

FROST & SULLIVAN

*ASCOM*

**2022**  
**TECHNOLOGY**  
**INNOVATION**  
**LEADER**

*GLOBAL MEDICAL DEVICES*  
*CONNECTIVITY INDUSTRY*

## 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. Ascom excels in many of the criteria in the medical devices connectivity space.

AWARD CRITERIA	
<i>Technology Leverage</i>	<i>Business Impact</i>
Commitment to Innovation	Financial Performance
Commitment to Creativity	Customer Acquisition
Stage Gate Efficiency	Operational Efficiency
Commercialization Success	Growth Potential
Application Diversity	Human Capital

### *Develops Products that Address Client Needs*

Accurate and up-to-date patient data is vital in an increasingly complex healthcare environment. Connecting medical devices enable physicians to access this data and insights when necessary. As such, there is a growing demand for companies to offer digital medical device solutions, including connectivity with electronic records. Frost & Sullivan estimates that the global medical device connectivity market stood at over \$1 billion in 2021 and is forecast to exceed \$5 billion in 2026.

Founded in 1987 and based in Switzerland, Ascom provides a vendor-neutral Medical Device Integration (MDI) platform that integrates bedside medical devices to collect data and events. The platform adapts and integrates with any vendor’s medical device through a variety of interfaces.

*“Ascom commitment to innovation and proven track record of commercialization in the medical devices connectivity market is expected to bode well for future business growth.”*

**– Bhaskar Vittal,  
Industry Principal**

The company aims to improve hospital workflows for medical devices requiring serial communication. For this reason, Ascom offers serial MDI using a new, innovative, and dedicated magnetic connector and related plug that easily collects and integrates data while enhancing workflows. This provides a unique solution for devices frequently moving from one bed to another without bending and breaking pins within the connection cables. The automatic identification of integrated medical devices also enables ease of implementation and use.

In addition, the platform exports all data to health information systems such as electronic health and medical records and patient data management systems.

### ***Leverages Technology to Create Futuristic Solutions***

The Ascom MDI platform integrates with medical devices that transfer information through the cloud using the latest Fast Healthcare Interoperability Resources application programming interface. If necessary, customers can also expand the Ascom MDI platform with a dedicated alarm management solution. This solution visualizes the data and events from medical devices on dashboards and sends actionable insights and alarms to caregivers to support their activities while on the move.

Constant exposure to alarms from nearby medical devices can cause neurocognitive damage in patients. Ascom is a thought leader in silencing medical alarms, integrating and establishing a reliable data chain from medical devices (source) to the final communicator (dashboards/mobile devices). The company is active in initiatives of organizations such as the Institute of Electrical and Electronics Engineers, HL7, and IHE International, defining standards for innovative solutions like the Silent intensive care unit (ICU). Its expertise also drives device manufacturers to approach Ascom for guidance, resulting in partnerships to establish a quieter and better healing environment for the patient. Ascom's extensive and growing partner ecosystem includes leading medical device OEMs such as GE Healthcare, Philips Healthcare, Draeger, Mindray, Hamilton, B.Braun, Fresenius, and Arcomed.

The continuum of care trend is likely to change healthcare delivery as it allows providers to offer continuous care within hospital units and between the hospital and home. Frost & Sullivan finds that Ascom supports the trend through its platform, enabling data collection from devices in any hospital area, including the operating rooms (ORs), ICUs, and general wards. Continuous data collection inside and outside the hospital allows patients to go home a few days in advance while monitoring their vital parameters through wearable sensors integrated into the platform.

### ***Displays Track Record for Commercializing Innovative Solutions***

Ascom has a strong presence in the fast-growing medical devices connectivity market globally. The company initially focused on ICUs and then moved to develop compelling solutions for all hospital departments. Prominent European hospitals using its solutions include Gemelli in Rome-IT, La Pitie Salpetriere in Paris-FR, HSJD in Barcelona-ES, Amphia in Breda-NL, TYSin Turku in Finland, and Zurich in Suisse.

The company's end-to-end offerings, from MDI to alarm management, are essential in decision-making for customers seeking comprehensive solutions. In the past few years, multiple brand-new hospitals worldwide in Finland, Malaysia, Vietnam, and Thailand decided to adopt Ascom's solutions, aware that the company can support them in the evolution of medical device integration. Since Ascom's solutions are vendor-neutral, healthcare organizations feel confident in choosing any medical device type for integration at the bedside. The company has the knowledge and expertise to connect various devices and enable healthcare facilities to integrate data and events collection. For example, Ascom's MDI platform is a US market leader in Central Monitoring Units. It integrates with GE Healthcare's patient monitoring systems to improve the cardiological workflow in all hospital areas.

### ***Leads the Medical Devices Connectivity Market with Application Diversity***

Ascom has adapted and integrated its solutions with numerous medical device types and vendors. Examples include gateway (e.g., monitoring systems), ethernet (e.g., infusion systems), Wi-Fi (e.g., spot check monitors), Bluetooth (e.g., wearables devices), and port server for serial integration (e.g., ventilators). The company can support integration with about 400 different medical device models.

When partners introduce new medical devices in the market, they inform Ascom ahead of time to speed development and provide the proper driver on time. The company has drivers for most medical devices on the market, ready for integration into Ascom's MDI Platform. Device manufacturers often request Ascom's R&D expertise to develop new protocols (e.g., DAS, according to IEC 60601-1-8:2020).

The company continuously creates new drivers according to the market evolution, with a dedicated, in-house R&D team enabling all innovations. While most medical device manufacturers still utilize proprietary protocols, they increasingly adopt IHE profiles that Ascom supports. The Ascom architecture is not only open and allows integration with any new protocol provided by device manufacturers but is also flexible enough to feed collected data to external systems or manage data/events internally with an advanced alarm management solution.

### ***Focuses on Customer Acquisition and Retention***

Prioritizing customer needs enables Ascom's medical device connectivity solutions to grow quickly. Ascom uses its clinical and solution architect teams to evaluate the client's clinical and digital requirements, allowing the company to create tailored workflow analyses. Its teams meet customers directly to determine their needs and then design the optimal solution for each customer. Once Ascom secures the order, the implementation phase starts, during which local technical and clinical teams work with customers to ensure optimal deployment. The company then monitors the solution for potential improvements in the initial support period.

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A critical indicator of customer retention is when a customer expands Ascom's solutions with more modules or additional departments in the hospital. For example, the Gemelli hospital in Rome started with a small implementation but has expanded to many beds in the facility step by step. Of the 1,600 beds, Ascom manages about 200 ICU beds and 60 ORs with the MDI solution.

Ascom strongly believes in the mantra that customer retention is a crucial step for customer acquisition, and customer satisfaction is a key factor for business expansion.

### ***Enables Future Growth Prospects through Geographic Expansion***

Ascom has vast growth potential in the medical device connectivity market. The company can capture new customers in well-established regions, such as the European Union, and expand in other geographical areas like South America, offering its extensive library of medical device drivers that support most devices in the market. Healthcare organizations worldwide also find Ascom's end-to-end platform a compelling solution.

Along with the rising focus on patient healing and satisfaction scores, there is a growing interest in medical devices to support the silencing of medical alarms at the source. These trends align with the company's solutions and accelerate interest in reliably channeling remote alarms to dashboards and mobile staff while keeping devices at the bedside silent. Although 'Silent Alarming' is a term and trend popular in European markets, healthcare organizations globally indicate significant interest in this technology. 'Silent Alarming' is only possible with robust medical device integration and an enabling regulatory environment. Frost & Sullivan applauds Ascom for being a vital part of this journey by participating in International Electrotechnical Commission roundtables and defining future protocols.

## Conclusion

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Ascom's innovation focus, strong customer retention, and effective acquisition strategies enable it to grow in the medical device connectivity market. The company delivers solutions that meet present and future needs by emphasizing technology, product development, and geographic expansion.

With its strong overall performance, Ascom earns Frost & Sullivan's 2022 Global Technology Innovation Leadership Award in the medical devices connectivity industry.

## What You Need to Know about the Technology Innovation Leadership Recognition

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Frost & Sullivan's Technology Innovation Leadership Award recognizes the company that has introduced the best underlying technology for achieving remarkable product and customer success while driving future business value.

### Best Practices Award Analysis

For the Technology Innovation Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

#### *Technology Leverage*

**Commitment to Innovation:** Continuous emerging technology adoption and creation enables new product development and enhances product performance

**Commitment to Creativity:** Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

**Stage Gate Efficiency:** Technology adoption enhances the stage gate process for launching new products and solutions

**Commercialization Success:** Company displays a proven track record of taking new technologies to market with a high success rate

**Application Diversity:** Company develops and/or integrates technology that serves multiple applications and multiple environments

#### *Business Impact*

**Financial Performance:** Strong overall financial performance is achieved in terms of revenues, revenue growth, operating margin, and other key financial metrics

**Customer Acquisition:** Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

**Operational Efficiency:** Company staff performs assigned tasks productively, quickly, and to a high-quality standard

**Growth Potential:** Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

**Human Capital:** Commitment to quality and to customers characterize the company culture, which in turn enhances employee morale and retention

