FROST & SULLIVAN

2013

THINKING SYSTEMS

2013 North American Molecular Imaging Informatics Product Leadership Award

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50 Years of Growth, Innovation & Leadership

Product Leadership Award
Molecular Imaging Informatics
North America, 2013

Frost & Sullivan's Global Research Platform

Frost & Sullivan is in its 50th year of business with a global research organization of 1,800 analysts and consultants who monitor more than 300 industries and 250,000 companies. The company's research philosophy originates with the CEO's 360-Degree Perspective™, which serves as the foundation of its TEAM Research™ methodology. This unique approach enables us to determine how best-in-class companies worldwide manage growth, innovation and leadership. Based on the findings of this Best Practices research, Frost & Sullivan is proud to present the 2013 North American Product Leadership Award in Medical Imaging Interoperability Solutions to Thinking Systems Corporation.

### Key Benchmarking Criteria for the Product Leadership Award

For the Product Leadership Award, the following criteria were used to benchmark Thinking Systems' performance against key competitors:

• Product Features/Functionality

• Innovative Element of the Product

• Product Acceptance in the Marketplace

• Provides Customer Value Enhancements

• Product Quality

Decision Support Matrix and Measurement Criteria

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Matrix (DSM). The DSM is an analytical tool that compares companies' performance relative to each other with an integration of quantitative and qualitative metrics. The DSM features criteria unique to each Award category and ranks importance by assigning weights to each criterion. The relative weighting reflects current market conditions and illustrates the associated importance of each criterion according to Frost & Sullivan. Fundamentally, each DSM is distinct for each market and Award category. The DSM allows our research and consulting teams to objectively analyze each company's performance on each criterion relative to its top competitors and assign performance ratings on that basis. The DSM follows a 10-point scale that allows for nuances in performance evaluation; ratings guidelines are shown in Chart 1.

Chart 1: Performance-Based Ratings for Decision Support Matrix

9–10 Excellent

7–8 Good

4–6 Fair

1–3 Poor
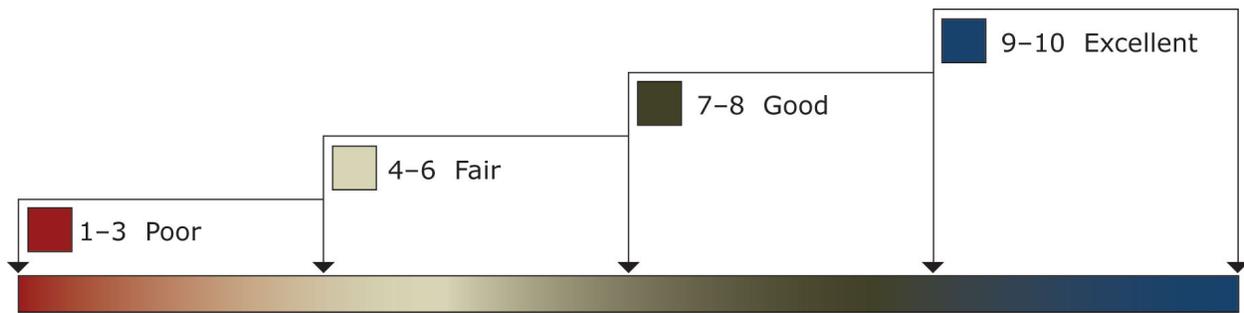
This exercise encompasses all criteria, leading to a weighted average ranking of each company. Researchers can then easily identify the company with the highest ranking. As a final step, the research team confirms the veracity of the model by ensuring that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.

Chart 2: Frost & Sullivan's 10-Step Process for Identifying Award Recipients

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
Analyze Industry Challenges and Opportunities	Confirm Award Categories of Relevance and Importance	Establish Award Criteria	Develop Best Practice Research Instruments	Conduct Best Practice Research with Industry Value Chain Players

STEP 6	STEP 7	STEP 8	STEP 9	STEP 10
Attribute Relative Weights for Criteria	Nominate Top 3 Companies for Award	Determine Ratings for Each Company Across Criteria	Complete Ratings for All Criteria and Companies	Identify Recipient Company Based on Final Weighted Average Rating

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Best Practice Award Analysis for Thinking Systems Corporation

The Decision Support Matrix, shown in Chart 3, illustrates the relative importance of each criterion for the Product Leadership of the Year Award and the ratings for each company under evaluation. To protect the interests of the award recipient's competitors, we have chosen to refer to them as Competitor 1 and Competitor 2.

Chart 3: Decision Support Matrix for Product Leadership Award

Measurement of 1–10 (1 = lowest; 10 = highest)	Award Criteria					
	Features/Functionality	Innovative Element of the Product	Product Acceptance in the Marketplace	Provides Customer Value Enhancements	Product Quality	Weighted Rating
Relative Weight (%)	**20%**	**20%**	**20%**	**20%**	**20%**	**100%**
Thinking Systems Corporation	10.0	9.0	9.0	10.0	9.0	9.4
Competitor 1	9.0	9.0	7.0	9.0	8.0	8.4
Competitor 2	8.0	8.0	8.0	8.0	9.0.	8.2

Criterion 1: Product Features/Functionality

In the molecular imaging informatics field, Thinking Systems stands out as the only vendor that can deliver effectively on all the advanced functionality and performance required by modern-day providers for the analysis, interpretation, and management of SPECT and PET images, and they can do so without constraining customers to the traditional deployment model centered on stand-alone, often disparate, specialty workstations.

In fact, the major manufacturers of PET and SPECT imaging equipment fall short of delivering adequately on both the clinical applications and the IT fronts. Similarly, while they can also deliver fully featured thick-client workstations, the vast majority of independent nuclear informatics vendors usually lack the advanced IT networking and integration capabilities desperately needed in any non-single site facility. As such, the Thinking Systems solutionset is both a best-of-breed application for molecular imaging, as well as a high-performance, highly scalable, and cost-effective end-to-end IT solution for multimodality imaging beyond PET and SPECT.

Criterion 2: Innovative Element of the Product

Many of Thinking Systems' long-time customers attest to the fact that their solution has continued to evolve consistently over the years, gaining both in its clinical and in its IT aspects. With all of the clinical, IT, and business stakeholders throughout the imaging enterprise buying in on Thinking System's value proposition, the retention of its early-day customers, which deployed Thinking Systems' first-generation solutions over a decade ago, signifies exemplary performance for the company.

One such area where Thinking Systems has been able to stimulate market traction throughout the last several years and despite the challenging growth environment prevailing in the U.S. imaging informatics market, is cloud computing. Indeed, as a result of its pioneering efforts in cloud computing, Thinking Systems has successfully converted many of its customers to second-generation, cloud-based solutions. Its ability to bring the entire workstation functionality onto a server-client platform without compromising on performance and usability is a significant market innovation in imaging informatics.

Criterion 3: Product Acceptance in the Marketplace

In fact, remaining ahead of the curve with regard to the use of cloud computing in imaging has opened up many new growth avenues for Thinking Systems. Today, the vendor's solutions are sought after not only for their best-of-breed and advanced capabilities, which meet the functional requirements of molecular imaging clinical stakeholders. They are also sought after for their strengths as effective network-based solutions that meet IT stakeholders' expectations for remote access and IT consolidation, as well as business stakeholders' expectations for a more consolidated, more tightly integrated imaging enterprise.

Growth in the imaging informatics market, particularly within the core segment of radiology RIS/PACS systems, has been challenged considerably since 2009. With the tough economic environment prevailing, and given the ongoing consolidation of healthcare providers, many imaging facilities have been de-prioritizing their RIS/PACS replacements, even for aging systems. However, most of these legacy systems lack appropriate functionality and integration of molecular imaging modalities, and often lack many IT capabilities such as remote access and enterprise distribution. Owing to its ideal position in this current landscape, Thinking Systems is one of few imaging informatics vendors that has been able to continue to grow its product acceptance and market adoption in the U.S. throughout these challenging years.

Criterion 4: Provides Customer Value Enhancements

Already proven to be a solution of choice for any imaging provider vested in nuclear medicine and oncology, Thinking Systems' value proposition has expanded considerably over the last five years. The company's industry-leading position, with regard to cloud-

based solutions, has allowed this appealing value proposition to resonate very well, especially with radiology and cardiology providers who are starting to rely on Thinking Systems' solution beyond core molecular imaging procedures such as oncology PET and cardiac SPECT. With a leverage of state-of-the-art technology and an emphasis on IT integration, Thinking Systems has been delivering its solutions using flexible deployment and purchasing models including data-center hosted or private clouds, and pay-per-study financing. The flexibility and agility of Thinking Systems in aligning itself with individual customer needs is resonating extremely well in today's market, as the company continues to expand its customer reach.

Thinking Systems' customers praise the fact that their vendor is highly attentive and responsive to their ideas of potential product and solution upgrades and enhancements, whether these are put forth by the clinical, the IT, or the business stakeholders across the imaging enterprise. All of Thinking Systems' customers that Frost & Sullivan spoke with value the fact that they have reliable access to senior management and engineering team members at Thinking Systems, and they are convinced that their vendor has established a proven track record of having a quick turnaround on their suggestions and expectations.

Criterion 5: Product Quality

Thinking Systems' positive customer perception, high customer satisfaction and retention, as well as its recent successes with cloud solutions, are important indicators of its superior quality products and services. In fact, the reliability and ease-of-use of the system, combined with unrivaled service, are some of the recurring items in customers' reviews of their vendor relationship with Thinking Systems. For example, primary imaging end-users, as well as referring physicians using the system, share the same perception of superior quality with Thinking Systems' solution.

This industry-leading product quality also becomes apparent in the constant evolution in Thinking Systems' products and solutionset. In molecular imaging, one important challenge that Thinking Systems is set to face is, making the workflow of PET/CT imaging more efficient. Fast, on-the-fly image fusion of PET and CT datasets is among many other technology innovations that Thinking Systems has brought to the market to help bring down PET-CT interpretation time from the typical 20-minutes today. Similarly in imaging informatics, Thinking Systems is at the forefront of the emerging trend toward mobile imaging and catering to this rising market demand through powerful technology and high-performance products.

Conclusion

Frost & Sullivan recognized Thinking Systems Corporation in 2008 for technology leadership, and through ongoing, independent market research, has found that the company has since then continued to build on its cutting-edge technology to enhance its

solutions and advance in the North American market. Five years later, in recognition of the company's continued advancements, not just in molecular imaging informatics but also in the broader imaging informatics field, Frost & Sullivan is proud to recognize Thinking Systems Corporation with the 2013 North American Product Leadership Award in Molecular Imaging Informatics.

Critical Importance of TEAM Research

Frost & Sullivan's TEAM 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 seven of Frost & Sullivan's research methodologies. Our experience has shown over the years that companies too often make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Frost & Sullivan contends that successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. In that vein, the letters T, E, A and M reflect our core technical, economic, applied (financial and best practices) and market analyses. The integration of these research disciplines into the TEAM Research methodology provides an evaluation platform for benchmarking industry players and for creating high-potential growth strategies for our clients.

Chart 4: Benchmarking Performance with TEAM Research
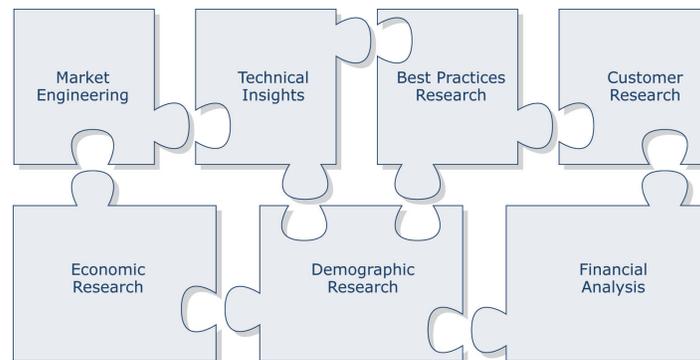
About Frost & Sullivan

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 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from more than 40 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.