WISSEN TECHNOLOGY

The Role of Technology in
Overcoming ESG Data Challenges

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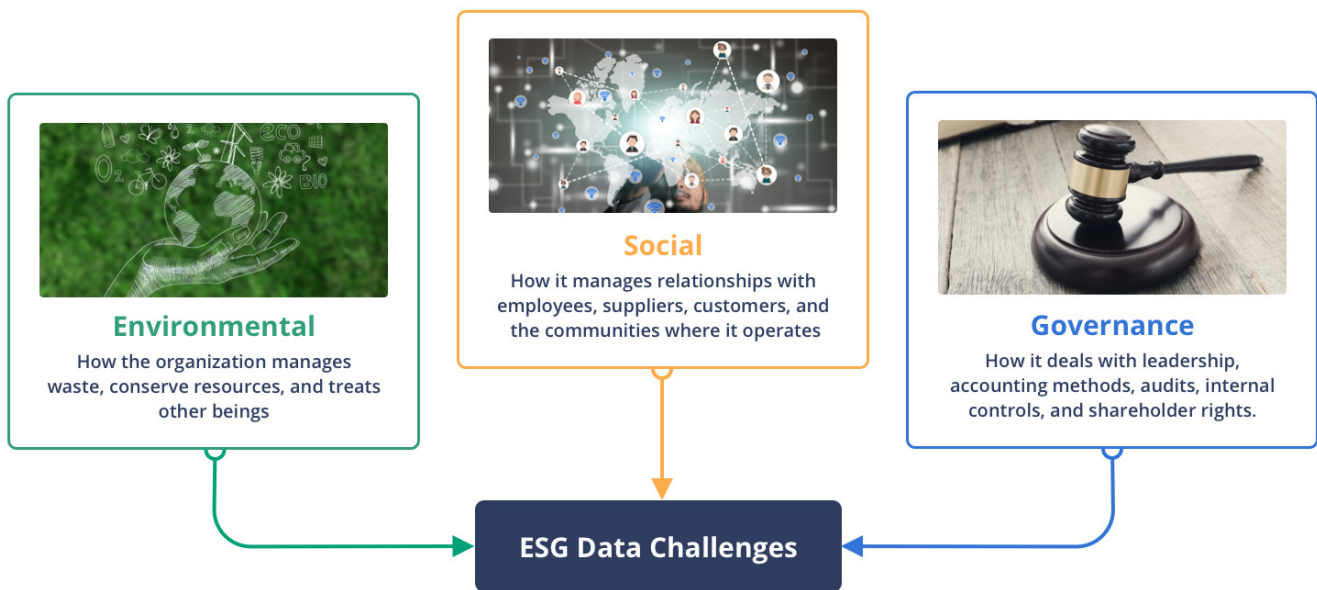
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Introduction

Any organization that looks to establish itself needs to have sufficient investment backing to be able to set up shop, hire skills, build products, and make them available to customers. For many years, the organization's understanding of the market and technical prowess was enough for investors to put in their money, in the last couple of years now, their outlook towards the environmental, social, and governance (ESG) aspects of the business takes the cake away.

Environmental

How the organization manages waste, conserve resources, and treats other beings

Social

How it manages relationships with employees, suppliers, customers, and the communities where it operates

Governance

How it deals with leadership, accounting methods, audits, internal controls, and shareholder rights.

ESG Data Challenges

Today, ESG standards have become a popular mechanism that environmentally-aware, socially-conscious investors use to screen potential investments. This is especially true with young investors, who want to be confident about the environmental and social responsibilities of the organization they want to invest their money into.

Although in reality, no single company might pass every test in every category; the decision entirely depends on the investor who uses its own discretion to measure the sustainability and societal impact of the investment being made. And to reach the right decision, they need to be able to gather, analyze, and act on the right ESG data, which in the absence of modern analytical tools, can be an impossible task.
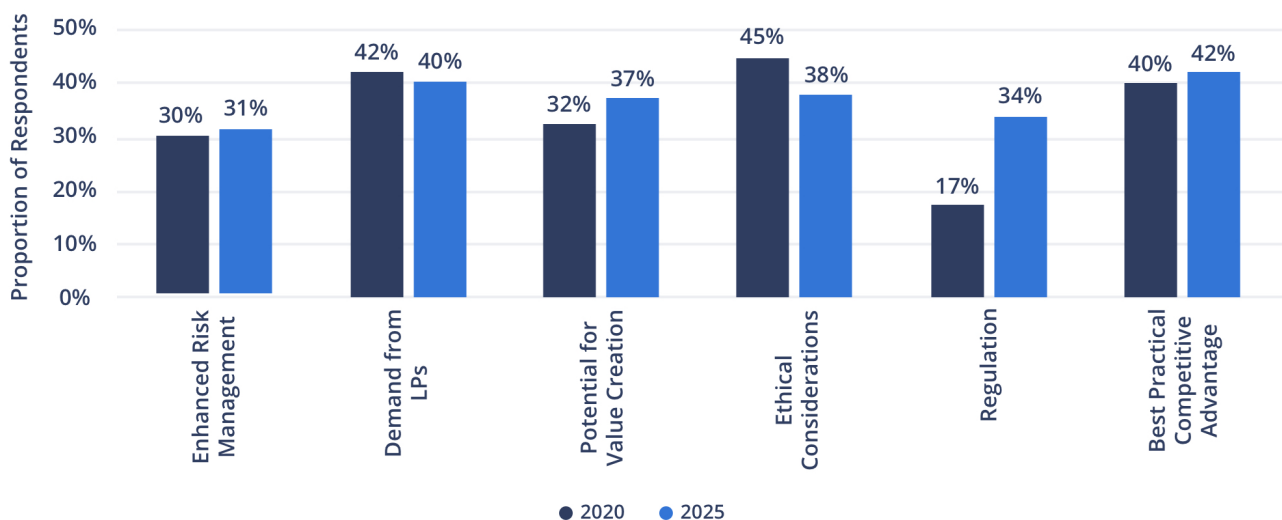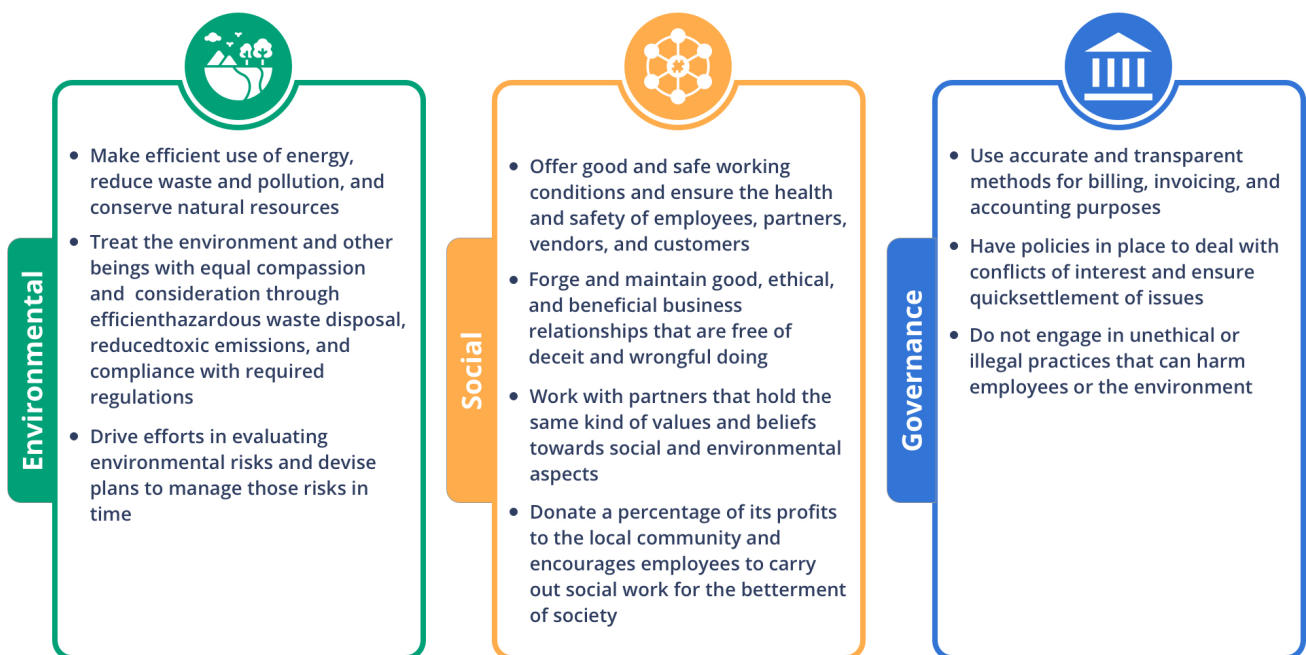
Given how complex ESG data can be, spanning multiple locations, departments, and aspects of the business, dealing with ESG data can be a real challenge. In this whitepaper, we will talk about:

• The growing significance of ESG
• Taking a data-driven approach to ESG
• The unique challenges of ESG data
• The role of technology

The Growing Significance of ESG

In earlier times, decisions about where to make the financial investments were based on various criteria, including the organization's skillset, technical capability, competitive position, target audience, and more. Detailed and careful analysis of these criteria allowed investors to better the future financial performance of the companies being considered in terms of return and risk.

However, these factors alone are no longer adequate for massive investment decisions to be made. Today's socially conscious, environmentally aware investors want to put their money on organizations that are like-minded.

Environmental
- Make efficient use of energy, reduce waste and pollution, and conserve natural resources
- Treat the environment and other beings with equal compassion and consideration through efficienthazardous waste disposal, reducedtoxic emissions, and compliance with required regulations
- Drive efforts in evaluating environmental risks and devise plans to manage those risks in time

Social
- Offer good and safe working conditions and ensure the health and safety of employees, partners, vendors, and customers
- Forge and maintain good, ethical, and beneficial business relationships that are free of deceit and wrongful doing
- Work with partners that hold the same kind of values and beliefs towards social and environmental aspects
- Donate a percentage of its profits to the local community and encourages employees to carry out social work for the betterment of society

Governance
- Use accurate and transparent methods for billing, invoicing, and accounting purposes
- Have policies in place to deal with conflicts of interest and ensure quicksettlement of issues
- Do not engage in unethical or illegal practices that can harm employees or the environment

Factors driving adoption of ESG monitoring and reporting

Source: Preqin Fund Manager Survey, August 2020

The Data-Driven Approach to ESG

As the significance of ESG data in investment decision-making continues to grow, the sheer variety, velocity, and volume of data tend to bring in several inconsistencies into how data is collected, managed, and analyzed. To ensure they make the right investment decisions, investors are increasingly taking a data-driven approach to ESG.

Ensure Transparency

Identify Gaps

Assess Performance

Ensure transparency

One of the biggest reasons why investors are increasingly taking a data-driven approach to ESG data is to ensure sufficient transparency in the data they deal with. Such transparency puts them in a better position to identify inefficiencies as well as gauge the reliability and authenticity of the organizations they are looking to invest in.
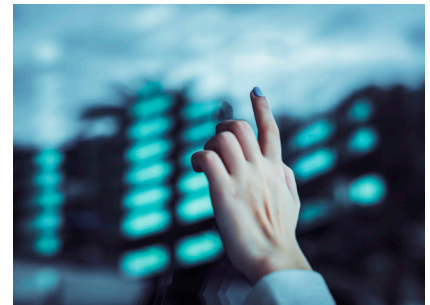
Assess performance

Since different data means different things to different companies, investors want to be able to rank potential organizations based on several pre-determined metrics and KPIs that further help them in making the right investment decision.

Identify gaps

They also want to use these metrics to get more clarity on data gaps that span across different time periods and can lead to avoidable discrepancies. These discrepancies tend to increase with the quantity of publicly available information, making it all the more necessary for investors to take a data-driven approach to assess corporate performance.

ESG Data – Unique Challenges

ESG data, which was a very minor, inconsequential part of investment decisions until a few years ago, is now a critical factor that investors seek while evaluating where they want to put their money.

However, although ESG data opens doors to informed decisions, the challenges presented by it are many. These include:

> ### The existence of inconsistent and non-standardized data
>
> Most ESG data that organizations have is inconsistent, poorly verified, and non-standardized. Since there are no international standards as such for ESG data, verification and audit approaches remain largely erratic. The pandemic made it all the more difficult for organizations to make ESG data available in time for investors to make smart investment decisions.

> ### Making a wider range of ESG data available
>
> Despite firms of all shapes and sizes looking for ways to include a wider range of ESG data into their decision-making, siloed approaches to data collection and analysis can result in biased outcomes. For comprehensive results, organizations need to have strategies and tools in place that take ESG data from across the organization and analyze it to quantify their ESG maturity for management and reporting purposes and drive their next wave of growth.

> ### Accurate verification and analysis of ESG data
>
> As organizations clamor to embed ESG criteria into influence investment and product development decisions, considerable amounts of time, effort, and money is being spent on verification and analysis of data. However, most organizations take a very ad-hoc approach to collecting and sharing verifiable ESG data, which makes the results of the analysis non-trustworthy.

> ### Ensuring the quality and authenticity of ESG data
>
> Another major challenge for investment firms is having technology systems in place that have the ability to process and channel high-quality information in an efficient, cost-effective, secure, and adaptable manner. Since the quality of data will directly influence the degree of insight and the depth of inferences that can be made from it, organizations need to rely on tools that ensure accuracy, timeliness, and granularity of data.

> ### Sharing data with concerned authorities in real-time
>
> ESG data, like any other data, is bound to change and evolve with time. For investors to make the right decisions, access to updated ESG data is extremely important. But this becomes very difficult as organizations find it difficult to share updated data in real-time across different parties, impacting the quality and trustworthiness of the data being analyzed.

The Role of the Latest Technologies

The benefits of incorporating ESG within the overall business strategy are well understood by companies and investors alike. As investors increasingly seek access to accurate and consistent ESG data to make critical investment decisions, organizations must take a technology-driven approach to better collect and analyze ESG data and meet the data quality and consistency needs of investors.

Since most companies do not possess a centralized ability to collect, analyze and report on ESG data, for ESG to properly take off and make the impact it's meant to make, technologies like AI and ML play a central role. These technologies can help in collecting data, unearthing insights, turning insights into action, and serving as a guide to direct the company in a more sustainable direction.

Modern technologies like AI and ML not only help in addressing generic ESG issues that most enterprises face today; they also help in tackling industry-specific issues, allowing them to tackle the whole ESG dynamics by the horn. So, whether a manufacturing organization is looking to curate occupational health and safety strategies to stay ahead of regulatory and policy change and drive competitive advantage in the marketplace or a retail company is looking to respond to questions regarding material sourcing, sustainability, and community impact - technology can play a huge role in meeting industry-specific use cases and scenarios.

Here are four technologies that need to be adopted today to improve how ESG data is collected, analyzed, and shared:

Artificial Intelligence (AI)

Organizations looking to improve how ESG data is collected for analysis purposes can benefit greatly from technology like AI. AI allows them to move away from manual and time-intensive processes that limit their ability to respond to rapid changes in the economy, market, or consumer behavior. By automating the data collection, cleansing, analysis, and sharing process, AI can carry out tasks in a fraction of the time – paving the way for a more efficient and quick analysis process – and quicker turnaround.

Machine Learning (ML)

ML algorithms are enabling investors to collect and analyze more information than ever before while accounting for ESG risks and opportunities. ML can help modern investors process massive amounts of data that hold essential information for ESG investing. Trained models can find and analyze a ton of content at incredible speed, helping keep pace with the growing sensitivity of how companies adopt practices that will mitigate risk and ensure long-term sustainability.

Natural Language Processing (NLP)

Much of the potential of AI and ML comes from NLP and sentiment analysis algorithms. Using these technologies, companies analyze vast amounts of structured data and also the tone of a conversation from unstructured data. By assessing different types of conversations, these algorithms can understand the tone by comparing words used by C-suite to a reference set of existing information – throwing substantial light on how committed a company appears to be about maintaining their ESG status quo and mitigating environmental risks.
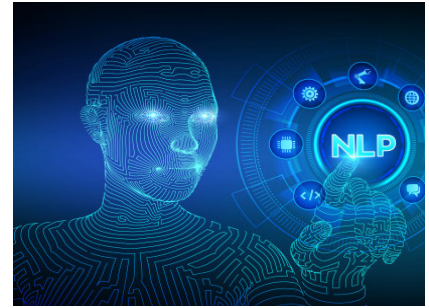
Business Intelligence (BI)

Organizations today can also embrace modern BI tools to monitor and report their ESG performance while unearthing true value from their ESG data. Since the amount of ESG data in an organization is constantly growing, modern, cloud-based BI tools can pave the way for data modeling and visualization with increased speed and efficiency – thus delivering insights via reports and dashboards that enable fast, informed decisions. Instead of data analysts having to individually study the information at hand and infer conclusions, BI surfaces a single source of ESG truth. It enables real-time monitoring of critical KPIs while also allowing users to create custom views based on their requirements.

Conclusion

The future of finance goes hand in hand with being aware of environmental risks, investing responsibly, and ensuring corporate ethics. Modern investors no longer look at just the functional or technical capabilities of an organization before making large financial investments. They also consider organizations' approach to ESG. To stay competitive, businesses worldwide are increasingly disclosing more information about their ESG performance. Reports expect ESG assets to hit **$53 trillion by 2025.**

As the sustainability movement gets increasingly widespread, there is immense pressure on organizations to collect and process large amounts of ESG data and unearth insights from it for investment purposes. But given the variety, volume, and velocity with which ESG data is being produced, traditional tools make it hard for assessing long-term risks and rewards.

Modern technologies such as Artificial Intelligence, Machine Learning, Business Intelligence, and Natural Language Processing then come to the rescue, helping filter the essential data while acting as the catalyst for sustainable investing at scale. These technologies enhance the ability of investors to analyze companies in general. They also help quantify the sustainability and social impact of any investment in a company.

If you are looking to prioritize ESG to harness insights buried deep in diverse data sources to impact investment and carbon footprint strategies, it's time to have the resources, technologies, and strategies in place to really take it to the next level.

About Wissen

Established in the year 2000 in the US, Wissen is an Information Technology company headquartered in Bangalore, India. With global offices in US, India, UK, Australia, Mexico and Canada, Wissen is an end-to-end solution provider for companies in sectors such as Banking and Financial Services, Telecom, Healthcare, Manufacturing and Energy verticals.

With best in class infrastructure and development facilities spread across the globe, the company has successfully delivered $650 million worth of projects for more than 20 of the Fortune 500 companies. Wissen's 2500+ highly skilled professionals, a strong leadership team, and technology expertise help clients build enterprise systems, implement a modern digital strategy, and gain a competitive advantage with business transformation.

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Our service offerings

Application Development

Artificial Intelligence and Machine Learning

Big Data and Analytics

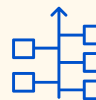**Visualization and Business Intelligence**

Robotic Process Automation

Cloud and Mobility

Agile and DevOps

Quality Assurance and Test Automation

Infrastructure Management

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