CARGILL RECEIVES THE 2023 COMPANY OF THE YEAR AWARD

Identified as best in class in the global green transformers and sustainable 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. Cargill excels in many of the criteria in the green transformers and sustainable solutions 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

Cargill: An Established Global Leader

Established in 1865 and headquartered in Minnesota, United States, Cargill is a global provider of agriculture, food, financial, and industrial products and services. It offers insights to partners, transforms raw materials into finished goods, and moves products worldwide. The company leads the market with superior manufacturing, branding, trust, consistent quality, and availability.

The company's Bioindustrial unit understands the chemistry of biobased industrial products and creates dynamic products. Cargill's outstanding FR3® natural ester has been in use for 25+ years in more than three million transformers globally. The company has expanded the industry by shifting from petrochemical-based to biobased products, galvanizing the adoption of sustainability-centered best practices.

Leveraging 158 years of unmatched expertise, the company sustains an impressive global footprint (operating in 70 countries and selling to 125 countries) and has an employee base of 160 thousand individuals. In addition to bioindustrial, its broad portfolio serves many industries, including agriculture, animal nutrition, beauty, data asset solutions, food and beverage, foodservice, industrial, meat and poultry, pharmaceutical, risk management, supplements, trade and capital markets, and transportation. Cargill's ability to accommodate many customers across multiple sectors demonstrates its capabilities' excellence and scope. Its business framework helps the world thrive safely, responsibly, and sustainably.

The company consistently combines its experience with new technologies and insights to catapult its objectives. Cargill's robust research and development (R&D) and scientific dexterity empower it to address customers' ever-changing needs and the industry's challenges. The company's global team entails over 1,500 R&D, applications, technical services, and intellectual property experts who work together to innovatively augment existing products, boost process efficiencies, develop novel solutions, increase value, and condense costs.¹

FR3® Natural Ester: Trailblazing, Cost-efficient, and Sustainable

Cargill uses customer feedback and monitors industry trends to gauge market needs, guiding its product roadmap and continuously evolving its solutions to maintain its innovative edge. The focus on sustainability is relatively new in the transformers industry, and standardization is lacking; thus, market players do not know how to evaluate which products are sustainable. Moreover, some companies create confusion by portraying unsustainable products as sustainable, making inaccurate claims about the sustainability of their products. Overall, the industry adapts to change and tries new products slowly, resulting in a continuous need to educate stakeholders on the advantages of natural ester and get them to try it.

Considering these market challenges, Cargill offers its game-changing FR3® natural ester dielectric fluid, empowering robust, cost-effective, successful, safe, and environmentally friendly ways to help communities. Tested, validated, and proven by hundreds of internal tests, third-party research organizations, and customers, FR3® fluid has applications across power transmission and distribution, solar power, wind power, and retrofilling. Integrated with multiple efficiencies, FR3® significantly

"Due to the wide-reaching scope of FR3®'s applications, the industry acknowledges it as a customer-centric product that can solve untapped problems market stakeholders did not know existed, demonstrating Cargill's leadership qualities."

- Iqra Azam, Best Practices Research Analyst surpasses mineral oil with a 17% average total cost of ownership savings, up to 20% more load capacity, up to eight times longer insulation life, and 56 times fewer carbon dioxide emissions.² Furthermore, as a K-class fluid, FR3® fluid has exceptionally high flash and fire points (360°C) and zero reported fires in over 25 years of industry use, excelling mineral oil in fire safety. By sourcing the optimum components, Cargill facilitates a product that delivers reliability and substantially extends the transformer's life.

Accentuating the supply chain constraints in the industry, Cargill has a global source of supply and manufacturing plants worldwide, ensuring that customers receive FR3® fluid with unswerving quality and lead times. Due to continued transformer supplyconstraints, Cargill's emphasis on transformer retrofilling applications has magnified to replace mineral oil with natural ester, extending a transformer's life by up to 10 years. The company works closely with service and maintenance partners to educate the market on implementing the necessary changes to help minimize supply chain constraints and keep the power grid operating unfailingly. FR3® natural ester highlights Cargill's attention and dedication to environmental wellness, as it is more sustainable than mineral oil. FR3® is the world's original and most proven natural

¹ https://www.cargill.com/about/research/research-development

² https://www.cargill.com/bioindustrial/dielectric-fluids/fr3-fluid

ester, made from over 95% renewable vegetable oil and performance-enhancing additives, expanding its market growth. It is a non-toxic, carbon-neutral, and 100% biodegradable product with a higher loading capacity than mineral oil, making transformers more power-dense that use valuable materials less.

FR3® natural ester's distinctive moisture management properties enable it to uninterruptedly absorb moisture through a natural hydrolysis process, eliminating the damage due to by-products or sludge. With FR3®, customers maintain their transformers' dielectric strength and avoid partial discharges, further extending their assets' lives. Mineral oil has no natural moisture absorption process, whereas FR3® safely absorbs tens to hundreds of times more moisture according to the temperature.³ Cargill's solution substantially fortifies Cargill's pioneering market position with many advantages over conventional products.

FR3® fluid also signifies Cargill's ability to contribute to the growth of renewable energy sources. The FR3® team involves dedicated resources and experts who understand the market and initiate customer-focused capabilities to harness the benefits of FR3®. Due to the wide-reaching scope of FR3®'s applications, the industry acknowledges it as a customer-centric product that can solve untapped problems market stakeholders did not know existed, demonstrating Cargill's leadership qualities. One of these problems includes dealing with complex harmonics and high heat fluctuations in solar power and making compactly designed, maintenance-free transformers for wind power.⁴

Harmonizing its business framework and capabilities with market trends and potential future growth drivers, the company continually introduces new products. For example, in February 2023, Cargill launched its new rapeseed dielectric fluid, FR3r® natural ester, made from over 95% renewable rapeseed oil. Through its close customer relationships, the company learned that rapeseed oil's applications were becoming more preferred in some parts of the world and rolled out another leading-edge product. FR3r® safely runs up to 20°C warmer than a mineral oil-filled transformer. It helps minimize the use of expensive materials (such as steel, aluminum, and insulating paper), galvanizing better transformers at an equal or even lower cost than mineral oil. FR3r®'s distinct moisture handling capabilities eliminate the need for maintenance under normal operating conditions, cutting back on time and money. FR3r® is also 100% biodegradable and has K-class fire certification.⁵

Frost & Sullivan commends Cargill's excellent ability to design advanced products according to customers' shifting requirements, augmenting their businesses while helping them become sustainable. Incorporating user feedback into its strategies and initiatives promotes a strong sense of ownership, catalyzing longstanding customer relations. Cargill's approach goes beyond its extensive expertise and best-in-class capabilities, with customer value as a strategic imperative.

A Customer-centric Approach Driving Unmatched Experience

Cargill fosters a company culture based on diversity, equity, and inclusion. Its core principles deliver benefits to partners and employees, putting people first. With a commitment to diversifying its team globally and regionally, the company pays special attention to gender parity and underrepresented

⁴ Ibid.

³ Ibid

⁵ Ibid.

groups. It has received a 100% Human Rights Campaign Corporate Equality Index score for 18 years. In 2022, for the second year in a row, Cargill attained gender pay equity on average among professional-level employees globally. The company's executive team is 46% women, close to achieving gender parity.

Additionally, Cargill Cares Employee Disaster Relief Fund distributed \$14 million across 32 countries to help financially struggling employees. The company sustains a culture where employees feel that its leaders care about their well-being. Frost & Sullivan's independent research recognizes that Cargill supports employee happiness, which leads to satisfied customers, facilitating customer loyalty and growth

opportunities.

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- Iqra Azam, Best Practices Research Analyst Prioritizing superior customer experience, Cargill manufactures its proprietary FR3® natural ester in multiple sites globally to sustain sufficient supply and short lead times, irrespective of customers' locations. All manufacturing sites adhere to strict procedures to maintain the same high product quality worldwide, serving customers steadfastly. The company manufactures all products at its plants and meticulously handles and owns all the steps, from sourcing and manufacturing the base oils to the final product mixture. Additionally, Cargill facilitates

technical customer support internationally, addressing project-related challenges quickly. The company maximizes its competitive edge with its widespread global presence, brilliant manufacturing proficiency, and financial capacity to meet and exceed customer demands.

The company also actively publishes papers and partakes in conferences, educating the market on the significance of using natural ester. Cargill speaks at 25 to 40 events globally each year. It collaborates with leading universities and other academic organizations to comprehend and evaluate how natural ester empowers the industry with impactful, more sustainable solutions. For example, in February 2023, working alongside Cargill, CHINT (a Chinese energy company) finished developing an FR3® fluid-powered 750 kilovolts transformer (the highest voltage natural ester filled transformer ever). Cargill's collaborative efforts highlight its commitment to constant innovation.

Cargill pays extra attention to educating and training all internal and external stakeholders (end-users, channel and original equipment manufacturer [OEM] partners, regulatory and standards bodies, trade media, academics, and other industry influencers), accentuating FR3® natural ester's value and significance. The company offers pre-purchase product trials for new customers. It achieves customer satisfaction from the beginning of their journeys, promoting Cargill's outstanding dedication to high-quality, efficient, and transparent offerings. Additionally, it recently launched the FR3® augmented reality application (app) to demonstrate the benefits of its FR3® fluid. The company has enhanced its training and education procedures, becoming more interactive and technology-focused through the app. Cargill

⁶ https://transformers-magazine.com/tm-news/fr3-natural-ester-750-kv-transformer-successfully-developed/

also recently developed an interactive training tool that its sales teams employ to educate the industry and better illustrate how FR3® resolves customer problems.

Cargill consistently assists customers throughout the purchase process (from presale counseling to post-sale support). It deploys solutions according to users' specific needs and use cases. For example, ENEL Green Power (EGP), one of the largest renewable energy developers in the world, utilized Cargill's FR3® as one of the preferred products for one of its major solar projects. EGP chose Cargill's product owing to its extraordinary qualities.

India's largest utility, National Thermal Power Corporation Limited, implemented Cargill's FR3® for a floating solar project because of its biodegradability and non-toxic (in soil and water) characteristics. The FR3® fluid-filled transformers deliver reliable power in a more compact, lower-weight package, making them easier to set up and maintain. In case of an unlikely event (e.g., leakages), the non-toxic FR3® biodegrades in as little as 10 days, not harming the area's aquatic life. Additionally, Cargill has worked with Westrafo (a large transformer OEM) and Eaton (a multinational power management solutions company) over the last few years to showcase and market environmentally friendly, higher-performing products. Westrafo's R&D team has partnered with Cargill to manufacture a new-generation transformer that fully leverages the advantages of FR3® fluid. Eaton and Cargill successfully co-developed Eaton's PEAK transformers using Cargill's FR3® fluid, making the transformer fully biodegradable, with high fire-point and high overloadability (up to 112%).8

Frost & Sullivan believes that Cargill's customer-centric business framework and revolutionary products position it well to drive the green transformers and sustainable solutions space into its next growth phase, build stronger relations, and sustain its leadership in the coming years.

⁷ https://www.cargill.com/doc/1432206322779/fr3-ntpc-case-study.pdf

⁸ https://www.eaton.com/us/en-us/markets/innovation-stories/peak-transformer.html

Conclusion

Harnessing 158 years of unparalleled market expertise, industry relations, and product advancements, Cargill has become a prominent name in the global green transformers industry. It designs pioneering products according to customers' shifting requirements, augmenting their businesses while helping them become sustainable. Emphasizing the lack of sustainable products and other industry challenges, Cargill developed its game-changing biodegradable natural ester fluid, FR3®. It outshines conventional mineral oil with a 17% average total cost of ownership savings, up to 20% more load capacity than mineral oil, up to eight times longer insulation life, and 56 times fewer carbon dioxide emissions. As a K-class fluid, FR3® has exceptionally high flash and fire points (360°C) and zero reported fires, surpassing mineral oil in fire safety. It also significantly extends the transformer's life. In 2023, the company launched its new rapeseed dielectric fluid, FR3r® natural ester, made from over 95% renewable rapeseed oil.

Overall, Cargill addresses customers' unmet needs with a strong leadership focus that incorporates user-centric strategies and exemplifies best practice implementation. The company remains a trusted partner, earning a reputation for offering the overall best in the industry.

With its strong overall performance, Cargill earns Frost & Sullivan's 2023 Global Company of the Year Award in the green transformers and sustainable 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

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

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 $^{\text{TM}}$.

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

OPPORTUNITY UNIVERSE Capture full range of growth opportunities and prioritize them based on key criteria OPPORTUNITY EVALUATION Adapt strategy to changing market dynamics and unearth new opportunities OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis of prioritized opportunities PLANNING & IMPLEMENTATION Execute strategic plan with milestones, targets, owners and deadlines OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis opportunities FINALE STRATEGY Translate strategic alternatives into a cogent strategy

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)

