A Whitepaper from Mitel

Sustainable AI in Business Communications: Mitel's Responsible Innovation Strategy

Reaching the tipping point, where AI transforms from environmental challenge to sustainability catalyst

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Enterprise leaders face a paradox: AI promises operational efficiency, yet its energy demands threaten sustainability goals. Mitel's approach resolves this tension by delivering measurable environmental and business outcomes through intelligent communications.

Summary

Artificial Intelligence presents both environmental challenges and solutions for modern business communications. While AI systems consume significant energy, they simultaneously enable dramatic efficiency gains that can reduce overall environmental impact. Current estimates suggest each ChatGPT query emits between 1 to 4 grams of carbon dioxide - roughly 5 to 10 times more than a Google search - yet AI's sustainability applications like optimizing supply chains, managing energy consumption, and enabling remote collaboration can significantly reduce organizational emissions.

This white paper explores how Mitel's AI-powered solutions, including Mitel CX and our broader AI ecosystem, deliver measurable business benefits while supporting environmental responsibility. With the information and communications technology sector contributing significantly to global emissions, organizations need partners who demonstrate responsible AI deployment and share their commitment to environmental stewardship.

As a company with a long-term objective to become carbon neutral by 2050, Mitel recognizes that the path to sustainability requires both technological innovation and responsible implementation. We're committed to helping our customers achieve their environmental goals while building more sustainable business practices into our own operations.

Key Environmental Opportunities:

- Hybrid cloud deployment flexibility lets enterprises optimize performance and control costs, while aligning infrastructure decisions with sustainability targets for minimizing environmental impact [(1)]
- Unified communications enable significant reductions in business travel-related emissions through effective virtual collaboration [(2)]
- Telecoms worldwide can reduce their carbon footprint by 2 percent, or 12 million tons of carbon dioxide equivalent (CO2e) through intelligent operations [(3)]

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Understanding AI's Environmental Impact

What distinguishes generative AI is its energy intensity. A generative AI training cluster might consume seven or eight times more energy than typical computing workloads. This reality demands careful consideration of AI's environmental implications while evaluating the sustainability benefits AI can deliver across business operations.

At Mitel, we approach AI implementation with environmental responsibility in mind, recognizing that sustainable AI deployment involves three critical phases:

1. Training Phase: Managing high initial energy consumption for model development

2. Deployment Phase: Optimizing ongoing inference energy requirements

3. Environmental Benefit Phase: Maximizing emissions reductions through AI-driven operational efficiency

AI as a Sustainability Enabler

While AI systems require significant energy investment, this must be weighed against their potential to drive environmental benefits. Consider an AI system that consumes **30%** more energy than traditional alternatives. From an environmental perspective alone, this seems problematic. However, if this system enables **45%** greater operational efficiency while reducing travel, paper consumption, and facility requirements, the net environmental impact becomes positive.

The goal is to achieve what we call the "Sustainable AI tipping point", where AI-driven environmental benefits exceed the environmental cost of AI infrastructure itself. This is central to Mitel's approach to responsible AI deployment.

Mitel's Commitment to Sustainable AI

Our Environmental Responsibility

Mitel is committed to environmental stewardship and responsible technology deployment. With our long-term objective to become carbon neutral by 2050 [4], we recognize that every technology decision - including AI implementation - must consider environmental impact. We're working to ensure our AI solutions not only deliver business value but also support our customers' sustainability objectives.

1. Sustainable Customer Experience: Mitel CX's AI-Driven Environmental Impact

Mitel CX, our new AI-assisted customer experience platform, is designed to deliver operational excellence while supporting environmental goals through intelligent resource optimization.

Environmental Benefits Through Efficiency:

Automated Resolution Reduces Resource Consumption: GenAI Virtual Agents intelligently resolve up to 90% of customer inquiries, reducing the need for additional human resources and associated environmental impact:

- Decreased office space and energy requirements for additional staff
- Reduced commuting emissions from smaller workforce needs
- Lower overall infrastructure energy consumption per customer interaction

Efficiency-Driven Energy Reduction: Agent Empowerment: Real-time prompts, suggested responses, and intelligence-based coaching help improve first-contact resolution and overall employee performance. Higher first-contact resolution rates mean:

- Fewer repeat interactions requiring additional energy
- Reduced server processing for follow-up or escalation communications
- Lower overall environmental footprint per successful customer resolution

2. AI-Driven Analytics and Insights

Our GenAI technologies analyze operational data to identify opportunities for environmental improvement, measuring performance metrics that contribute to sustainability goals while understanding customer interaction patterns that can reduce resource waste.

Environmental Impact:

Predictive Resource Allocation: AI analytics help optimize staffing patterns, reducing over-provisioning of resources

Energy-Efficient Operations: Real-time insights enable dynamic resource scaling based on actual demand

Environmental Reporting: Analytics support sustainability reporting and environmental goal tracking

3. Hybrid Cloud AI Architecture

Mitel's approach to AI deployment emphasizes sustainability through intelligent infrastructure choices:

Edge Computing Integration: Deploying optimized AI models on edge devices reduces data center energy consumption while maintaining performance. This approach:

- Minimizes data transfer energy requirements
- Reduces central processing demands
- Enables more distributed and efficient AI operations

Hybrid Optimization: A hybrid communications strategy does not need to equate to a fragmented solution experience. Mitel's Common Communication Framework (MCCF) ensures a seamless and integrated solution experience across our portfolio, with the flexibility to choose and even mix deployment options. This flexibility allows organizations to:

- Deploy AI workloads in the most energy-efficient locations
- Optimize data transfer patterns to minimize network energy consumption
- Balance performance with environmental impact based on specific use cases

How Unified Communications Support Environmental Goals

1. Reducing Business Travel Emissions

The Environmental Challenge: Business travel is a significant source of corporate carbon emissions. Research shows that communication technologies offer measurable environmental benefits through travel reduction while maintaining business effectiveness. [2][7]

Mitel's Sustainable Solution: Our advanced video conferencing and collaboration tools enable organizations to significantly reduce travel-related emissions:

Quantifiable Environmental Impact:

- Organizations implementing AI and automation have eliminated hundreds of thousands of technician field trips, preventing significant transportation emissions [7]
- High-quality video conferencing can replace up to **30%** of business travel, with each avoided flight saving approximately **0.5 tons of CO2** equivalent
- Remote collaboration **reduces** both travel emissions and associated hotel, ground transport, and meal-related environmental impact

2. Enabling Sustainable Remote and Hybrid Work

The Remote Work Environmental Equation: Research indicates that working just one day per week from home can save significant CO2 emissions per employee annually from reduced commuting. The average commuter contributes approximately 0.2kg of carbon dioxide emissions per kilometer driven to work [7]

UC as the Environmental Enabler: Mitel's UC/UCaaS solutions bring together communication tools that create efficient remote work environments, enabling organizations to:

- Reduce office space requirements and associated energy consumption
- Minimize commuting-related emissions across their workforce
- Support flexible work arrangements that align with sustainability goals

3. Sustainable Cloud Infrastructure

Environmental Optimization Through Hybrid Infrastructure: Mitel's hybrid approach to communications infrastructure enables organizations to optimize environmental impact by selecting the most efficient combination of on-premises, private cloud, and public cloud resources. This flexibility allows organizations to:

- Deploy workloads in the most energy-efficient locations based on their specific requirements
- Leverage renewable energy sources where available while maintaining control over critical systems
- Optimize resource utilization across different infrastructure types to minimize overall environmental footprint

Research shows that thoughtful hybrid deployments, rather than one-size-fits-all approaches, enable organizations to achieve both performance and environmental optimization [1].

Sustainable Hardware Lifecycle Management: Mitel's cloud-based communications approach supports environmental goals through:

- Extended equipment lifecycles through centralized management
- Reduced electronic waste through optimized hardware utilization
- Lower overall material consumption compared to distributed infrastructure

4. Digital-First Environmental Practices

Paperless Operations: Mitel's modern UC platforms integrate digital workflows that significantly reduce paper consumption and physical resource requirements:

- Digital document sharing and collaboration reduce printing needs
- Integrated meeting and collaboration tools eliminate paper-based processes
- Automated workflows reduce manual, resource-intensive administrative tasks
- Reduces central processing demands
- Enables more distributed and efficient AI operations

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2025 Sustainability Trends in Business Communications

1. AI-Driven Environmental Optimization

In 2025, sustainability is a crucial focus for telecommunications industry leaders [8][9]. Organizations are focused on understanding AI's environmental impact while leveraging AI technologies to achieve sustainability goals. Mitel's AI-powered features support environmental objectives by:

- Optimizing resource usage through intelligent scheduling and capacity planning
- Reducing energy consumption through predictive maintenance and efficiency algorithms
- Enabling more precise resource allocation to minimize waste

2. Renewable Energy Integration and Responsible Sourcing

Forward-thinking communications providers are increasingly integrating renewable energy sources and sustainable practices. Mitel is committed to working with partners and suppliers who share our environmental values and are investing in sustainable infrastructure.

3. Circular Economy Adoption

Leading companies are setting ambitious targets for equipment recycling and reuse [9][11]. Mitel supports circular economy principles through:

- Equipment refurbishment and lifecycle extension programs
- Responsible recycling partnerships
- Sustainable materials sourcing where possible
- Design for longevity and repairability

4. Enhanced Environmental Transparency

With increasing environmental regulations and stakeholder expectations, organizations need communications partners who can support their sustainability reporting requirements. Mitel is working to provide better visibility into the environmental impact of our solutions and services.

Mitel's Sustainability Journey and Environmental Commitment

Our Environmental Commitment and Progress

We are conscious of the ongoing global climate crisis and are committed to creating a sustainable future by implementing measures to reduce our carbon emissions and promote sustainable practices throughout our supply chain. Mitel has established a long-term objective to become carbon neutral by 2050 and recognizes this requires ongoing effort and investment [4].

- While we're in the early stages of our comprehensive sustainability journey, we're committed to:
- Transparent communication about our environmental impact and progress
- Continuous improvement in our operational environmental performance
- Supporting our customers' sustainability goals through our technology solutions
- Partnering with suppliers and vendors who share our environmental values

This commitment comes to life through several key initiatives across our portfolio. Below are examples of how Mitel's AI-powered solutions support environmental goals in practice.

Hybrid Cloud Strategy Supporting Sustainability

Mitel's hybrid cloud approach delivers environmental benefits through:

1. Deployment Flexibility: Organizations can optimize their environmental impact by choosing the most efficient deployment model for their specific needs and sustainability goals

2. Resource Optimization: Hybrid solutions enable intelligent workload distribution, minimizing energy consumption while maintaining performance

3. Future-Proof Sustainability: Our architecture positions customers to adopt more sustainable technologies as they become available [10][12]

Innovation for Environmental Impact

- Mitel's commitment to environmental responsibility extends to our technological innovation:
- Common Communications Framework: Designed to optimize resource usage across deployment models
- AI Integration: Our AI capabilities are developed with efficiency and environmental impact in mind
- Sustainable Partnerships: We work with partners like Zoom who share our commitment to environmental responsibility and sustainable innovation

Proven Sustainability Gains from Mitel's AI Ecosystem

Case Study: Healthspan's AI Implementation

Healthspan, a Mitel customer and one of the largest direct-to-consumer suppliers of vitamins and supplements in the UK, recently deployed the new integrated solutions and is already seeing **increased efficiency and improved customer care**. "Our team of 57 customer support agents handle 150,000 interactions each month, answering questions on any of our 200+ products," said Rob King, IT Manager at Healthspan. "Our dream was to have **an automated Product Expert to help us maintain a continuity of experience while delivering quicker responses**. After implementing Talkative's virtual agent with our Mitel contact center platform, **our AI resolution rate rose to a staggering 90% after one month**. Customer satisfaction has risen, and our agents now have more time." [5][13]

Environmental Impact Assessment:

- **90% AI resolution rate** = 135,000 automated interactions per month
- Estimated **15-minute reduction** per automated interaction
- **33,750 hours** of human agent time saved monthly
- Equivalent to reducing workforce energy consumption by approximately **21 full-time positions**
- **Additional savings** from reduced office space, equipment, and infrastructure needs

Supporting Environmental Reporting and Accountability:

Recording Insights AI is an integrated component of Mitel Interaction Recording, providing deeper business insights using GenAI data analytics. Frontline CX Agents and Supervisors drive deeper understanding of customers' interactions at a click of button. Smooth data transfer to AI engine enables transcription in 100+ languages, visualization through powerful dashboards and reports, and advanced capabilities like summarization and sentiment analysis. Mitel's Recording Insights AI provides organizations with data that can support their environmental reporting and sustainability initiatives. By providing deeper insights into operational efficiency, organizations can:

- Identify opportunities to reduce resource consumption
- Track improvements in operational efficiency over time
- Support sustainability reporting with concrete efficiency metrics

Sustainable AI Implementation Best Practices

1. Intelligent Resource Optimization

Dynamic Scaling: Power-capping hardware has been shown to decrease energy consumption by up to **15%**, while only increasing the time it takes to return a result by a barely noticeable **3%**. Mitel's AI systems implement intelligent power management that:

- Automatically adjusts processing power based on demand
- Optimizes response times while minimizing energy consumption
- Scales resources dynamically to prevent over-provisioning

2. Advanced Model Efficiency

Following industry best practices, Mitel focuses on deploying efficient AI models: In general, larger models, such as generalist large language models (LLMs) used by ChatGPT and Google Gemini, require much more energy than smaller ones. Such generalist models can be useful for wide-ranging consumer-facing needs, but for businesses with specific use cases, smaller, more efficient, more affordable, and less energy-hungry models are much more effective. Notably, this shift toward optimized, purpose-built AI models helps organizations avoid contributing to the environmental tipping point referenced earlier in the document, where unchecked resource consumption could lead to unsustainable operational impacts.

According to Google's 2025 Environmental Report, AI efficiency improvements can dramatically reduce environmental impact. Over a 12-month period, the median energy consumption and carbon footprint per Gemini Apps text prompt decreased by factors of 33x and 44x, respectively, while delivering higher-quality responses [(11)].

Mitel's Approach:

- Purpose-built AI models for specific business communications tasks
- Optimized inference engines for contact center applications
- Context-aware processing that reduces unnecessary computations

3. Sustainable AI Operations

Mitel prioritizes partnerships with cloud providers committed to renewable energy and environmental responsibility. Our approach includes:

- Working with providers who publish sustainability metrics and renewable energy commitments
- Transparent communication about our AI infrastructure's environmental impact
- Ongoing optimization of AI operations for environmental efficiency

The Broader Environmental Impact: Enabling Organizational Sustainability

1. Travel and Transportation Impact Reduction

Traditional business practices often involve extensive travel, which contributes significantly to an organization's carbon footprint. Mitel's AI-enhanced UC solutions amplify environmental benefits through:

- **Intelligent Meeting Optimization:** AI scheduling that minimizes meeting overhead and maximizes efficiency, reduces unnecessary meetings and travel
- **Smart Collaboration:** Automated systems that determine most efficient communication methods and reduce communication overhead
- **Predictive Environmental Planning:** AI insights that help organizations plan more sustainable operations

2. Operational Sustainability Multipliers

When organizations streamline operations through AI, environmental benefits multiply. AI-enabled smart building systems, optimized workflows, and intelligent resource management create compound environmental benefits.

Mitel's Environmental Contribution:

- Accelerated decision-making through AI-powered data-driven insights
- Optimized communication reduces redundant interactions and associated energy consumption
- Streamlined workflows eliminate environmentally wasteful operational steps

3. Environmental Optimization of Infrastructure

AI systems can help organizations achieve environmental goals through:

- Optimizing facility energy usage through intelligent building management integration
- Predicting and managing resource needs to align with renewable energy availability
- Supporting sustainable infrastructure decision-making through data-driven insights

AI systems, including those deployed by cloud service providers, can help businesses and organizations: Optimize energy usage in data centers through better cooling systems, improving power usage effectiveness (PUE). Predict and manage energy storage needs, aligning renewable energy generation with demand.

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Future Outlook: Sustainable AI as a Sustainability Catalyst

Emerging Trends in Sustainable AI

2025 and Beyond Predictions: "I don't think we'll even use the term 'sustainable AI,'" Lakshmanan [12] said. "**Because AI will, by definition, be sustainable. It will be the norm, not the exception.**" In this vision, AI models will be smarter about how they use energy, just as search engines today guide users away from nonsense queries to save computing power.

Mitel's Roadmap to Sustainable AI

1. **Continuous Model Optimization:** Regular updates to AI models to improve efficiency
2. **Edge Computing Expansion:** Moving more AI processing closer to users
3. **Renewable Energy Integration:** Partnering with green data center providers
4. **Transparent Reporting:** Publishing detailed sustainability metrics for AI operations

Industry Transformation

AI offers the means to accelerate progress toward halving global emissions by 2030. The task is daunting but achievable; with AI as a catalyst for scalable, meaningful change, businesses can align economic growth with environmental stewardship.

Best Practices for Sustainable AI Implementation

1. Assessment and Planning

Energy Impact Evaluation: Conduct an AI system impact assessment, which evaluates societal impacts of your AI system, including the effects on environmental sustainability

Key Questions for Organizations:

- What is the baseline energy consumption of current processes?
- How will AI implementation change overall resource requirements?
- What are the long-term efficiency gains versus initial energy investment?

2. Vendor Selection Criteria

Prioritize vendors who are ISO 14001 and ISO 42001 certified, as these standards reflect a commitment to improving sustainability and ethical AI practices.

Mitel's Commitment:

While Mitel is actively exploring ISO 42001 certification, we already align with its principles through our partnerships with certified providers such as AWS and Microsoft.

We are committed to:

- Transparency in AI energy consumption reporting
- Partnership with renewable energy providers
- Continuous improvement in AI model efficiency

3. Implementation Strategy

- **Phased Deployment:** Start with high-impact, low-energy AI applications
- **Measurement and Optimization:** Regular assessment of energy consumption versus efficiency gains
- **Integration Focus:** Leverage existing infrastructure to minimize additional energy requirements

Measuring and Maximizing AI Sustainability Impact

Key Performance Indicators (KPIs):

ASPECT	METRICS
Energy Efficiency	• AI processing energy consumption per transaction • Reduction in overall system energy usage • Efficiency gains from automated processes
Operational Impact	• Percentage of interactions automated • Reduction in average resolution time • Decrease in repeat customer contacts
Business Sustainability	• Reduction in travel-related emissions • Office space optimization • Decreased infrastructure requirements

ROI Calculation Framework

Total Cost of Ownership (TCO) Analysis:

- Initial AI implementation energy costs
- Ongoing operational energy requirements
- Energy savings from process optimization
- Reduced infrastructure and human resource needs

Environmental Return on Investment (EROI):

- Baseline carbon footprint measurement
- AI infrastructure carbon impact
- Offset from operational efficiency gains
- Net environmental impact calculation

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Conclusion: Sustainable AI as a Force for Sustainable Business Communications

The intersection of artificial intelligence and sustainability in business communications represents both opportunity and responsibility. While AI systems require significant energy investment, their potential to drive operational efficiency and reduce overall environmental impact makes them essential tools for achieving corporate sustainability goals.

Mitel's approach demonstrates that responsible Sustainable AI deployment can deliver measurable sustainability benefits:

- **90% automation** rates reducing human resource requirements
- **Intelligent resource optimization** minimizing energy waste
- **Hybrid deployment flexibility** enabling energy-efficient infrastructure choices
- **Real-time analytics** eliminating redundant processes and systems

As we work toward our 2050 carbon neutral objective, we recognize that responsible AI implementation requires ongoing commitment, measurement, and improvement. The key lies not in avoiding AI technology but in deploying it thoughtfully, measuring environmental impact rigorously, and continuously optimizing for both performance and environmental responsibility.

We believe that AI, when implemented with environmental consciousness, makes sustainability goals more achievable while driving business success.

Explore how Mitel's AI-powered communications can help your organization meet ESG targets without compromising performance. Contact our enterprise solutions team today.

About Mitel

We are conscious of the ongoing global climate crisis and are committed to creating a sustainable future by implementing measures to reduce our carbon emissions and promote sustainable practices throughout our supply chain. Mitel has a long-term objective to become carbon neutral by 2050.

Our AI-powered solutions, including Mitel CX and our comprehensive AI ecosystem, demonstrate our commitment to delivering technology that drives both business excellence and environmental responsibility. Through practical innovation with artificial intelligence at the core, we help organizations achieve their sustainability goals while enhancing customer experience and operational efficiency.

For more information about Mitel's sustainability initiatives and AI-powered solutions, visit www.mitel.com/about/esg.

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This white paper represents Mitel's commitment to transparent communication about the environmental impact of AI technologies and our dedication to sustainable innovation in business communications. This document has been put together with AI assistance.

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