaining these data involves human expertise and technology that may not be within reach of many companies. Thus, integrating ESG data sets into investment decisions requires a clear road map that can serve as a precise indicator of capabilities as well.

Capturing Material Factors

A key reason for integrating ESG criteria into investment decisions is to effectively manage material factors, essential drivers of market risk, and investment returns.[1] Thus, investors can use ESG data sets to focus on better-managed companies, mitigating risks, and leveraging opportunities arising from material, environmental, and social issues.

In the ESG ecosystem, several stakeholders have intertwined roles and use various methods and practices. Therefore, a well-defined framework or workflow is needed to drive a better understanding of the material factor impact.

ESG data offer business insights and intelligence that are usable across multiple industries, domains, and functions to gain a competitive edge. Hence, enterprises have a burgeoning appetite to factor ESG data into their operations to make better decisions.

Exhibit 1: ESG Ecosystem

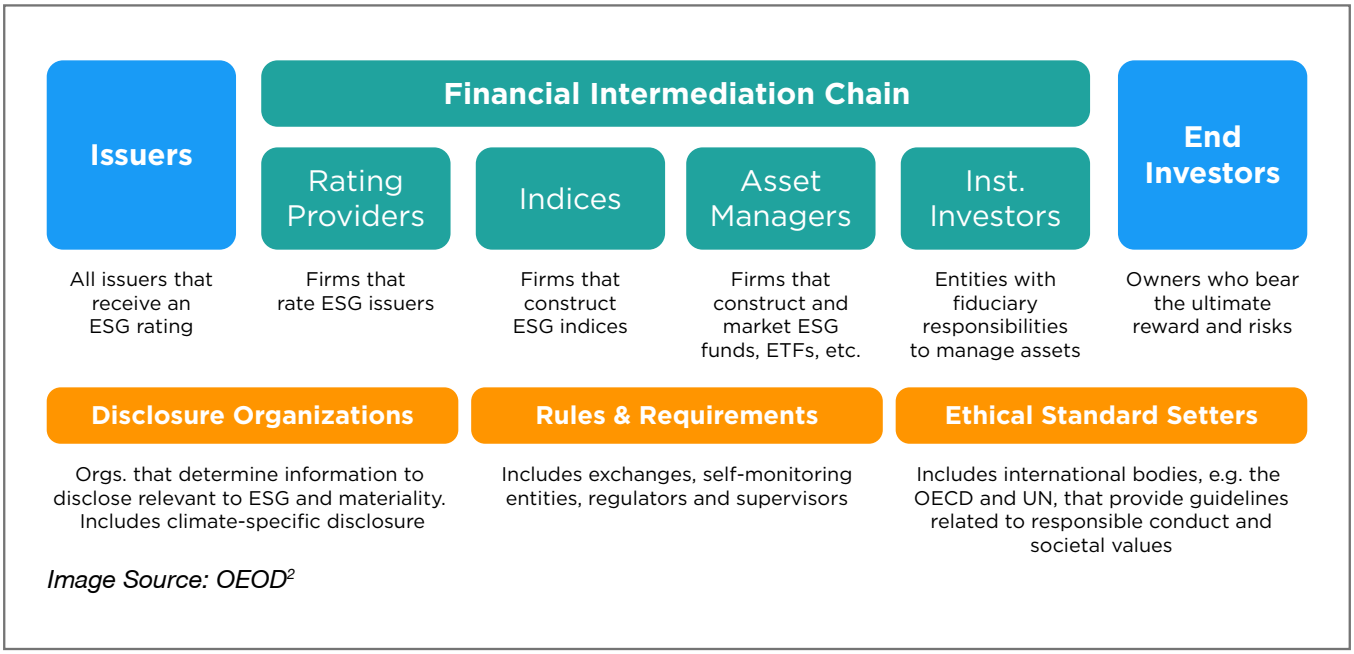


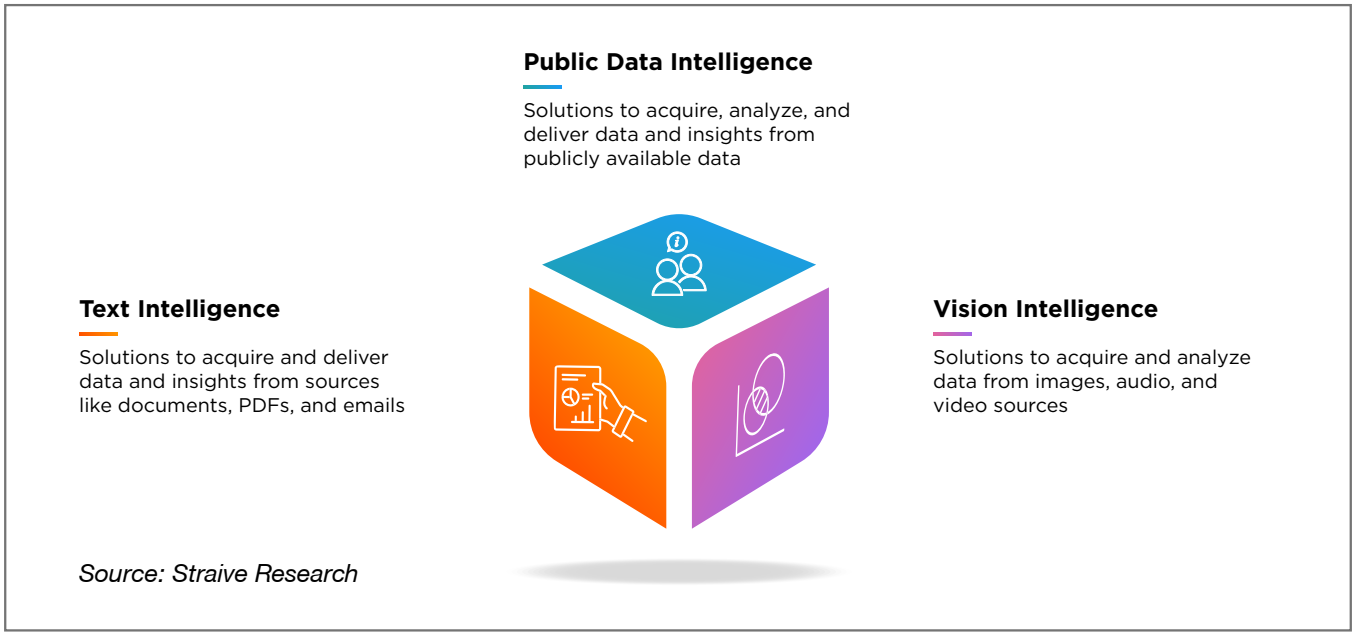
Image Source: OEOD[2]

ESG data are present in various formats across diverse sources—annual reports, sustainability reports, press releases, companies' publications, green bonds, and more. Other unstructured data sources include webpages, images (JPEG, GIF, PNG, etc.), videos, Word documents and PowerPoint presentations, and survey data.

These data are most often categorized into two formats: structured and unstructured. Structured data are straightforward and can be used and reused in several ways. However, unstructured data are more difficult to manage, sort, and organize because they do not have a definite form or format, and analyzing unstructured data is time-consuming and laborious, with manual processes limiting scalability.

Unstructured data need to be extracted, standardized, and structured before being integrated into any ESG framework, such as the Sustainability Accounting Standards Board (SASB), the Task Force on Climate-Related Financial Disclosures (TCFD), and geographic information system (GIS) technology, to develop meaningful business insights. Traditional data analysis tools are insufficient for overcoming the challenges associated with acquiring, enriching, and managing ESG data. Advanced technologies are warranted for managing and processing such voluminous amounts of data. Machine learning (ML) technologies, such as natural language processing and platform-driven approaches, are fundamental for gathering ESG reference data and building benchmark scores.

Exhibit 2: Straive's ESG analytics prongs



The current ESG challenge is the lack of universally accepted principles regarding how companies disclose ESG metrics, thus making it difficult to track and assess how companies are performing on their ESG goals. Systematically capturing data from various sources and blending them with financially material factors can help better connect the dots regarding a company's ESG performance. Because ESG reporting, unlike financial reporting, is not regulated, companies must optimize their data supply chain across public and private sources to monitor changes.

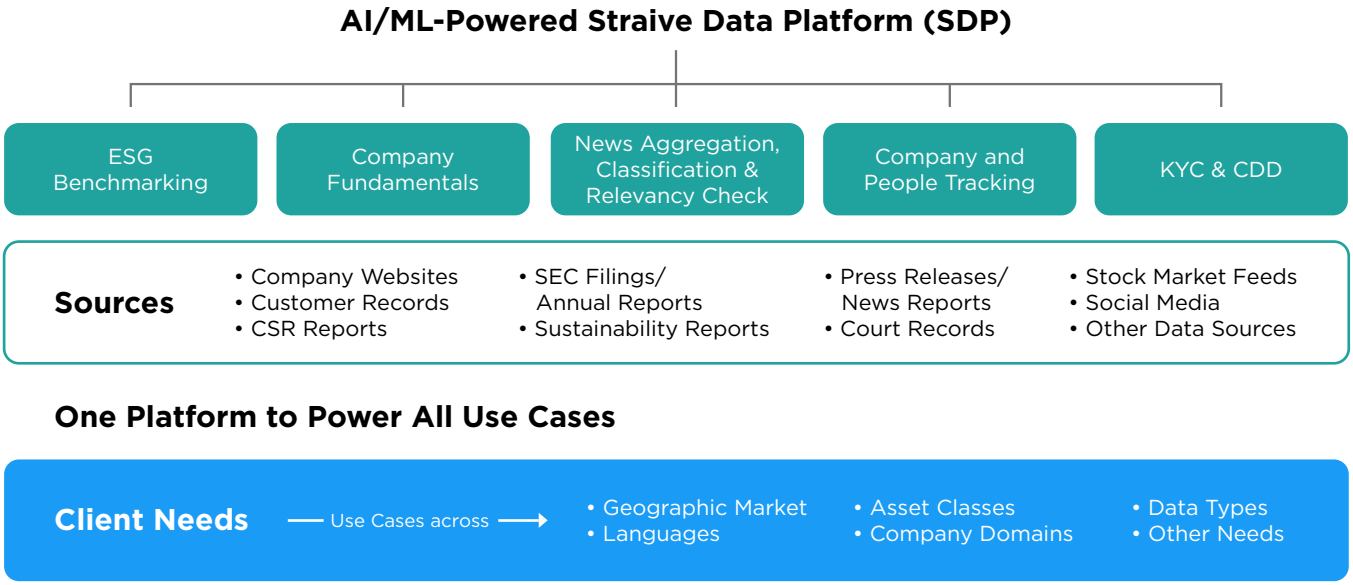
Moreover, third-party ESG score and rating providers most often provide top-line scores, often leaving customers to accept any methodology deployed at face value. Many companies are pushing back on this, capturing data themselves or through vendors and blending the treated data sets into their ESG analytics. Thus, procuring and monitoring ESG data will depend more on automation, particularly artificial intelligence (AI)/ML, for scale and accuracy.

Data Nuances

Data available from firms vary in quality, quantity, and relevance, a significant impediment to integrating investment-related ESG data sets for investment decisions because ESG disclosure standards are not consistent across the world. Companies often voluntarily disclose ESG performance data, which is then aggregated by third-parties and supplemented with data from regulatory filings and other publicly available government or industry data. Some data-gathering agencies apply proprietary scoring methodologies to this wide variety of unstructured data, resulting in very different scores for the same company.

Industry observers note that ESG rating providers differ substantially in their scores. The disagreements can arise from using various information sets and multiple interpretations of information. ESG data are often scattered across public and company sources and contained in silos. Therefore, a streamlined ESG data acquisition strategy is needed to remove noise and emphasize the material factors.

Exhibit 3: AI/ML advantage for ESG



Source: Straive Research

Some guidance frameworks, however, exist. An example is the SASB standards for reporting material ESG data to investors. The SASB's Materiality Map offers an overview of sustainability themes that the SASB anticipates will materially impact companies' financial or operating conditions on a sector-by-sector basis. Sector-specific key performance indicators build the foundation for assembling sustainability metrics for developing benchmark scores. Investors need to carefully tailor their respective ESG data provider options to their overall investment strategy. Using vendor-supplied data at face value can mislead companies, given the diverse purposes for which they use ESG data.

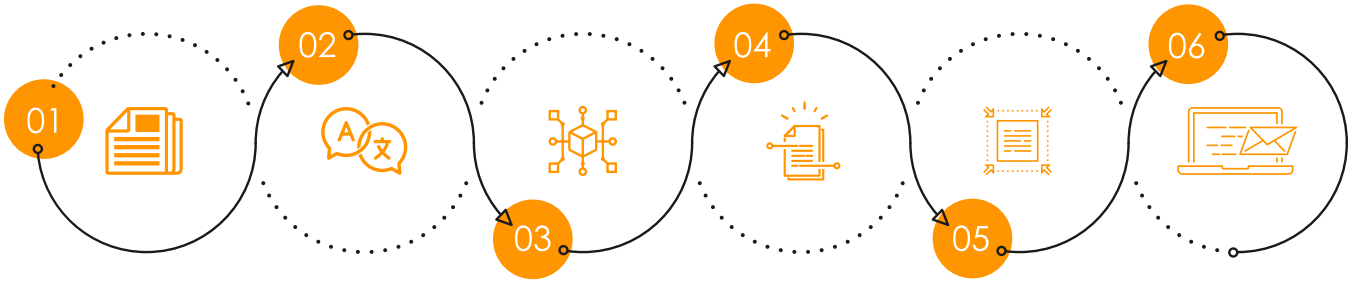
Also, several companies have developed innovative data distinctions when creating ESG scores. For example, State Street Global Advisors recently launched an ESG platform that integrates ESG data from four global data providers and created a scoring model to help stakeholders make sense of and facilitate insights from the vast data set. The model harnesses metrics scores to yield one responsibility factor score (or R-factor, which measures the performance of a company's business operations and governance related to financially material ESG issues facing the firm's industry) for every firm in a cohort.[3]

Integration Strategy

Integrating ESG data into investment operations requires structured, easy-to-consume data. The very nature of ESG data resists such integration: they have no easily identifiable structure, are not classified in a predefined manner, and do not have a predefined data model. Companies can perform scenario-based modeling using vendor-provided data. This helps create a dynamic composite assessment that is also sensitive to a range of delineations of various ESG factors.

Also, the dynamics rising from interactions between various sectors can help assess feedback loops. For example, climate change can destabilize societies, causing a fall in human rights practices, for example. Unstructured data and their interpretation are not usually well defined, meaning that data points must be characterized and rules created to extract information from identified sources. This challenge repeatedly surfaces in ESG use cases when developing metrics for evaluating companies' sustainability parameters (see Exhibit 4).

Exhibit 4: From Raw News to Insights using AI/ML



Source: Straive

Predefined data rules can become a foundation for creating training ESG data sets. These data sets can be put into ML models working at the back end that will automatically extract data from diverse ESG data sets, such as company news, public news, social media posts, and so forth, in the required format, leveraging the power of AI and ML and freeing investors from their heavy dependence on periodically published third-party ESG scores.

To deal with the complexity of the ESG ecosystem and data-capture needs, organizations require highly scalable data solutions across the data life cycle, allowing them to uncover intelligence and analytics from unstructured and structured ESG data assets. This end-to-end data solution aids an organization's data-to-intelligence journey. It involves implementing ESG data governance practices and strategies directly from data acquisition, extraction, enrichment, and transformation to ingestion and consumption.

Conclusion

The challenge before investors and companies concerning ESG is clear: relying solely on vendors for ESG data could be limiting. Competitiveness can quickly increase through unlocking the power of ESG data. When shifting to an empowered data-centric ESG model, agility and strategic leverage at scale are key. Leveraging AI/ML supports collecting and analyzing a diverse range of data, including unstructured ones, which helps paint a powerful, customized analytical picture. Data and their sources will continue to grow. AI/ML puts the power back in the hands of investors and companies that need customized views and value, especially with scale.

About Straive (formerly SPi Global)

Straive is a market-leading content technology enterprise that provides data services, subject matter expertise (SME), and technology solutions to multiple domains, such as research content, eLearning/EdTech, and data/information providers. With a client base scoping 30 countries worldwide, Straive's multi-geographical resource pool is strategically located in eight countries - the Philippines, India, the United States, China, Nicaragua, Vietnam, the United Kingdom, and Singapore, where the company is headquartered.

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