



CloudCatalyst

**Cloud migration  
is a sustainability  
imperative, not  
just a tech move**

**Atos** | 

## Cloud migration is not just a technological shift; it's a sustainability imperative.

The days of relying on outdated, energy-hungry on-premise data centers are over. The future belongs to organizations that understand the cloud's dual role in transforming operations and reducing carbon footprints.

Organizations today are at a critical juncture. The urgency of climate change demands that every organization rethink how it operates, from resource use to energy consumption. Cloud computing offers a solution that not only modernizes IT infrastructure but also dramatically reduces carbon emissions. For companies still tied to on-premise data centers, the clock is ticking. Transitioning to cloud environments isn't just about scalability and efficiency – it's about environmental responsibility. The future of business requires an urgent

shift to sustainable practices, and cloud migration is the first, most critical step.

CloudCatalyst, a joint initiative between Atos and AWS, accelerates this critical transition. It provides organizations with a streamlined path to modernize their infrastructure and dramatically reduce carbon emissions. For organizations ready to embrace this shift, CloudCatalyst offers the tools and support needed to make cloud migration not just a possibility, but a sustainability-driven strategy that enhances both operational performance and environmental impact.

The future belongs to organizations that recognize the dual role of the cloud in transforming operations and meeting sustainability goals. With CloudCatalyst, organizations can supercharge their transition to cloud environments, achieving scalability, efficiency, and sustainability.

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Migrating to the cloud offers an immediate benefit in terms of carbon reduction as well as cost reduction. You can save up to 80% of your carbon footprint today, and as we progress towards 100% renewable energy by 2025, that figure could reach 96%.

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**Johan Hanekom, Principal for Sustainability and Innovation – AWS**



**Now, let's explore the untapped potential of cloud migration and its role in driving sustainable business practices.**

# The untapped sustainability potential of cloud migration

## Moving enterprise workloads to the cloud offers an immediate and measurable environmental impact.

On-premise data centers are notorious for their inefficiencies. From cooling systems that guzzle energy to outdated hardware that requires more power than necessary, traditional IT setups are a major contributor to a company's carbon footprint.

Cloud platforms like Amazon Web Services (AWS) have radically shifted this paradigm. AWS estimates that businesses migrating to their data centers can reduce their carbon emissions by 80%.

This figure could rise to 96% as cloud providers continue to integrate renewable energy into their operations, with AWS committed to running entirely on renewable energy by 2025.

What does this mean for businesses? Moving to the cloud translates into more than just an operational upgrade – it means immediate, tangible reductions in environmental impact. By utilizing shared infrastructure, businesses benefit from economies of scale and renewable energy investments they would never achieve with on-premise models. For companies like Atos, which reduced its emissions by 51% in just two years, the sustainability benefits are clear.

## Key takeaways:



**Migrating to the cloud can immediately slash a company's carbon emissions by 80-96%.**



**Shared infrastructure and renewable energy are the cornerstones of cloud sustainability.**



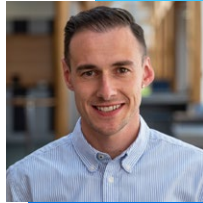
**Companies like Atos have achieved substantial reductions in emissions by modernizing and upgrading their infrastructure.**

# Navigating the sustainability challenges of cloud growth



However, the cloud is not a cure-all. While the migration to cloud platforms reduces many environmental impacts, it introduces new challenges – most notably, the exponential growth of data. As more businesses adopt cloud services, the volume of data processed and stored continues to skyrocket. The energy consumption associated with this data explosion can quickly offset the sustainability gains if not managed effectively.

Consider this: data volumes are expected to more than double from 79 petabytes in 2021 to 180 petabytes by 2025. This surge in data brings with it the risk of inefficiencies in data storage and processing. In fact, data centers in Ireland already account for almost a fifth of the country's total energy consumption. Without strategic management, cloud adoption could become a new environmental burden.



“The cloud business model is all about shared infrastructure with efficiencies at scale. By consolidating locations and leveraging energy-efficient architectures, Atos reduced emissions by 51% in just two years. ”

**Ray Knight, Sustainability Program Manager – Atos**

The solution lies in responsible data management and workload optimization. Cloud providers like AWS and managed service companies like Atos are pioneering approaches to reduce data waste and unnecessary compute power. Key strategies include data tiering, which ensures that only the most critical data is stored in high-performance environments, and workload scheduling, which switches off inactive workloads when they're not needed.

For example, using Amazon S3 Glacier to store non-critical data is a cost-effective and carbon-efficient option. Glacier is designed for long-term data archiving, offering significant savings by reducing the need for high-performance storage for infrequently accessed data.

Compared to traditional data storage, Glacier can reduce storage costs by up to 68%<sup>1</sup> and lower energy consumption, making it a more sustainable option for long-term data retention. This enables businesses to prioritize high-performance storage for critical, time-sensitive workloads while ensuring archived data remains accessible at a fraction of the cost and environmental impact.

1. <https://aws.amazon.com/s3/storage-classes/glacier/>

## Key takeaways:



**The energy consumption of cloud services can spike without proper data management.**



**Data volumes are expected to more than double in the next few years, posing significant sustainability risks.**



**Companies must adopt strategies like data tiering and workload optimization to mitigate the environmental impact.**



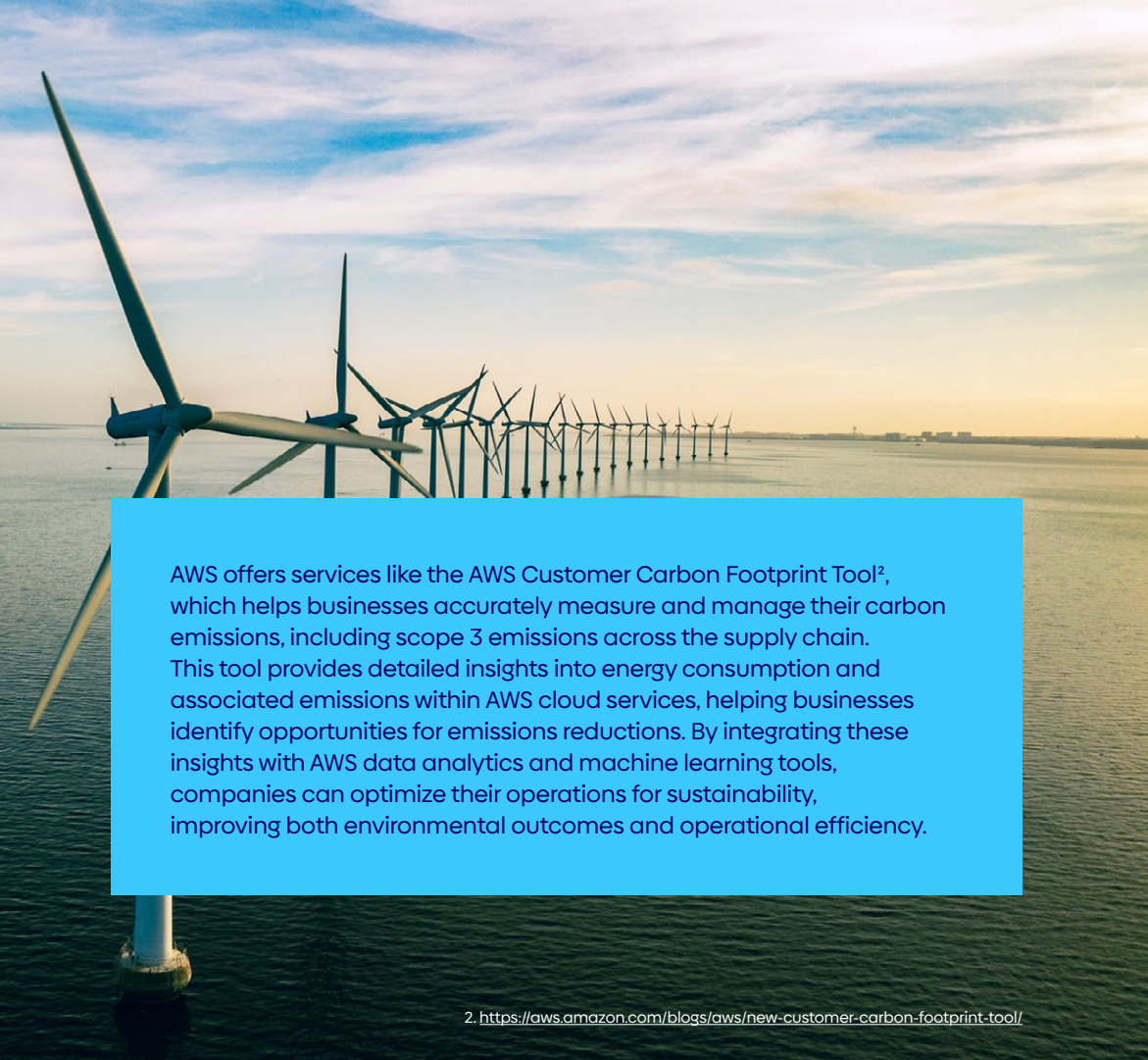


# The power of collaboration and innovation in achieving net-zero goals

**The path to net-zero is not a solitary one. Achieving sustainability in the cloud requires collaboration between cloud providers and their customers. This shared responsibility model places the onus on both sides to ensure that cloud usage is as efficient and sustainable as possible.**

Providers like AWS are already making massive investments in clean technology. Through initiatives like the Climate Pledge Fund, AWS has committed \$2 billion to support the development of new, carbon-reducing technologies. Meanwhile, customers are responsible for optimizing their use of cloud services. This means right-sizing virtual environments, ensuring underutilized resources are eliminated, and adopting lightweight applications that consume fewer compute resources.

But the real magic happens when businesses start leveraging the cloud not just as an IT infrastructure but as a tool for data-driven sustainability innovation. By using cloud-based insights, companies can track and reduce their carbon emissions across the supply chain, including scope 3 emissions, which make up the vast majority of a company's carbon output. With the right data in hand, businesses can make smarter, more sustainable decisions.



AWS offers services like the AWS Customer Carbon Footprint Tool<sup>2</sup>, which helps businesses accurately measure and manage their carbon emissions, including scope 3 emissions across the supply chain. This tool provides detailed insights into energy consumption and associated emissions within AWS cloud services, helping businesses identify opportunities for emissions reductions. By integrating these insights with AWS data analytics and machine learning tools, companies can optimize their operations for sustainability, improving both environmental outcomes and operational efficiency.

2. <https://aws.amazon.com/blogs/aws/new-customer-carbon-footprint-tool/>

## Key takeaways:



**The shared responsibility model between providers and customers is critical to achieving cloud sustainability.**



**AWS has invested \$2 billion in clean technology through the Climate Pledge Fund.**



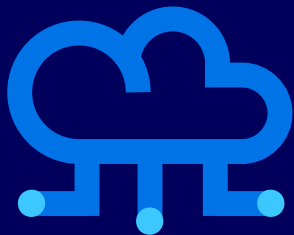
**Cloud insights enable companies to track and reduce scope 3 emissions, which are crucial for achieving sustainability goals.**

# Take the lead in sustainability. Your future is in the cloud

Sustainability is no longer an option for businesses – it's a necessity. Cloud migration offers a clear path to reducing carbon emissions and achieving sustainability goals. Companies that delay this transition risk not only falling behind in the race to net-zero but also missing out on the operational benefits that the cloud provides.

The CloudCatalyst program from Atos and AWS is the key to unlocking the full sustainability potential of cloud migration. As businesses face increasing pressure to reduce their carbon footprint, this program offers a streamlined path to transform their IT infrastructure. By migrating to the cloud, companies can slash emissions, optimize workloads, and future-proof their operations.

The time to act is now. Every moment spent relying on energy-inefficient, on-premise data centers is another step backward in the fight against climate change. Your next move should be a decisive one – migrate your operations to the cloud, optimize your data usage, and become a leader in sustainability.



**Are you ready to harness  
the full potential of the  
cloud to reduce your  
carbon footprint?**

Join the movement towards a sustainable future with the power of cloud-driven innovation. Partner with providers like AWS and Atos to transform your operations and become a sustainability pioneer.



Learn more at  
[atoscloudcatalyst.com](https://atoscloudcatalyst.com)

### About Atos

Atos is a global leader in digital transformation with 105,000 employees and annual revenue of c. €11 billion. European number one in cybersecurity, cloud and high-performance computing, the Group provides tailored end-to-end solutions for all industries in 69 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos is a SE (Societas Europaea) and listed on Euronext Paris.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

