

The ROI of Responsible AI:

Leveraging the Synergies Between Sustainability and AI To
Create Enterprise Value

Sustainability and AI have emerged as two of the most transformational forces to impact business in a generation.

Multiple studies have shown that sustainability and AI (along with geopolitical uncertainty) are at the top of the agendas for CEOs and boards of directors around the world.¹ Though both have separately evolved from abstract concepts to business imperatives, sustainability and AI share two important characteristics:

1. Both require paradigm shifts in how businesses operate, how leaders manage, and how boards govern.
2. Both can create significant enterprise value when implemented effectively - but can also destroy significant value if mishandled.

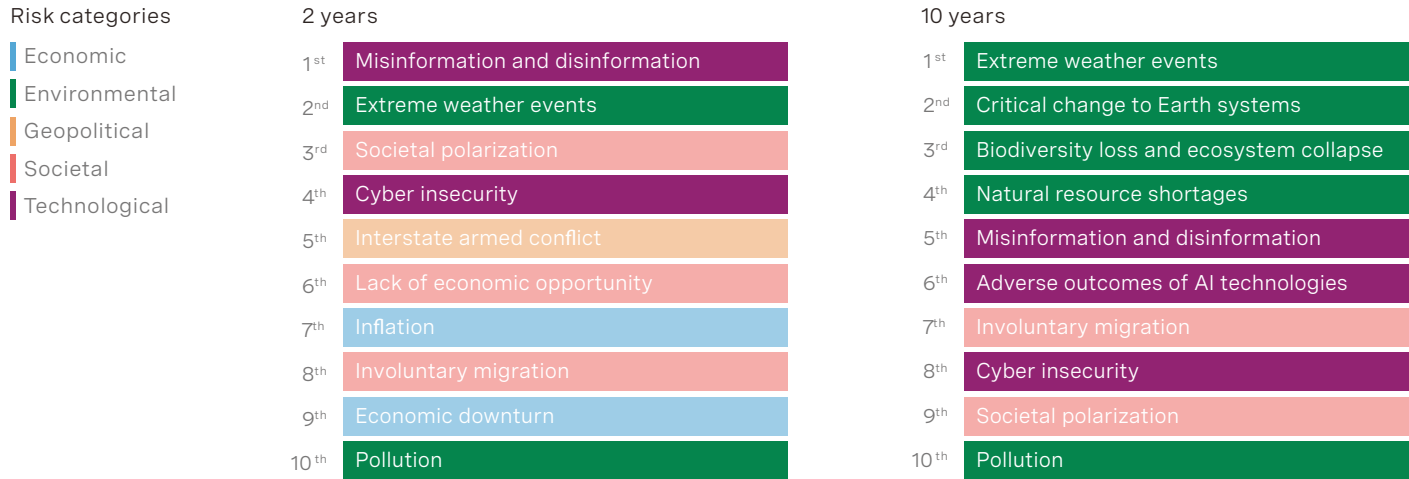
The World Economic Forum's 2024 Global Risk Report highlights the significance of sustainability and technology

as key risk drivers. In the near-term, four out of the ten highest impact risks are related to sustainability and technology. And within the next ten years, the report shows that eight of the top ten highest impact risks are associated with these two areas.² Companies must acknowledge the pervasive risk associated with sustainability and technology innovation issues, while simultaneously recognizing the scale of opportunity and potential value both present.

While senior leaders everywhere list sustainability and AI as critical to their strategic differentiation, their interplay is often overlooked. Understanding their interconnectedness is essential for leaders to both maximize opportunities and minimize risks.

World Economic Forum's 2024 Top 10 Risks

"Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period."



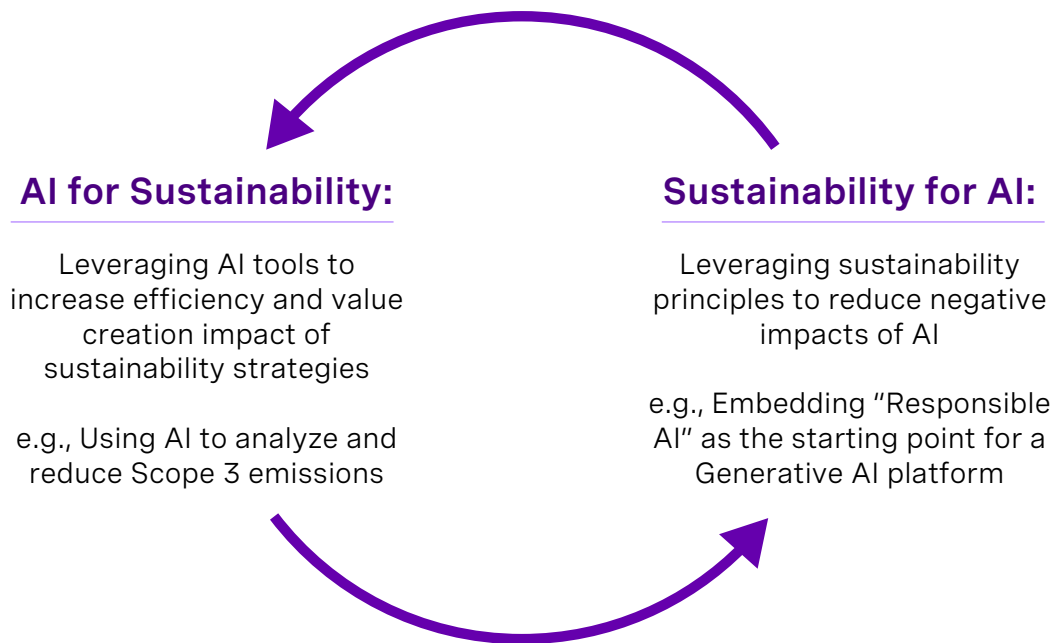
Source: World Economic Forum Global Risks Report 2024

“There are so many parallels between AI and Sustainability: both spaces are moving quickly, with regulations evolving seemingly by the day. And for each, there’s an incredible sense of urgency to figure it all out and to govern it effectively.”

Ann Tracy

Chief Sustainability Officer, Colgate Palmolive

To better understand the potential interplay between these two forces and how companies are already leveraging them to create value, Russell Reynolds Associates spoke with more than 30 global sustainability and technology senior leaders about how they are capturing this opportunity. Our findings reveal that companies will benefit from building their sustainability and AI approaches in tandem, drawing on each as a tool for optimizing the other.





AI for Sustainability: Increasing efficiency and value creation


AI's most immediate sustainability opportunity? Reducing companies' carbon emissions and enhancing their climate adaptation initiatives.

According to BCG, currently proven AI-enabled use cases could reduce emissions by 5-10% by 2030, creating \$1-3 trillion in economic value.³ CEOs recognize this potential, with 53% believing that AI will increase the sustainability of their organizations; among companies recognized as "AI pioneers", this figure rises to 62%.⁴


When applied to sustainability or any other strategic priorities, AI offers three types of use cases: helping companies to better understand context, optimize processes, or make better decisions.



Understanding
Data collection, analysis and interpretation



Optimizing
Process efficiency and efficacy



Deciding
Prediction, forecasting and strategic decision-making

In the context of emissions reduction and climate resiliency, these AI use cases encompass two objectives: mitigation and adaptation.



Mitigation involves reducing and removing emissions, measuring progress, and tracking results. This could include using AI to *understand* Scope 3 emissions across a supply chain and down to the product level; to *optimize* fleet efficiency by identifying most fuel efficient travel routes and times; or to *decide* on changes to your product portfolio to maximize revenue while minimizing emissions.

Adaptation entails forecasting climate and environmental hazards, developing plans to address them, and responding in real-time. This could include using AI to *understand* risks to ecosystems that are critical to the value chain, whether through deforestation, water availability, sea level rise or extreme weather events; to *optimize* waste sorting and recycling processes by identifying minute levels of recyclable materials in products; or to *decide* where to position critical infrastructure based on forecasts of rising sea levels and/or potentially water-stressed areas.

Across all use cases and objectives, it is clear that leveraging AI for sustainability creates long term business value.

“So much of the waste in our society is due to imperfect information, and AI offers the opportunity to dramatically improve in this area.”

D. Evan van Hook
Chief Sustainability Officer, Viridi
(formerly Honeywell)

	Mitigation	Adaptation
	<i>Reduction and removal of emissions, underlying measurement, progress tracking</i>	<i>Forecasting hazards, developing plans to address them, responding in real time</i>
Understanding	<ul style="list-style-type: none"> Analyzing Scope 1, 2, 3 emissions across supply chain, down to product level Conducting real-time aerial inspections of operations via AI-powered drones, to identify pollution sources 	<ul style="list-style-type: none"> Monitoring ecosystems that are critical to value chain to identify risks related to deforestation, water usage, sea level rise, extreme weather exposure, etc Digesting green tech research/patent applications to surface innovations and identify knowledge gaps
Optimizing	<ul style="list-style-type: none"> Increasing physical plant energy efficiency Forecasting demand to avoid excess emissions from overproduction Increasing fleet efficiency through identification of most efficient travel routes 	<ul style="list-style-type: none"> Identifying recyclable materials to improve waste sorting and recycling processes
Deciding	<ul style="list-style-type: none"> Enhancing product portfolio to maximize revenue while minimizing emissions Using decentralized data exchanges to select suppliers based on their emissions profile (lowering Scope 3) 	<ul style="list-style-type: none"> Predicting near-term extreme weather events such as flooding or droughts to inform demand forecasting and supply chain logistics Predicting sea level rise and water-stressed areas to inform infrastructure and supply chain development
	 Value creation	 Value creation

It is important to note that AI can fill skills gaps in sustainability, but cannot replace the role of a chief sustainability officer (CSO) or an expert sustainability function. AI brings specific competencies to sustainability initiatives, but human leadership remains essential for strategic direction and decision-making.



Sustainability for AI: Embedding Responsible AI principles across the enterprise

While AI offers significant potential to improve sustainability initiatives, the reverse is also true. Sustainability provides a valuable lens for enhancing the performance of and reducing the risks associated with rolling out a generative AI program.

“Companies must start with accountability and governance structures when bringing generative AI into their organizations. They must embrace that every company is now a technology and data company. Taking this approach will transform how legal, business operations, and other functions work together to break down silos, and most importantly to invest in people to help them make a difference together and build a culture of ‘why,’ ‘why not,’ and ‘what if.’”

Kevin Fumai

Assistant General Counsel for AI Governance, Oracle

The sudden and meteoric rise of generative and predictive AI tools has fueled stakeholders at every level to inquire about their organization’s plans to implement a credible AI program.

However, this leads to perhaps the biggest risk of all around AI for boards and CEOs – “acceleration risk.” RRA research found that, while 71% of leaders report having taken at least one step towards bringing generative AI into their team’s workflow, only 32% are confident in their own ability to implement AI in their organizations today.⁵ With the speed at which the market is responding to GenAI, many leaders are making decisions about the tech without fully understanding it, which can lead to poorly designed platforms that fail to incorporate the human element, and lack transparency, fairness, accountability, and privacy. The speed limit is increasing, but it doesn’t always make sense to be first.

C-suites and boards must be aware of the extensive list of potential AI risks, ranging from bias perpetuation to the significant increase in energy and water usage required to keep large data centers operable. To mitigate “acceleration risk,” generative AI implementation GenAI needs to be an evolution, not a revolution.

To avoid these risks, it is crucial to embed Responsible AI practices from the outset. Advocates for Responsible AI stress the need to prioritize principles such as transparency, explainability, fairness and accountability, so that generative AI outputs are reliable, and do not produce or reinforce unintended or biased outcomes. Such principle-led design requires a nuanced understanding of a company's stakeholders, ability to anticipate unintended consequences, and awareness of the multifaceted ecosystem in which the company operates.

It is perhaps no surprise that these are the exact same traits which differentiate best-in-class sustainability leaders.

Principles of Responsible AI:

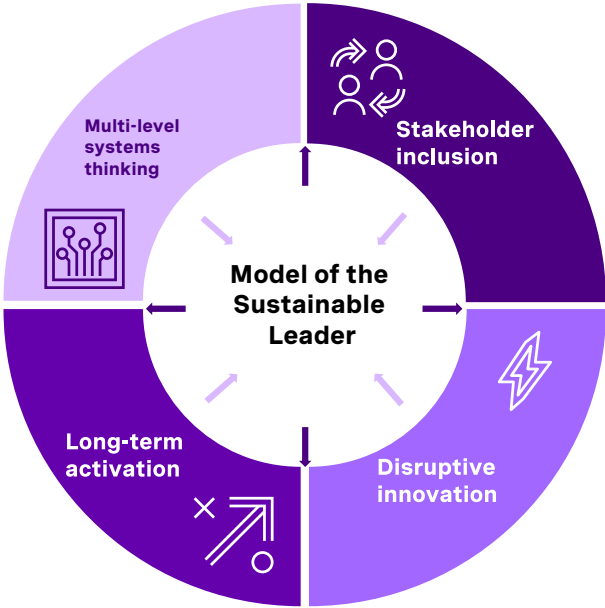
- Transparency and explainability
- Fairness and bias mitigation
- Privacy and security
- Accountability and responsibility
- Continuous monitoring and improvement
- Human control and oversight



Leveraging the sustainable leader model for Responsible AI enablement

Leaders looking to embed Responsible AI principles into their AI applications will benefit from collaborating with their sustainability peers in the earliest phases of their AI journey. Sustainability leaders bring four key characteristics that will benefit any Responsible AI efforts:

- **Multi-level systems thinking:** In recognizing the interconnectivity of the broader ecosystem in which their business operates, sustainability leaders are uniquely equipped to identify AI's unintended consequences and impacts on stakeholders.
- **Stakeholder inclusion:** As the primary advocate for and conduit to a company's stakeholders, sustainability leaders can help translate those stakeholders' priorities and concerns to AI leaders, and drive cross-functional collaboration across finance, HR, legal and compliance to ensure a smoother transition to an AI-enabled enterprise.
- **Disruptive innovation:** Sustainability leaders are adept at challenging traditional approaches and identifying novel solutions, attributes that are particularly useful for helping AI leaders to identify levers for reducing AI's emissions footprint and resource usage.
- **Long-term activation:** Using longer-term time horizons for evaluating ROI and identifying risks and opportunities comes naturally to sustainability leaders; AI leaders will benefit from this perspective when needing to make the business case for prioritizing Responsible AI to the board and CEO.



Integrating Responsible AI principles from the outset is crucial, as retrofitting them later can be not only challenging, but significantly more costly. A recent BCG study found that organizations that build Responsible AI capabilities before scaling AI are 28% less likely to report failures.⁶ Moreover, a study by Bain & Company found that companies with a comprehensive, responsible approach to AI earn twice as much profit from their AI efforts.⁷

Creating enterprise value via coordinated sustainability and AI strategies



Advice for Chief Sustainability Officers, Chief Digital Officers and other C-suite leaders

▪ **Harmonize your sustainability, AI, and business**

strategies: Leaders must ensure that their approaches are aligned across all three areas to avoid making progress in one area at the expense of another. The entire C-suite must be engaged in this effort to ensure that implications for finance, HR and other corporate functions are surfaced and addressed.

▪ **Scrutinize your data...but only insofar as it moves the**

needle: When it comes to AI, the “garbage in, garbage out” principle reigns, as the efficacy of generative AI models depends on the quality of the data used to train them. Data integrity and accuracy are therefore crucial for establishing confidence in any AI output. At the same time, leaders must avoid the “data trap” that sees their team’s precious resources absorbed by data collection. Use your enterprise sustainability strategy and materiality assessment to determine the most important levers of impact, then keep your data collection efforts laser focused on those alone.

▪ **Foster a culture of innovation across your**

organization: Encouraging teams, especially junior colleagues, to explore innovative ways of using AI can lead to breakthroughs. Establishing cross-functional teams, “shadowing” programs, and external partnerships can provide fresh perspectives and drive innovation.

▪ **Intentionally build AI and sustainability bench**

strength: According to BCG, three in four leaders cite insufficient access to AI expertise as a primary obstacle to using AI in their emissions reduction efforts.⁸ Investing in training programs and resources to educate employees about AI concepts, technologies, and applications is essential. Workshops, seminars, online courses, and incentives for pursuing advanced degrees or certifications can help build a foundational understanding of AI

While technology of the past was designed to serve a singular purpose, generative AI can be deployed to solve myriad problems in an organization. Because of this, data quality becomes even more crucial to establish confidence in AI-generated results. Any credible generative AI approach must be built upon a human-centric foundation - technology needs to be grounded in an organization’s people and culture, and may require changes in the human capital function. The goal shouldn’t be displacing people, but rather equipping them with the tools required to upskill for better decision-making. AI might supply a new framework, but human judgment, creativity, and strategic thinking are still crucial to lead and develop effectively.

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References

¹ McKinsey & Company [What matters most? Eight CEO priorities for 2024](#)

² World Economic Forum [The Global Risks Report 2024](#)

³ BCG [Accelerating Climate Action with AI](#)

⁴ Workday [C-suite Global AI Indicator Report 2023](#)

⁵ Russell Reynolds Associates [Embracing the Unknown: How Leaders Engage with Generative AI in the Face of Uncertainty](#)

⁶ BCG [Accelerating Climate Action with AI 2023](#)

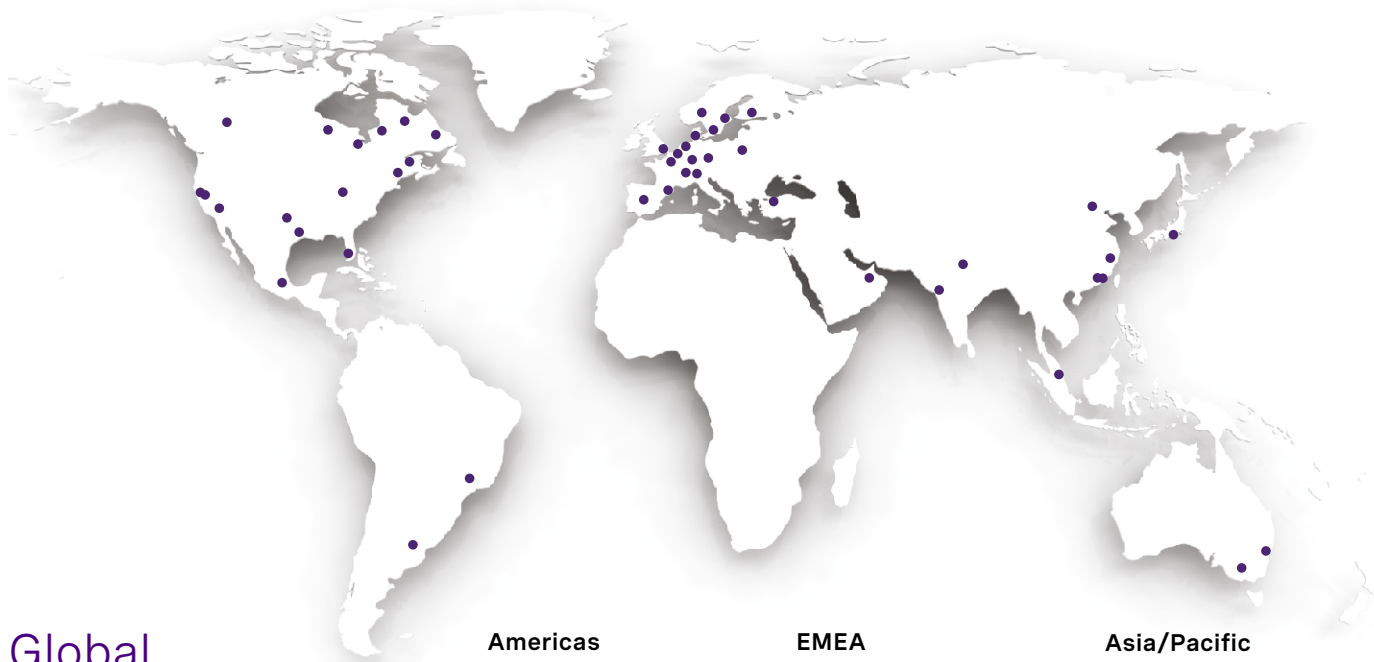
⁷ Bain & Company [Adapting Your Organization for Responsible AI 2024](#)

⁸ BCG [How AI Can Be a Powerful Tool in the Fight Against Climate Change 2022](#)

About Russell Reynolds Associates

Russell Reynolds Associates is a global leadership advisory firm. Our 600+ consultants in 47 offices work with public, private, and nonprofit organizations across all industries and regions. We help our clients build teams of transformational leaders who can meet today's challenges and anticipate the digital, economic, sustainability, and political trends that are reshaping the global business environment. From helping boards with their structure, culture, and effectiveness to identifying, assessing and defining the best leadership for organizations, our teams bring their decades of expertise to help clients address their most complex leadership issues. We exist to improve the way the world is led

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