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2020 BEST PRACTICES AWARD

VEOLIA

2020 GLOBAL
SUSTAINABILITY IN PHARMACEUTICALS
COMPANY OF THE YEAR AWARD

Contents

Background and Company Performance

Industry Challenges

Over the past decade, the topic of sustainable development has gained importance across various sectors. The growth of this topic is driven by increasingly stringent regulations in different industry sectors, higher potential for product diversification, and increased public awareness.[1] Natural resource scarcity is one of the most critical challenges facing individuals, enterprises, and municipalities. The necessity for more sustainable practices with water, energy, and raw materials has caused organizations and government institutions to adopt smart management strategies.

Waste generation is a fast-growing problem causing significant environmental and health hazards, especially in urban regions of the world, and is thus an essential part of the sustainability challenge. Administrations and waste management organizations in different metropolises face the challenge of providing an efficient system of waste collection, disposal, and recycling while retaining health standards and environment friendliness. With the estimated high volume of growth in the amount of waste generated, traditional waste management systems will require the integration of technological advancements for effective waste management.[2]

At the same time, manufacturers of consumer-facing products are under pressure internally and externally to become more sustainable. The pharmaceutical and personal care sectors are not an exception and must meet the highest product quality and safety compliance standards (while also delivering ongoing cost savings and financial efficiencies.) As a result, establishing closed-loop systems that can recycle manufacturing waste and return products into usable raw materials are experiencing increasing demand. Furthermore, cost-efficiency is critical for capturing all of the opportunities that a circular economy creates as sustainability is much more likely when it is financially beneficial for manufacturers.

The rapid growth of the Internet of Things (IoT) continues to connect various businesses, processes, and stakeholders on a level never anticipated. In the waste management sector, the multifold advantages offered by IoT expect to drive measurably improved operations of existing smart waste management technologies. Specifically, companies are using sensor technologies and intelligent monitoring systems to optimize waste management, thereby reducing costs and delivering better services.[3]

Frost & Sullivan anticipates that waste management companies that diversify their services and build an integrated channel to offer a range of value-added services such as flexibility and agility to customers will gain a competitive advantage. Incorporating smart solutions will be another crucial differentiator where players will find opportunities to grow in the market.[4]

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[1] *Global Benchmarking of Sustainability Trends in Industrial Sector* (Frost & Sullivan, March 2019)
[2] *Disruptive Innovations in Smart Waste Management* (Frost & Sullivan, June 2019)
[3] *Global Waste Recycling Market Outlook, 2017* (Frost & Sullivan, February 2017
[4] *Global Waste Recycling and Circular Economy Market Outlook, 2019* (Frost & Sullivan, June 2019)

Visionary Innovation & Performance and Customer Impact

Leveraging a Customer-centric Approach to Meet Actual and Future Needs for Sustainability

Founded in 1853 and headquartered in Paris, Veolia is the leading global provider of best-in-class waste, water, and energy management services designed to support the circular economy and preserve scarce raw materials. With a prominent global presence and over 171,000 employees around the globe, Veolia's solutions help optimize resource management for various applications. Notably, the pharmaceuticals and cosmetics sectors are strategic markets for Veolia.

Veolia is a past Frost & Sullivan award recipient, recognized as the 2009 Frost & Sullivan European Pharmaceutical Water and Wastewater Treatment Business Development Strategy Leadership Award. Since then, the company has significantly grown while transforming its global operations and solidifying its market position. Frost & Sullivan commends Veolia for its ongoing excellence, excellent performance, and its advanced approach to market trends and customer needs.

As the technological renaissance alters sustainability approaches, Veolia continues its award-winning march while providing its proven, market-leading technology and expertise. Veolia understands that market leadership comes from the ability to stay close to anticipate market needs and regulations while continuously developing and transforming according to real demands. Leveraging this philosophy, Veolia is responding to market demand for smart industry by integrating the entire elements of the value chain (i.e., customer portal and energy management) with innovative digital solutions.

Veolia understands that efficiently measuring consumption is necessary to optimize facilities and save natural resources. The company's innovative monitoring solution, Hubgrade, optimizes the performance of industrial companies for water, energy, and waste management by combining remote monitoring and the on-site skilled technicians. Customers benefit from advanced service modeling, optimized resources and infrastructures, and reduced operating costs.

Today, Veolia runs more than 25 Hubgrade centers globally (Europe, China, Middle-East & USA), connecting different type of clients and utilities, and the distance is no more an issue for optimizing their performance and reducing their environmental impacts. The solution leverages around 300,000 smart sensors to send data in real-time from thousands of sites to the Hubgrade centers, which employ full-time analysts. Detailed analysis by experts coupled with in-house developed algorithms allow for proactive custom-made optimization of facilities' consumption and operations. Unlike most competing solutions, Veolia is also a one-stop-shop provider of outsourcing services for facility management backed with proprietary technologies, asset management expertise and environmental mindset. As a result, the company deals with all the issues and needs related to day-to-day excellence in operation; thus, creating sustainable value with considerable compliance and cost-savings.

A prominent example is the Industrial Realty Group (IRG) contract for central utility operations of a pharmaceutical campus, where Veolia will manage utilities across 250 acres of

property. Veolia will operate and maintain the 23 MW CHP unit and the 3.1 MGPD wastewater plant for the real estate and investment firm while IRG will focus on developing Pearl River's New York Center for Innovations as one of the foremost hubs for the life sciences in the US, already hosting Pfizer, Sanofi and RK Pharma.

In the waste management space, Veolia is addressing the fact that most industrial clients manage waste locally with various service providers—leading to a blurry compliance, cost over cost mechanism and complex operation. Responding to this challenge, Veolia deploys its remarkable total waste management solution to process all types of waste (e.g., solid, liquid, and hazardous wastes) as a single provider. As a result, the company streamlines operations, and thereby reduces the overall cost of waste while providing customers with greater insight on how waste is managed through digital dashboard (GreenBoard). As a result, customers can better pinpoint inefficiencies and drive their waste strategy.

Veolia tailors its total waste management solutions to customer's specific needs (local regulations and corporate sustainability objectives) and can best select the most appropriate treatments: reduction, reuse, recycling, recovery, landfill diversion or concentration. The result is minimized waste volumes, more efficient operations, cost performance, and environmental protection.[5] Frost & Sullivan notes that this customer-oriented approach adds value to the user's operations and contributes to effective sustainability efforts.

Veolia's solution includes in-house self-delivery services (655 waste processing facilities operated worldwide) and customers operational tools to leverage digital solutions to track and record waste management processes (Waste Information Profiles, manifests, certificates, invoices). Consequently, customers are rendered fully compliant with legal requirements. To achieve this solid performance, Veolia deploys customer portals (CIMS Online Services, HazMat Track & Trace) where customers have access to real-time waste documents as well as complete information of solid and hazardous waste key performance indicators (e.g., volumes treated, budgets, ratios of valorisation, days without incident). As a result, customers receive a big picture of the cost of waste as well as waste management efficiency, wherever are their plants. As an example this pharmaceutical client who can monitor its waste performance, from one dashboard (GreenBoard), of its 20 sites in North America plus 12 new upcoming sites connected from Europe.

Veolia also provides the solution to valorize medical devices or electronic equipment, ensuring their end-of-life are well-managed in terms of disposal. Specifically, through decontaminating plastic parts and recovering valuable metals such as platinum, silver, gold, and other precious metals, Veolia's customized recycling solution maximizes the client's return on asset values.

Delivering Value for the Pharmaceutical Industry

The pharmaceutical sector faces strict regulations due to demanding product quality and safety requirements. Veolia leverages its considerable expertise to provide a spectrum of facilities, utilities, and infrastructure management solutions for the pharmaceutical industry. Veolia provides custom-tailored solutions—e.g., operation and maintenance of all utilities and

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[5] *Total Waste Management*, https://www.veolianorthamerica.com/what-we-do/waste-capabilities/total-waste-management, accessed September 2019

infrastructure, hazardous and non-hazardous waste management, complete water cycle, process, and building maintenance services and even financial solution models—with compliance to regulations and customers' standards.

As a result, Veolia solutions contribute to improved water usage, better waste management practices and circular economy processes, and optimized energy production and consumption while reducing costs and ensuring regulatory compliance.

One of Veolia's remarkable solutions dedicated specifically for the pharmaceutical industry is a system for purified water generation, Orion™. It is a purified water production system which is modular, pre-validated, skid-mounted, and disinfects using hot water with output ranging from 500 to 10,000 liters per hour. Orion™ is perfectly standardized for faster Pharmaceutical commissioning (FAT, SAT, IQ, OQ) and is fully compliant with the latest specifications (cGMP and FDA).[6] The new generation, MkIII of the Orion™ has been totally redesigned to integrate sustainability as its DNA. The new USP water purification generation units save up to 40% of water consumption and reduce by 30% the carbon emissions.

Veolia's commitment to supplying high-quality systems and services is the cornerstone of its successful operations, enabling the clients to achieve superior sustainability performance consistently. The company has successfully implemented numerous projects around the world and continues to receive positive feedback from its clients. Pfizer has chosen for its USP purified water generation system, an Orion™ 6000 to meet the highest level of compliance. As a result, Pfizer's plant located in Shanbally, Ringaskiddy, is now recovering 75% of water which leads to around 2,700 cubic meters of water saved per year, thanks to the high recovery design.[7]

Veolia's Efforts on Climate Change Challenges

As a strong market voice, Veolia focuses on supporting climate change initiatives. The company took part in the 48th World Economic Forum (WEF) in Davos, on the theme of "Creating a Shared Future in a Fractured World" with WBCSD *Factor10* circular economy initiative. The 30 large companies, from 16 business sectors, committed to implement scalable solutions that will transform value chains, and on producing and disseminating knowledge about the circular economy for businesses around the world.

Also, Veolia is a partner in the New Plastics Economy initiative, a founding member of the Alliance to End Plastic Waste (AEPW) as well as part of the International Day for Biodiversity.

Veolia's sustainable development commitments help support a circular economy by decreasing water, energy, and material consumption as well as reducing discharges and residual waste from facilities. The company also contributes to combating climate change through solutions that improve recycling and reuse, increase the energy efficiency of facilities,

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[6] *Veolia, Boosting performances for the pharmaceutical industry,*
https://www.veolia.com/en/newsroom/thematic-reports/boosting-performances-pharmaceutical-industry ,accessed September 2019
[7] *Veolia, Boosting performances for the pharmaceutical industry,*
https://www.veolia.com/en/newsroom/thematic-reports/boosting-performances-pharmaceutical-industry ,accessed September 2019

and support the use of renewable or alternative energies (biogas, biomass or refuse derived fuel).

Focus on Further Growth

Veolia's market and technology leadership is the result of aligning its remarkable capabilities and resources to optimize customers' performance. Also, the company understands the importance of a large global presence to ensure proximity to its customers. The company is actively pursuing both organic and inorganic growth and leverages an effective acquisition and partnership strategy. For example, Veolia is developing new contractual models based on co-construction to make better use of the partners' complementary expertise and leverage potential growth drivers. Recently, the company entered several partnerships with RB (Reckitt Benckiser), Unilever and with the #1 leader in the Cosmetics sector for developing the access to recycled plastics (Post Consumer Resins), for optimum recyclability and collection of used packaging.

Veolia is continuously developing its market expertise, specifically, through efficient partnerships, the company discovers new ways to develop its competence and find "blue ocean" strategies to support pharmaceutical clients.

Frost & Sullivan believes that a company responsive to both the industry and customer challenges is well-positioned to achieve leadership. With exceptional product quality and commitment to innovation, Veolia exceeds these challenges while creating best-in-class customer value with its sustainable solutions for the pharmaceutical industry and beyond.

Conclusion

Today, the critical objective of waste management is to monitor, collect, treat, recycle, and ensure compliance in a cost-effective manner without negatively impacting the environment. Nevertheless, the global waste management industry faces significant challenges in terms of inefficient collection, complexity of wastes generated, poor waste segregation, and sub-optimal data collection.

Veolia is responding to these challenges and leveraging its philosophy of continuous development to provide smart industry management by integrating the entire elements of utility management (i.e., utilities management, waste management) with innovative digital solutions. The company delivers superior outsourcing in utility management, enabling remote monitoring based on the Internet of Things to optimize energy use in manufacturing utilities while being a global resource management partner. Veolia is continuously reinforcing its strong position in the sustainability solutions for the pharmaceutical market built on its proven local capabilities, reliable and long-lasting customer services, and a powerful technical department organisation.

For its outstanding performance and delivering unmatched customer value, Veolia is recognized with Frost & Sullivan's 2020 Global Company of the Year Award for sustainability in the pharmaceuticals industry.

Significance of Company of the Year

To receive the Company of the Year Award (i.e., to be recognized as a leader not only in your industry, but among your non-industry peers as well) requires a company to demonstrate excellence in growth, innovation, and leadership. This kind of excellence typically translates into superior performance in three key areas: demand generation, brand development, and competitive positioning. These areas serve as the foundation of a company's future success and prepare it to deliver on the two criteria that define the company of the Year Award (Visionary Innovation & Performance and Customer Impact).

- Acquire competitors' customers
- Increase renewal rates
- Increase upsell rates
- Build a reputation for value
- Increase market penetration

- Earn customer loyalty
- Foster strong corporate identity
- Improve brand recall
- Inspire customers
- Build a reputation for creativity

DEMAND

BRAND

Company of the Year

COMPETITIVE POSITIONING

- Stake out a unique market position
- Promise superior value to customers
- Implement strategy successfully
- Deliver on the promised value proposition
- Balance price and value

Understanding Company of the Year

As discussed above, driving demand, brand strength, and competitive differentiation all play a critical role in delivering unique value to customers. This three-fold focus, however, must ideally be complemented by an equally rigorous focus on Visionary Innovation & Performance to enhance Customer Impact.

Key Benchmarking Criteria

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated two key factors—Visionary Innovation & Performance and Customer Impact—according to the criteria identified below.

Visionary Innovation & Performance

Criterion 1: Addressing Unmet Needs
Requirement: Implementing a robust process to continuously unearth customers' unmet or under-served needs, and creating the products or solutions to address them effectively

Criterion 2: Visionary Scenarios through Mega Trends
Requirement: Incorporating long-range, macro-level scenarios into the innovation strategy, thereby enabling "first-to-market" growth opportunity solutions

Criterion 3: Implementation of Best Practices
Requirement: Best-in-class strategy implementation characterized by processes, tools, or activities that generate a consistent and repeatable level of success.

Criterion 4: Blue Ocean Strategy
Requirement: Strategic focus on creating a leadership position in a potentially "uncontested" market space, manifested by stiff barriers to entry for competitors

Criterion 5: Financial Performance
Requirement: Strong overall business performance in terms of revenues, revenue growth, operating margin, and other key financial metrics

Customer Impact

Criterion 1: Price/Performance Value
Requirement: Products or services offer the best value for the price, compared to similar offerings in the market.

Criterion 2: Customer Purchase Experience
Requirement: Customers feel 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.

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 winner	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 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.