FROST & SULLIVAN

VERTIV™

2017 EMEA UPS Product Leadership Award

FROST & SULLIVAN

2017 BEST PRACTICES AWARD

EMEA UPS
PRODUCT LEADERSHIP AWARD

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Background and Company Performance

Industry Challenges

The global UPS industry has a highly competitive landscape, where one of the key challenges for a UPS manufacturer is to differentiate itself from its competitors. It is quite important for a manufacturer to keep up with newer technologies and industry trends and properly develop UPS solutions that cater to the growing needs of businesses. The power demand has been on a constant rise in the recent past and is a major area of concern for all end-user applications - especially those which have critical loads (such as data centers).

Energy saving is one of the key challenges for end users of UPS systems. In the data center segment, the main focus is on improving PUE (Power Usage Effectiveness), while staying flexible enough to cope with constantly evolving needs. Frost & Sullivan research confirms that this dynamic is mainly driven by rising energy bills, environmental constraints, and the increase in power density. The other challenge is the need to address the scalability and flexibility issues amongst end users. It is now essential for manufacturers to deliver UPS products that will allow end users to scale as and when they grow their business. Given the high demand for modular UPS systems and high intensity of competition, Frost & Sullivan notes that it is critical for UPS manufacturers to innovate in this space and provide advanced modular concepts that allow further flexibility and modularity.

Frost & Sullivan points out that low product differentiation is another key challenge in the global UPS industry. UPS systems are available in a variety of power range configurations, starting from below 1 KVA to above 500 kVA. Among this wide segmentation, lower power capacity of less than 50 KVA involves more than 100 different manufacturers - all offering similar UPS solutions at competitive prices.

Product Family Attributes and Business Impact

Match to Needs

Vertiv™'s deep understanding of end user needs and specific requirements is the foundation of its product development process. Frost & Sullivan feels that the company's excellence and leadership in the UPS industry can primarily be attributed to its ability to develop products that perfectly align with customer expectations, as its product designs are directly inspired and influenced by evolving customer needs. The company constantly delivers superior UPS products that match the requirements of end-users. Its commitment to innovation is highly commendable and clearly proven by its evolving product line featuring cutting-edge technology. Vertiv's highly innovative Liebert® Trinergy™ Cube UPS (introduced in 2014) was the first static UPS capable of hot-scaling up to 3 MW in a single unit and up to 24 MW when connected in parallel; this is a power capacity that was previously achieved only by rotary UPS solutions.

The Liebert® Trinergy™ Cube combines three standard modes of operation (VFI, VI, and VFD, according to IEC 62040-3 standard) in one solution. With an adaptive algorithm, it is able to choose the best mode of operation to save energy based on the quality of the mains. The Liebert Trinergy Cube is a significant leap forward in the company's Trinergy UPS product platform and has already gained heavy traction in the market since its launch in 2014.

In 2016, the company announced enhancements to its Liebert Trinergy Cube UPS with additional capabilities, including 200 kW and 400 kW power cores (modules), which increase the product's flexibility and adaptability to every possible power density requirement from 150 kW to 3.4 MW in a single unit and up to 27 MW in a parallel system. It also offers an industry leading average operational efficiency of 98.5% using the Trinergy Control, while still offering the seamless protection of the double conversion technology. Frost & Sullivan firmly believes that the company's commitment to product development is a key driver for its product leadership position.

Product line Breadth & Scalability

Frost & Sullivan believes that Vertiv's product line breadth and scalability is second to none. The company's portfolio is nicely complemented by its industry-leading design capabilities. The advanced and innovative features and functionalities incorporated in Vertiv's UPS products are a true testament to the company's technology excellence and cutting edge product design. They also play a crucial role in placing the company at the forefront of this highly competitive industry.

The company's AC Power UPS portfolio offers a wide range of products encompassing power ranges from 500 VA to 3.4 MW in a single unit, covering all technologies (offline, line-interactive and online double conversion). It caters to all end-user verticals, including niche light industrial applications. Its UPS products have witnessed a high rate of success in terms of commercialization. The Trinergy UPS platform, which was launched in 2009, has created a strong position for the company in the global market.

One of the key factors that has led to the company's success is its customer-centric approach in product development. Even though the company specializes in IT applications, it also offers specific products to cater to communication networks and commercial and industrial applications - such as transportation, utility support, healthcare, and industrial processes. Under each of its product categories, Vertiv offers multiple product segments that properly cater to customer requirements. For instance, the company recognizes that for data centers, reliability, after sales service and support, along with the presence of a strong distribution network, is far more important than offering the cheapest UPS possible.

Excellent Product Positioning

The company's technology excellence is complemented by its brilliant product positioning strategy. It has taken meticulous efforts to understand the shortcomings and pain points in the industry and has developed smart and meaningful features that appeal to multiple end user applications.

Over the past 12 to 14 months, Vertiv has launched new products that are aimed at enhancing efficiency, scalability, power density, and usability (with new HMI and monitoring solutions). Perfect examples include the launch of the Liebert® GXT4™ 700-10,000VA UPS; range extension and enhancement of Liebert NXC from 10-60 kVA up to 200 kVA, Liebert EXL from 160-500 kVA to 100-1200 kVA and Liebert Trinergy Cube to 3.4 MW in a single unit. Furthermore, its cutting edge design capabilities and technology excellence enables it to offer these products at a variety of price points, resulting in a unique product positioning advantage. For instance, the Liebert Trinergy Cube and Liebert EXL are products that derive from the same platform, but are positioned differently, both in terms of features as well as price. Similarly, the Liebert NXC is offered at a highly competitive price as compared to Liebert EXL, which is offered at a premium price.

Industry Leading Product/Service Value

Vertiv, with its industry leading UPS portfolio, not only excels in operational and other performance related value enhancements, but also delivers excellent service and maintenance capabilities. The company places equal importance on both the former and the latter, which is one of its critical success factors. The Liebert GXT4 offers a unique LCD display with highly simplified user access. It also incorporates controllable sockets (700-3000VA), which allow customers to prioritize their loads; its active ECO mode provides higher efficiency levels and reduces TCO. Following this, the 80-200 kVA range extension of Liebert NXC addresses specific customer needs relating to efficiency, charging capacity, and battery flexibility. With the range extension of Liebert EXL (100-120 kVA and 1000-1200 kVA), Vertiv still managed to maintain the compact size of these units, allowing it to effectively address space constraints and also emerge as the first UPS in the market (in its category) to reach 9.6 MW in a parallel system. Additionally, all Vertiv UPS systems can be complemented with Vertiv LIFE™ Services, which provide remote diagnostics and preventive monitoring for power and thermal management equipment. All equipment covered with Vertiv LIFE Services maintains constant contact with Vertiv's service organization 24/7.

Customer Acquisition

Vertivs's commitment to creativity provides its customers with solutions and services that truly meet the increasing technological complexity and evolving power requirements. This leadership is further justified by the value added features and benefits included in its UPS systems.

Frost & Sullivan finds Vertiv's ability to incubate new technologies and develop existing technologies highly commendable. The company is extremely proactive in identifying the current unmet needs in the market and designing products to match those needs by leveraging cutting edge technologies. Frost & Sullivan points out that this is a constant process and exercise with the company, with a relentless pursuit to achieve technology excellence.

Vertiv has increased its sales consistently with its wide product range. More interestingly, its new product launches have facilitated a strong increase in sales across all segments. Among these, the data center market is growing strongly, at almost 5% globally, while other applications, such as industrial, commercial, residential, and healthcare, are experiencing a nominal 2-3% growth (according to a recent Frost & Sullivan report on the Global UPS Market).

High Growth Potential

Vertiv has been growing its revenues at a rate higher than the industry average growth rate. The company was the global leader in the datacenter UPS market, with a share of 27.3% in 2015. Furthermore, the company is among the top 3 in the global UPS market. It registered a higher than market average growth rate of 8% in Q3 2016 - and its strategy is to strengthen its business in the data center, telecom, commercial and industrial markets, as well as to position itself quite well in the emerging regions to take advantage of higher growth rates. Frost & Sullivan finds that Vertiv's commitment to its customers, combined with its excellent product portfolio, will be a key driver for its further growth over the coming years.

Conclusion

Vertiv, an eminent UPS manufacturer consistently ranking among the top 3 global UPS participants, has achieved this remarkable position through a complete understanding of customer expectations and product requirements. Steady and uniform efforts to ensure quality and reliability and build up a strong brand value have enabled the company to gain an impressive customer base across all geographic regions. These initiatives have made the company register solid growth in 2016 through its leadership in product quality and technology, which is a commendable achievement.

With its strong overall performance, Vertiv has earned the 2017 Frost & Sullivan Product Leadership Award.

Significance of Product Leadership

Ultimately, growth in any organization depends upon customers purchasing from a company and then making the decision to return time and again. A comprehensive product line, filled with high-quality, value-driven options, is the key to building an engaged customer base. To achieve and maintain product excellence, an organization must strive to be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.

Understanding Product Leadership

Demand forecasting, branding, and differentiating all play a critical role in finding growth opportunities for a superior product line. This three-fold focus, however, must be complemented by an equally rigorous focus on pursuing those opportunities to a best-in-class standard. Customer communications, customer feedback, pricing, and competitor actions must all be managed and monitored for ongoing success. If an organization can successfully parlay product excellence into positive business impact, increased market share will inevitably follow over time.

Key Benchmarking Criteria

For the Product Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Product Family Attributes and Business Impact—according to the criteria identified below.

Product Family Attributes

Criterion 1: Match to Needs
Criterion 2: Reliability and Quality
Criterion 3: Product/Service Value
Criterion 4: Positioning
Criterion 5: Design

Business Impact

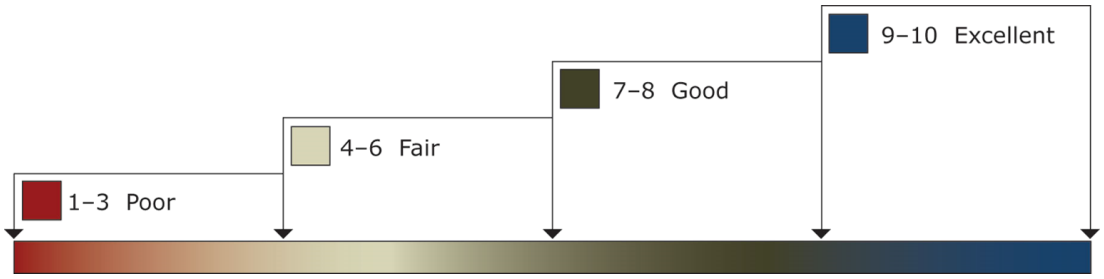
Criterion 1: Financial Performance
Criterion 2: Customer Acquisition
Criterion 3: Operational Efficiency
Criterion 4: Growth Potential
Criterion 5: Human Capital

Best Practices Award Analysis for Vertiv

Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows our research and consulting teams to objectively analyze performance, according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation. Ratings guidelines are illustrated below.

RATINGS GUIDELINES



The Decision Support Scorecard is organized by Product Family Attributes and Business Impact (i.e., These are the overarching categories for all 10 benchmarking criteria; the definitions for each criterion are provided beneath the scorecard.). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.

The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, we have chosen to refer to the other key participants as Competitor 2 and Competitor 3.

Measurement of 1–10 (1 = poor; 10 = excellent)			
Product Leadership	Product Family Attributes	Business Impact	**Average Rating**
Vertiv	**9.0**	**9.0**	**9.0**
Competitor 2	7.0	6.0	6.5
Competitor 3	5.0	5.0	5.0

Product Family Attributes

Criterion 1: Match to Needs

Requirement: Customer needs directly influence and inspire the design and positioning of the product family.

Criterion 2: Reliability and Quality

Requirement: Products consistently meet or exceed customer expectations for performance and length of service.

Criterion 3: Product/Service Value

Requirement: Products or services offer the best value for the price, compared to similar offerings in the market.

Criterion 4: Positioning

Requirement: Products or services address unique, unmet need that competitors cannot easily replicate or replace.

Criterion 5: Design

Requirement: The product features an innovative design, enhancing both visual appeal and ease of use.

Business Impact

Criterion 1: Financial Performance

Requirement: Overall financial performance is strong in terms of revenues, revenue growth, operating margin, and other key financial metrics.

Criterion 2: Customer Acquisition

Requirement: Product strength enables acquisition of new customers, even as it enhances retention of current customers.

Criterion 3: Operational Efficiency

Requirement: Staff is able to perform assigned tasks productively, quickly, and to a high quality standard.

Criterion 4: Growth Potential

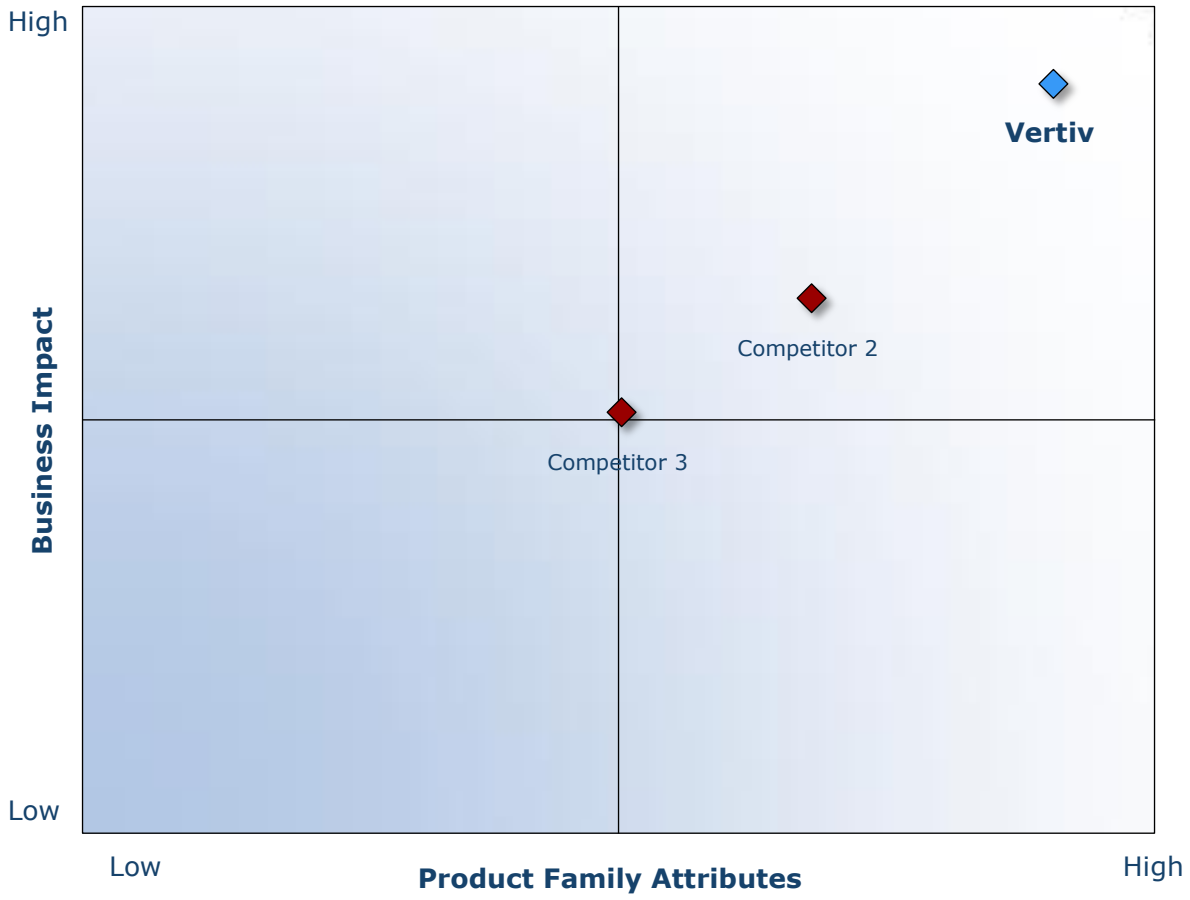
Requirements: Product quality strengthens brand, reinforces customer loyalty, and enhances growth potential.

Criterion 5: Human Capital

Requirement: Company culture is characterized by a strong commitment to product quality and customer impact, which in turn enhances employee morale and retention.

Decision Support Matrix

Once all companies have been evaluated according to the Decision Support Scorecard, analysts then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.



Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate Award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP		OBJECTIVE	KEY ACTIVITIES	OUTPUT
1	**Monitor, target, and screen**	Identify Award recipient candidates from around the globe	• Conduct in-depth industry research • Identify emerging sectors • Scan multiple geographies	Pipeline of candidates who potentially meet all best-practice criteria
2	**Perform 360-degree research**	Perform comprehensive, 360-degree research on all candidates in the pipeline	• Interview thought leaders and industry practitioners • Assess candidates' fit with best-practice criteria • Rank all candidates	Matrix positioning of all candidates' performance relative to one another
3	**Invite thought leadership in best practices**	Perform in-depth examination of all candidates	• Confirm best-practice criteria • Examine eligibility of all candidates • Identify any information gaps	Detailed profiles of all ranked candidates
4	**Initiate research director review**	Conduct an unbiased evaluation of all candidate profiles	• Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles	Final prioritization of all eligible candidates and companion best-practice positioning paper
5	**Assemble panel of industry experts**	Present findings to an expert panel of industry thought leaders	• Share findings • Strengthen cases for candidate eligibility • Prioritize candidates	Refined list of prioritized Award candidates
6	**Conduct global industry review**	Build consensus on Award candidates' eligibility	• Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates	Final list of eligible Award candidates, representing success stories worldwide
7	**Perform quality check**	Develop official Award consideration materials	• Perform final performance benchmarking activities • Write nominations • Perform quality review	High-quality, accurate, and creative presentation of nominees' successes
8	**Reconnect with panel of industry experts**	Finalize the selection of the best-practice Award recipient	• Review analysis with panel • Build consensus • Select recipient	Decision on which company performs best against all best-practice criteria
9	**Communicate recognition**	Inform Award recipient of Award recognition	• Present Award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance	Announcement of Award and plan for how recipient can use the Award to enhance the brand
10	**Take strategic action**	Upon licensing, company is able to share Award news with stakeholders and customers	• Coordinate media outreach • Design a marketing plan • Assess Award's role in future strategic planning	Widespread awareness of recipient's Award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS

About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation, and implementation of powerful growth strategies. Frost & Sullivan leverages more than 50 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.