# Alibaba Cloud accelerates net-zero efforts with AI-driven sustainability tools



In 2025, sustainability has evolved from a peripheral concern to a central expectation for businesses globally. As stakeholders demand tangible outcomes over mere pledges, companies must navigate the complex path from ambition to actionable results. Amidst this transition, Alibaba Cloud is leveraging artificial intelligence (AI) and cloud computing to help organisations bridge this gap effectively.

A recent survey conducted by Alibaba Cloud, as highlighted in its "Tech-Driven Sustainability Trends and Index 2024," documented insights from over 1,300 decision-makers across Asia, Europe, and the Middle East. It revealed that while an impressive 80 percent of enterprises have established sustainability targets and 92 percent are actively reducing emissions, only a third have committed to science-based net-zero goals. Notably, over three-quarters of respondents believe that AI and cloud technology will play a pivotal role in achieving substantial progress in sustainability efforts.

However, the report also delineates significant challenges. Many organisations still rely on manual processes to track their sustainability initiatives, and a substantial 61 percent express concerns regarding the energy demands associated with AI technologies. Furthermore, cybersecurity remains a critical issue, with 71 percent of businesses identifying it as an obstacle to adopting digital tools aimed at enhancing sustainability.

In response to these challenges, Alibaba Cloud is striving to make sustainability not merely aspirational but practical. The company’s Energy Expert platform exemplifies this commitment, designed to streamline emissions tracking and real-time energy monitoring, ultimately facilitating the generation of comprehensive Environmental, Social, and Governance (ESG) reports. This platform has served over 2,000 companies in China since its launch, boasting significant achievements such as generating energy savings exceeding 2 million kilowatt-hours daily and reducing carbon emissions by 400,000 tons.

The infrastructure underpinning these digital tools is equally crucial. Alibaba Cloud's data centres prioritise energy efficiency, operating with a power usage effectiveness (PUE) of 1.20. Remarkably, more than half of the electricity consumed is sourced from renewables. Innovative designs, such as CUBE DC 5.0 with wind-liquid hybrid cooling systems, further reduce energy consumption, illustrating Alibaba Cloud's dedication to an eco-friendly operational framework.

On the AI front, the company aims to promote sustainable adoption with tools like its Qwen series of foundation models. These models, designed to be less resource-intensive, are made widely accessible, allowing developers to create tailored, energy-efficient solutions. For instance, the Japanese startup Lightblue successfully harnessed the Qwen technology to develop a localised AI language model without compromising on cost-effectiveness or energy use.

Alibaba Cloud's collaborative ventures also showcase its practical approach to sustainability. In a recent project, the company partnered with Covestro and Nongfu Spring to analyse the lifecycle emissions of recycled products, underscoring the importance of transparency and accountability in the supply chain. Such initiatives reflect a broader trend of incorporating digital tools to support circular economy objectives.

The results of these endeavours are significant. In fiscal year 2024, Alibaba Cloud's initiatives helped clients avert nearly 9.9 million tons of CO2 emissions, a remarkable 44 percent increase from the prior year. This statistic is a testament to how strategically employed technology can yield both environmental benefits and operational efficiencies.

Despite these advancements, concerns surrounding cybersecurity remain prevalent. Many businesses express apprehensions about vulnerabilities when adopting new tools. Alibaba Cloud addresses this with a robust, multi-layered security framework. Its Security Centre leverages AI to track threats across hybrid environments, while its Edge Security Acceleration platform is specifically designed to guard against distributed denial-of-service (DDoS) attacks.

The company also provides actionable recommendations for businesses aspiring to enhance their sustainability efforts. Aligning sustainable key performance indicators (KPIs) with digital strategies is vital, as is committing to transparent partnerships that prioritise energy data disclosure. Moreover, integrating cybersecurity at the forefront of digital initiatives is essential for establishing a resilient framework.

The accessibility of open-source AI tools presents a further avenue for innovation, enabling companies to customise solutions without escalating costs. However, the path to large-scale sustainability transformation hinges not solely on technology. It necessitates deep collaboration among governments, businesses, and tech partners to construct greener infrastructure and establish policies that ensure enduring impact.

While technology alone cannot resolve climate change, it can serve as a powerful ally when meshed with clear objectives and trustworthy partnerships. In this pivotal moment, platforms like Alibaba Cloud present a pragmatic pathway for businesses ready to act, transforming intentions into measurable progress. The focus now shifts to ensuring that the digital solutions spearheading sustainability are as forward-thinking and responsible as the changes that are desperately required.

### 📌 Reference Map:

* Paragraph 1 – [[1]](https://www.manilatimes.net/2025/06/08/business/sunday-business-it/how-alibaba-cloud-uses-ai-to-turn-sustainability-goals-into-results/2129267), [[2]](https://www.alibabacloud.com/blog/599071)
* Paragraph 2 – [[1]](https://www.manilatimes.net/2025/06/08/business/sunday-business-it/how-alibaba-cloud-uses-ai-to-turn-sustainability-goals-into-results/2129267), [[3]](https://www.alibabacloud.com/en/blog/602048), [[4]](https://www.alizila.com/alibaba-cloud-makes-net-zero-targets-personal-with-carbon-ledger/)
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* Paragraph 4 – [[2]](https://www.alibabacloud.com/blog/599071), [[6]](https://www.hbr.org/sponsored/2024/03/how-cloud-based-digital-technology-can-help-companies-achieve-sustainability-goals)
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* Paragraph 6 – [[1]](https://www.manilatimes.net/2025/06/08/business/sunday-business-it/how-alibaba-cloud-uses-ai-to-turn-sustainability-goals-into-results/2129267), [[7]](https://www.chinainternetwatch.com/34039/alibaba-cloud-energy-expert/)
* Paragraph 7 – [[1]](https://www.manilatimes.net/2025/06/08/business/sunday-business-it/how-alibaba-cloud-uses-ai-to-turn-sustainability-goals-into-results/2129267), [[2]](https://www.alibabacloud.com/blog/599071), [[3]](https://www.alibabacloud.com/en/blog/602048), [[5]](https://www.alibabacloud.com/help/en/energy-expert/product-overview/product-introduction)
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## Bibliography

1. <https://www.manilatimes.net/2025/06/08/business/sunday-business-it/how-alibaba-cloud-uses-ai-to-turn-sustainability-goals-into-results/2129267> - Please view link - unable to able to access data
2. <https://www.alibabacloud.com/blog/599071> - Alibaba Cloud's Energy Expert platform automates carbon accounting and reporting, enabling businesses to measure emissions, monitor energy use in real time, and generate ESG reports. It helps identify emission sources and offers actionable optimization plans to balance business growth with environmental impact. The platform has served over 2,000 companies in China, generating energy savings of over 2 million kilowatt-hours per day and reducing carbon dioxide emissions by 400,000 tons since its deployment in February 2022.
3. <https://www.alibabacloud.com/en/blog/602048> - A survey by Alibaba Cloud revealed that 80% of companies have established sustainability targets, with 92% actively working to reduce emissions. However, only a third have science-based net-zero goals. The survey highlights the essential role of AI and cloud computing in achieving sustainability outcomes, while also addressing concerns about energy consumption and cybersecurity in digital sustainability tools.
4. <https://www.alizila.com/alibaba-cloud-makes-net-zero-targets-personal-with-carbon-ledger/> - Alibaba Cloud's Carbon Ledger initiative allows individuals and communities to monitor and reduce their carbon emissions. In Shenzhen's Xinqiao Shiju neighbourhood, residents have saved 37.77 tons of carbon emissions by using personal carbon accounts to track energy consumption and receive customized suggestions for energy-saving actions, such as installing solar panels or collecting rainwater.
5. <https://www.alibabacloud.com/help/en/energy-expert/product-overview/product-introduction> - Energy Expert is a SaaS platform by Alibaba Cloud designed to help enterprises optimize energy efficiency, manage carbon emissions, and align operations with global ESG frameworks and net-zero transition strategies. It leverages big data analytics and AI technologies to measure carbon emissions, formulate decarbonization strategies, and provide online certification services in partnership with recognized certification bodies.
6. <https://www.hbr.org/sponsored/2024/03/how-cloud-based-digital-technology-can-help-companies-achieve-sustainability-goals> - Alibaba Cloud's AI-powered energy optimization and carbon-management platform, Energy Expert, enables users to monitor, analyze, and optimize carbon emissions, aiding in the achievement of sustainability goals. The platform has been utilized in various international events, such as the Olympic Esports Week and the Hangzhou Asian Games, to measure and reduce carbon emissions from temporary constructions and operations.
7. <https://www.chinainternetwatch.com/34039/alibaba-cloud-energy-expert/> - Alibaba Cloud's Energy Expert platform automates carbon accounting and reporting, helping businesses measure emissions, monitor energy use in real time, and generate ESG reports. It enables companies to identify emission sources and offers actionable optimization plans to balance business growth with environmental impact. The platform has served over 2,000 companies in China, generating energy savings of over 2 million kilowatt-hours per day and reducing carbon dioxide emissions by 400,000 tons since its deployment in February 2022.