# FROST & SULLIVAN

# **COMPANY OF THE YEAR**

IN THE SOUTHEAST ASIAN SMART BUILDING SOLUTIONS INDUSTRY







# **Best Practices Criteria for World-Class Performance**

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Azbil excels in many of the criteria in the smart building solutions space.

AWARD CRITERIA	
Visionary Innovation & Performance	Customer Impact
Addressing Unmet Needs	Price/Performance Value
/isionary Scenarios Through Mega Trends	Customer Purchase Experience
Implementation of Best Practices	Customer Ownership Experience
Leadership Focus	Customer Service Experience
Financial Performance	Brand Equity

#### Growth and Transformation in Southeast Asia's BMS Market

The Southeast Asia building management system (BMS) market is experiencing rapid growth driven by urbanization, industrialization, and a focus on energy efficiency and sustainability. The integration of advanced technologies has revolutionized BMS, shifting reliance from traditional skills to technological expertise. This trend is propelling the market, which is expected to grow at a compound annual growth rate of 7% from 2022 to 2028.<sup>1</sup>

BMS plays a crucial role in modern buildings by enhancing safety, comfort, and energy optimization while reducing operational costs. By integrating automation and energy management systems, BMS improves maintenance efficiency and overall building performance. The rise of smart building solutions across Southeast Asia, particularly in Singapore, is linked to global trends like climate change, aging populations, and energy demands. The increasing digital transformation across industries has accelerated the need for automation further as businesses sought solutions to counter labor shortages, rising energy costs, and supply chain disruptions.

Smart city initiatives in the region are also driving BMS adoption. Technologies such as artificial intelligence (AI) and the Internet of Things (IoT) are transforming buildings into intelligent, interconnected

<sup>&</sup>lt;sup>1</sup> Frost & Sullivan: Southeast Asia Building Management Systems Growth Opportunities (September 2023)

systems. Singapore leads the region in digital adoption, showcasing how BMS and information and communications technology can enhance building operations.

The push for carbon neutrality is another major growth driver, with industries adopting smart solutions to reduce their carbon footprints and boost productivity. Technologies like AI and cloud computing are expanding automation's role, making BMS a key element in sustainable operations. Despite challenges such as fluctuating energy prices, demand for energy-efficient solutions offers significant growth potential, ensuring that smart systems and automation will shape the future of building management in Southeast Asia.

#### Azbil Corporation: Advancing Automation in Smart Building Solutions

Azbil Corporation, established in Japan in 1906, has a rich legacy of innovation in automation and building solutions. In April 2018, the company expanded its strategic presence in Southeast Asia by opening the

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#### - Anirudh Bhaskaran Energy & Environment, Industry Principal

Strategic Planning & Development Office in Singapore. This office plays a pivotal role in driving business growth across the region, offering comprehensive business support, formulating strategic plans, and managing subsidiaries. It also serves as a central hub for fostering collaborative technology development across Japan, the Americas, and Asia, ensuring seamless integration of advanced solutions in smart building automation and related fields.

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With its deep-rooted expertise and forward-thinking approach, Azbil Corporation continues to lead the smart building solutions industry, driving innovation and sustainability across Southeast Asia and beyond.

#### Azbil Corporation's Growth Strategy: Focused on Key Strategic Pillars

Azbil Corporation's growth strategy is driven by its focus on three key areas: New Automation, Environment and Energy, and Life-cycle Solutions. These strategic pillars allow the company to address evolving global challenges, deliver high-value solutions, and create long-term value for its clients and society.

#### **New Automation:**

#### Solving new challenges with new products and services

Azbil leverages its expertise to enhance automation processes across various industries, ensuring precision, efficiency, and adaptability. By offering innovative solutions, Azbil expands its customer base and addresses emerging demands, all while supporting sustainability goals. The new automation field targets to provide solutions to meet new needs, such as wellness in building environments and advanced manufacturing at production sites.

#### **Environment and Energy**:

#### Applying proven strengths in energy efficiency and renewable energy

Sustainability is at the core of Azbil's strategy, with a strong emphasis on integrating renewable energy sources and supporting carbon neutrality. Through its Energy Service Provider (ESP) business, Azbil offers green transformation solutions that help clients reduce their carbon footprints. The company's comprehensive energy solutions integrate renewable energy sources, energy management, and equipment retrofit services to meet the growing demand for sustainability. The company's automation solutions improve the quality of indoor spaces, productivity, and energy efficiency, setting it apart in an industry where value-added solutions often lead to increased resource consumption. These efforts are central to Azbil's contribution to a carbon-neutral society, delivering energy-efficient solutions that align with environmental goals.

#### Life-cycle Solutions:

#### Supporting customers' assets over the long term

Azbil provides long-term support for customers' assets, offering services that extend beyond initial implementation. Through continuous maintenance and improvement, the company ensures sustained value and operational efficiency for over a decade. Azbil's integration of cloud and digital technologies, such as cloud-based building management and remote monitoring, enhances asset performance and optimizes system efficiency. This commitment to life-cycle solutions meets the demand for sophisticated services that ensure the consistent quality and productivity of critical assets across industries.

By aligning its capabilities with the evolving needs of clients in these three key areas, Azbil drives transformation, improves productivity, reduces resource use, and fosters sustainability. The company's ability to integrate advanced automation, energy-efficient solutions, and digital technologies positions it as a leader in creating a sustainable future and delivering comprehensive services across various sectors.

#### Leveraging Advanced Technologies and Comprehensive Solutions

Azbil is at the forefront of integrating AI and machine learning (ML) into smart building solutions, enhancing operational performance and efficiency. By applying AI and ML through innovations like digital twins, predictive maintenance, and cloud-based systems, the company demonstrates its commitment to improving system stability, energy savings, and overall operational efficiency.

Azbil's life-cycle business model further strengthens its position, covering every stage from construction planning to daily operations and retrofitting. This comprehensive approach ensures sustainable value creation, with solutions that evolve to meet changing building needs. Energy-saving applications and retrofitting projects optimize building performance, aligning with global sustainability goals.

The company's integrated product line, which includes sensors, control systems, and software solutions, allows Azbil to serve as a one-stop provider for smart building management. By offering complete, end-to-end solutions, Azbil ensures continuous support across the building life cycle, from installation to maintenance and retrofitting, helping customers achieve enhanced energy efficiency and streamlined operations.

One of Azbil's key innovations is its Chiller Plant Digital Twin, which uses AI to simulate and analyze chiller plant operations. This application provides real-time insights into system efficiency, helping to optimize cooling loads and energy usage. The digital twin also facilitates predictive maintenance through machine learning, continuously updating with live data to identify performance deviations and suggesting necessary improvements or equipment servicing.

In addition to digital twins, Azbil has developed a cloud-based control valve maintenance support system that plays a crucial role in ensuring stable plant operations in Japan. This system analyzes valve operating data, visualizing the results of valve health checkups to maintain operational stability and enhance security. It is increasingly utilized in chemical and oil refinery plants, highlighting its effectiveness in critical industrial settings. The system's ability to visualize and analyze valve performance contributes significantly to the reliable operation of production facilities.

Azbil also highlights its advancements with the Digital Mass Flow Controller model F4Q, which features a micro thermal flow sensor for highly accurate flow measurement. Its user-friendly design, including a large light-emitting diode display, enhances control and accuracy across various applications, making it ideal for precision-driven industries such as semiconductor manufacturing and pharmaceuticals.

Azbil's commitment to research and development (R&D) is a cornerstone of its innovation strategy. The company invests significantly in R&D to leverage emerging technologies like AI, the Internet of Things (IoT), and micro-electro-mechanical systems (MEMS), enabling precise data acquisition and real-time control. These technologies are crucial for predictive maintenance, efficient energy management, and enhanced safety. AI-driven solutions, for example, help predict equipment anomalies, reducing downtime and optimizing performance.

The new clean room and upgraded development environment at Azbil's Fujisawa Technology Center highlight its focus on MEMS technology, supporting high-quality measurement and control applications. This facility strengthens Azbil's core expertise in automation technology and supports its shift from operation-focused systems to comprehensive management solutions. Azbil's global R&D network, including its center in Silicon Valley, USA, collaborates with universities and start-ups to explore emerging trends and AI-based technology development. These efforts enable Azbil to stay ahead of technological advancements while participating in international standardization initiatives.

Additionally, the company has established a new R&D center in Singapore, enabling rapid application development and test marketing in key regions.

Frost & Sullivan believes that Azbil's focus on R&D, strategic collaborations, and innovative use of AI, IoT, and MEMS positions the company as a leader in the smart building solutions industry. Its commitment to sustainability, energy efficiency, and predictive maintenance ensures continuous innovative portfolios.

#### Azbil's Strategic Approach to Sustainability

Azbil is at the forefront of smart building solutions, driven by its commitment to sustainability, corporate social responsibility, and strategic brand management. By leveraging AI and big data, the company addresses environmental and energy challenges while adhering to its "human-centered automation" philosophy and contributing toward achieving the Sustainable Development Goals. Azbil's proactive approach is further demonstrated by the establishment of new departments focused on green transformation and cloud services, reinforcing its dedication to sustainable development and using technology to make a positive environmental impact.

Several key projects highlight Azbil's innovative capabilities in promoting sustainability. In Singapore, the company's Intelligent Building Management System (IBMS) and digital twin technology played a crucial role in helping a global urban infrastructure, and managed services consulting firm achieve Singapore's Building and Construction Authority's Green Mark for Super Low Energy certification by optimizing energy usage. In Indonesia, Azbil's advanced chiller plant management system, integrated with digital twin technology, enhances operational efficiency and energy management for a data center platform provider.

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- Norazah Bachok Best Practices Research Analyst In the Philippines, Azbil's IBMS contributes to improving indoor air quality and sustainability at an international finance center.

Azbil's expertise extends to managing district cooling systems, such as in Malaysia, where the company's central monitoring and control systems ensure the stable and efficient supply of chilled water from a centralized plant toa large-scale, multi-use development. In Thailand, at a luxury hotel in Bangkok, Azbil's building energy management system is projected to reduce energy consumption by 8%. Additionally, Azbil has successfully managed large urban development projects in Tokyo, Japan, showcasing its ability to deploy cutting-edge control and energy management systems.

Azbil's commitment to sustainability is also evident in its

investments and partnerships. In FY 2022, the company invested in the Japan Green Investment Corporation for Carbon Neutrality (JICN), a public-private fund designed to foster new decarbonization business opportunities. Azbil further strengthened its position by forming a capital and business alliance with Clean Energy Connect Inc. to integrate green power solutions with energy-saving technologies, advancing decarbonization efforts. In FY 2023, the company signed a memorandum with the Indian Institute of Technology Roorkee to collaborate on research for innovative digital solutions, further amplifying the impact of its technologies.

These initiatives reflect Azbil's leadership in delivering sustainable solutions and demonstrate its significant contributions to global sustainability goals, while also enhancing its market presence.

#### **Customer Experience Enhancement**

To realize safety, comfort, and fulfilment in people's lives and contribute to global environmental preservation through Azbil's philosophy in human-centered automation, forms the foundation of its innovative approach. Azbil elevates the customer ownership experience through a comprehensive strategy that integrates strategic branding, effective feedback mechanisms, and cutting-edge service technologies. This philosophy underscores Azbil's commitment to creating value that enhances customer satisfaction while promoting sustainability and addressing the evolving needs of society.

Azbil ensures its service engineers are intimately familiar with customer systems and actively collect and share feedback across the company to integrate customer insights. Dedicated account teams conduct customer interviews and market research, systematically addressing feedback and using it to refine products and services, aligning them closely with customer needs and expectations.

In terms of advanced service technologies, Azbil focuses on developing tools that enhance maintenance productivity and service delivery. New technologies for remote data collection and event analysis enable proactive maintenance and preventive services through self-diagnostic information from equipment. Transitioning to knowledge-intensive services, the company leverages advanced technology and data analysis to offer proactive solutions and address a range of customer issues.

#### Financial Performance and Strategic Growth for 2024

Azbil achieved record financial results for the third consecutive fiscal year in 2023, reflecting increased revenue and profits. Operating income rose significantly by 17.9% to ¥36.8 billion, driven by revenue growth and effective profitability measures. This strong performance underscores Azbil's resilience and growth potential, particularly within the automation industry. Notably, all three of its business segments—Building Automation (BA), Advanced Automation, and Life Automation—contributed to this success, demonstrating the company's ability to adapt to and meet evolving market demands.

Azbil remains dedicated to addressing its clients' evolving needs with innovative solutions designed to tackle challenges such as the geopolitical risks, and climate change. These solutions focus on enhancing productivity, optimizing energy consumption, and supporting a sustainable society. By concentrating on key growth areas, the company aims to create new value and address the changing demands of businesses and communities.

To strengthen business resilience, Azbil continues to implement strategic initiatives, including business mix reforms, cost reduction strategies, and robust project risk management. Enhanced risk response capabilities, such as business continuity planning, help the company mitigate risks associated with geopolitical tensions and complex global supply chains, ensuring stable operations and the delivery of high-quality services.

Looking ahead, Azbil plans to solidify its leadership in the smart building solutions market by expanding its presence in key Asian markets, including India, China, Thailand, Singapore, and Indonesia. The company is also accelerating its internal digital transformation to enhance operational performance and support international growth. Azbil's strategy includes broadening its product portfolio with more cloud-based applications, addressing cost and security concerns, and enabling building operators to access BA system

functions via smart devices. These efforts aim to enhance functional support, improve occupant wellness, and increase operational efficiency.

Building on this momentum, Azbil targets continued financial growth in fiscal year 2024, aiming for net sales and operating income increases for the fourth consecutive year. By leveraging its strong financial foundation, innovative solutions, and strategic market expansions, Azbil is well-positioned to sustain its growth trajectory while meeting global sustainability and technological advancement goals.

# Conclusion

Azbil Corporation continues to demonstrate robust growth and adaptability, achieving record results for the third consecutive fiscal year. This success is underpinned by the company's strategic focus on three key pillars: New Automation, Environment and Energy, and Life-cycle Solutions. These pillars enable Azbil to address global challenges such as geopolitical risks, climate change, and evolving customer needs, offering solutions that improve productivity, optimize energy usage, and promote sustainability.

Azbil's commitment to innovation is evident through its application of artificial intelligence, machine learning, and advanced service technologies. The company prioritizes risk management, business continuity, and cost reduction strategies to enhance resilience. Furthermore, its focus on life-cycle solutions, from construction planning to ongoing maintenance, ensures long-term value for clients.

Looking ahead, Azbil plans to expand its presence in key Asian markets and accelerate its internal digital transformation. By broadening its portfolio with cloud-based applications, the company aims to improve operational efficiency, building functionality, and occupant wellness. Azbil's strategic pillars, combined with its focus on technology, efficiency, and sustainability, position it well to continue driving growth and reinforcing its leadership in the smart building solutions market. Its integrated approach ensures the company meets the evolving demands of businesses and society.

With its strong overall performance, Azbil earns Frost & Sullivan's 2024 Southeast Asia Company of the Year Award in the smart building solutions industry.

# What You Need to Know about the Company of the Year Recognition

Frost & Sullivan's Company of the Year Award is its top honor and recognizes the market participant that exemplifies visionary innovation, market-leading performance, and unmatched customer care.

### **Best Practices Award Analysis**

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

#### Visionary Innovation & Performance

Addressing Unmet Needs: Customers' unmet or under-served needs are unearthed and addressed by a robust solution development process

Visionary Scenarios Through Mega Trends: Long-range, macro-level scenarios are incorporated into the innovation strategy through the use of Mega Trends, thereby enabling first-to-market solutions and new growth opportunities

Leadership Focus: Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

**Best Practices Implementation**: Best-in-class implementation is characterized by processes, tools, or activities that generate a consistent and repeatable level of success

**Financial Performance**: Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

#### **Customer Impact**

**Price/Performance Value**: Products or services provide the best value for the price compared to similar market offerings

**Customer Purchase Experience**: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

**Customer Ownership Experience**: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

**Customer Service Experience**: Customer service is accessible, fast, stress-free, and high quality

**Brand Equity**: Customers perceive the brand positively and exhibit high brand loyalty

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## The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator<sup>™</sup>. Learn more.

#### Key Impacts:

- **Growth Pipeline:** Continuous Flow of Growth Opportunities
- **Growth Strategies:** Proven Best Practices
- Innovation Culture: Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- Transformational Growth: Industry Leadership

#### The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

#### Analytical Perspectives:

- Mega Trend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)



