Thematic Overview

June 2026

AI in Sustainable Investing

Current Issues & Emerging Perspectives

CFA Society Sweden

Contributors

Many thanks for the insights and contributions of the ESG Committee working group. The members present included:

Jiayuan Guo

Alicia Juhlin

Simone Hirschvogl, CFA

Elena Markovska

Aline Reichenberg Gustafsson, CFA

Torun Reinhammar

Mia Storlöpare

Irina Velieva

Martin Wennerström

Gin Zhuzijin

This thematic overview was prepared and edited by Torun Reinhammar and Aline Reichenberg Gustafsson, CFA.

Design: Gülce Demirer

CFA Society Sweden
Kungsgatan 8, 2 tr
111 43 Stockholm, Sweden
info@cfasweden.se

Introduction

Artificial intelligence (AI) is reshaping the way investors analyse, interpret, and act on information. For sustainable investing, it offers both transformative potential and complex new challenges. The increasing integration of AI into environmental, social, and governance (ESG) processes raises critical questions about data quality, transparency, and accountability, as well as broader implications for markets, labour, and society.

To explore these themes, CFA Society Sweden's ESG Committee convened a working group with finance and sustainability professionals representing diverse backgrounds, from credit analysis and asset management to ESG ratings, lending, and climate science. The conversation, informed by a series of selected expert podcast and webinar sessions, centred on two interrelated dimensions. First, how AI can be used to improve ESG data and analysis, where automation can address long-standing inefficiencies. Second, how AI itself represents an investment theme, as the technology's expansion reshapes industries, resource use, and social structures. Together, these perspectives define the current frontier of sustainable finance in the age of AI.

AI for ESG Data and Analysis

Artificial intelligence (AI) is reshaping the way investors analyse, interpret, and act on information. For sustainable investing, it offers both transformative potential and complex new challenges. The increasing integration of AI into environmental, social, and governance (ESG) processes raises critical questions about data quality, transparency, and accountability, as well as broader implications for markets, labour, and society.

To explore these themes, CFA Society Sweden's ESG Committee convened a working group with finance and sustainability professionals representing diverse backgrounds, from credit analysis and asset management to ESG ratings, lending, and climate science. The conversation, informed by a series of selected expert podcast and webinar sessions, centred on two interrelated dimension.

First, how AI can be used to improve ESG data and analysis, where automation can address long-standing inefficiencies. Second, how AI itself represents an investment theme, as the technology's expansion reshapes industries, resource use, and social structures. Together, these perspectives define the current frontier of sustainable finance in the age of AI. AI is increasingly deployed to manage one of sustainable finance's defining challenges: the abundance yet inconsistency of ESG data. Reporting remains highly manual and fragmented, creating inefficiencies and limiting comparability. AI-driven tools can automate data extraction, classification, and aggregation, making sustainability analysis faster, more scalable, and potentially more objective. In corporate lending, for instance, AI can enhance sustainability-linked loan assessments and improve transparency across portfolios, which could accelerate capital flows to green projects.

Despite this promise, the application of AI to ESG data raises several important issues:

• Data quality and bias: AI systems depend on the quality of their training data. ESG information often contains gaps, inconsistencies, and subjective judgements. If used uncritically, AI may amplify existing biases or misinterpret underlying metrics.

• Hallucination and verification: Large language models can generate information that appears plausible but is factually incorrect. This risk underscores the need for robust verification and ongoing human oversight.

Lack of harmonisation: The absence of standardised ESG frameworks remains a major barrier. Who decides what is important? Without consistent metrics and taxonomies, AI tools struggle to deliver meaningful comparisons or replicate results across institutions.

• Privacy and data governance: In areas such as healthcare or private markets, the use of AI raises concerns about confidentiality, data ownership, and compliance with privacy regulation.

• Trust and human oversight: AI should support, not replace, professional judgement. Sustainable investing depends on human interpretation, context, and ethical evaluation—elements that cannot be fully automated.

• Environmental and social impacts: The use of AI models has serious implications which must be taken into consideration when making choices on when to apply them or not.

When applied responsibly, AI can strengthen ESG analysis by improving efficiency, identifying trends in large datasets, and expanding the reach of sustainability research. Yet the quality and integrity of human governance around AI use remain decisive in determining its contribution to sustainable finance.

AI as an Investment Theme

AI is not only a tool for analysis but also a rapidly emerging investment theme with material sustainability implications. Understanding its environmental, social, and governance effects is becoming essential for investors assessing both risks and opportunities.

Environmental Implications

The expansion of AI infrastructure is driving unprecedented demand for electricity and water. Data centres, which power AI computation, consume large amounts of energy and need water for cooling. They are often located in regions already experiencing water stress, putting local communities and farmers at risk. While renewable energy investments are increasing, the pace of green capacity development frequently lags the speed of AI deployment. Nuclear energy is sometimes presented as an option, though its sustainability classification varies across jurisdictions. The time it takes to complete the building of a nuclear power station may be too long to meet imminent demands, which has spurred interests from tech entrepreneurs to invest in faster, experimental nuclear solutions. On the other hand, it might be an opportunity for more renewable energy which has a shorter time to market.

Furthermore, the electronics involved require raw materials, such as rare earth minerals, the production and processing of which are afflicted with pollution, serious health issues and geopolitical risks.

At the same time, AI has the potential to advance environmental goals. It can improve climate modelling and extreme weather forecasting, which in turn can be used for forecasting supply chain disturbances. It can also enhance energy-efficiency optimisation, and support smarter allocation of capital to low-carbon projects. This duality—AI as both a sustainability challenge and an enabler—illustrates the nuanced role the technology plays in the environmental pillar of ESG.

Social Implications

AI's influence on labour markets and education represents one of its most significant social dimensions. Automation may replace certain entry-level or routine roles, potentially limiting opportunities for new workforce entrants and make entire cohorts of roles obsolete. Conversely, AI can expand access to education and training, particularly in developing regions, by enabling scalable digital learning platforms.

Inequality of access is a growing concern. Concentration of AI capability among a small number of global technology firms risks widening existing disparities in knowledge, opportunity, and economic participation. Ensuring equitable access to AI tools and skills will be essential to achieving inclusive and sustainable development outcomes

Governance Implications

The governance dimension of AI raises questions about transparency, accountability, and concentration of power. Most large-scale AI platforms are developed and controlled by a handful of private organisations. This centralisation gives rise to concerns about oversight, ethical alignment, accountability and market dominance.

The calibration of AI systems—how they are trained, what moral or methodological assumptions underpin them, and who is responsible for those choices—is analogous to the long-standing challenge of subjectivity in ESG ratings. Both cases highlight the importance of clear governance standards, disclosure of methodologies, and external accountability to ensure the integrity of outcomes.

For investors, governance considerations now extend beyond the companies deploying AI to the technology itself: how it is designed, who controls it, and how its risks are managed across the value chain.

Conclusion:
The Future of ESG in the Age of AI

The intersection of AI and ESG offers reasons to be both optimistic and cautious. AI can enhance the scale, precision, and timeliness of sustainability analysis, while simultaneously creating new environmental, social, and governance challenges of its own.

From an environmental perspective, AI contributes to energy and water intensity even as it helps optimise resource use. Socially, it may democratise access to information while also deepening inequality. In governance, it presents new questions about ethics, transparency, and accountability that go to the heart of sustainable finance.

For ESG practitioners, this convergence implies a dual responsibility: to use AI responsibly in assessing sustainability, and to evaluate AI itself as a material factor in sustainability assessment. Both dimensions require vigilance, methodological clarity, and professional integrity.

The future of ESG in the age of AI will depend not only on technological capability but on how the financial community integrates ethical oversight, transparency, and human judgement into its use. In this respect, the principles that underpin ESG—responsibility, accountability, and a long-term view of value creation—remain as vital as ever.

Podcast list

IA Talks AI (The Investment Association) The impact of AI on sustainable investing

NordSIP Webinar Series Insight at Speed AI for Sustainable Investing

ESG Currents (Bloomberg) Artificial Intelligence in Sustainable Financing

Warwick Business School Podcast Can AI save ESG?

The Institutional Edge The AI-ESG Paradox: Why Assessing AI's Impact Defies Simple Metrics

Board Perspectives (Protiviti) ESG and AI

A Sustainable Future (Man) Andrew Strait, Ada Lovelace Institute, on a Typology of AI Risks

GARP AI. ESG and 1.5 Degrees: UNEP FI Reports at the Frontier of Climate Risk

The AI Sustainability Podcast How AI is Transforming Climate Solutions with Anna Lerner Nesbitt

Artificial Intelligence Insights (S&P Global) AI and energy: The big picture

PwC Talking ESG Can AI be sustainable?

AI, Energy and Climate Raj Kapoor: Climate Tech Investing and AI

The Barclays Climate Tech Podcast AI: The commercial opportunity for climate tech

Climate Rising (Harvard Business School) How Crusoe is Reducing the Carbon Intensity of AI Data Centers

The Diary of a CEO Ex-Google Exec (Mo Gawdat) on AI: The Next 15 Years Will Be Hell Before We Get To Heaven...

Further Readings

CFA Institute Research & Policy Center: AI in Asset Management: Tools, Applications, and Frontiers - Book (November 18, 2025)

CFA Institute Research & Policy Center: Explainable AI in Finance: Addressing the Needs of Diverse Stakeholders, Cheryll-Ann Wilson, PhD, CFA (August 7, 2025)

CFA Institute Insights: The Good, Bad and Ugly of Bias in AI (April 25, 2024)

CFA Institute Insights: How Asset Managers are Using AI to Harness ESG data (March 22, 2024)

CFA Institute Insights: What are the ESG Risks of AI? (December 11, 2023)

CFA Society Sweden
Kungsgatan 8, 2 tr
111 43 Stockholm, Sweden
info@cfasweden.se