

SCHAEFFLER

SCHAEFFLER GROUP RECEIVES THE 2023 ENABLING TECHNOLOGY LEADERSHIP AWARD

*Identified as best in class in the global condition
monitoring equipment 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. Schaeffler excels in many of the criteria in the condition monitoring space.

AWARD CRITERIA	
<i>Technology Leverage</i>	<i>Customer Impact</i>
Commitment to Innovation	Price/Performance Value
Commitment to Creativity	Customer Purchase Experience
Stage Gate Efficiency	Customer Ownership Experience
Commercialization Success	Customer Service Experience
Application Diversity	Brand Equity

Commitment to Innovation

With the advent of automation and smart manufacturing technologies, most market players are striving to offer advanced and customized solutions to gain a competitive edge. As industries and operations enter a digitally driven future, investments in innovation will define their business success.

Germany-based Schaeffler Group, an international leader in precision engineering and industrial component manufacturing, has significantly expanded its footprint in the condition monitoring equipment market through highly customer centric innovation and engineering excellence.

Customer-centric innovation is a critical attribute that has enabled Schaeffler to provide cutting-edge solutions tailored to the evolving needs of industrial maintenance and predictive analytics. For instance, the company offers the OPTIME Ecosystem, a condition monitoring and smart lubrication solution designed to provide a seamless, user-friendly experience that simplifies complex data analysis and machine care.

Prioritizing innovation in an environment where smart manufacturing and Industry 4.0 are gaining momentum benefits companies. As such, Schaeffler launched the OPTIME smart condition monitoring system, a testament to its commitment to Industry 4.0 principles. With Schaeffler's advanced smart lubrication solution, OPTIME exemplifies the seamless integration of sensor technology, data analytics, and internet of things connectivity as well as easy digital-embedded access to service experts. Schaeffler's ability to offer a combination of predictive maintenance and smart lubrication solution in one IoT ecosystem is a USP that offers significant value for its clients.

In addition, Schaeffler recently expanded their solution range beyond mechanical vibration-based monitoring and added a solution for electrical monitoring of e-motors to their portfolio. With the acquisition of the French company Eco-Adapt which offers a world leading solution for energy condition and consumption monitoring the portfolio can now cover all typical failure modes of e-motor applications. The combination of mechanical and electrical monitoring together with smart lubrication in the easy to use and scale OPTIME Ecosystem cements Schaeffler's position as innovation leader.

Commitment to Creativity

Besides product enhancements, Schaeffler integrates unique designs and the latest technology into products to fill gaps and push the limits in the market. At the heart of Schaeffler's innovative endeavours is its OPTIME ecosystem, a quintessential example of how the company amalgamates sophisticated design with unparalleled capabilities.

The OPTIME Ecosystem is not merely a collection of monitoring tools but a comprehensive solutions suite that anticipates and addresses the nuanced demands of predictive maintenance. It revolutionizes

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– Krishnan Ramanathan
Research Director

maintenance practices by combining its condition monitoring system with an automated lubrication unit, all engineered for effortless implementation on the shopfloor. Schaeffler engineered the ecosystem with a user-centric design viewpoint, ensuring ease of use and integration while enhancing capabilities by incorporating state-of-the-art sensors, seamless connectivity, and advanced analytics.

This holistic approach exemplifies a synergy between aesthetic simplicity and functional richness, positioning the OPTIME ecosystem as a market differentiator that redefines industry standards. These strategies put Schaeffler ahead,

allowing it to launch new market trends and change how industries look after their machinery.

Commercialization Success

Schaeffler leverages its vast global resources and networks to ensure the success of its solutions. The company has strategically positioned itself at the nexus of smart manufacturing and Industry 4.0 with its integrated OPTIME smart condition monitoring and lubrication solution.

These resources and networks have enabled Schaeffler to tailor its offerings to diverse market needs, earning it accolades in the condition monitoring and predictive maintenance space. The company's deep understanding and expertise in cross-industry requirements help it develop highly adaptable systems compatible with current technologies and projected future advancements. This foresight has solidified Schaeffler's market position and established it as a preferred vendor for comprehensive condition monitoring programs across various industries.

Schaeffler's first-mover advantage in certain technologies and widespread deployment in critical sectors such as pulp and paper, cement, mining, and food and beverage speak volumes about its commercial success. As of 2023, over 500 customer plants worldwide use the OPTIME condition monitoring system.

In sectors with high equipment reliability requirements, OPTIME's intelligent diagnostics facilitate safe and secure operations, while its smart lubrication solution ensures optimal machinery performance, addressing the multifaceted challenges of diverse manufacturing environments.

Customer Purchase Experience

Schaeffler caters to diverse customers in various industries worldwide. To meet different end-user demands for industrial production, the company manages its business by region to address local customer needs and strengthen customer loyalty.

It employs a consultative approach as part of its sales strategy, guiding customers through the scalable options and helping them select the best solution for Industry 4.0 for their specific application needs, ensuring a tailored fit for their operational requirements. A complete positive purchase experience is achieved through its global network of company experts and service partners who ensure that customers are taken care of with the highest competence in every region.

The distinct advantage for Schaeffler that guarantees a positive purchase experience and customers'

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absolute satisfaction is that the company offers user-friendly condition monitoring solutions that customers can easily deploy on their own within the shortest possible timeframe and immediately start monitoring their machine operations within their budgets.

By utilizing a vast array of technologies and insights from partnerships, Schaeffler delivers a one-stop solution, facilitating accessible and effective digital transformation in manufacturing with no expert condition monitoring knowledge

required at the customers' end. This has made Schaeffler a trusted vendor of choice to numerous customers who wanted a solution to solve their pain points immediately in a cost-friendly manner.

Customer Ownership Experience

First-rate customer satisfaction shows exemplary customer ownership experience. Interactions with some customers using Schaeffler's condition monitoring systems highlighted the integration of the condition monitoring expert knowledge in OPTIME from Schaeffler's know-how, which eliminated the need for specialist knowledge at the customers' end.

Developing a condition monitoring solution with a user-friendly design integrated with a smart lubrication solution showcases the company's emphasis on customer centricity through simplified solutions and value for their money. This also solidifies the purchase experience as a positive return on investment. The company's professional consultation and simplification of multiple tasks through a unified solution, along with customers' ability to overview all machine types on one user interface, have solved their pain points, resulting in a positive ownership experience.

Frost & Sullivan commends Schaeffler for consistently investing in futuristic technologies to address multiple customer needs through unified and simpler solutions and thinks it indicates Schaeffler's commitment to enhancing total customer ownership.

Brand Equity

Schaeffler has uniquely positioned itself in the condition monitoring and predictive maintenance space, distinguished by its constant innovation and commitment to excellence. Its name has become synonymous with reliability and foresight in an industry where both are paramount. Much of this is attributable to the manufacturing processes and techniques followed by the company.

Renowned for quality and innovation, Schaeffler's brand rivals the manufacturing excellence of leading global entities like its competitors. The company's structured and transparent operational model ensures that solutions like the OPTIME Ecosystem are not only reliable but also set benchmarks in smart manufacturing. The increasing adoption of Schaeffler's technologies across various industries indicates its growing influence and customer trust in its solutions.

Conclusion

Schaeffler's renowned brand name in the condition monitoring and predictive maintenance markets is due to its comprehensive portfolio of lifetime solutions, reliable predictive maintenance solutions, expertise in industrial automation, cost-effective solutions, and customer focus. The company exemplifies innovative thinking with practical execution to address evolving challenges in smart manufacturing. Its dedication to leveraging real-time data and enhancing connectivity positions is an enabler of Industry 4.0. Schaeffler's proficiency in navigating the complexities of automation has been instrumental in the success of its condition monitoring solutions.

For its strong overall performance across multiple smart manufacturing domains, Schaeffler is recognized with Frost & Sullivan's 2023 Global Enabling Technology Leadership Award in the condition monitoring equipment market.

What You Need to Know about the Enabling Technology Leadership Recognition

Frost & Sullivan's Enabling Technology Leadership Award recognizes the company that applies its technology in new ways to improve existing products and services and elevate the customer experience.

Best Practices Award Analysis

For the Enabling Technology Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization Success: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

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

