

Decarbonizing Tech: Path to a Net Zero IT

Today, the IT industry accounts for around 6% of global greenhouse gas emissions, a figure expected to rise as our reliance on technology grows. At NTT DATA, we believe the solution lies not just in understanding the problem but in taking decisive action.

That's why we've developed the IT Decarbonization Roadmap, a structured approach based on our Sustainable IT Framework that helps organizations to assess and identify high-impact areas, optimize energy usage, and implement effective strategies for emissions reduction of their IT. By providing our tools and our expertise, we enable businesses to proactively achieve their environmental goals and exceed sustainability regulations.

Our approach goes beyond tracking emissions. By leveraging AI-powered tools, we deliver advanced capabilities such as:

- automated anomaly detection to monitor carbon emission spikes,
- the creation of compliance-ready reports to establish standardized targets, metrics, and actions,
- what-if analyses combined with energy consumption and carbon emission forecasting.

These features empower organizations to optimize application operations and explore innovative strategies for minimizing software's environmental impact.

This journey isn't ours alone. Through partnerships with global leaders like the Green Software Foundation, as well as active involvement in international working groups, we ensure our solutions are built on recognized metrics and best practices. Internally, our Innovation Center and Sustainability & Green Tech teams drive cutting-edge developments, creating frameworks like Green IT to reduce environmental impact.

The main outcomes include the identification of specific carbon reduction opportunities for clients' IT systems through our detailed IT assessment. Additionally, our carbon and SCI monitoring tool has successfully monitored over 200 microservices and 100 applications. Significantly, our tool is the first to comply with the ISO 21031 standard related to Software Carbon Intensity, setting the benchmark for sustainable software. These accomplishments not only support businesses in their sustainability efforts but also position NTT DATA as a trusted ESG advisor and a leader in innovation.

Looking ahead, our solutions can be adapted across industries, enabling businesses worldwide to tackle their IT emissions and integrate sustainability into their core operations. We're also expanding the scope to include embodied emissions and lifecycle assessments, ensuring a holistic approach to Green IT.

Our IT Decarbonization initiative is more than a project; it's a commitment to a better, greener future. Together, we can lead the way to a net-zero IT world.