



Panasonic Recognized for

2021

New Product Innovation

North American Material
Flow Management

Excellence in Best Practices



Smart Material Flow. Brilliant Results.

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 company. Panasonic excels in many of the criteria in the material flow management space.

AWARD CRITERIA	
<i>New Product Attributes</i>	<i>Customer Impact</i>
Match to Needs	Price/Performance Value
Reliability	Customer Purchase Experience
Quality	Customer Ownership Experience
Positioning	Customer Service Experience
Design	Brand Equity

Providing Unmatched Customer Value to Spur Market Adoption

Growing consumerism results in mass customization and reduced batch sizes, spurring manufacturers to reduce costs while enhancing throughput. As a result, efficient material flow management systems are of key importance. However, the departments responsible for production are currently operating in silos, and more than 90% of manufacturers still use paper-based Kanban methods.

"Panasonic's smart material flow management solution approach is a direct result of its strategy to address the needs of modern manufacturing and the move to mass customization and batch of one production."

- Ram Ravi, Industry Analyst

Panasonic Corporation (Panasonic) addresses such challenges through its innovative Logiscend offering, a turnkey solution designed to offer manufacturers material visualization and localization capabilities. The genesis of Logiscend began when Panasonic acquired Omni-ID's ProVIEW ePaper solution in 2019. Falling under the purview of the Panasonic Industrial Devices Sales Company of America (PIDSA) subsidiary, Logiscend is a product of its industrial Internet of Things (IIoT)

solutions division. Logiscend provides end-to-end visibility by combining ePaper labels' reliability and success in delivering visual instruction with IIoT systems' automated, RFID-based, and real-time tracking capabilities.

"With customers at the heart of its solution development, Panasonic is well-positioned to grow in the material flow management solutions market. The Panasonic Logiscend system creates material that is "smart" by combining the readability of ePaper with the IIoT trackability of RFID."

- Ram Ravi, Industry Analyst

software. Furthermore, Panasonic is integrating location capability into its visual tags to enable real-time location feedback from assets. Moreover, Panasonic's VIEW Tags are highly durable to withstand the harsh manufacturing environments. The products can be rewritten electronically and are useful for cyclic material flow management. By using VIEW Tags, customers can reduce operational costs related to paper procurement and printing. Moreover, VIEW Tags are sustainable and eco-friendly compared to paper labels and offer benefits such as dynamic instructions, real-time feedback, and easy reconfiguration.

The Logiscend suite of software also has individual modules for each material flow application, providing customers the flexibility to choose either a piecemeal approach or a complete solution depending on their requirements and budgets. Customers can choose modules individually with an option to add more per their requirements. Additionally, the time it takes to set up and configure Logiscend is significantly less than competitors, with installation timeframes reduced from weeks to days or even from days to hours depending on the application and customer.

Frost & Sullivan notes that Logiscend is unique in its ability to customize workflows, an important capability as each plant and customer location is distinct and a one-size-fits-all approach does not work. While existing market solutions rely on software customization to perform this task, hindering the ability to scale, Logiscend's logic engine enables customers to create configurable workflow rules that provide flexibility and scalability. Furthermore, Logiscend's software architecture offers two application programming interfaces (APIs) to customers: Link API and RESTful API. Link API enables partners to create their own apps, while RESTful API ensures the seamless integration of Logiscend with customers' existing ERP and MES systems. In addition to its individual application modules, Logiscend also has a visualization and analytics module to support data analytics and deliver actionable insights.

Best Practice Example:

Detroit, a subsidiary of Daimler AG, deployed Logiscend in their plants. The outcomes highlight the enhanced value offered by the solution. Prior to implementing Logiscend, Detroit was managing their part replenishment workflows using a paper-based Kanban system, resulting in increased operational costs and reduced productivity. Panasonic's challenge was helping the company efficiently migrate to the new Logiscend technology and provide employee training. Post-deployment, Logiscend allowed the Detroit team to use data to optimize their replenishment process, reducing material handling costs by 25%.

Logiscend is an end-to-end solution for material flow applications, including part replenishment, electronic work instruction delivery, container management, pick and kitting of parts, and asset tracking. Unlike competing solutions, Logiscend allows customers to change worker instructions through ePaper (visual) tags dynamically. The visual tags are offered in both active and passive RFID variants and can be fully configured using

Customer Ownership Experience through a Comprehensive Solution

The Panasonic Logiscend system creates material that is “smart” by combining the readability of ePaper with the IIoT trackability of RFID. The company developed and designed its Logiscend software suite to build value directly into its IIoT products and services, offering the flexibility to adapt seamlessly with the latest IoT hardware across different customer processes. Currently, Logiscend focuses on intra-plant material flow management. However, work is being carried out to enhance the scope of its operation to support movement of materials between factories for complex manufacturing customers.

With the Japanese philosophy of Kaizen embedded in its foundation, Panasonic ensures lean operations and continuous improvement, two factors vital to success in the 21st-century economy. Panasonic maintains an interactive relationship with customers, allowing the company to improve its solutions continually. A robust customer feedback mechanism to collect end-user responses, including meeting with customers and partners to understand their pain points and production needs, allows Panasonic to gather information about workflows at various customer sites and use the data to build a library of workflows across applications (e.g., picking, asset tracking, replenishment, container management and digital work instructions). Panasonic is leveraging the workflow library to position Logiscend for a solution-as-a-service model.

Panasonic’s emphasis on customer satisfaction and its continual drive to improve existing product lines has helped it develop a broad base of elite customers. In 2021, Siemens Energy partnered with Panasonic to expand its IIoT-based material processes. Through deploying Logiscend, Siemens Energy is targeting greater operational efficiency, visibility, and real-time location services. Upon completion of the pilot, Siemens Energy is planning to expand the deployment to all of its locations. Other clients include manufacturing and energy companies such as Detroit.

In its bid to establish itself as a leading brand among North American material flow management companies, Panasonic’s is highlighting its innovation capabilities and customer focus. The launch of Logiscend is an excellent case in point as its disruptive features and proven architecture seamlessly connect with customers’ ERP and MES systems.

Conclusion

The advent of Industry 4.0 has resulted in a shift towards greater variation, increased transparency, and faster throughput. However, many companies globally still use paper-based Kanban systems to manage material flow, resulting in operational inefficiencies. Panasonic Corporation (Panasonic)’s automated Logiscend software suite provides individual modules for different applications, reducing costs, improving visibility, and enhancing operational efficiency. Outcomes realized by customers include a 25% reduction in material handling costs. Unlike other factory automation solutions, Logiscend allows customers to choose a piecemeal approach, making it uniquely cost-effective. Logiscend also offers data analytics and visualization modules to provide customers with actionable insights.

With its outstanding commitment to innovation and high-value solutions, Panasonic earns Frost & Sullivan’s 2021 New Product Innovation Award in the North American material flow management industry.

What You Need to Know about the New Product Innovation Recognition

Frost & Sullivan's New Product Innovation Award recognizes the company that offers a new product or solution that uniquely addresses key customer challenges.

Best Practices Award Analysis

For the New Product Innovation Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

New Product Attributes

Match to Needs: Customer needs directly influence and inspire product design and positioning

Reliability: Product consistently meets or exceeds customer performance expectations

Quality: Product offers best-in-class quality with a full complement of features and functionality

Positioning: Product serves a unique, unmet need that competitors cannot easily replicate

Design: Product features an innovative design that enhances both visual appeal and ease of use

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

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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™. [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



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)

