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ATRIUS™

2018 Global IoT Solutions for Lighting Systems Product Leadership Award

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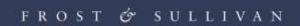
2018 BEST PRACTICES AWARD

GLOBAL
IOT SOLUTIONS FOR LIGHTING SYSTEMS
PRODUCT LEADERSHIP AWARD

2018
BEST PRACTICES
AWARDS

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Today, smart lighting solutions bring together technologies such as solid-state lighting, mesh connectivity, control systems and communication solutions. These technologies play an essential role in emerging applications for occupancy sensing, data sharing, controlling power consumption, and determining required light levels. Smart lighting advantages include better control, connectivity and energy efficiency.

Over the past few years, the global communication and lighting sectors have witnessed a significant transformation, including technology innovation in areas such as light-emitting diodes (LEDs) and 4G networks. Smart, connected devices have witnessed rapid industrial growth, and the continuous launch of new technologies and products. With the rise of the Internet of Things (IoT), smart home solutions play a vital role in driving technology innovation across a variety of industries such as retail, aviation, healthcare and digital media.

The growing adoption of IoT alongside connected lighting and LED products brings new applications and products for lighting technology that were previously limited: such as circadian rhythm lighting, light fidelity (LiFi) connectivity and motion-/occupancy-based lighting. Notably, LEDs—commonly used for display and lighting applications—are being harnessed for wireless data transmission. Such developments correspond with advancements in the optoelectronics sector, such as Visible Light Communication (VLC): the concept of transmitting data through light rays.[1]

Smart lighting solutions provide the power required for embedded sensors and communication technologies, while ensuring consistent, dense and precise spatial coverage, according to personal preferences. Notably, LED luminaires provide a powerful, connected infrastructure for Bluetooth Low Energy® (BLE) and VLC technologies. Businesses can craft a customer journey down to the site and brand level, thus delivering improved customer conversion.

Nevertheless, the main challenge for smart lighting solutions remains a lack of market understanding about the underlying science. In addition to low awareness levels, another challenge is the efficient transition or sharable nature from proof-of-concept projects to large-scale, mainstream deployments. Often these large-scale deployments are held to strict client confidentiality agreements to maintain a first mover advantage in the market. Thus, it is crucial to educate customers and investors while giving them clear and precise information about the benefits of deploying smart lighting technology.

Frost & Sullivan's independent research states that energy savings, supportive legislation and increased functionality due to technology innovation are key drivers for the lighting systems market. Furthermore, intense competition, high initial costs and resistance to technology adoption are key restraining factors.[2]

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[1] *Impact of Visible Light Communication (VLC) Technology*, (Frost & Sullivan, September 2017).
[2] *North American Lighting Equipment Market, Forecast to 2023* (Frost & Sullivan, September 2017).

Product Family Attributes and Business Impact of Acuity Brands

Leading the Way in Lighting Systems

Headquartered in Atlanta, Georgia, Acuity Brands (Acuity) is among the world's leading providers of lighting and building management systems, delivering software and services across commercial, institutional, industrial, infrastructure and residential applications. The company's lighting and building management solutions cover individual devices and intelligent networked systems. Its devices include LED luminaires, lighting controls, additional components such as drivers and control solutions for heating, ventilation, and air conditioning (HVAC) and other building applications.

Leveraging over a century of experience, Acuity provides solutions that enable its customers to increase energy efficiency while reducing operating costs; it also provides quality, human-centric lighting. By combining lighting with software, sensors and connectivity, Acuity can provide smart networked systems that collect and exchange data for increasing efficiency and provide a host of other economic benefits arising from data analytics.

The company continues its tradition of innovation by expanding its solutions; integrating controls; developing networked solutions; and adding new software, data analytics and other services. Acuity transforms lighting from a simple utility into a full-fledged technology uncovering more and more economic value for its customers.

Acuity's market and technology leadership is a result of aligning its remarkable capabilities and resources to provide integrated lighting and building management solutions. The company has also made some significant acquisitions in recent years, and as a result leverages an extensive brand portfolio that blends major indoor and outdoor lighting brands such as Lithonia Lighting and Holophane with architectural lighting brands such as Gotham, Peerless, Mark Architectural Lighting, Winona, Juno and Hydrel. Acuity's acquisition strategy has increased its customer base and product offerings.

The Unrivaled Performance of Atrius Solutions

While following its commitment to innovation and the culture of continuous improvement, Acuity has expanded its comprehensive set of IoT business solutions, covering intelligent luminaires, lighting and building management controls, software platform services, and solution development tools. Recently, the company unveiled its Atrius brand, which combines its software as a service and cloud platform under a single identity. While leveraging smart LED lighting, sensors, beacons and controls into a digital sensory network, Atrius provides connectivity and intelligence to spaces as well as a software platform that gathers, unlocks and transforms raw data into meaningful information and business applications.

As LED lighting is an optimal infrastructure to deliver a sensory network that feeds a sophisticated IoT platform with data, it makes financial sense to choose luminaires that ensure the remarkable energy-efficiency and greatest impact on ROI, enhanced with a powerful, connected infrastructure that extends beyond lighting and into IoT. The Atrius Platform transforms data from the digital Atrius-Ready sensory network into software services, which can be continually leveraged for application development or integrated within third-party systems. Atrius transforms LED lighting into the most reliable and scalable IoT technology infrastructure to connect systems, spaces and people – enhancing the business performance and human experience with indoor positioning, wayfinding, spatial analytics and space utilization services, including: **Atrius Insights** connects visitor's path with detailed spatial data, providing business analytics to understand their experiences for optimizing future customer interactions, physical design and building operations; **Atrius Spaces** leverages occupancy data captured through the lighting control network to determine exactly how people use spaces inside buildings. Analyzing this data can optimize space layout and resources, thus providing cost-savings for rapidly-changing businesses; **Atrius Navigator,** a software development kit for mobile applications, leverages VLC and BLE technologies to enable pinpoint indoor positioning solutions within four inches of accuracy; **Atrius Assets** combines real-time asset tracking services with Bluetooth low energy technology tags.

Using the data unlocked from the Atrius-Ready Sensory Network, building operators can leverage data analytics to optimize business operations, notably, in retail, aviation and healthcare applications. For retail, Atrius enables enhanced customer experiences (product navigation and BOPIS), improved store operations (asset tracking and logistics), and remarkable retail intelligence (data for improved planograms based on dwell times, etc.). Atrius also acts as a powerful solution for the aviation industry: it secures a superior passenger journey experience with ticketing, security, pre-check and wait-time alerts. Furthermore, it helps passengers move efficiently through an airport. This includes providing customers with wheelchair assistance, flight tracking, gate routing, retail information and other logistics. Other assistance includes helping families with services such as unaccompanied child tracking

Today, Atrius is moving well beyond the proof of concept stage, deploying full-scale IoT applications in more than 160 million square feet of indoor spaces. Recently, Acuity entered into an agreement with Hartsfield-Jackson Atlanta Airport, where it has already begun to deploy Atrius IoT Services. This implementation allowed one of the busiest airports in the world to leverage indoor mapping, location-based services, and IoT services.

Delivering Enhanced Customer Value

While following market trends, Acuity Brands consistently focuses on its customers and aims to build a strong and lasting relationship with them. Therefore, the company runs its product roadmap based on the feedback gathered from existing customers; this also represents a unique platform for the exchange of best practices to provide the best solutions for customers. This tool allows development partners to access documented APIs, SDKs, technical documentation, support and the latest technology updates. Being an AtriusTM IoT Partner gives them the opportunity to leverage the SDKs and partner platform solutions.

Furthermore, with a focus on improving its customers' return on investment, Acuity and its ecosystem of Atrius IoT Partners deploy optimized solutions tailored to the specific needs of different industries while enabling customers an unparalleled level of flexibility.

The company's commitment to supplying high-quality products and services is an important building block to Acuity's successful operations. The company implemented a quality management system to achieve and maintain high-quality performance. Furthermore, Acuity coordinates 18 facilities and gathers 12,500 professionals worldwide while continuing its sustainable growth with the strategic expansion of its operations in markets globally.

Conclusion

As smart lighting solutions expand into almost all areas of everyday life, new strategies to leverage the Internet of Things concepts are emerging. Acuity Brands leads this trend in leveraging smart LED lighting and provides the best-in-class Atrius solution that delivers its software and cloud platform solutions. Atrius unlocks huge amounts of data and transforms it into valuable information, which enhances the business performance as well as human experience. Acuity Brands' roots are founded in lighting and the company is continuously reinforcing its strong position in the smart, connected lighting solutions market, building on its proven capabilities with almost obsessive customer service and an increasingly powerful partner network.

With its commitment to innovation and a truly customer-oriented approach, Acuity Brands earns Frost & Sullivan's 2018 Global Product Leadership Award for the IoT solutions for lighting systems market.

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 your 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
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.

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.