FROST & SULLIVAN

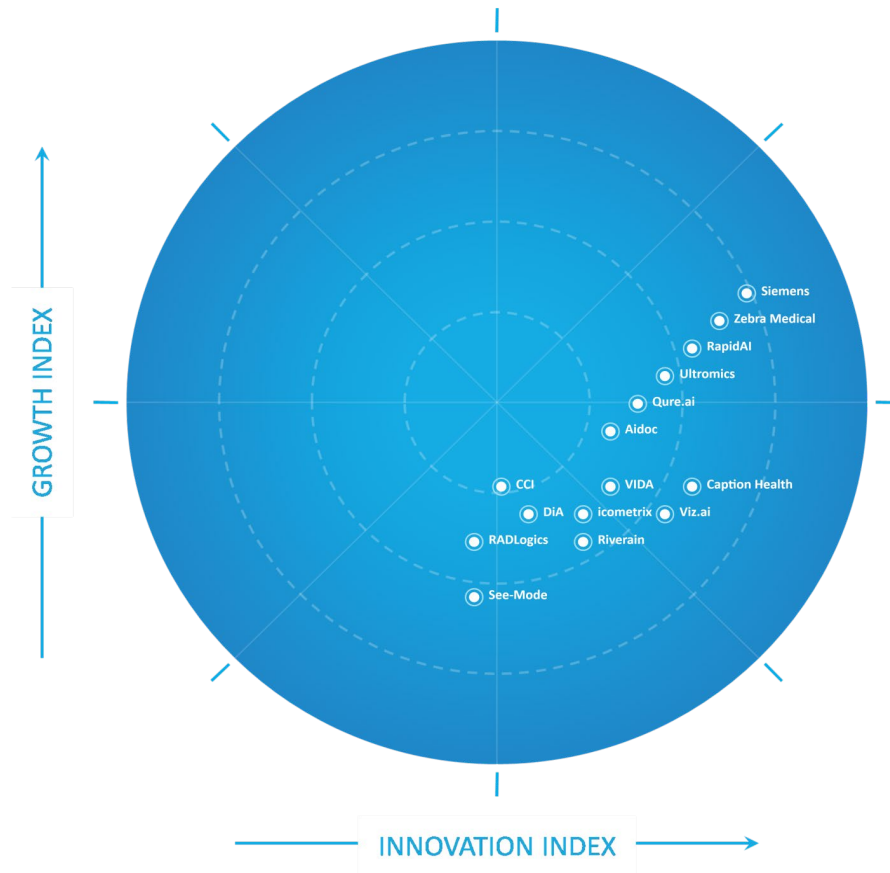## BEST PRACTICES

AWARDS

RAPIDAI

2020 GLOBAL INTELLIGENT IMAGING ANALYSIS SYSTEMS GROWTH, INNOVATION & LEADERSHIP FROST RADAR AWARD

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

The Frost Radar™
Intelligent Imaging Analysis Systems Market

Source: Frost & Sullivan

In a field of more than 50 global industry participants, Frost & Sullivan has independently ranked the top 15 companies in the above Frost Radar™ analysis.

The key parameters independently analyzed by Frost & Sullivan include:

- Scalability
- IP Competitiveness
- Disruption Potential
- Deployment Readiness
- R&D Investment

- Application Diversity
- Revenue Potential
- Adoption Potential
- Partnership Ecosystem
- Product Pipeline

Frost & Sullivan studies related to this independent analysis:
- Medical Devices in 2025: An AI Impact Analysis, March 2020
- Advanced Visualization Technologies Improving Medical Imaging and Diagnosis, December 2019

The Growth Environment

Annually, strokes affect around 15 million people worldwide, causing 5 million deaths and permanent disability in another 5 million. There is an extremely short window to treat this condition once the first symptoms are observed. As such, an accurate diagnosis and a precise understanding of the extent of brain damage can help determine the optimal treatment regimen.

The current practice of clinicians manually viewing and grading medical images to identify brain abnormalities related to stroke is a tedious and time-consuming process. The method is also prone to errors as delineations of minor abnormalities and damaged tissue in the brain using manual examination is extremely challenging, often resulting in an inaccurate diagnosis. The interpretation of the medical images is subjective and based on the level of expertise of the health professionals. Due to the complexity of these images, intra- and inter-reader variability can arise.

Intelligent imaging analysis systems that use artificial intelligence (AI), deep learning (DL), and machine learning (ML) algorithms are increasingly witnessing traction as they can scan through huge volumes of medical images to detect brain abnormalities in a short period of time.

Because these systems are trained using many patient medical images, they can precisely quantify and segregate abnormal structures from normal ones and present the results to the healthcare professionals for final review. This helps minimize errors and undesired variability, thereby facilitating accurate diagnosis even when minor anomalies are observed.

These applications have adaptive intelligence that allows them to improve their decision-making ability based on feedback and results. This self-learning ability can reduce the time required to detect anomalies in medical images and improve patient outcomes.

Frost Radar™ Growth, Innovation & Leadership Award
RapidAI

Growth

- The RapidAI platform is comprised of products such as Rapid ASPECTS, Rapid CTA, Rapid LVO, Rapid CTP, Rapid ICH, Rapid MRI, RapidAI Insights and SurgicalPreview.

- The company's platform provides a one-stop shop for healthcare providers looking for solutions that standardize stroke and aneurysm care and improve patient health outcomes while optimizing operational efficiencies.

- Its presence in more than 1,600 hospitals across the globe and the modular platform it offers for hospitals of all sizes augurs well for its adoption among developed, developing, and emerging countries.

Innovation

- RapidAI provides a stroke platform that uses AI and machine learning algorithms for triaging patients. Rapid ICH uses AI to quickly triage NCCT scans to identify suspected intracranial hemorrhages (ICH). Rapid ASPECTS automatically identify regions of the brain and generates a score to help physicians quickly assess patient eligibility for thrombectomy. Rapid CTA and Rapid LVO help physicians quickly identify suspected large vessel occlusions (LVOs). Rapid CTP enables physicians to assess salvageable brain tissue through the delivery of quantified and color-coded CT perfusions maps that identify brain regions with reduced cerebral blood flow, volume, density, and transit time. SurgicalPreview provides comprehensive cerebral aneurysm management—automating the workflow from initial assessment to growth monitoring and treatment planning. The Rapid Mobile and Web apps enable streamlined communication and workflow across treatment teams and hospitals for faster treatment and transfer decisions. All the data from the RapidAI platform feeds into RapidAI Insights, a powerful analytics solution that provides metrics to help hospital sites and systems deliver standardized care and make more informed business decisions.

- The technology used in the RapidAI platform is highly unique and scalable. The platform is commercially available in more than 60 countries.

- Profitable since its founding, to date, the company has raised total funds just in excess of $25 million with recent funding in fall of 2020.

Frost Perspective

- With a run-rate of over 1 million scans performed annually, the company can harness this-data to improve the functionality and performance of its solutions as well as the business intelligence of its customers.

- The acquisition of EndoVantage in June 2020 has significantly cemented RapidAI's position in the cerebral aneurysm management space. As a major neurological condition, the addition augurs well for the company to address the unmet needs faced by patients and healthcare providers in this area.

- The recent capital infusion can be used to enable further strategic technology acquisitions and conduct research and development activities to check the feasibility of its RapidAI platform for other cerebrovascular diseases, such as carotid stenosis and vascular malformations.

What is the Frost Radar™?
Companies to Action – Benchmarking Future Growth Potential

What is it?

A robust analytical tool that benchmarks companies' innovation focus and growth performance in a given technology.

How is it built?

Through in-depth analysis built on Frost & Sullivan's 360-degree research methodology (primary and secondary research) and objective rating of companies in a given technology.

Why do you need it?

To understand how companies benchmark against each other in their ability to innovate and grow against a backdrop of technology development and deployment.

What will it accomplish?

Companies can gain an objective, independent perspective of their innovation and growth strategies, including their robustness, effectiveness, relative competitive strength, and implications for their long-term success.

How to use it?

The Frost Radar™ is a dynamic tracking tool that offers frequent rating and positioning of companies that are leading the technology in growth, innovation, or both. Because of changes in the operating environment and internal organizational changes, their positioning in the Frost Radar™ will change over time. It is important to leverage the Frost Radar™ to ensure that companies are aware of changes to their ecosystem and their relative positions to it.

What does it mean to be on the Frost Radar™?

Companies have been chosen to be in the Frost Radar™ because they have proven themselves to be worthy by demonstrating excellence in growth, innovation, or both, and are able to translate that into proven solutions that benefit their clients. At times, companies with a large technology portfolio may not place on the Radar. Companies are chosen because they are already doing great things or are poised to do great things.

Growth, Innovation & Leadership Award

The Growth Innovation Leadership (GIL) best practice award is bestowed on companies that are leaders at the forefront of innovation. These companies consolidate or grow their leadership position by continuously innovating and creating new technologies, products and solutions that serve the evolving needs of their customer base. These companies are also best positioned to expand into various industries and markets by strategically broadening their technology portfolio.

Frost Radar™ – Benchmarking Future Growth Potential
2 Major Indices, 10 Analytical Ingredients, 1 Platform

Vertical Axis – The Growth Index

Growth Index (GI) Growth Index (GI) is a measure of a company's growth performance and track record, along with its ability to develop and execute a fully aligned growth strategy and vision using the developed technology.. The elements of this index include:

- **GI1: Application Diversity:** This is a measure of the company's ability to deploy its technology for use in targeted applications across industries

- **GI2: Revenue Potential:** This is a look at a company's cumulative revenue potential for the next five years that can be obtained from the technology that forms the context for the given Frost Radar™.

- **GI3: Adoption Potential:** This is an evaluation of the ability of the company to ensure the availability of its developed technology across geographies in the period of next six months to one year when the Frost Radar™ is being evaluated.

- **GI4: Partnership Ecosystem :** This is an assessment of how well a company is building successful partnerships for value creation and monetization across the technology ecosystem

- **GI5: Product Pipeline:** This is a measure of the effectiveness of a company to develop a number of products/product grades enabled by technology with commercialization potential in a period of six months to one year when the Frost Radar™ is being evaluated.

Horizontal Axis – The Innovation Index

Innovation Index (II) is a measure of a company's ability to develop products/services/solutions with a clear understanding of industry needs and requirements that are globally applicable, are able to evolve and expand to serve multiple markets, and are aligned to customers' changing needs by leveraging its technology. . The elements of this index include:

- **II1: Scalability:** This determines the ability of the company to scale its technology to meet product demand over the next 2 years
- **II2: IP Competitiveness:** This is a measure of the strength of the company's IP portfolio for its technology
- **II3: Disruption Potential:** This is a measure of a company's ability to differentiate its technology against competing technologies
- **ii4: Deployment Readiness:** This is an assessment of the readiness of the company's technology for commercial deployment
- **II5: R&D Investment:** This evaluates the applicability of a company's products/services/solutions to current and potential customers, as well as how its innovation strategy is influenced by evolving customer needs.