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Motor Management that Powers the Next Generation of Industrial Operations



OMDIA

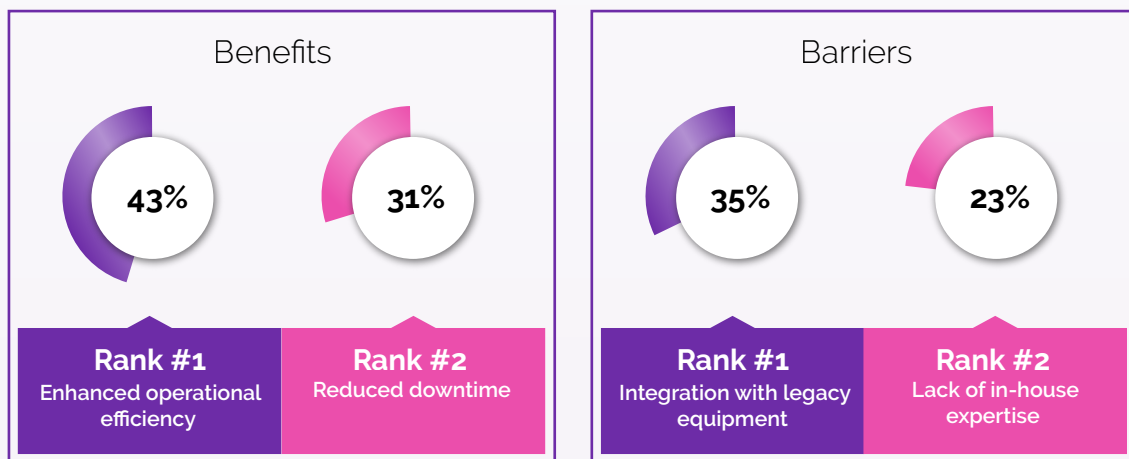
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Executive summary

Technology trends, including Internet of Things (IoT), artificial intelligence (AI), decarbonization, and sustainability (including electrification and renewables), are causing a rapid evolution of the motor management industry. Manufacturers and machine builders are looking for solutions that can improve machine efficiency, reduce system downtime, preempt maintenance requirements, and improve the energy performance of motors. Manufacturers are also looking to manage these systems remotely, taking advantage of the benefits of IoT connectivity.

Figure 1: Benefits and barriers to integrating digital controls, IoT, and AI into motor management solutions.



Source: Omdia Industrial Manufacturing & OEM Survey 2025

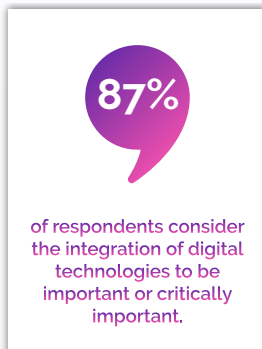
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These industry trends are supported by primary research. According to a survey of 150 machine builders and manufacturers globally, enhanced operational efficiency was ranked as the most important benefit of integrating digital controls, IoT, and AI into motor management solutions. Integration with legacy equipment was ranked the most impactful barrier. Additional technology trends that are influencing the motor management market include the following.



Electrification (energy transition)

Almost every survey respondent stated that the shift from traditional power sources to electrification was either very important or important for their business operations over the next three to five years. The perceived benefits of electrification include improved efficiency and long-term energy independence. However, there are challenges: almost 60% of survey respondents said they were not fully prepared to transition to renewable power sources.



Digitalization

Digital transformation in motor management will drive performance gains for machine builders and manufacturers. Nearly 90% of respondents consider the integration of digital technologies (IoT, AI, and real-time analytics) to be important to the achievement of operational efficiency. Advanced monitoring and predictive maintenance were identified as the key benefits achieved through digital motor management solutions. Other benefits identified include optimized motor control, reduced downtime, and extended equipment lifespans.



Sustainability

Focus on sustainability has slowed recently, but it remains an important topic in the industrial market. Regulatory compliance is the key driver of sustainability initiatives. These initiatives are measured in terms of emission levels, which have regulatory compliance targets. Predictive maintenance and a reduction in energy consumption were also identified by respondents as important features of digital motor management to enable the meeting of sustainability goals.

Omdia view

The survey of manufacturers and machine builders is a global study completed in January 2025. Respondents were active across a range of industry sectors including food and beverages, pharmaceuticals, chemicals, and power generation.

The survey findings highlight the importance of technology evolution in the motor management market. Better efficiency outcomes were directly linked with the adoption of AI, connectivity, and digital controls in motor management systems. Efficiency was also identified as the top benefit of electrification and energy transition. Manufacturers need to ensure they understand the technological benefits of new motor management solutions and how best to maximize them.

Partnerships are another important topic for machine builders and manufacturers. Respondents are looking for technical expertise, reliability, and flexibility to help them take advantage of these new solutions. They also face challenges in the electrification and energy transition. More than half of respondents are not ready to transition to renewable power sources.

With the rise of electrification across several sectors, managing electrical loads efficiently is also crucial. Partners that can help companies navigate these challenges will be valued in the industrial market. Finally, Omdia data shows that manufacturers often select their partners based on alignment of sustainability targets. It is an important growth strategy to decarbonize and to work with similarly aligned companies.

In addition to the survey results, this white paper also presents two case studies, the end users of which have been directly interviewed by Omdia. In each study the customers benefited from replacing legacy solutions with Schneider Electric's TeSys motor management solution. Remote management and remote maintenance were important considerations in the first project (wastewater management case study). The site locations are remote, and the solution has improved the operational efficiency of the municipality. In the second project (pharmaceutical machine builder case study), energy savings were the core driver of the implementation.

In both examples, cost savings were pivotal to the decision process as was upgrading the motor management solution as part of an overall equipment upgrade cycle. Each customer achieved operational, financial, and sustainability benefits from deploying the TeSys solution, further highlighting the benefits of technology evolution in the motor management market.

TeSys solution by Schneider Electric

TeSys motor control solutions are a single-source provider of motor controls, allowing OEMs to increase machine efficiency while meeting demands for greater machine productivity, reduced machine downtime, and improved maintenance decision-making. The TeSys product range includes contactors, circuit breakers, relays, and switches as well as TeSys island, a digital multifunctional load management solution, designed to switch, protect, and manage motors and other electrical loads.

The solution is designed for a range of applications, from the most common to the most advanced. It provides safe, reliable solutions, plug-and-play architecture, flexible functionality, compatibility with international standards, and technical support.

Objective of the white paper

This white paper aims to highlight the key technology trends affecting the motor management market and qualify their importance through primary survey research. The paper will also discuss the TeSys solution from Schneider Electric. To support this assessment, Omdia conducted two case study interviews with organizations that have recently implemented TeSys.

Contents of the white paper include the following:

- **Market context:** Overview of the opportunities and barriers for motor management solutions
- **Technological advances and impact:** Deep-dive analysis of three technology trends and their impact on the motor management market with assessment supported by statistical survey analysis
- **TeSys case studies:** Case studies from two installations of TeSys by Schneider Electric, based on interviews conducted by Omdia
- **Emerging trends:** Summary of the key trends, regulations, and technology outcomes
- **Historical evolution of TeSys products:** Introducing TeSys and its role in the industry

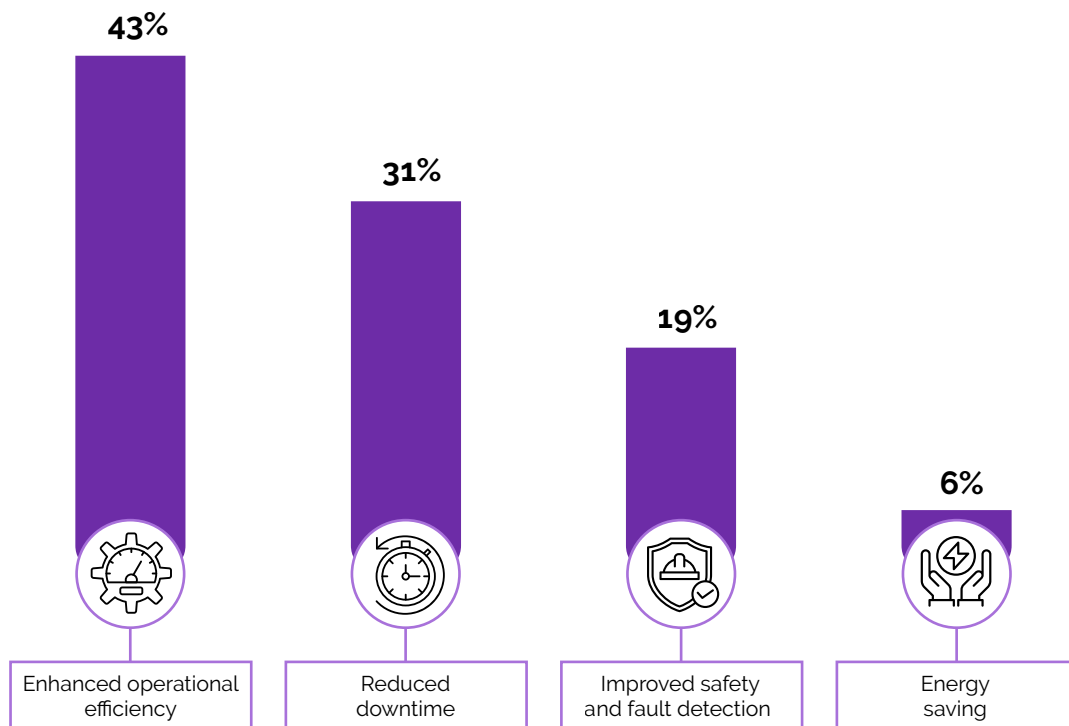
Market context

The industrial automation market has undergone a transformation in the last few years. This is reflected in the market's focus on continuous innovation as emerging technologies redefine productivity, operational resilience, and sustainability in the manufacturing environment.

Motor control and management is an important part of the manufacturing environment. Improvements in motor management can reduce energy usage, increase equipment lifespan, and drive new use cases through integrations with digital controls, AI, and IoT connectivity applications.

As part of the research for this white paper, Omdia conducted a survey of 150 manufacturers and OEMs / machine builders. The survey, completed in January 2025, shows that 43% of respondents said operational efficiency was the key benefit of integrating digital controls, IoT, and AI into their motor management products and systems, and 31% stated that reduced downtime was the key benefit (see **Figure 2**). Both benefits are important drivers for smarter motor controls. Details on the survey respondent demographics are included at the end of the paper.

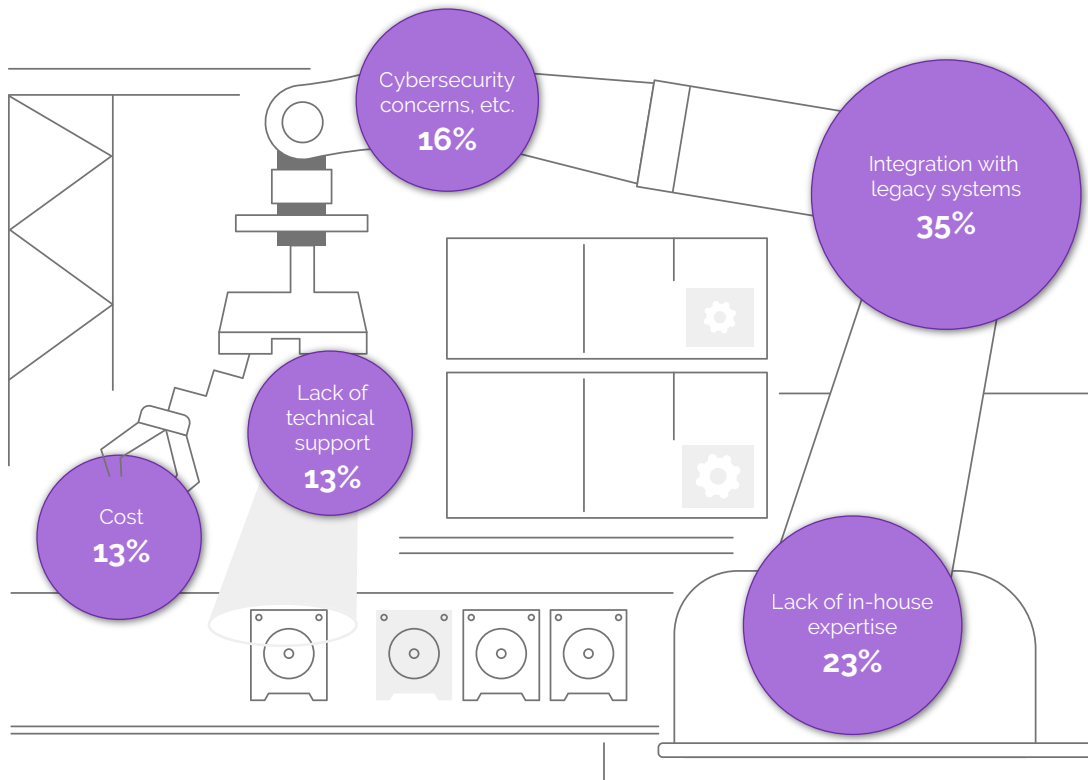
Figure 2: What is the key benefit achieved from integrating digital controls, IoT, and AI into your motor management products and systems?



Source: Omdia Industrial Manufacturing & OEM Survey 2025

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Figure 3: What is the biggest barrier to adopting IoT and AI-based motor management solutions?



Source: Omdia Industrial Manufacturing & OEM Survey 2025

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There are also market challenges to transitioning to smarter motor controls. As shown in **Figure 3**, the most cited barrier to adopting IoT and AI-based motor management solutions was integration with legacy systems. Manufacturing companies may want to transition to these new technologies, but compatibility with existing solutions can make this difficult. In each of the case studies assessed in this report, a characteristic in the adoption of the advanced motor management solutions was the act of refreshing equipment and a general system upgrade. This reflects the challenges in transitioning critical industrial processes to new technology solutions.

Beyond the market drivers and barriers, there are three important technology trends that are having an impact on the motor management solution market. The first trend is electrification and the energy transition. This includes load management, such as combining DC loads from renewable energy with AC loads from motors and valves. The second trend is digitalization, which is enabling AI and IoT connectivity to create new solutions such as predictive maintenance, remote operational monitoring, and optimized motor energy usage and to reduce equipment downtime. Finally, sustainability remains an important trend.

These trends are explored further in the next section with direct feedback from machine builders and manufacturers.

Technological advances and impact

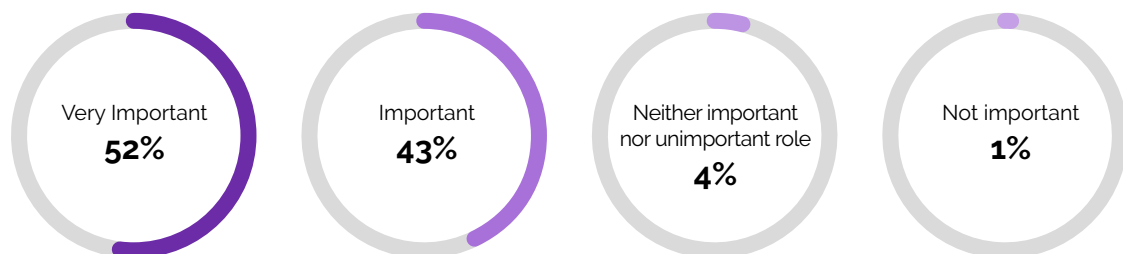
Electrification (energy transition)

The transition toward renewable energy is accelerating worldwide, and investments in wind, solar, hydro, and battery storage are increasing. Governments, businesses, and consumers are recognizing the necessity of moving away from carbon-intensive energy sources such as coal, oil, and natural gas and toward cleaner, more sustainable alternatives.

The Omdia survey of 150 manufacturers and OEMs / machine builders highlighted the increasing urgency of the need for businesses to transition toward electrification. Ninety-five percent of respondents consider the shift from traditional power sources to electrification to be very important or important for their business operations over the next three to five years (see **Figure 4**).

Only 41% of organizations reported being fully prepared, and 59% stated that they were not fully prepared to transition to renewable power sources. This is a critical barrier to the energy transition.

Figure 4: How important is the transition from traditional power to electrification for your business operations in the next three to five years?

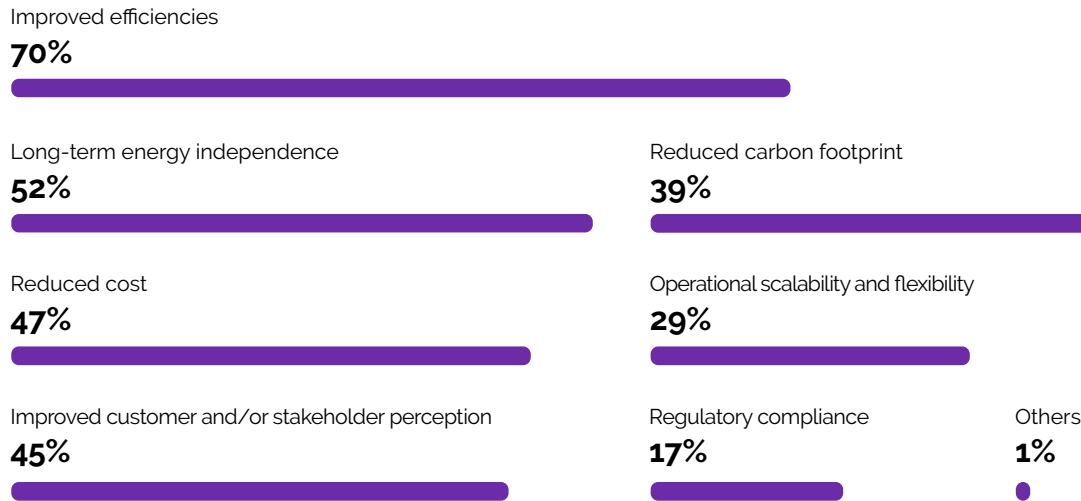


Source: Omdia Industrial Manufacturing & OEM Survey 2025

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The energy transition is a difficult process. However, there are important benefits to be gained from moving to electrification and renewable energy. According to the survey, the most valued benefits for machine builders and manufacturers of a transition to electrification were improved efficiencies (given a top-three ranking by 70% of respondents) and long-term energy independence (52%). Reduced cost was identified by 47% of respondents as important, and less tangible considerations, such as improved customer and stakeholder perception, also ranked highly. Operational scalability and flexibility was identified by 29% of respondents, showing that a one-size-fits-all approach is not possible in the energy transition. Each benefit and its ranking is shown in **Figure 5**.

Figure 5: What are the most important benefits (ranked top three) derived from electrification and energy transition?

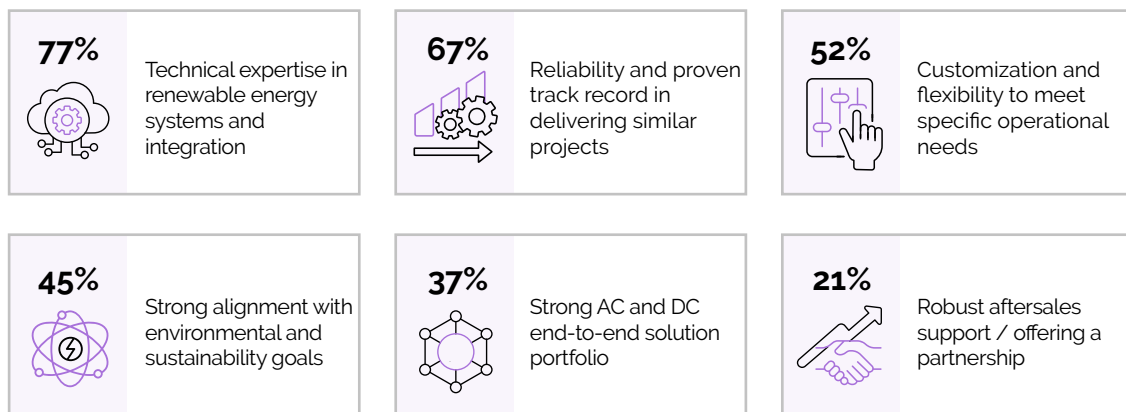


Source: Omdia Industrial Manufacturing & OEM Survey 2025

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These findings underscore the growing demand for robust motor management and electrification solutions. The important attributes required from a supplier supporting the energy transition serve to highlight the challenges that manufacturers expect to face (see Figure 6).

Figure 6: What are the most important attributes (ranked top three) you are looking for in a supplier in terms of supporting energy transition?



Source: Omdia Industrial Manufacturing & OEM Survey 2025

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Technical expertise in renewable energy systems and integration was the most important attribute of a supplier for 45% of all respondents. This correlates with the earlier statistic that 59% of respondents were not fully prepared to transition to renewable power sources. Manufacturers and machine builders need support in the transition.

Customization and flexibility from a supplier are also highly valued (16% of respondents ranked this first), while reliability and a proven track record was identified by 67% of respondents as one of their top three most important attributes.

Finally, the energy system can become more complex during the transition to electrification and renewable energy. More than a third (37%) of survey respondents said that an important attribute of a supplier was a strong AC and DC end-to-end solution portfolio. Integrating renewable and traditional energy systems and effectively managing an AC and DC hybrid solution will be an opportunity for suppliers that can help their customers meet these challenges.

With increasing pressure to enhance efficiencies and long-term energy independence, organizations will benefit from adopting intelligent motor management solutions that support both the energy transition and renewable energy solutions to maximize energy savings. These systems should be flexible, customizable, and scalable to meet the range of requirements in the field.

Digital transformation

Digital transformation in motor management has evolved beyond basic automation to a fully connected, intelligent ecosystem where digital controls, IoT, and AI work in tandem to optimize performance. Smart motor management solutions now integrate real-time condition monitoring, adaptive control algorithms, and predictive maintenance to ensure maximum efficiency and reliability.

For example, IoT connectivity allows motors to communicate seamlessly with centralized systems, providing instant feedback on performance metrics such as energy consumption, load variations, and thermal conditions. AI-driven analytics take this further by identifying patterns in operational data, enabling predictive insights that preempt failures, reduce downtime, and extend asset lifespan.

In Omdia's survey of OEMs and machine builders, two-thirds of respondents believe that digital transformation will have a high impact on machine and equipment performance in the next three to five years. Eighty-seven percent of respondents consider the integration of digital technologies (IoT, AI, and real-time analytics) as important or critically important to achieving operational efficiency, and 91% have seen significant or noticeable improvements in their motor management systems enabled by digitalization.

The convergence of these technologies has shifted motor management from a reactive approach to a proactive, self-optimizing system that enhances both performance and sustainability. The impact of this digitalization extends beyond technical efficiency, directly improving product performance and customer experience.

As highlighted in the **Market context** section, according to Omdia's survey, the key benefits achieved from integrating digital controls, IoT, and AI into motor management include enhanced operational efficiency (43% of respondents) and reduced downtime (31%), both of which are crucial for modern industrial operations.

When they were asked about the most valued benefits of digital motor management products and solutions, respondents stated that advanced monitoring and predictive maintenance (34%), IoT/AI integration (30%), and enhanced connectivity (33%) were all critically important.

Smart motor solutions provide greater visibility and control, allowing users to fine-tune operations for optimal energy efficiency and reduced maintenance costs. Remote diagnostics and automated alerts enable faster issue resolution, minimizing unplanned downtime and supporting uninterrupted production.

Additionally, data-driven insights empower customers with more informed decision-making, optimizing maintenance schedules and resource allocation. As industries continue to prioritize operational agility, the adoption of these advanced digital solutions is not just a competitive advantage but a necessity for long-term success.

There are also barriers to digital adoption in the motor management solution market (see **Figure 3**). These include integration with legacy systems—identified as the biggest barrier by 35% of respondents—and a lack of in-house expertise. This reflects the challenge in adapting existing solutions to a digital solution. Concern about cybersecurity was also identified as an important challenge to digitalization.

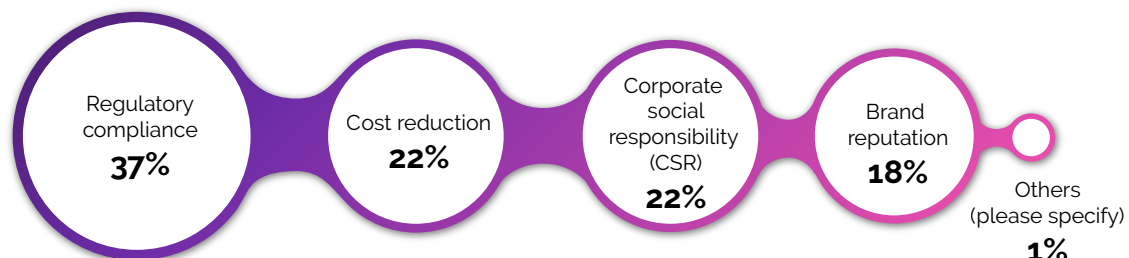
Fundamentally, the survey findings reflect the necessity for IoT-enabled, AI-powered motor management solutions that provide advanced monitoring, predictive analytics, and improved connectivity. By integrating digitalization into motor management, businesses can significantly enhance operational efficiency, minimize downtime, and address key industry challenges.

Sustainability

Sustainability has become a core driver of innovation in industrial operations: manufacturers are increasingly prioritizing eco-friendly and energy-efficient solutions to reduce their environmental footprint. Though regulatory compliance is the leading driver in implementing sustainability initiatives (37% of respondents), cost reduction and corporate social responsibility are also important, each influencing 22% of respondents (see **Figure 7**).

The importance of regulatory compliance as a driver for sustainability initiatives is clear. In

Figure 7: What is the most critical driver for implementing sustainability initiatives in your operations?



Source: Omdia Industrial Manufacturing & OEM Survey 2025

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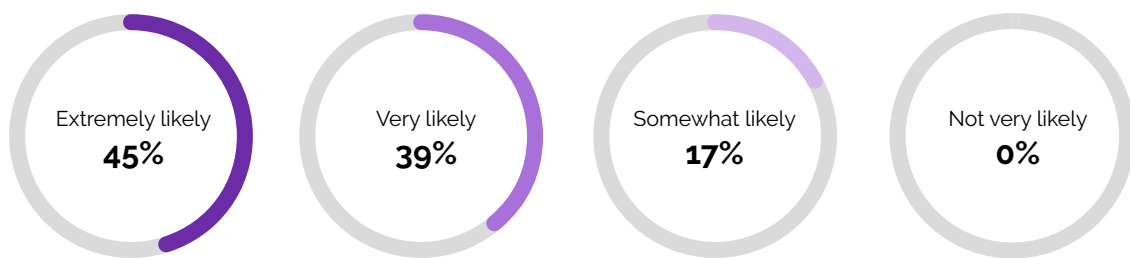
Figure 5, regulatory compliance was the least important benefit derived from the energy transition to renewables. This suggests that respondents measure the energy transition in terms of energy use, cost, and solution efficiency, whereas they measure sustainability initiatives in terms of emissions and pollution levels, which have regulatory compliance targets.

Advances in motor technology increasingly focus on high-efficiency designs, variable speed control, and intelligent load management to minimize energy waste while maintaining optimal performance. The integration of digital controls ensures that motors operate only when needed, reducing unnecessary energy consumption and lowering carbon emissions. Ninety-five percent of survey respondents believe that reducing energy consumption through motor management solutions is important to achieving their company's sustainability goals, and 38% of respondents stated that reducing energy consumption was their primary sustainability goal related to motor management. Minimizing equipment downtime and reducing greenhouse gas emissions were also important goals.

As highlighted, smart motor management solutions are key enablers in meeting global sustainability goals, providing industries with the tools to enhance energy efficiency, reduce emissions, and optimize resource use. By leveraging real-time monitoring and adaptive

motor control, these solutions ensure motors run at peak efficiency with minimal energy loss. Solutions can manage starting and stopping to reduce the stress on motors. As **Figure 8** shows, 84% of survey respondents said they are extremely likely or very likely to prioritize motor management solutions with energy-efficient features in the next two to three years.

Figure 8: How likely are you to prioritize motor management solutions that offer energy-efficient features in future investments (e.g., next two to three years)?

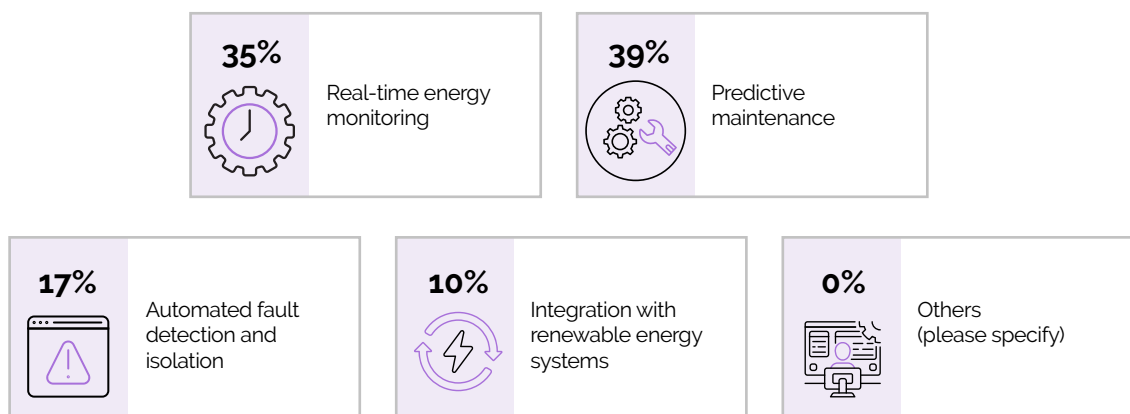


Source: Omdia Industrial Manufacturing & OEM Survey 2025

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Predictive maintenance helps prevent premature equipment failure and extends the lifespan of machines, reducing waste and lowering the total environmental impact of industrial assets. It was identified as the most important feature or aspect of digital motor management used for meeting sustainability goals (see **Figure 9**).

Figure 9: What is the most important feature/aspect of digital motor management systems in meeting sustainability goals?



Source: Omdia Industrial Manufacturing & OEM Survey 2025

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Additionally, smart motor systems contribute to corporate environmental, social, and governance objectives by providing transparent, data-driven insights into energy consumption and efficiency improvements. As sustainability KPIs become central to industrial decision-making, integrating advanced motor management technologies ensures compliance while delivering long-term cost savings and environmental benefits.

To summarize the sustainability outcomes that see the most impact from advanced motor management systems, survey respondents stated that energy-efficiency improvements (46% of all respondents) and a reduction in operational emissions (33%) were the most important.

TeSys case studies

This section presents the findings from two interviews conducted by Omdia exploring the implementation of TeSys motor management solutions.

Wastewater management case study

Region

North America

Background

The customer is a public entity that provides wastewater treatment and solid-waste disposal services. It has a wastewater division and a solid-waste division, which are responsible for providing efficient and cost-effective wastewater and solid-waste management systems. Overall, it operates thousands of motors through 26 wastewater pumping stations, four wastewater treatment plants, and leachate pumping stations at the sanitary landfill.

Application

Part of the solid-waste management process involves the disposal of waste materials in a landfill. The landfill has primary and secondary drainage layers at the bottom of the landfill cell that collect the liquids known as leachate. As leachate filters down through the landfill cell, it collects in the primary drainage layer beneath the buried waste material. The leachate is pumped to a storage tank by pumping stations that are located around the landfill.

Challenge

The previous solution used water-level floats to turn the pumps on and off. There was no connectivity or ability to monitor the solution remotely. Aging infrastructure also led to the pumps failing. Additionally, because of the site location, connectivity outage to the remote pump controllers would frequently occur.

Solution

To provide greater control and a more modern motor management solution, the client installed 22 TeSys island pump control panels with circuit breaker protection for each pump motor and an M580 programmable logic controller (PLC). Pumps can now be run in autonomous mode from digital and analog float-level inputs with the ability for remote monitoring and control

through the PLC. PLC communication is through a Modbus TCP network that provides monitoring capabilities and feedback from the sensors connected to the TeSys island.

Results and impact

An important consideration in upgrading the solution was to have a smart controller provide connectivity to enable remote monitoring of the performance and health of the pump motors and water level. The system needs to operate autonomously with no connectivity to anything except the water-level floats, so a balance between new technology and ensuring reliable service is important. There was also a cultural change at the client, with more awareness of the potential of technology to meet energy and sustainability challenges.

Operationally, the solution has been transformational for operators. The previous system required them to take manual readings at the equipment and check periodically on maintenance. Now, it tells operators the health and running performance of the pump, delivers runtime data, and provides advanced motor protections and alarming (overcurrent, undercurrent, jam) capabilities, enabling preventive maintenance and operational efficiency. There are operational benefits because the data is centralized. These include remote management from a central office and performance analysis leveraging the data center.

Cost was also a big driver. Improving the energy use of the motors was important, but this had to be managed within a budget. The client also stated that Schneider Electric provided strong support in the design and implementation of the solution, without which the process would have been significantly more difficult and less successful.

Pharmaceutical machine builder case study

Region

Asia

Background

The company is a global leader in the development and manufacturing of equipment and systems for process technologies in industries such as pharmaceutical, biotech, food and chemicals. It specializes in fluid bed technologies, tablet coating, granulations, and related processes and has a global presence, serving customers worldwide with high-quality, innovative process solutions.

Application

The company provides advanced, high-quality equipment such as fluid bed systems, coaters, sterile mixing vessels, and fermenters for pharmaceutical customers. Motor management systems play a crucial role in the reliable and efficient operation of these complex industrial processes. Its customers are looking for smarter machines to improve the overall equipment efficiency of their solutions.

Challenge

Inefficiency can be a challenge in conventional motor management solutions. The lack of data monitoring and the inability of the equipment to communicate was affecting the productivity and reliability of operations. So too were outdated processes such as manual data collection and recording, which is common in nonautomated systems. These challenges were intensified in an industry such as pharmaceuticals where the motor performance is critical to the operation and performance of the production systems.

Solution

The initial driver for the installation of the TeSys motor management solution was the customer's development of a new series of smart machines for the market. It was at this stage that it considered using a smart motor management system.

The benefits have been numerous. Data accuracy powered by digitalization now supports more accurate motor performance assessments, using real data, ensuring that energy savings can be made and individual motor performance assessed. This is a step change from the previous manual process. Digitalization also now provides predictive maintenance, fault detection,

and pre-alarms, which the pharmaceutical company can use to reduce downtime and manage the inventory of spare parts. This also improves production quality and extends the lifespan of the equipment.

Results and impact

The company chose the TeSys solution from Schneider Electric following an evaluation of different products in the market. It was already using Schneider Electric products across a range of industrial applications, which ensured integration was seamless, though the company was also clear that the solution could be integrated with other control systems if needed. The feature set, installation support, and price point were all highlighted as key reasons for choosing Schneider.

The main benefit that its customer achieved was an energy saving and lower maintenance cost. Another benefit is that it is accessible from the cloud. This has improved the efficiency of maintenance response and an ability for the company to support its customers during these downtime events by providing remote management capability.

Emerging trends

Customer requirements are evolving

As has been highlighted throughout this white paper, the need for efficient motor management solutions is evolving rapidly, driven by the increasing demand for energy efficiency, operational reliability, and data-driven decision-making. As industrial automation and digitalization accelerates, manufacturers are shifting from traditional motor control systems to smart, interconnected solutions that provide real-time insights and automation capabilities.

The adoption of Industry 4.0 and smart manufacturing is further propelling this shift as businesses integrate IoT-enabled motors, cloud-based analytics, and AI-driven diagnostics to enhance productivity and reduce downtime. With sustainability a driver, energy-efficient motor solutions are seeing increased adoption, especially in industries, such as manufacturing, logistics, and infrastructure, with high energy consumption.

The case studies and survey research presented in this paper show that machine builders and manufacturers are benefiting from the technical evolution of motor management solutions. In the wastewater case study, remote maintenance was a critical reason why the TeSys solution was chosen. Connectivity is driving this technology use case.

In each project, cost was a significant driver of new solution acceptance, through more efficient motor energy use and a reduction in the failure and downtime of systems. Predictive maintenance is an increasingly important customer requirement. The ability to better manage maintenance teams, schedule reminders, and pre-alert to equipment failure is changing the way customers interact with their motor management solutions. Technology innovation is a catalyst for these changes, but it is not the only one.

Compliance as a catalyst for innovation

Regulatory pressures are playing an increasingly significant role in shaping motor management solutions. Global energy efficiency standards, carbon reduction targets, and sustainability reporting requirements are pushing manufacturers to design more efficient, lower-emission motor systems.

Beyond energy efficiency, cybersecurity and data protection laws are also influencing product design, particularly for IoT-connected solutions. As motors become more integrated with cloud systems and industrial networks, ensuring compliance with data security regulations such as GDPR and NIST standards is becoming critical.

Motor management to load management

The term *motor management* is evolving into *load management* to better capture the comprehensive approach of managing all electrical loads (not just motors) for enhanced energy efficiency and system reliability. This change highlights the importance of optimizing the performance of the entire electrical system to minimize energy use and operational costs.

Why is this shift important?

With the increase in electrification across sectors such as transportation, industrial processes, and residential buildings, it is crucial that all electrical loads are managed efficiently. This ensures that the growing demand for electricity is met without compromising system reliability. Benefits include the following:

- **Energy efficiency and cost savings:** Effective load management helps in reducing energy losses and operational costs. By balancing loads and optimizing energy use, organizations can achieve cost savings and improve their overall energy efficiency.
- **Grid reliability:** As the power grid becomes more complex with the integration of renewable energy sources and distributed energy resources, maintaining grid stability and reliability is essential. Load management plays a key role in preventing grid overloads and ensuring a stable power supply.
- **Technological advances:** The adoption of smart grids, advanced metering infrastructure, and other technologies enables better monitoring and control of electrical loads. This allows for more precise load management, leading to improved system performance and reliability.
- **Environmental impact:** By optimizing energy use and reducing waste, load management contributes to lower greenhouse gas emissions and a smaller environmental footprint. This aligns with the global push toward sustainability and clean energy and sustainability as a technology trend having an impact on the motor management market.

Evolution of TeSys products

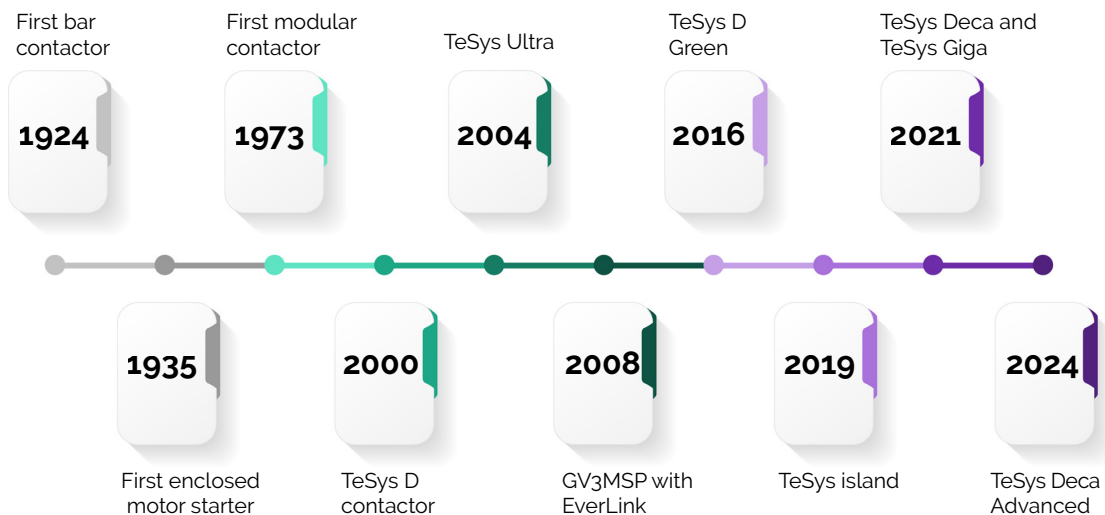
Celebrating 100 years of innovation and leadership

For a century, TeSys motor controls have driven the industry with innovations in motor protection, monitoring, and control. It started with the invention in 1924 of the industry's first bar contactor, which was followed by the first enclosed motor starter, the first modular contactor, and the first modular three-in-one motor starter.

Today, the TeSys name is synonymous with best-in-class safety and reliability, plug-and-play architecture, and flexible functionality. And now, digitization heralds a new era of motor control performance and capability:

- **40 million TeSys controllers installed** worldwide
- **Installed in 50 industry sectors** including automotive, food and beverage, mining, energies and chemicals, and water treatment
- **30% energy saving** with advanced controls and protection features
- **Twenty-five compliance standards globally** ensuring reliability and compatibility
- **30% reduction in downtime** with predictive maintenance features

Figure 10: TeSys product evolution



Source: Schneider Electric

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Trends driving new best practices

Electricity accounts for more than 90% of the total lifetime cost of ownership for a typical industry motor.¹ As energy bills and carbon emissions soar, managing electric motor efficiency and sustainability is critical to the success of manufacturers and water and wastewater utilities around the world.

The challenges faced by customers

Increasing energy volatility is forcing companies and governments worldwide to rethink energy management with more urgency. Escalating sustainability standards and requirements are creating mounting pressure to mitigate rising carbon emissions and environmental impacts. Companies must balance short-term energy needs and long-term climate targets.

Plant managers are challenged to improve control and protection across all phases of a motor's lifecycle. In the design phase, they must choose the right options to comply with changing standards and overcome difficulties in installing and integrating new motors with existing assets. In the operations phase, they must get buy-in from key stakeholders to digitize operations so they can achieve expected energy savings. In the maintenance phase, they must change from reactive practices to predictive and preventive ones to reduce downtime and increase productivity.

The benefits customers are looking for

With the right combination of new motor control technologies, OEMs and end users can achieve significant business benefits:

- **Reduced carbon emissions:** Electrifying and digitizing motor operations can reduce energy consumption by up to 30%, dramatically decreasing carbon emissions in energy-intensive industries.
- **High efficiency:** New high-efficiency components such as contactors and variable frequency drives (VFDs) help boost overall electrical system efficiency.
- **Increased power availability:** Digitizing motor controls enables remote monitoring of power load and power quality data, facilitating diagnostics and fixes, allowing predictive maintenance, and improving production continuity.
- **Enhanced safety:** Motor-related applications can include both operator and device safety components, such as motor start and stop controls, safety controllers, and safety interlock switches.
- **Better price performance:** Optimized motor management can deliver a 20% return on investment, 30% reduction in solution costs, and 4× faster recovery time after a motor stop (according to Schneider Electric's internal field studies). Smart motor systems can also extend motor lifetimes.

¹Clean Energy Ministerial (2022) "Industrial electric motor systems," available at www.cleanenergyministerial.org/efficient_products/industrial-electric-motor-systems/

Advancing motor control performance. Again

New TeSys motor control solutions leverage digitization and electrification to enable load management, source management, and preventive maintenance while lowering the total cost of ownership for customers and end users. From the design and build phase through operation and maintenance, TeSys provides a holistic lifecycle solution that advances advanced asset management and energy efficiency:

- Industry-leading protection with built-in arc flash safeguards and complete cybersecurity
- Best-in-class reliability with proven functionality built on 100 years of experience in protection relays
- Ease of installation, use, and maintenance with simple integration and engineering reducing total cost of ownership
- Advanced connectivity with digital tools to make everyday operation simpler

What it means for Schneider Electric in 2025

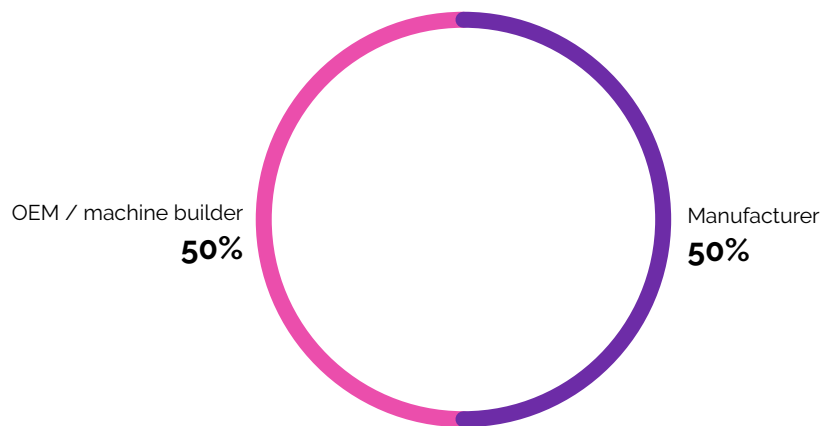
As TeSys kicks off its second century of innovation and leadership, its ambition is bold. It is evolving its offer to meet current trends and customer challenges:

- Upgrading the platform from electromechanical to electronic
 - Reduces carbon footprint
 - Improves energy efficiency
- Improving energy management capabilities with digitization
 - Enables energy efficiency with real-time data
 - Allows proactive motor management
- Increasing resilience with predictive maintenance
 - Optimizes power availability and business continuity
 - Prevents motor failure and downtime
 - Reduces repair costs
 - Enables future scalability potential

Survey demographics

The total number of respondents was 150.

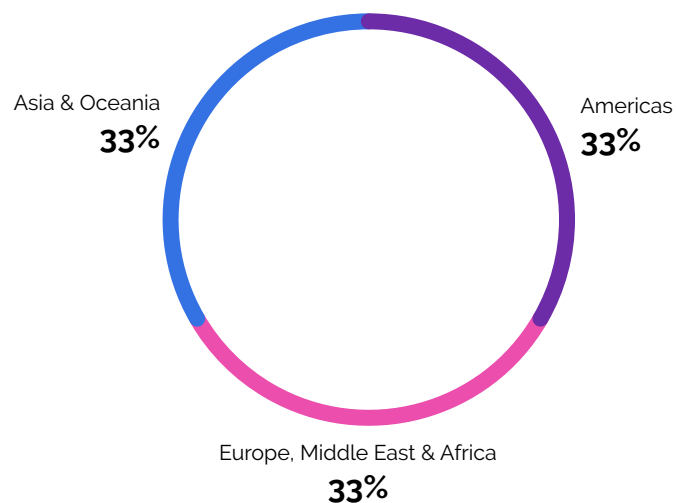
Which of the following best describes your company type?



Source: Omdia

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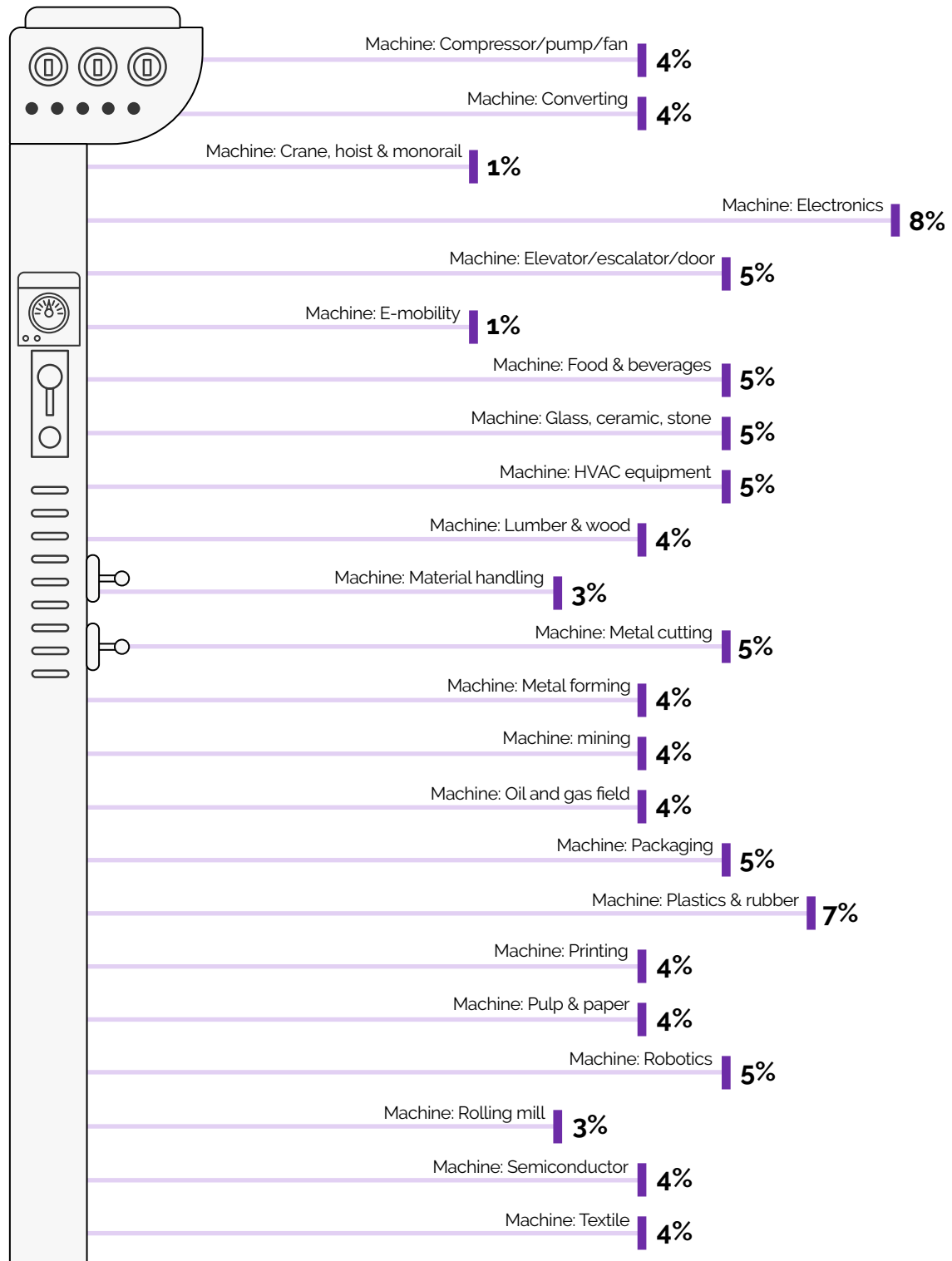
Where is your company headquartered?



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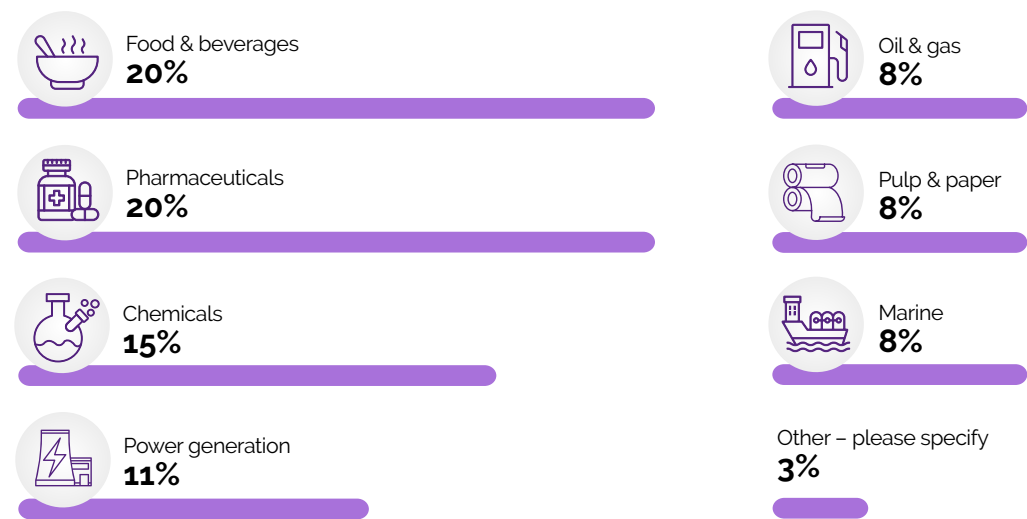
What is your company's primary industry sector?



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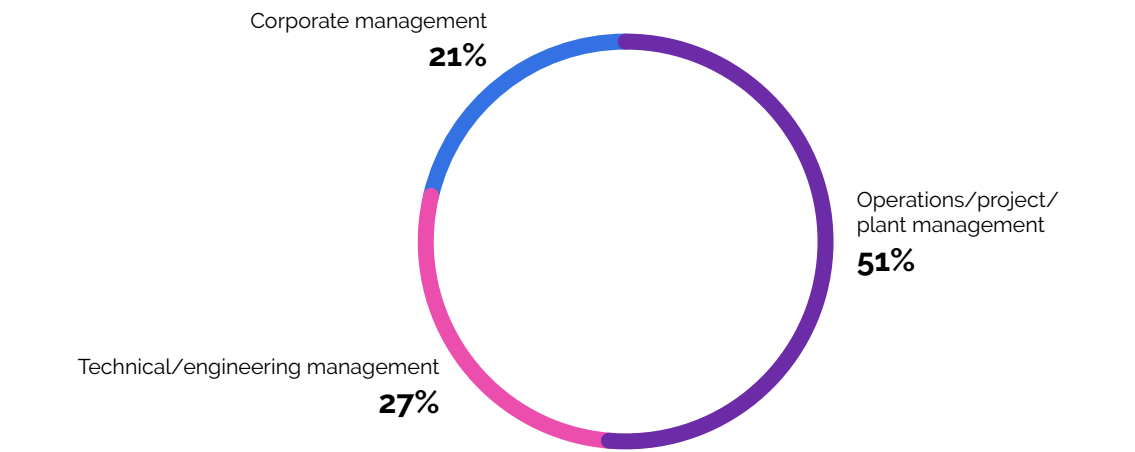
What is your company's primary industry sector?



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What is your job function?



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References

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