

BATTERISER

2015 North American Alkaline Battery  
Price/Performance Value Leadership Award



FROST & SULLIVAN



50 Years of Growth, Innovation & Leadership

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## Background and Company Performance

### *Industry Challenges*

Frost & Sullivan expects the billion-dollar North American disposable alkaline battery industry to grow at a compound annual growth rate of 3%. Alkaline batteries are disposable products with zinc and manganese dioxide electrodes contacted through an alkaline electrolyte of potassium hydroxide. They offer a steady 1.5 volts, with better energy density and leakage resistance than carbon zinc batteries. Its manganese dioxide anode material is purer and denser, which reduces internal component space and enables them to deliver a similar capacity on intermittent or continuous light loads.

These batteries tend to drain faster than primary lithium, nickel metal hydride, or lithium-ion chemistries; Frost & Sullivan notes that this increases their consumption, but threatens sales in the long term to more efficient or rechargeable products. Most consumers, however, discard alkaline batteries - without using them to their full potential.

### *Price/Performance Attributes and Customer Impact*

#### **Functionality**

Batteroo, founded in 2012 with headquarters in Sunnyvale, CA, has developed Batteriser, a reusable stainless steel sleeve that makes contact with the positive and negative ends of a common alkaline battery to access untapped energy at a highly efficient regulated system voltage and extend its life by up to a whopping 800%. This not only saves money, but has the potential to reduce toxic battery waste in landfills. Frost & Sullivan appreciates the fact that Batteriser's impressive attributes make it applicable across a range of battery-operated home and office gadgets.

Many disposable batteries are discarded after only 20% of their energy is used. The Batteriser uses micro-circuitry to access the remaining 80%. The ultra-thin (less than one-tenth of a millimeter), reusable stainless steel sleeve slips over a battery and can easily fit into a device's battery compartment. This solution is designed to be used with most conventional batteries, ranging from AAA and AA to C and D cells. A new version of Batteriser for use with rechargeable batteries is also in development and will be released in 2016.

Frost & Sullivan believes that this acute dedication to incorporate such value-added features in the Batteriser design has the potential to redefine the North American battery market. The company launched an Indiegogo crowdfunding campaign in July 2015 with a \$30,000 goal. When the campaign closed on Sept. 24, it had raised \$395,574 from 7,404 people in 114 countries.

## Product/Service Quality

Around 15 billion disposable alkaline batteries are used globally each year; a meager 2% are recycled.

The Batteriser shows tremendous potential to extend battery life and reduce landfill waste at an affordable price point: only \$10 for a pack of four reusable sleeves. In addition, the Batteriser is also reusable. This provides incredible value to consumers, who are often frustrated by the expense and inconvenience of constantly buying replacement batteries. With performance of up to 8x, that means fewer visits to the store to purchase and also means fewer times a consumer puts batteries into or take batteries out of a device. These values of convenience and time saved are quite priceless.

As Batteriser is the "first of its kind," it is imperative for the company to properly generate awareness of its benefits and simplicity of use. When crowdfunding donors receive the product they will help to spread the word about its benefits, but Batteroo also intends to launch it across online and in-store retail channels.

## Prioritization of Features

Batteroo's potentially disruptive technology sets aside the conventional approach of altering chemical composition to extend battery lives; instead, this solution devises proprietary circuitry to tap unused energy. Frost & Sullivan agrees that the company's strategy of helping the environment presents huge growth opportunities. Batteroo aims to reduce battery waste and also help consumers save money by lessening their battery demand.

## Perceived Value

Batteroo's product can be placed over a battery at any stage of its life cycle — whether new or used. Even a perceived "dead" battery can be brought back to life when the sleeve harnesses its unused energy. No similar product is available in the market, and its price of about \$2.50 per sleeve demonstrates true value for performance.

## Customer Ownership Experience

Batteroo welcomes customer feedback about the Batteriser, either through its Web site or via email or social media platforms (including Facebook and Twitter). Its crowd funding campaign established an active dialogue between its team and the early adopters of the product. When the product is commercialized, Batteroo plans to enhance its customer relationship management tools.

## Brand Equity

Batteroo has already distinguished itself with a unique product and plans to build on that foundation, not only with excellent product performance, but with a strong online and social media presence to engage with users and build brand recognition.

## *Conclusion*

The Batteriser has the potential to be a game changer not only for the disposable battery market but also for the environment with its aim to extend battery life and reduce toxic landfill waste. Frost & Sullivan applauds the fact that Batteroo's future looks bright.

With its strong overall performance, Batteroo has earned the 2015 Frost & Sullivan Price/Performance Value Leadership Award.

## Significance of Price/Performance Value Leadership

Ultimately, growth in any organization depends upon customers purchasing from a company, and then making the decision to return time and again. A key component of customer retention is the delivery of a high-quality product at a reasonable price. To achieve these dual goals (customer engagement and price/performance), an organization must strive to be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.



## Understanding Price/Performance Value Leadership

Best-in-class organizations are particularly successful in two critical areas: first, helping customers to appreciate and enjoy the product at every price point; and second, ensuring that customers perceive a demonstrable difference in performance features at every escalating price point. Ultimately, this balance allows companies to profitably deliver a variety of product options to customers, differentiate the product suite, and compete at every level of the market.

## *Key Benchmarking Criteria*

For the Price/Performance Value Leadership Award, Frost & Sullivan analysts independently evaluated two key factors — Price/Performance Attributes and Customer Impact — according to the criteria identified below.

### **Price/Performance Attributes**

- Criterion 1: Functionality
- Criterion 2: Ease of Use
- Criterion 3: Product/Service Quality
- Criterion 4: Performance Reliability
- Criterion 5: Prioritization of Features

### **Customer Impact**

- Criterion 1: Perceived Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

## *Price/Performance Attributes*

### **Criterion 1: Functionality**

Requirement: The product offers enhanced functionality to serve the broadest range of applications

### **Criterion 2: Ease of Use**

Requirement: Customers typically feel that the products are easy to use to generate optimal performance

### **Criterion 3: Product/Service Quality**

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

### **Criterion 4: Performance Reliability**

Requirement: The product consistently meets or exceeds customer expectations for performance over its life cycle

### **Criterion 5: Prioritization of Features**

Requirement: The features that customers most value and expect are most commonly available and most aggressively priced

## *Customer Impact*

### **Criterion 1: Perceived Value**

Requirement: Customers typically feel that they received more from the product or solution than they paid for it

**Criterion 2: Customer Purchase Experience**

Requirement: Customers feel like they are buying the most optimal solution that addresses both their unique needs and their unique constraints

**Criterion 3: Customer Ownership Experience**

Requirement: Customers are proud to own the company’s product or service, and have a positive experience throughout the life of the product or service

**Criterion 4: Customer Service Experience**

Requirement: Customer service is accessible, fast, stress-free, and of high quality

**Criterion 5: Brand Equity**

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty

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 players and for identifying those performing at best-in-class levels.





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

Frost & Sullivan Awards 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 <b>Monitor, target, and screen</b>	Identify Award recipient candidates from around the globe	<ul style="list-style-type: none"> <li>• Conduct in-depth industry research</li> <li>• Identify emerging sectors</li> <li>• Scan multiple geographies</li> </ul>	Pipeline of candidates who potentially meet all best-practice criteria
2 <b>Perform 360-degree research</b>	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> <li>• Interview thought leaders and industry practitioners</li> <li>• Assess candidates' fit with best-practice criteria</li> <li>• Rank all candidates</li> </ul>	Matrix positioning all candidates' performance relative to one another
3 <b>Invite thought leadership in best practices</b>	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> <li>• Confirm best-practice criteria</li> <li>• Examine eligibility of all candidates</li> <li>• Identify any information gaps</li> </ul>	Detailed profiles of all ranked candidates
4 <b>Initiate research director review</b>	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> <li>• Brainstorm ranking options</li> <li>• Invite multiple perspectives on candidates' performance</li> <li>• Update candidate profiles</li> </ul>	Final prioritization of all eligible candidates and companion best-practice positioning paper
5 <b>Assemble panel of industry experts</b>	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> <li>• Share findings</li> <li>• Strengthen cases for candidate eligibility</li> <li>• Prioritize candidates</li> </ul>	Refined list of prioritized Award candidates
6 <b>Conduct global industry review</b>	Build consensus on Award candidates' eligibility	<ul style="list-style-type: none"> <li>• Hold global team meeting to review all candidates</li> <li>• Pressure-test fit with criteria</li> <li>• Confirm inclusion of all eligible candidates</li> </ul>	Final list of eligible Award candidates, representing success stories worldwide
7 <b>Perform quality check</b>	Develop official Award consideration materials	<ul style="list-style-type: none"> <li>• Perform final performance benchmarking activities</li> <li>• Write nominations</li> <li>• Perform quality review</li> </ul>	High-quality, accurate, and creative presentation of nominees' successes
8 <b>Reconnect with panel of industry experts</b>	Finalize the selection of the best-practice Award recipient	<ul style="list-style-type: none"> <li>• Review analysis with panel</li> <li>• Build consensus</li> <li>• Select winner</li> </ul>	Decision on which company performs best against all best-practice criteria
9 <b>Communicate recognition</b>	Inform Award recipient of Award recognition	<ul style="list-style-type: none"> <li>• Present Award to the CEO</li> <li>• Inspire the organization for continued success</li> <li>• Celebrate the recipient's performance</li> </ul>	Announcement of Award and plan for how recipient can use the Award to enhance the brand
10 <b>Take strategic action</b>	Upon licensing, company may share Award news with stakeholders and customers	<ul style="list-style-type: none"> <li>• Coordinate media outreach</li> <li>• Design a marketing plan</li> <li>• Assess Award's role in future strategic planning</li> </ul>	Widespread awareness of recipient's Award status among investors, media personnel, and employees

## 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 almost 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 31 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.