2016 European Managed Services for cath labs
Market Leadership Award
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Background and Company Performance

Industry Challenges

Cardiac catheterization laboratories (cath labs) offer specialised cardiac care to patients in an examination room within a hospital or clinic. The variability in physicians’ schedules and procedure duration - as well as patients’ medical urgency - contributes to scheduling variability. As a result, this makes cath labs a demanding environment on a daily basis for physicians and other team members. This, in turn, can impact patient waiting times, staffing schedules and patient flow, as well as satisfaction - which ultimately impacts departmental productivity. Within the cath lab environment, there is also a strong desire from doctors to regularly upgrade their working environment and access to state-of-the-art technologies, however, hospitals often deal with lack of budget for newer equipment. Lastly, providers are often ill-equipped to deal with increasing competition for patient share and need to drive referral pathways, while cath lab services are often a prime source of profitable income.

Frost & Sullivan points out that there is increasing interest from healthcare institutions to provide value-based healthcare in order to ensure that the right people, institutions, and resources deliver healthcare services that ultimately meet the health needs of the target population. As such, there is a clear opportunity to support hospitals and other healthcare providers in the transition towards value-based healthcare through systems that optimise the way they operate to deliver better outcomes at lower costs.

In that context, there is growing interest in integrated hospital solutions that improve the functioning of resource intensive hospital departments, such as cath labs or enhance the management of chronic disease patients across the care continuum. These solutions should focus on a variety of areas - such as clinical and operational strategies, patient experience and staff engagement, and supply-chain costs.

Market Leadership of Medtronic

Growth Strategy Excellence

Frost & Sullivan applauds the fact that Medtronic has consistently demonstrated the ability to identify, prioritise, and pursue emerging growth opportunities. In 2013, Medtronic announced the formation of Medtronic Integrated Health Solutions (IHS), a new business focused on developing novel long-term partnerships with hospitals, physicians, payers, and health systems to drive value-based healthcare and deliver high quality care in a more cost effective way.

Medtronic IHS offering includes care setting-focused managed services to manage specialised care settings such as cath labs, operating rooms and ICUs to the highest standards. IHS also provides disease-focused managed services to manage chronic
diseases across the care continuum, with solutions being currently deployed for diabetes, bariatric and heart failure patients.

Medtronic’s cath lab managed services (CLMS) include the management, modernisation, optimization, and development of cath lab facilities in Europe and Middle East, with the goal of increasing efficiency and value in hospital cardiology departments. The objective of Medtronic’s Integrated Health Solutions business is to drive value-based healthcare by designing tailored solutions that optimise both costs and outcomes. The aim is to improve quality of care, enhance operational performance, and provide higher financial returns for hospitals and other stakeholders within the ecosystem.

Medtronic’s CLMS is vendor independent and manages all aspects of a cath lab (regardless of the products used within them). Frost & Sullivan independent analysis confirms that these are the core differences between Medtronic IHS’ CLMS and other hospital solutions in the market: the ability to take complete responsibility for the management of cath lab operations and the independence from the manufacturer’s product offering.

**Implementation Excellence**

Medtronic’s care setting managed service solutions are built on 4 pillars which support implementation excellence:

- **Turnkey set up**: Fund and deliver state of-the-art infrastructure and capital equipment
- **Manage**: Manage non-clinical operations through on-site managers to enable focus on patient care
- **Optimize**: Deliver efficiency gains and optimize patient pathways, leveraging Lean Six Sigma expertise and a catalogue of Best Practices and benchmarks
- **Develop**: Accelerate patient access to care, develop health providers’ services, and enhance patient experience and reputation.

By deploying its managed services across a broad base of hospitals, Medtronic IHS can disproportionately invest in infrastructure, organization, processes and technologies, which enables it to optimize and run care settings to the highest standard.

By running these care settings as a virtual integrated network, Medtronic IHS enables its customers to collaborate, benchmark and share best practices with each other, strengthening its connection and value to them.

**Product Differentiation**

Medtronic’s business model focuses on integrated services including funding and delivering
state of the art infrastructure and capital equipment, as well managing and optimizing non-clinical operations by using the company’s catalogue of best practices and benchmarks. While Medtronic is moving into the solutions services space, Frost & Sullivan research reveals that other direct and indirect competitors are not yet providing total solutions, but are specializing in individual solutions (such as data analytics and workflow efficiency) on a smaller scale. In addition, Frost & Sullivan appreciates the fact that Medtronic is the only company in the market to offer this approach and remains clearly advanced due to the acquisition of NGC Medical, allowing the company to manage and run a cath lab and all of the necessary devices (including competitors’ products). In comparison, other competitors are mainly offering some services on top of their devices as their only point of differentiation.

Medtronic’s Integrated Health Solutions go beyond the management of cath labs and focus on creating efficiencies along the entire care continuum, supported by system components such as telehealth and disease management programs. The main goal is to deliver value and optimize outcomes and cost of care delivery through vendor-independent solutions and long-term partnerships. Medtronic’s focus over the recent years has been to expand beyond devices to healthcare services and solutions. There has been a clever focus to expand into complete disease management in therapy areas such as diabetes. Medtronic has a clear first mover advantage in that field also.

**Technology Leverage**

Medtronic IHS’ turnkey set-up allows cath labs to enjoy affordable access to state-of-the-art technologies and infrastructure. IHS has developed an integrated Digital Platform and data analytics capabilities to manage at scale its network of cath labs under managed services. It has also partnered with MediReport to include its CardioVascular Information System in its offering.

The objective of the data analytics business is to optimize and support hospitals to run their operations more cost effectively - and to measure and benchmark patient outcomes and experience to improve quality of care.

**Customer Service Experience**

Medtronic IHS onsite employees, are able to manage all non-clinical operations in the cath lab setting, allowing staff to focus on patient care, reduce waiting times and optimize operations efficiency.

Medtronic focuses on value-based partnerships, and the key benefit for doctors and other hospital stakeholders is access to the latest technology, enhanced focus on patient care and value creation. Hospitals have the opportunity to become centres of excellence and demonstrate the ability to retain and attract the best and brightest physicians. In addition, hospitals can increase operating profit through the optimised management of the cath lab.
Brand Strength

Medtronic’s Integrated Health Solutions truly support the vision and transition towards value-based healthcare. Frost & Sullivan agrees that this dynamic increases the overall brand presence of Medtronic when compared to other competitors in the market.

Conclusion

With its strong overall performance and compelling value proposition, Medtronic has achieved a leadership position in the Managed Services for cath labs market, with over 80 long term contracts in place in Europe. With this broad based of accounts, Medtronic offers to providers under contract a collaboration platform, facilitating and orchestrating continuous benchmarking as well as joint design and dissemination of best practice processes and care pathways.

Medtronic’s Integrated Health Solutions positioning goes beyond the management of cath labs and focuses on creating efficiencies along the entire care continuum - supported by system components such as telehealth and disease management programs. The main goal is to deliver value, optimize outcomes, and innovate cost of care delivery through vendor-independent solutions and long-term partnerships. Frost & Sullivan is thus proud to bestow the 2016 Market Leadership Award to Medtronic.
Significance of Market Leadership
Ultimately, growth in any organization depends upon customers purchasing from a company, and then making the decision to return time and again. Loyal customers become brand advocates; brand advocates recruit new customers; the company grows; and then it attains market leadership. To achieve and maintain market leadership, an organization must strive to be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.
Key Performance Criteria
For the Market Leadership Award, Frost & Sullivan analysts focused on specific criteria to
determine the areas of performance excellence that led to the company’s leadership position.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>Growth Strategy Excellence</td>
<td>Demonstrated ability to consistently identify, prioritize, and pursue emerging growth opportunities</td>
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<tr>
<td>Implementation Excellence</td>
<td>Processes support the efficient and consistent implementation of tactics designed to support the strategy</td>
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<tr>
<td>Brand Strength</td>
<td>Possession of a brand that is respected, recognized, and remembered</td>
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<tr>
<td>Product Quality</td>
<td>Product or service receives high marks for performance, functionality and reliability at every stage of the life cycle</td>
</tr>
<tr>
<td>Product Differentiation</td>
<td>Product or service has carved out a market niche, whether based on price, quality, uniqueness of offering (or some combination of the three) that another company cannot easily duplicate</td>
</tr>
<tr>
<td>Technology Leverage</td>
<td>Demonstrated commitment to incorporating leading edge technologies into product offerings, for greater product performance and value</td>
</tr>
<tr>
<td>Price/Performance Value</td>
<td>Products or services offer the best value for the price, compared to similar offerings in the market</td>
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<tr>
<td>Customer Purchase Experience</td>
<td>Customers feel like they are purchasing the most optimal solution that addresses both their unique needs and their unique constraints</td>
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<tr>
<td>Customer Ownership Experience</td>
<td>Customers are proud to own the company’s product or service, and have a positive experience throughout the life of the product or service</td>
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<tr>
<td>Customer Service Experience</td>
<td>Customer service is accessible, fast, stress-free, and of high quality</td>
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The Intersection between 360-Degree Research and Best Practices Awards

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 players and for identifying those performing at best-in-class levels.
Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan Awards 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.

<table>
<thead>
<tr>
<th>STEP</th>
<th>OBJECTIVE</th>
<th>KEY ACTIVITIES</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Monitor, target, and screen</td>
<td>Identify Award recipient candidates from around the globe</td>
<td>Pipeline of candidates who potentially meet all best-practice criteria</td>
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<tr>
<td>2</td>
<td>Perform 360-degree research</td>
<td>Perform comprehensive, 360-degree research on all candidates in the pipeline</td>
<td>Matrix positioning all candidates’ performance relative to one another</td>
</tr>
<tr>
<td>3</td>
<td>Invite thought leadership in best practices</td>
<td>Perform in-depth examination of all candidates</td>
<td>Detailed profiles of all ranked candidates</td>
</tr>
<tr>
<td>4</td>
<td>Initiate research director review</td>
<td>Conduct an unbiased evaluation of all candidate profiles</td>
<td>Final prioritization of all eligible candidates and companion best-practice positioning paper</td>
</tr>
<tr>
<td>5</td>
<td>Assemble panel of industry experts</td>
<td>Present findings to an expert panel of industry thought leaders</td>
<td>Refined list of prioritized Award candidates</td>
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<tr>
<td>6</td>
<td>Conduct global industry review</td>
<td>Build consensus on Award candidates’ eligibility</td>
<td>Final list of eligible Award candidates, representing success stories worldwide</td>
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<tr>
<td>7</td>
<td>Perform quality check</td>
<td>Develop official Award consideration materials</td>
<td>High-quality, accurate, and creative presentation of nominees’ successes</td>
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<td>8</td>
<td>Reconnect with panel of industry experts</td>
<td>Finalize the selection of the best-practice Award recipient</td>
<td>Decision on which company performs best against all best-practice criteria</td>
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<td>9</td>
<td>Communicate recognition</td>
<td>Inform Award recipient of Award recognition</td>
<td>Announcement of Award and plan for how recipient can use the Award to enhance the brand</td>
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<tr>
<td>10</td>
<td>Take strategic action</td>
<td>Upon licensing, company may share Award news with stakeholders and customers</td>
<td>Widespread awareness of recipient’s Award status among investors, media personnel, and employees</td>
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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 almost 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 31 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.