FROST & SULLIVAN
BEST PRACTICES
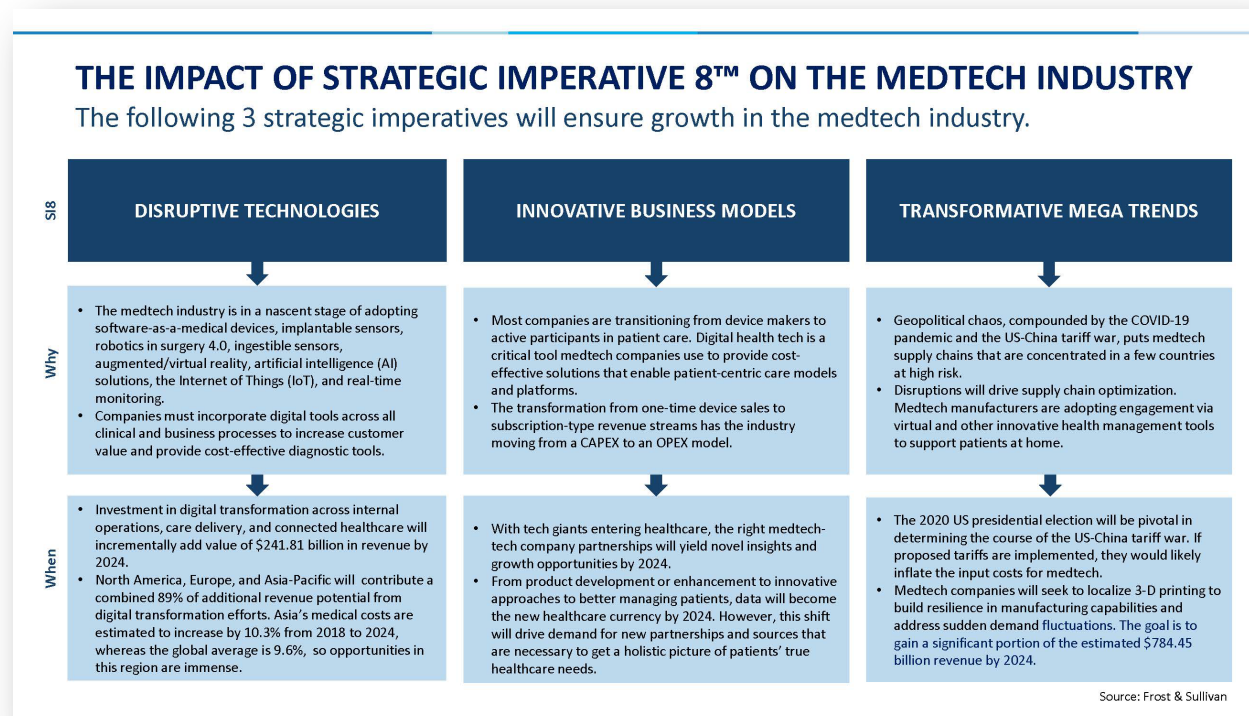### AWARDS

FROST & SULLIVAN

2020 BEST PRACTICES AWARD

RAPIDAI

2020 GLOBAL AI-BASED STROKE IMAGING AND DIAGNOSIS COMPANY OF THE YEAR AWARD

Strategic Imperatives

Frost & Sullivan identifies three key strategic imperatives that impact the medical technology (Medtech) industry: disruptive technologies, innovative business models, and transformative Mega Trends. Every company that is competing in the Medtech space is obligated to address these imperatives proactively; failing to do so will almost certainly lead to stagnation or decline. Successful companies overcome the challenges posed by these imperatives and leverage them to drive innovation and growth. Frost & Sullivan's recognition of RapidAI is a reflection of how well it is performing against the backdrop of these imperatives.

THE IMPACT OF STRATEGIC IMPERATIVE 8™ ON THE MEDTECH INDUSTRY
The following 3 strategic imperatives will ensure growth in the medtech industry.

SI8	DISRUPTIVE TECHNOLOGIES	INNOVATIVE BUSINESS MODELS	TRANSFORMATIVE MEGA TRENDS
Why	• The medtech industry is in a nascent stage of adopting software-as-a-medical devices, implantable sensors, robotics in surgery 4.0, ingestible sensors, augmented/virtual reality, artificial intelligence (AI) solutions, the Internet of Things (IoT), and real-time monitoring. • Companies must incorporate digital tools across all clinical and business processes to increase customer value and provide cost-effective diagnostic tools.	• Most companies are transitioning from device makers to active participants in patient care. Digital health tech is a critical tool medtech companies use to provide cost-effective solutions that enable patient-centric care models and platforms. • The transformation from one-time device sales to subscription-type revenue streams has the industry moving from a CAPEX to an OPEX model.	• Geopolitical chaos, compounded by the COVID-19 pandemic and the US-China tariff war, puts medtech supply chains that are concentrated in a few countries at high risk. • Disruptions will drive supply chain optimization. Medtech manufacturers are adopting engagement via virtual and other innovative health management tools to support patients at home.
When	• Investment in digital transformation across internal operations, care delivery, and connected healthcare will incrementally add value of $241.81 billion in revenue by 2024. • North America, Europe, and Asia-Pacific will contribute a combined 89% of additional revenue potential from digital transformation efforts. Asia's medical costs are estimated to increase by 10.3% from 2018 to 2024, whereas the global average is 9.6%, so opportunities in this region are immense.	• With tech giants entering healthcare, the right medtech-tech company partnerships will yield novel insights and growth opportunities by 2024. • From product development or enhancement to innovative approaches to better managing patients, data will become the new healthcare currency by 2024. However, this shift will drive demand for new partnerships and sources that are necessary to get a holistic picture of patients' true healthcare needs.	• The 2020 US presidential election will be pivotal in determining the course of the US-China tariff war. If proposed tariffs are implemented, they would likely inflate the input costs for medtech. • Medtech companies will seek to localize 3-D printing to build resilience in manufacturing capabilities and address sudden demand fluctuations. The goal is to gain a significant portion of the estimated $784.45 billion revenue by 2024.

Source: Frost & Sullivan

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. RapidAI excels in many of the criteria in the AI-based stroke imaging and diagnosis industry.

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

Addressing Unmet Needs

As defined by the World Health Organization, stroke is a "neurological deficit of cerebrovascular cause that persists beyond 24 hours or is interrupted by death within 24 hours."[1] It is the most common cause of disability and one of the primary causes of death worldwide. It is also a leading cause of disability in the United States. A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is blocked by clots or ruptures. In this condition, brain cells do not get the blood needed, resulting in cells dying due to a lack of oxygen.

Strokes represent an enormous socioeconomic burden with more than 13.7 million new stroke cases registered every year globally. Almost 60% of all stroke cases represent people under the age of 70 years. Currently, more than 80 million people across the globe have suffered from a stroke and approximately 5.5 million people die every year due to the condition.

> "Stroke and other cerebrovascular conditions are time-sensitive. The condition can turn lethal if timely treatment is not delivered."
>
> *- Parth Shah, Senior Research Analyst*

Stroke and other cerebrovascular conditions are time-sensitive. The condition can turn lethal if timely treatment is not delivered. Rapid and accurate diagnosis of the stroke type coupled with knowledge of the exact location of the damage is essential to successfully treat stroke patients. [2]

To enable clinicians to provide time-sensitive treatment and early diagnosis, RapidAI has developed artificial intelligence (AI)-driven technology solutions validated by stroke experts and dozens of large research studies. RapidAI products help perform the early identification of possible stroke patients using

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[1] WHO definition - https://www.who.int/healthinfo/statistics/bod_cerebrovasculardiseasestroke.pdf

[2] https://www.aans.org/en/Patients/Neurosurgical-Conditions-and-Treatments/Stroke
https://www.cdc.gov/stroke/treatments.htm

software such as Rapid ICH, Rapid MRI, Rapid LVO, and Rapid ASPECTS to expedite treatment through the use of smart and innovative features. RapidAI is a pioneer in AI-based stroke treatment and offers solutions for every possible stroke diagnosis modality. For example, in 2015, the new treatment of mechanical thrombectomy was validated in various clinical trials. The approach allows clots to be removed using minimally invasive intravascular devices. RapidAI's Rapid ASPECTS offering automatically identifies ASPECTS regions and scores. Hence, the offering plays a significant role in identifying dead tissue and estimating what extent of brain tissue can be saved upon restoring the blood supply. Rapid ASPECTS helps identify patients who will benefit from treatment that restores blood flow.[3]

The FDA-approved Rapid MRI offering analyzes magnetic resonance imaging (MRI) brain images and provides salvageable brain tissue analysis of stroke patients. Rapid ICH quickly triages non-contrast computed tomography (CT) scans and identifies possible intracranial hemorrhages (ICH). Rapid CTP is the only clinically-validated and FDA-approved software to identify patients for acute stroke therapy. Rapid LVO identifies large vessel occlusions to streamline triage and faster transfer decisions for patients. Rapid CTA automatically identifies reduced vessel density and regions of asymmetry in the brain. Both the Rapid CTA and Rapid LVO automatically analyze CT scans. In clinical applications, RapidAI offers important cerebral ratios such as threshold Tmax cerebral blood flow, and cerebral blood volume along with mean transit time maps, 3D CT angiography maps with relative vessel density, and automated ASPECT scores.

Frost & Sullivan lauds the vision and range of products offered by RapidAI in the AI-based stroke care and diagnosis space.

Brand Equity

RapidAI is considered to be the gold standard for stroke diagnosis and imaging worldwide. RapidAI has a presence across over 1,600 hospitals in more than 60 counties. The company partners with a global distribution network to deliver its AI solutions to various hospitals and clinicians. RapidAI partnered with various healthcare technology leaders such as Ambra Health, Samsung Neurologica, Mobile Heartbeat, Halo Health, Pulsara, and Siemens Heathineers to grow its customer base and improve brand loyalty.

Frost & Sullivan acclaims RapidAI for its strong brand recognition as compared to peer group companies. RapidAI has established this brand superiority by meeting expected quality and reliability standards in hospital settings.

Implementation of Best Practices

RapidAI has its origins at Stanford University. After a successful DEFUSE 2 research study with the US National Institute of Health, cofounders Dr. Greg Albers and Dr. Roland Bammer purchased the rights to the technology. RapidAI is led by neurologists, radiologists, technologists, and serial entrepreneurs and has thus far conducted more than 30 clinical trials and product validation studies to support commercialization efforts. As a testament to the success of this approach, most of the company's solutions are approved by regulatory agencies (i.e., the FDA in the United States, the European CE, Health Canada, PMDA in Japan, and Australia's TGA) opening up the company's global market. RapidAI is

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[3] https://dynamicbusiness.com.au/topics/news/experts-warn-covid-19-has-created-lagging-health-problems-throughout-australia.html

not only pioneering imaging AI solutions for stroke diagnosis, but has the most regulatory approvals and, hence, clients globally. While broader imaging AI solutions are still finding their foothold in developed markets, RapidAI stands out among its peers with clients even in developing countries such as India. Continual efforts to implement best practices have resulted in RapidAI earning an ISO 27001 certification for its Rapid Web product.

Frost & Sullivan appreciates RapidAI's implementation of best practices to maintain high-quality standards for its commercially available and regulatory approved products. All of the company's products have undergone successful clinical trials and RapidAI's credibility is further enhanced by its widespread use globally.

Financial Performance

RapidAI is known for its robust financial performance and uninterrupted profitability since going to market. Currently, the company's revenue ranges between USD $25 to $50 million per year.[4] RapidAI has been profitable since its founding, a rare feat for a start-up. Such success also demonstrates the reliability of the company's solutions. In 2012, RapidAI raised a $2.3 million Series A. No funding was subsequently raised until 2020, when the company issues a $25 million Series B to accelerate its growth initiatives across the globe. The recent funding will support additional innovation, licensing efforts and the seamless integration of its technologies to increase customer value.

Frost & Sullivan applauds RapidAI's exceptional profitability and believes the new funds will be well-utilized for the advancement of its innovative solutions.

Price/Performance Value

RapidAI pricing varies by region, hospital type, modules, and the imaging modalities purchased. Prices depend upon the customer's geographical region. The company's annual subscription model for hospitals includes all updates, 24/7 live support, and access to live and recorded training sessions. In the United States, RapidAI's pricing starts at approximately $12,000 for a single module. The company's products help make hospitals more responsive while enabling better transfer decisions for patients. As a result, RapidAI is not only saving lives, time and money, but improving long-term outcomes by enabling faster stroke interventions–a return on investment that is perhaps immeasurable.

Frost & Sullivan commends RapidAI for delivering value at a cost-effective price. Moreover, hospitals experience a cost-benefit advantage through increased efficiency and prudent decision-making.

Customer Service Experience

RapidAI works with almost every CT and MRI manufacturer model and make. The company's efficient implementation workflow requires minimal effort from clients. The company's Rapid software platform is fully automated and works on a single virtual or physical server within the hospital firewall. The RapidAI team configures the server using remote access via a Site2Site VPN tunnel, client-based VPN connection, or portal-based connection. RapidAI's installation and implementation teams notify clients of platform upgrades in a timely manner. The teams also work with the client's information technology

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[4] https://venturebeat.com/2020/09/17/rapidai-raises-25-million-to-analyze-medical-scans-with-ai-algorithms/

group to schedule upgrade times that minimize disruption. RapidAI takes 3 minutes or less to complete the entire process, including sending images to PACS, email, and the RapidAI mobile application.

The company's Rapid Web App extends access into yet another user environment, offering stroke team members a convenient way to view real-time browser notifications regarding new cases, preview Rapid results and source files, and enable workflow communications via a desktop or laptop. The application works well with Google Chrome and Microsoft Edge browsers, thus providing users an easy way to view, organize, and track cases from multiple sites in one location. The Rapid Mobile App is another useful app that provides anytime, anywhere alerts and access to RapidAI results. The Rapid Mobile App is an exceptional solution for hospitals looking to improve patient outcomes and gain operational efficiencies. It can provide stroke team members fast access to results and previews source files, and also enable communication about patient care.

Frost & Sullivan recognizes that the company's adaptable and user-friendly technology spurs its mass acceptance among healthcare community stakeholders globally.

Leadership Focus

RapidAI's leadership prioritizes the creation of uncontested market space by reconstructing market boundaries through its innovative capabilities and products. Frost & Sullivan notes that such an approach is a game changer for stoke care. RapidAI recently increased its strategic competencies by acquiring EndoVantage. The company's award-winning platform for the management of cerebral aneurysms has allowed RapidAI to expand its overall cerebrovascular care capabilities.

EndoVantage's effective computational platform provides end-to-end cerebral aneurysm management, automating the entire workflow (e.g., initial assessment, growth monitoring, and treatment planning). It utilizes computed tomography angiography (CTA) and magnetic resonance angiography (MRA) scans to deliver results that help physicians find and track aneurysm progression.

The focus of RapidAI's leadership is to deliver care that generates cost and time savings for the patient and provider. Moreover, the company ensures its products are distinctive from competitors' products through a price advantage and reimbursement provisions. For example, Rapid LVO is among one of the first AI-based radiology software products to qualify for new technology add-on payment (NTAP), the Centers for Medicare & Medicaid Services Inpatient Prospective Payment System (IPPS), and reimbursement for Medicare patients. RapidAI's leadership also focuses on continuously developing new products that can be leveraged for end-to-end stroke diagnosis and treatment. One of the initiatives designed to enhance the customer experience involves sending notifications to the entire stroke intervention team at the same time, enabling the presence of team members in the operating room within 15 minutes of the stroke being diagnosed. Such an approach further reduces

> "The RapidAI platform targets most challenges associated with a stroke diagnosis, and is capable of solving almost all phases of the stroke imaging workflow, from initial interpretation to final reporting."
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> *- Parth Shah, Senior Research Analyst*

time-to-intervention, saving precious minutes for the stroke patient. Patient outcomes are thus improved by having an entire intervention team ready within minutes of the confirmatory diagnosis by an interventional neurologist.

Frost & Sullivan admires RapidAI's ability to empower physicians with accurate information to make the right decision at the right time, ultimately leading to improved patient outcomes.

Conclusion

Stroke treatment is extremely time-sensitive, making early diagnosis and timely care critical to improve patient outcomes. RapidAI is a global leader in brain image analysis and stroke diagnosis. The company's innovative and clinically-validated Rapid platform leverages cutting-edge artificial intelligence (AI) to solve almost all phases of the stroke imaging workflow, from initial interpretation to final reporting. With most of RapidAI's products meeting regulatory standards worldwide, the company has a market presence in more than 60 countries. Moreover, the company's focus on strategic technological acquisitions enables the development of new capabilities that will allow the company to continue innovating, growing, and improving vascular care globally. With its strong overall performance, RapidAI earns Frost & Sullivan's 2020 Company of the Year Award in the AI-based stroke imaging and diagnosis industry.

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

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

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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 on-going growth opportunities and strategies for our clients is fuelled by the Innovation Generator™. Learn more.

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 six 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)