AI for the Chief Sustainability Officer

Understanding the intersection of AI and sustainability

" In the rapidly evolving business landscape, the convergence of Artificial Intelligence (AI) and sustainability has become a critical area of focus for companies across industries. As Chief Sustainability Officers set out to achieve their sustainability goals, AI can be a powerful accelerator. "

- Tegan Keele, Climate Data & Tech Leader

Using AI solutions to achieve Corporate Sustainability goals

Reduce environmental impact

- Leveraging AI-driven analytics, companies can gain deeper insights into their carbon footprint, identify inefficiencies, and implement targeted measures to reduce emissions.
- AI can optimize energy and water consumption in buildings and industrial processes by analyzing usage patterns and adjusting systems in real-time to reduce waste.
- AI can predict demand more accurately, optimize routes, and manage inventory efficiently, ultimately streamlining supply chain sustainability and minimizing environmental impact.

Manage and report on sustainability data

- AI can enhance GHG accounting, reporting, and controls by automating manual processes, leading to more efficient and accurate results.
- AI can automate data collection and analysis, ensuring more accurate and timely reporting. AI can also assist in drafting sustainability disclosures, giving organizations a head start on next year's reporting.
- AI can augment environmental audits by filling critical data gaps and complementing manual efforts.

Innovate for the future

- AI can analyze vast amounts of climate data to forecast extreme weather events and their potential impacts on business operations, helping organizations prepare and adapt to the effects of climate change.
- AI can assist in designing products and services with sustainability in mind, using algorithms to select eco-friendly materials and optimize processes.
- AI can analyze historical and real-time market data to predict future trends, helping organizations make informed investment decisions that align with their sustainability goals.
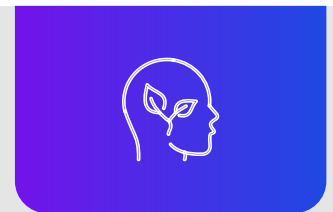
Addressing sustainability challenges posed by AI

The computational power required for AI can lead to significant resource use and an increase in emissions, potentially offsetting sustainability gains. However, recent advancements in energy-efficient AI technologies and renewable infrastructure are promising in reducing energy consumption, carbon emissions, and water usage.

As the AI landscape continues to rapidly evolve in cost and energy efficiencies, companies may focus on emissions from owned data centers and cloud computing providers, in order to create a clear path to decarbonize.

" Balancing sustainability with the growing energy demands of AI requires innovative thinking and strategic investments. By prioritizing energy-efficient solutions, we can mitigate environmental impacts while driving technological progress. "

- Maura Hodge, US Sustainability Leader

Questions CSO's can consider when integrating AI

Reduce impact

- How can AI help optimize energy usage and reduce carbon emissions across operations?
- How might the implementation of AI contribute to increased energy consumption, within our own operational footprint or within that of our suppliers?

Manage and report

- What manual reporting and data-related processes could I replace with AI to optimize my team's workload?
- How can AI improve the accuracy and timeliness of our sustainability reporting?

Innovate

- In what ways can AI assist in identifying climate-related patterns and trends to inform more effective decision-making?
- How can we integrate AI into our team's expertise and domain knowledge to solve complex data problems?

Embracing AI can help sustainability departments accomplish their goals more efficiently and effectively. It's important to note that AI is not just a shiny object, but a valuable tool, especially for companies that have already deployed AI resources.

How KPMG integrates AI into our sustainability practices

At KPMG, we are actively working to integrate AI and sustainability into our environmental strategy.

To enhance manual controls, reporting, and operational processes, we are exploring the development of AI tools that will improve our team's efficiency and accuracy.

From an emissions standpoint, we are working with our internal teams to assess the environmental impact of AI usage, particularly on our owned data centers and Scope 2 emissions.

Further, we are collaborating with key technology partners to understand the impact of our AI usage outside of our direct control. As leadership prioritizes the use of AI across the firm, our Trusted AI framework includes sustainability as a core component, reinforcing our dedication to responsible and sustainable AI practices.

How we can help

At KPMG LLP, we utilize advanced AI capabilities, such as Large Language Models (LLMs), to help clients achieve their sustainability goals.

At KPMG:

- ☑ We harness AI capabilities to help identify the most impactful decarbonization pathways for targeted reduction.
- ☑ We offer solutions that accelerate reporting and compliance, using AI to help manage and streamline large amounts of information.
- ☑ We provide optimized AI-powered tools that can reduce manual effort and can increase accuracy within sustainability data management and reporting.
- ☑ We offer ongoing guidance on emerging AI technologies and sustainability leading practices to help keep clients ahead of industry trends.

" At KPMG, we're actively working to maximize AI's immense potential to drive decarbonization, while simultaneously mitigating the impacts of its energy and water consumption."

- Darren McGann, US Corporate Sustainability Leader

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