

F R O S T & S U L L I V A N

# 2024 COMPANY OF THE YEAR

*IN THE GLOBAL  
NEXT-GENERATION  
ELECTROPHYSIOLOGY  
(EP) LABS INDUSTRY*

F R O S T & S U L L I V A N

BEST  
2024 PRACTICES  
AWARD



GE HealthCare

## 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. GE HealthCare excels in many of the criteria in the next-generation electrophysiology (EP) labs 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

### Providing a Digital Platform for High Signal Fidelity with Enhanced Signal Filtering

The World Health Organization estimates cardiovascular diseases to be a leading cause of death globally,

*“The company’s Defense-in-Depth strategy boasts a holistic approach to security by ensuring GE HealthCare products have a longer serviceable platform and security patching, with end-of-life until January 2029. Frost & Sullivan finds this approach to offering multiple layers of protection a compelling value proposition for customers by providing them with tremendous flexibility to assess how the technology best fits them.”*

**– Dr Bejoy Daniel**  
Senior Industry Analyst, Healthcare and Life

with approximately 18 million deaths per year, with people under 70 years accounting for one-third of these deaths.<sup>1</sup> Atrial fibrillation (AF) is believed to be the most common arrhythmia diagnosed, with increasing incidence and prevalence globally.

With approximately 30% of the AF population being asymptomatic,<sup>2</sup> it becomes more critical to accurately distinguish intracardiac signals for better identification and treatment of cardiac arrhythmias.

As the electrophysiology (EP) field evolves and catheters move into a high-density type mapping solution, more noise is emitted than in previous

<sup>1</sup> [https://www.who.int/health-topics/cardiovascular-diseases#tab=tab\\_1](https://www.who.int/health-topics/cardiovascular-diseases#tab=tab_1)

<sup>2</sup> <https://www.ahajournals.org/doi/10.1161/CIRCRESAHA.120.316340>

years. Hence, signal quality technology needs to advance to meet the rapidly evolving needs of the EP space.

GE HealthCare, a global leader in medical technology, pharmaceutical diagnostics, and digital solutions, is a prominent player in the EP space. Its latest Prucka 3 amplifier with CardioLab EP Recording system offers advanced filtering options to help clinicians improve the diagnosis and treatment of cardiac arrhythmias. Building on its advancements in the EP space for over two decades, GE HealthCare's digital platform helps maintain high signal fidelity with enhanced software that reduces powerline and environmental noise.

Frost & Sullivan acknowledges that the Prucka 3 system's capability to deliver quality signals positions it favorably for accurate and efficient diagnosis and treatment of cardiac arrhythmias. The signal clarity and robust ecosystem of mapping technologies aid with faster interpretation and improved clinical results.

### ***Supporting Workplace Efficiency and Clinical Productivity in a Cost-Effective Package***

In addition to enhanced filtering capabilities, the Prucka 3 offers dual real-time display on the CardioLab monitors for independent real-time evaluations. The monitor displays up to five review windows, which can be independently named and tagged with ClearMatch tags during procedures for documentation and comparative analysis. An algorithm helps compare real-time signals with previously matched morphologies and displays a visible percentage to depict the match levels of the signals captured. The machine learning algorithm enables a beat-to-beat analysis of the signals, labeling the cycle length directly on the signal in real-time for advanced and quicker evaluations.

Cardiovascular ambulatory surgery centers (ASCs) are gaining popularity as the demand for cost-effective, high-quality healthcare grows. With more medical procedures transitioning from hospitals to lower-cost sites, payers recognize the financial benefits of conducting cardiovascular procedures in ASC settings. However, the major push from the ASC industry necessitates hospitals and healthcare settings to invest in establishing both Cath labs and EP labs.

Under its Invasive Cardiology Solutions, GE HealthCare offers Mac-Lab as part of the hemodynamic lab workflow and CardioLab as part of the EP lab workflow. Mac-Lab is used in the Cath Lab to assist in assessing the hemodynamic function of the heart by measuring and recording patient vitals to help diagnose and treat coronary artery disease (CAD). Mac-Lab has advanced features such as interoperability to enable seamless data management and documentation. CardioLab visualizes, records, and delivers superior ECG and intracardiac signal quality to optimize efficiency and productivity in EP labs.

It is essential to have equipment with a smaller footprint to provide more flexibility and ensure seamless connectivity with diverse equipment, digital cardiac images, and mapping technologies. GE HealthCare's ComboLab offers seamless interoperability, excellent signal fidelity, and increased security, which brings together EP and hemodynamics under one recording system. The ComboLab, which offers Mac-Lab and CardioLab on the same system, allows for both procedures to be performed in the same procedure room. ComboLab transforms one procedure room into a versatile space capable of handling multiple types of procedures. This flexibility enhances room utility and significantly reduces downtime between procedures, allowing healthcare facilities to maximize their resources and improve patient throughput. This provides GE HealthCare with a competitive edge in terms of pricing, as the customer needs to buy only one solution compared with competitor offerings that require hospitals or healthcare centers to

purchase two separate systems. By combining the Cath and EP labs under a single system, GE HealthCare's ComboLab solution provides customers with immense value in terms of price and space utilization with

*“By combining the Cath and EP labs under a single system, GE HealthCare's ComboLab solution provides customers with immense value in terms of price and space utilization with capital equipment and facilitates agile workflow improvements.”*

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capital equipment and facilitates agile workflow improvements. Training staff on multiple systems can be time-consuming and inefficient, especially when quick adaptability is required. ComboLab is designed with a similar user interface and workflow across different procedures. This consistency allows clinicians to easily transition from one room to another based on staffing needs, ensuring that they can quickly adapt and maintain high standards of patient care without the need for extensive retraining and reduce data entry errors.

This unified approach not only lowers operational costs but also provides a single point of contact for support and service, streamlining maintenance and troubleshooting processes.

### ***Prioritizing IT Security and Flexibility in Cath and EP Labs***

Vulnerability to cyberattacks in hospitals is well documented and exists across and within any department. As the Mac-Lab, CardioLab, and ComboLab systems operate on hospital networks, IT departments need to ensure a high level of security. The systems are connected to an Invasive Networking INS server to provide the desired functionality and workflow.

By following the Manufacturer Disclosure Statement for Medical Device Security (MDS2) standard, GE HealthCare provides robust insights into the technology's security, giving hospitals complete visibility of the security posture of the device or software. The review systems come standard and are equipped with a secure baseline from Microsoft, which provides an additional layer of security for the systems. By securing the computer initially, GE HealthCare offers customers unparalleled flexibility with security applications around each step of implementation.

GE HealthCare's depth and breadth of solutions and vast footprint position the company as an industry leader, with over 60% market share in the EP and Cath lab space. Acknowledging the huge switching costs for customers to change to a different brand, GE HealthCare excels in technical strategy by collaborating with major artificial intelligence (AI) companies to ride on top of its ComboLab, Mac-Lab, and CardioLab digital platforms. Integrating AI capabilities into healthcare workflows represents big areas of opportunity for GE HealthCare to shape the future of EP. The company empowers customers through its AI-powered Cath Lab or EP for improved patient safety, procedure efficacy, and speed.

Compared with competitors, GE HealthCare is recognized for its relentless advancements and investments in product value-add through bolt-on technologies or allowing customers access to patient data its machines generate for different AI applications. GE HealthCare's Mac-Lab, CardioLab, and ComboLab use the Windows 10LTSC operating system, distinguishing its software as a long-term service channel.

The company's Defense-in-Depth strategy boasts a holistic approach to security by ensuring GE HealthCare products have a longer serviceable platform and security patching, with end-of-life until

January 2029. Frost & Sullivan finds this approach to offering multiple layers of protection a compelling value proposition for customers by providing them with tremendous flexibility to assess how the technology best fits them.

## Conclusion

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GE HealthCare's Prucka 3 amplifier with CardioLab EP Recording System signals a significant step in advancing the EP field. Designed to improve the diagnosis and treatment of cardiac arrhythmias, the digital platform introduces next-generation filtering options and enhanced software to help maintain high signal fidelity, reduce environmental noise, and generate advanced analytics for better patient outcomes.

By offering the Cath and EP labs under a single ComboLab system, GE HealthCare demonstrates its competitive advantages in terms of pricing value, flexibility, and workflow improvements. Additionally, using the Windows 10LTSC OS, the solutions offer advanced security patching and multiple layers of protection to ensure easier and safer access to patient data its machines generate for different AI applications.

For its strong overall performance, GE HealthCare is recognized with Frost & Sullivan's 2024 Global Company of the Year Award in the next-generation electrophysiology labs industry.

## What You Need to Know about the Company of the Year Recognition

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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 ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

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### 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 6 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)**

