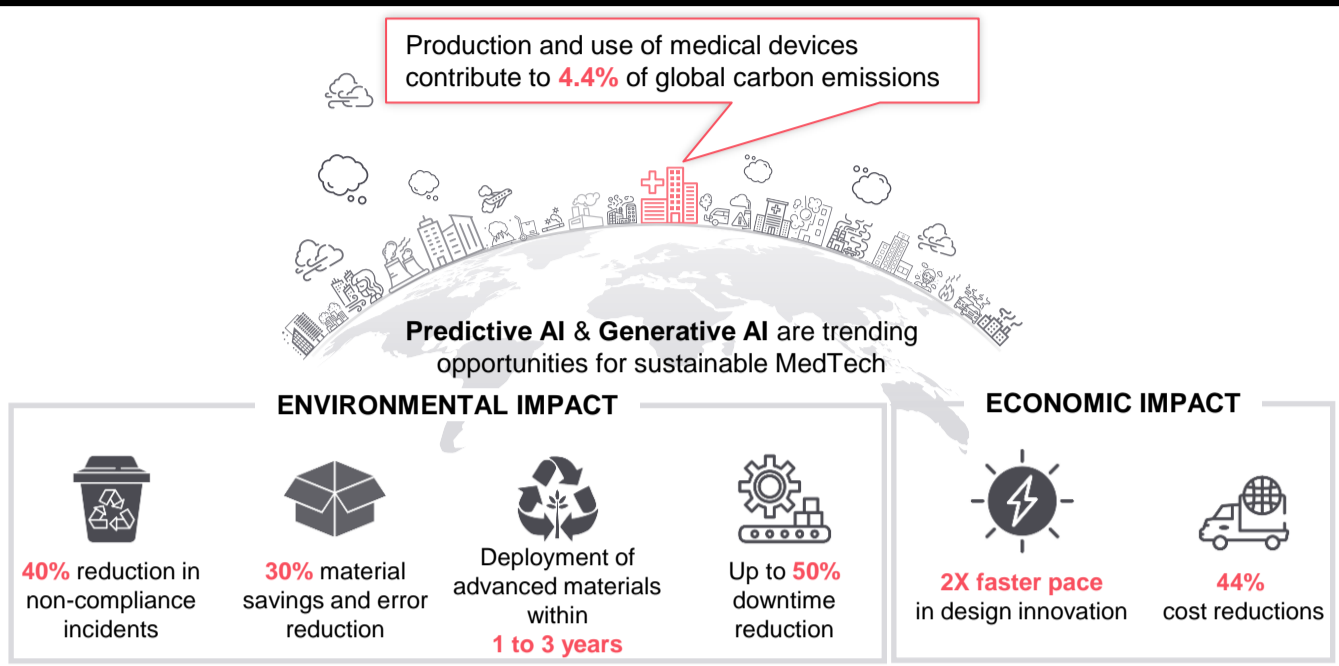


AI Infuses MedTech with Sustainable Ingenuity

Life Sciences

Impact of Artificial Intelligence (AI) in MedTech



Top Innovators in AI-Driven MedTech Solutions

Sustainable Product Design and Development			Resource Management Optimization
Material Discovery <i>With this AI based platform, a Japan-based elastomer sealing product company identified sustainable materials for product development while minimizing trial-and-error based experiments by 50%</i>	Design & Development <i>Using Simcenter software (powered by AI), B&W Engineering developed a peristaltic pump with the lowest drug delivery rate and improved delivery accuracy by 3%</i>	Testing <i>Code Intelligence's AI-driven fuzz testing platform helps carry out tests in compliance with the FDA's and MDR's testing requirements</i>	Disposal/ Recycling <i>Using AI-powered solutions, Sorted has improved residual waste recovery by over 50% by increasing picker performance</i>

Not exhaustive list

Impact Story – Sustainable Polymer Solution

CASE STUDY

TITLE	COLLABORATION ACTIVITY	
Biodegradable Polymer Design Enabled by PolymRize™ 		
CHALLENGE	SOLUTION	RESULTS
Increasing plastic waste in the environment created an urgency for sustainable alternatives	PolymRize™ is an AI-based custom model training and predictive platform that can rapidly estimate the performance of newly designed materials, enabling quicker decision-making while reducing time and costs compared to traditional methods	CJ Biomaterials developed PHACT, a 100% bio-based Polyhydroxyalkanoate (PHA) that naturally degrades in the environment

Source: Matmerize

Best Practices for Sustainable AI Deployment in MedTech

 Lifecycle Assessment for AI Systems End-of-life management of AI systems through <ul style="list-style-type: none"> Eco-design Sustainable material selection 	 Energy-efficient AI Models <ul style="list-style-type: none"> Develop energy-efficient AI models to reduce energy consumption of AI systems 	 Green Computing Infrastructure for AI Systems <ul style="list-style-type: none"> Energy-efficient hardware Sustainable infrastructure designs Renewable energy source 	 Data Management for AI Systems Minimize environmental impact of AI systems: <ul style="list-style-type: none"> Optimize data storage systems Assess the necessity of stored data
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Futuristic Perspective

Monitoring carbon footprints and embracing circular economy principles can help manufacturers align their growth with their sustainability goals

Monitoring Carbon Footprints	AI addresses the data gaps of existing emission monitoring systems, by enabling real-time continuous monitoring and early prediction for more effective emission control
Circular Economy	Study reports show that 85% of healthcare waste is recyclable—AI can drive a circular economy to minimize disposal and enhance sustainability.
Energy Efficiency	AI predicts and detects deviations in energy consumption patterns. E.g., Respira delivers estimated 20-30% savings in energy consumption of hospital's HVAC management

About FutureBridge

FutureBridge is a techno-commercial consulting and advisory company. We track and advise on the future of industries from a 1-to-25-year perspective to keep you ahead of the technology curve, propel your growth, identify new opportunities, markets and business models, answer your unknowns, and facilitate best-fit solutions and partnerships using our platforms, programs, and access to global ecosystems and players.