FROST & SULLIVAN

AKZONOBEL RECEIVES THE 2023 COMPANY OF THE YEAR AWARD

Identified as best in class in the global digital transformation in coatings 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. AkzoNobel excels in many of the criteria in the coatings space.

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

Caters to Existing and Emerging Needs using Visionary Scenarios

While the global coatings industry has been gradually adopting digital technologies and systems in its operations, it was at a slower rate than many other industries until 2020. The adoption rate has risen

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significantly since the onset of the COVID-19 pandemic due to the need to overcome hurdles to raw material sourcing, production, and product supply caused by longterm lockdowns and international travel bans imposed in many countries.

Amsterdam, Netherlands-based AkzoNobel is a leading global paints and coatings manufacturer. Through its vast network of facilities, including plants and centers for R&D, operations, sales, marketing, and distribution worldwide, AkzoNobel has carved a niche for itself as a trusted brand among customers. It is the first company in the industry to make substantial investments toward digitally transforming the entire organization. Since then, the

company has constantly evaluated ways to improve operations using more advanced and futuristic digital technologies. For instance, AkzoNobel partnered with digital transformation enabler Orange Business

Services in 2020 to centralize its IT/OT networks by moving AkzoNobel's applications to the cloud and providing secure connectivity for the global workforce from digital workspaces.

During the same year, AkzoNobel completed the construction of its new fully automated powder coatings plant in Taiwan, which enables the company to reduce energy consumption by about 30%, increase water reuse by 60%, and provide tailored solutions for its large customer base in the country.

R&D and new product development are two areas where the industry aggressively invests in digitalization. In early 2022, AkzoNobel partnered with Microsoft to codevelop a virtual laboratory that will conduct experiments using quantum computing along with Microsoft Azure cloud services. The company uses this technology to create advanced and sustainable products via collaborative experimentation and product development.

AkzoNobel realizes that empowering the workforce is paramount for effective digital transformation. During peak lockdowns in 2020, the company's employees faced significant challenges due to travel bans as it had just moved its factory from Singapore to Vietnam. To overcome this, it produced two augmented reality (AR) glasses, which the team in Singapore used to oversee operations in Vietnam in real time. AkzoNobel has now integrated AR throughout its supply chain, enabling it to circumvent some major hurdles posed by global supply chain disruptions. The company also uses virtual reality (VR) technology for training in its aerospace coatings and vehicle refinish businesses. For its aerospace business, the VR mimics the production environment at the customer's facilities and immerses the trainee in a virtual paint booth. AkzoNobel is currently the only coatings company that has implemented AR/VR technologies to this extent in operations and training.

Frost & Sullivan acknowledges AkzoNobel's ability to foresee the industry's emerging requirements, which allows it to stand ahead of the competition through a holistic digital transformation approach.

Always Centers the Customer

AkzoNobel realizes that the demand from end-customers from a digital perspective has been constantly evolving over the past few years. Due to its close relationships with customers, **AkzoNobel is in a unique position to grow its digital capabilities across touchpoints, such as websites, apps, and e-commerce channels**, faster than competition. One of the many examples is AkzoNobel's award-winning Visualizer app which uses augmented reality technology through which it helps consumers to make confident color choices in their homes. In addition, its web-based tool Colour Play[™] helps consumers at the start of their interior paint job by offering a playful way to derive personalized color options for their livings spaces. To provide a significantly advanced customer experience through digital technologies, AkzoNobel has been on a journey from a very fragmented and de-centralized tool landscape to a scalable and harmonized technology stack. This helped realize a significant reduction of platforms, and improvements of the experience across the digital customer journey. Moreover, the company is taking a holistic approach and invests heavily in training and upskilling its employees to ensure adoption and effective activation at the customers' end. This approach has been proving to be a great success by enabling it to stand much ahead of competitors in this industry.

Digital technologies can enable companies to offer customers value-added products and services. Through its Paint the Future global start-up challenge, AkzoNobel identifies promising technologies to introduce

products and services beyond coating products. This is a unique program in the coatings industry that brings new products and enabling technologies to the forefront and enables AkzoNobel to stay ahead of the competition. For example, the company partnered with QLayers, the 2019 winner of the Paint the Future challenge, to develop QLayers's unique automated industrial coating application technology, which can coat large surfaces under any weather condition with consistent quality. The companies successfully deployed the technology to customers in the industrial coatings industry.

In 2020, AkzoNobel collaborated with French start-up Les Companions, developing robots that can assist painters in painting interior walls. Due to this partnership, Les Companions has commercialized its artificial intelligence-based paint robot, PACO, as of November 2022. Les Companions has deployed the robot to the United Kingdom architectural coating market, grappling with a severe shortage of skilled labor. The robot will work in parallel with professional painters to allow them to focus on the craftsmanship part of a paint job.

AkzoNobel is also an industry pioneer in offering digitally enabled products to its coating customers. Collaborating with Apellix, a 2019 Paint the Future challenge participant, it developed a computercontrolled spray-painting drone designed to do repetitive tasks efficiently. AkzoNobel provides drones to

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marine coating customers for paint jobs such as hull coating. These customers appreciate the unique drones for saving them considerable time and reducing paint wastage. In 2023, the company unveiled its data driven digital project management solution, Carbeat, for its automotive refinish coatings customers. Carbeat enables body shops to easily manage their business operations, streamline workflows, and make data-driven decisions, allowing up to 15 percent reduction in vehicle cycle time. Similarly, AkzoNobel's Powder Coatings business now offers an industry-first Alpowered software, Flightpath, that was co-developed with

coatingAI (another participant of AkzoNobel's Paint the Future challenge in 2021). Flightpath helps customers improve the powder application process and reduce their carbon footprint .

In addition, the company made its global color database easily accessible to customers worldwide using any device through the MIXIT web application. This enables customers to access over 2 million color formulae in the automotive, aerospace, and yacht coatings markets. The database's intelligent algorithm allows them to pick the right colors and garner real-time insights. Customers gain further benefits with a MIXIT license and value MIXIT as the best color-matching application.

Frost & Sullivan commends AkzoNobel for providing offerings that delight and satisfy customer needs before, during, and after purchasing coating products from the company.

Conclusion

Digitalization is increasingly prevalent across various industries. The global coatings industry is also ramping up the digitalization pace, with AkzoNobel at the forefront of this transformation. By implementing advanced digital technologies like AR and VR in operations and training, the company is proactive and reactive to mega trends and unforeseen challenges, such as the COVID-19 pandemic and supply chain disruptions. AkzoNobel has also expanded its digitalization portfolio to include the automation of manufacturing and application of coatings. In addition, the company collaborates with notable companies such as Microsoft to streamline the processes involved in research, manufacturing, and delivery to end customers. It was also the first in the industry to use drones for automated coating applications. AkzoNobel consistently acquires, serves, and delights its global customer base through such initiatives and products. With its strong overall performance, AkzoNobel N.V. earns Frost & Sullivan's 2023 Global Company of the Year Award in the Coatings 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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- **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)



