

2021

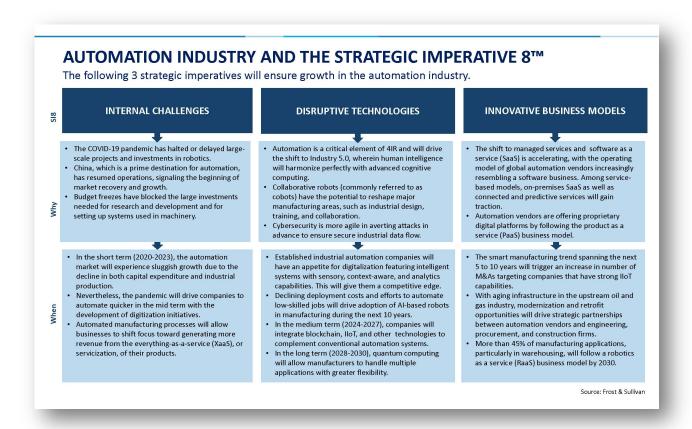
Company of the Year

Global Autonomous Mobile Robot Industry *Excellence in Best Practices*



Strategic Imperatives

Frost & Sullivan identifies three key strategic imperatives that impact the automation industry: internal challenges, disruptive technologies, and innovative business models. Every company that is competing in the automation space is obligated to address these imperatives proactively; failing to do so will almost certainly lead to stagnation or decline. Successful companies overcome the challenges posed by these imperatives and leverage them to drive innovation and growth. Frost & Sullivan's recognition of Locus Robotics is a reflection of how well it is performing against the backdrop of these imperatives.



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 companies. Locus Robotics excels in many of the criteria in the global autonomous mobile robot 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

Addressing Unmet Needs

Increasing efficiencies is a key unmet need of warehouse and distribution centers. While the adoption of autonomous mobile robots (AMRs) significantly reduces workers' walking distance, conventional AMRs generally stop at the end of the aisle. As a result, workers have to go down the aisle and manually pick the products off the shelf, subsequently releasing the robots to the next station. Locus Robotics' AMRs (i.e., LocusBots), on the other hand, are capable of going directly to where the workers stand. By adopting LocusBots, workers spend less time walking to the picking locations and hence become more productive with less work fatigue.

High initial investment and a long return on investment (ROI) is another challenge facing warehouse operators seeking to adopt AMRs. It generally takes 5 to 7 years to achieve ROI using a traditional capital expenditure (CAPEX) model. To overcome this challenge, Locus Robotics launched its flexible Robots-as-a-Service (RaaS) model. RaaS is a subscription-based model that makes it easy for customers to add or reduce AMRs. Moreover, there are no capital-intensive costs or expensive maintenance contracts, even while customers receive updated software and hardware to optimize their operations. By utilizing this model, customers can achieve ROI in less than 9 months.

"It generally takes 5 to 7 years to achieve ROI using a traditional CAPEX model. By utilizing Locus Robotics' innovative Robot-as-a-Service model, customers can achieve ROI within 9 months."

- Wang Wei (Nancy), Consultant Lastly, ensuring worker safety in the COVID-19 era and in general is a primary concern for warehouse operators. The operators must ensure employees' social distancing and control the number of workers while not comprising productivity. AMRs can provide a solution in such a scenario. Feedback from Boots, a Locus Robotics customer, indicated that the injury rate upon implementing LocusBots into their warehouse reduced incidents by 77%. The primary reason is that AMRs offered by Locus Robotics comes to employees, rather than the employees following the robots.

Visionary Scenarios through Mega Trends

The hardware technology for AMR vendors has been fundamentally stable, making software the differentiation piece. Locus Robotics consistently innovates its AMR software (e.g., LiDAR, vision system, and algorithms) to improve AMRs' navigation and sensitivity. As a result, LocusBots are more adept in tight spaces. The company is also dedicated to helping warehouse operators increase productivity by offering a warehouse portal and dashboards that provide hourly, daily, and monthly performance metrics (e.g., individual worker performance) and inventory flow, slotting optimization, and workflows insights. Locus Robotics seamlessly integrates with all warehouse management systems by using proven and reliable APIs. In contrast, competitors cannot integrate into a given warehouse management system or can only integrate with a few of the systems.

Frost & Sullivan notes that, at present, human beings and robots are working jointly in warehouses. However, in the next 5 to 10 years, Mega Trends indicate warehouses moving toward a 100% automated model. Current hindrances to full automation are due to the incremental development of grasping technologies (e.g., picking robotic arms) as they cannot differentiate products with varying textures correctly. At present, human beings are the best option for the selection and picking of diverse items with different textures. Locus Robotics is working with several companies to integrate its AMRs with innovative picking robotics arms to address this trend. Frost & Sullivan finds that such an approach will provide a first-mover advantage once the technology is mature.

Implementation of Best Practices

When demand shifts unexpectedly and significantly during peak seasons, the flexibility to scale production is a key success factor for third-party logistics (3PL) companies. Locus Robotics' RaaS model is the ideal solution in such scenarios as 3PL companies can easily scale up and down without additional CAPEX. Locus Robotics targets 3PL as a key customer segment and is one of the earliest companies to adopt a RaaS model. Thanks to this strategy, 3PLs are the company's largest revenue contributor, accounting for 60% of total revenue. Locus Robotics has chosen the right model to serve its targeted customer segment, indicating its ability to implement best practices ahead of other major market competitors.

Locus Robotics has also implemented a successful expansion strategy by serving the same customer in multiple geographic locations. Once clients experience the benefits of adopting LocusBots at one site, they tend to deploy more AMRs at that site or replicate the approach in other locations. For example, in 2017, DHL deployed a total of 1,000 LocusBots. In 2020, DHL announced it was expanding the robots' locations from 2 to 12 sites¹. Boots, a UK-based beauty retailer and pharmacy chain, deployed 135 LocusBots at its Burton-upon-Trend facility in 2019. After witnessing a 200% increase in productivity, Boots scaled up the deployment to more than 200 robots in 2020². Currently, Europe is Locus Robotics' second-largest geographical market after North America, contributing 20% of its total revenue in 2020.

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 $^{^{1}\} https://www.dhl.com/us-en/home/press/press-archive/2020/dhl-supply-chain-and-locus-robotics-expand-partnership-launching-10-new-us-deployments-in-2020.html$

⁴ https://www.boots-uk.com/our-stories/boots-uk-and-locus-robotics-win-supply-chain-excellence-award-for-best-use-of-robotics/

Locus Robotics also tracks and values customer satisfaction through formal and informal processes. The company conducts a quarterly review meeting with its customers' senior executives and performs field interviews with frontline employees from client sites to better understand the customer experience and identify and address any unmet needs.

Financial Performance

Since its establishment in 2015, Locus Robotics' revenue growth has skyrocketed. According to Locus Robotics CEO Rick Faulk, the company's annual recurring revenue increased by 300% in 2020 alone, a much higher growth rate than its competitors³.

Customer Ownership Experience and Brand Equity

Stakeholders (e.g., executives, managers, information technology (IT) professionals, and warehouse associates) report a positive experience with Locus Robotics' AMRs. Feedback indicates that the deployment of the company's AMRs helps clients innovate their business process and create customer value. Stakeholders also indicate that LocusBots are easy to deploy and maintain and significantly increase picking productivity.

"Locus Robotics' effectively leverages the RaaS model as 3PLs are the company's key revenue contributor. The use of RaaS helps the company meet the needs of 3PLs whose demands fluctuate significantly between peak seasons and daily operations."

- Wang Wei (Nancy), Consultant

From the perspective of IT professionals, LocusBots seamlessly integrate with customers' IT infrastructure while the dashboard portal enables efficient tracking of warehouses' operation status. Finally, warehouse associates indicate that the company's robots make their jobs easier and faster. According to Moots' senior operation manager and DHL's general manager, their warehouse associates treat LocusBots as co-workers, even giving the robots nicknames. Such positive feedback from various stakeholders demonstrates Locus Robotics' customers are proud to use the company's AMRs, leading to strong brand equity.

Conclusion

Locus Robotics stands out as an exemplary autonomous mobile robot (AMR) solution provider in the global market. Since its establishment in 2015, the company has been focusing on launching AMRs for eCommerce fulfillment center applications. The company is dedicated to investing in its software capabilities, allowing for real-time monitoring functions and a dashboard portal that enables warehouse operators to manage day-to-day operations more efficiently. Moreover, Locus Robotics' AMRs can easily integrate into all mainstream warehouse management software. Finally, the company is a pioneer of the Robot-as-a-Service (RaaS) model, allowing it to target high-growth end-user industries and well-positioning the company for growth in the next few years.

With its strong overall performance, Locus Robotics earns Frost & Sullivan's 2021 Global Company of the Year Award in the autonomous mobile robot industry.

³ https://venturebeat.com/2020/06/02/locus-robotics-raises-40-million-to-take-its-warehouse-robots-global/

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 on-going 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 Conduct deep, 360-degree analysis dynamics and unearth new opportunities OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis opportunities OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis opportunities OPPORTUNITY EVALUATION Conduct deep, 360-degree analysis opportunities FINALE STRATEGY Translate strategic alternatives into a cogent strategy

The Innovation Generator™

Our six 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)

