# HOW TO FUTURE-PROOF YOUR ELEVATORS WITH TKE

Every day, elevators in commercial buildings make millions of trips, quietly consuming significant energy while moving tenants between floors. For building owners, these systems represent both a substantial operational expense and an untapped opportunity for sustainability improvements.

To manage these behind-the-scenes operations, TK Elevator is here to modernize elevator systems through digital integrations like the MAX Smart Maintenance tool, which provides real-time performance monitoring and predictive issue detection, or their EOX elevator systems which boast up to 45% energy savings compared to other low-to-mid-rise options. TK Elevator has made its name through their comprehensive platforms that allow building owners to streamline operations while making strides in sustainability. In their 2023/24 Sustainability report, for example, they outlined key milestones from their green agenda, including a 28% reduction in greenhouse gas emissions from their own operations and achieving 94% renewable electricity usage in their factories.

These achievements address a problem that faces many building owners' strategies: elevators' energy use.

According to UtiliVisor, elevators use between 3% and 10% of a building's total electricity consumption. This significantly impacts both environmental performance and operational costs. For building owners, this presents a clear opportunity: modernizing elevator systems can simultaneously reduce energy costs, improve tenant experience and increase property value.

"TK Elevator is proud to support building owners with solutions that foster transparency, responsiveness and compliance. Our customer portal offers real-time access to service updates, maintenance schedules and performance insights — empowering owners to make informed decisions. Our branch leaders and sales representatives also stay ahead of regulatory changes to ensure systems remain safe, efficient and compliant."

This How-To Playbook is divided into three essential sections:

- Industry Challenges and Market Evolution
- Sustainability and Environmental Impact
- Sector-Specific Trends and Strategic Planning

*Based on insights from TKE experts, this guide equips commercial real estate professionals with strategies to transform vertical transportation into a competitive advantage.*

**Industry Challenges and Market Evolution**

As the TKE team describes, the elevator industry is undergoing a dynamic transformation, driven by a powerful convergence of digital innovation, sustainability goals and modernization needs. The demand for smarter, more digitally enabled elevators continues to grow, particularly in predictive maintenance and destination dispatch. Given how crucial safety and user experience are, it should be no surprise that the elevator industry is advancing. This transformation is reflected in the numbers: Future Market Insights reports that the global elevators and escalators market is projected to expand from USD 79.25 billion in 2025 to approximately USD 157.36 billion by 2035. And, even more significant, smart elevator market size was valued at USD 20.45 billion in 2023, and is projected to reach USD 58.56


billion by 2032, growing at a CAGR of 12.40% from 2024-2032 (Introspective Market Research). These findings represent the increasing demand for smart building technology – and elevators are a key component to fielding this automation.


TK Elevator leverages this trend through their MAX digital services, which combines cloud, big data and machine learning in a three-step process:

1. Collects data: Machine data, such as door movements, trips, power-ups, car calls, error codes, etc., is collected from MAX-connected elevators worldwide.
2. Conducts precise diagnoses: This data is sent to the cloud where unique algorithms analyze it for patterns and compute the equipment's operation and the remaining lifetime of components.
3. Utilizes predictive intervention: Precise and predictive diagnostics are delivered to the technician in real time, indicating where intervention is required.

"One of the most impactful trends is the modernization of aging elevator systems," the TKE team shares. "More than 30% of the world's 21 million elevators are over 20 years old." Stanley Elevator, Inc confirms this, stating that the average age of an elevator is about 20 to 25 years before major updates are required. This lengthy upgrade cycle highlights a problematic industry trend: elevators shouldn't go decades without significant improvements, yet they do.

The cost of neglecting upgrades becomes clear over time. DC Elevator explains: "Older elevators can become a drain on your budget." They cite a real-world example where a mid-sized residential building in the Southeast spent nearly $20,000 on repair bills over three years, only to experience continued reliability issues.

However, modernization delivers measurable returns. After that same building completed a project with new control systems and energy-efficient motors, it saw a 35% reduction in maintenance costs and improved tenant satisfaction. Simply put, frequent breaks down, slow performance and compliance issues make upgrading essential for safety, reliability and value, according to Swift Lifts. Modern elevator systems deliver significant savings: City Elevator of Michigan reports energy reductions of up to 70%, while industry data shows maintenance costs can decrease by 25–30%, making this investment pay off in the long term.

"Building owners have a unique opportunity to elevate tenant satisfaction and operational efficiency through modern

vertical transportation systems," the TKE team shares. "By proactively managing maintenance and staying ahead of repairs, they can reduce costs, minimize disruptions and create a more seamless experience for occupants. Navigating evolving building codes and regulations also presents a chance to reinforce safety and demonstrate leadership in compliance."

**Sustainability and Environmental Impact**

In addition to smart technology, global sustainability goals are also accelerating the elevator space. This is vital as experts estimate that elevators use between 3% and 10% of a building's total electricity consumption (UtiliVisor). Several strides are being made to improve energy-efficiency in elevator technology, such as the TK Elevator EOX platform. EOX elevators feature green credentials with a unique eco-mode that learns and adjusts to traffic patterns within the building. These elevator systems boast up to 45% energy savings compared to other low-to-mid-rise options, supported by digital connectivity through partnerships with leading tech giants such as Microsoft® and NVIDIA®.

"For building owners, this means access to eco-efficient technology that reduces environmental impact while improving operational efficiency and long-term value," the TKE team says. "EOX elevators feature energy-saving components and digital capabilities that support smarter building management."

According to Global Market Insights (GMI), the global smart building market was valued at USD 103 billion in 2024 and is estimated to grow at a CAGR of 24.4% to reach USD 827.7 billion by 2034. GMI reports this growth is driven by the growing importance of energy efficiency and sustainability, technological advancement in smart buildings, cost savings and operational efficiency, and government regulations and incentives.

"Sustainability is a core element of TK Elevator's multidimensional transformation journey," the TKE team says. "We're advancing key transformation priorities across climate action, innovation, safety and responsible business practices. A prime example is our digitally native EOX elevator platform for low- and mid-rise buildings. EOX is rapidly scaling and transforming our value chain — from supply chain and manufacturing to installation, modernization and service."

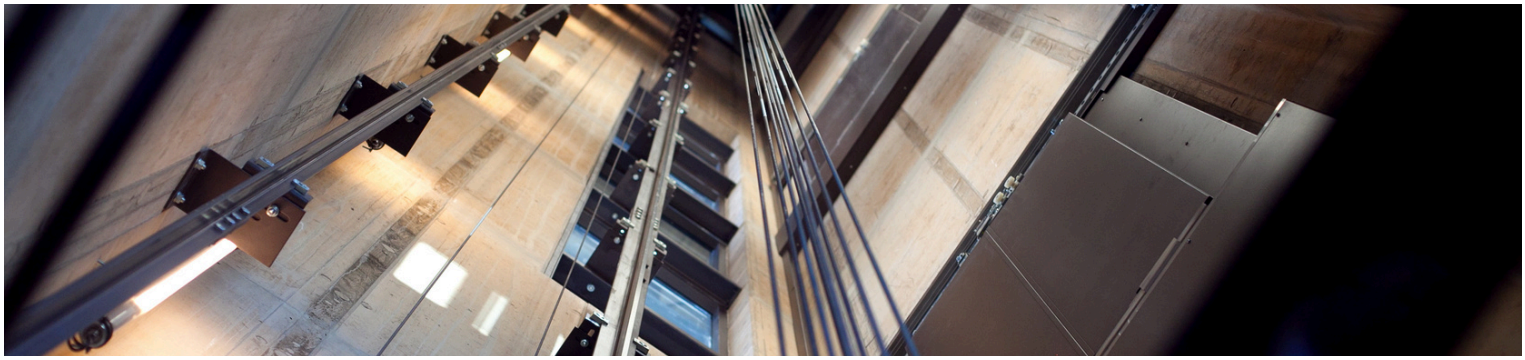
Practicing sustainability in the elevator industry is essential, given that traditional elevators consume large amounts of energy. The American Council for an Energy-Efficient Economy, for example, estimates typical consumption for a lightly loaded low-rise elevator at 1,900 kWh/yr and 15,000 kWh/yr for a heavily used elevator in a high-rise. Their research found that a single elevator in a 30-story high-rise might use ~35,000 kWh per year, or about as much electricity as the average Midwestern home uses in 9 months.

The EOX platform addresses this challenge through sustainable design. It's produced with 100% green electricity—renewable energy resources from solar, wind or geothermal sources (EPA)—and requires up to 28% less energy to operate thanks to regenerative drive technology (Elevator World). Additionally, the TKE team noted that regenerative braking systems recapture energy usually lost as heat and feed it back into the building's power grid, leading to lower energy costs and makes the greener buildings (Elevator Consultant Solutions).

For building owners not ready to invest in green electricity or regenerative drives, other energy-saving methods exist. Tracking energy usage is a practical starting point. Monitoring energy consumption supports both environmental sustainability and financial savings. Hub Elevator reports potential annual savings of $3,000-$8,000 in energy costs, with ROI often achieved within 3-5 years. The MAX service exemplifies platforms that allow building owners to analyze and optimize power consumption.

These benefits emphasize why elevator upgrades are heavily encouraged: "Elevator upgrades present a valuable opportunity for property managers to enhance building performance, tenant satisfaction and long-term value," the TKE team says. "With over 30% of elevators worldwide now more than 20 years old, modernization is becoming a strategic priority — not just to avoid disruptions and rising maintenance costs, but to unlock the benefits of smarter, more sustainable systems."

Investing in efficient, sustainable elevators will only continue to become a priority as urbanization accelerates. In TK Elevator's 2022/23 Sustainability Report, they found that nearly seven out of ten people will live in cities by 2050. With this rapid growth in mind, sustainable elevators will help minimize the environmental impact of dense urban infrastructure.



**Sector-Specific Trends and Strategic Planning**

“Across all sectors, we're seeing exciting momentum toward modernization and digital transformation,” the TKE team shares when thinking about future trends in the industry. “From bustling airports to critical healthcare facilities and government infrastructure, organizations are embracing more innovative, safer and more efficient vertical transportation solutions.” This digital transformation is driven by the growth of smart technology, which directly impacts tenant satisfaction, a critical priority for commercial real estate professionals.

Smart technology improvements translate to measurable tenant benefits. According to research, tenant satisfaction increased by 18% in buildings equipped with smart technologies, leading to a 14% boost in lease renewals (Netguru). Given that elevators are such an essential component of a tenant’s daily experience, ensuring quality performance is integral to building success.

TKE’s EOX elevators, for example, exemplify this focus on tenant experience through customizable “infotainment” screens. These displays provide building managers with options to share news updates, weather information and other content, making routine elevator rides more engaging (TK Elevator).

While tenants value sustainable, operational and efficient buildings, owners focus on long-term ROI and cost savings for their business portfolios. This alignment drives the movement toward modernizing aging elevator systems. “Building owners are seizing the opportunity to upgrade outdated equipment and eliminate service disruptions,” TKE states. “Modern systems like our eco-efficient EOX platform not only enhance safety and reliability but also reduce emissions across the elevator lifecycle.”

The business case for modernization is compelling. According to a study, about 35% of commercial buildings in major metro areas have installed IoT systems for automation or data monitoring. These systems reduce utility bills while making spaces more attractive to tenants seeking modern, tech-friendly workplaces, delivering both cost savins and tenant retention benefits.

“Digital innovation is another powerful driver,” the TKE team notes. “Solutions like TKE's MAX Digital Solutions allow real-time monitoring of elevator performance and proactive technician dispatching. These technologies are helping customers reduce downtime, improve service and manage buildings more effectively.”

Central to MAX Digital Solutions is artificial intelligence, particularly the Virtual Coach feature. One of the aspects that makes AI so revolutionary in the maintenance space is its ability to detect any issues. This adaptive AI learns about building systems during troubleshooting processes, enabling it to provide increasingly accurate

recommendations while planning for future maintenance needs. The results include increased uptimes, faster repairs and greater transparency. According to Kolena, AI-powered tools deliver an average of 3.5 times ROI in commercial real estate through automated workflows, preventive maintenance, scheduling and energy optimization.

"Modernization delivers clear advantages: improved safety, energy efficiency and a more seamless experience for building occupants," the TKE team shares. "TK Elevator makes planning easier with flexible payment options — such as 25% or 50% down with the balance due when work begins, making upgrades more accessible."

Upgrades reduce the likelihood of malfunctions and breakdowns while enabling modern features and ensuring safer environments for tenants. Most importantly, they improve overall asset value and building appeal. "Digital tools like MAX Smart Maintenance provide real-time performance monitoring and predictive issue detection, allowing teams to address potential problems before they impact service. By planning ahead, property managers can future-proof their vertical transportation systems and position their buildings for long-term success."

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