# New Product Innovation Award Speaker Verification Biometrics North America, 2011

#### Frost & Sullivan's Global Research Platform

Frost & Sullivan is in its 50th year in 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 2011 North American New Product Innovation Award in the Speaker Verification Biometrics market to Recognition Technologies, Inc. (Recognition Technologies).

# Significance of the New Product Innovation Award

## Key Industry Challenges Addressed by Superior Biometric Innovations

The development and promotion of a successful biometric device are the most important challenges that vendors face. Various biometric technologies are currently on the market. High technology, performance levels, convenience, and ease-of-use make up the critical deciding factors for deploying a particular security system in an organization. The primary objectives of utilizing biometrics are enhanced security, increased convenience, and cost savings.

Pricing plays a crucial role in the selection and deployment of a particular technology. The price can vary depending on the type of technology, sensor, application, and scale of the project. With investment budgets under intense pressure, Frost & Sullivan notes that the focus is on improving productivity and gaining rapid return on investment (ROI) rates.

End users are concerned about the scalability and flexibility of a specific type of technology. They seek a form of technology that can easily be integrated into the existing infrastructure and that is sufficiently flexible enough to upgrade to the newest technological requirements.

#### Impact of New Product Innovation Award on Key Stakeholders

The New Product Innovation Award is a prestigious recognition of Recognition Technologies' accomplishments in the voice biometrics market. An unbiased, third-party recognition can provide a profound impact in enhancing the brand value and accelerating Recognition Technologies' growth. As captured in Chart 1

below, by researching, ranking, and recognizing those who deliver excellence and best practices in their respective endeavors, Frost & Sullivan hopes to inspire, influence, and impact three specific constituencies:

#### Investors

Investors and shareholders always welcome unbiased and impartial third-party recognition. Similarly, prospective investors and shareholders are drawn to companies with a well-established reputation for excellence. Unbiased validation is the best and most credible way to showcase an organization worthy of investment.

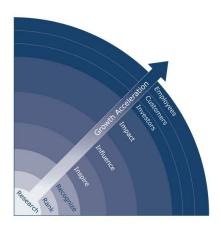
#### Customers

Third-party industry recognition has been proven to be the most effective way to assure customers that they are partnering with an organization that is leading in its field.

## Employees

This Award represents the creativity and dedication of Recognition Technologies' executive team and employees. Such public recognition can boost morale and inspire these stakeholders to continue the best-in-class pursuit of a strong competitive position for Recognition Technologies.





# Key Benchmarking Criteria for New Product Innovation Award

For the New Product Innovation Award, the following criteria were used to benchmark Recognition Technologies, Inc.'s performance against key competitors:

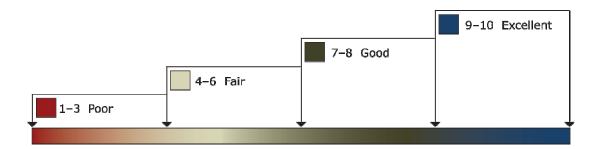
- Innovative Element of the Product
- Leverage Leading Edge Technologies in Product

- Value Added Features/Benefits
- Increased Customer ROI
- Customer Acquisition/Penetration Potential

# **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 2.

Chart 2: Performance-Based Ratings for Decision Support Matrix



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



# Best Practice Award Analysis for Recognition Technologies, Inc.

The Decision Support Matrix, shown in Chart 4, illustrates the relative importance of each criterion for the New Product Innovation Award and the ratings for each company under evaluation. To remain unbiased while also protecting the interests of the other organizations reviewed, we have chosen to refer to the other key players as Competitor 1 and Competitor 2.

Chart 4: Decision Support Matrix for New Product Innovation Award

Measurement of 1–10 (1 = lowest; $10 = highest$ )	Award Criteria					
	Innovative Element of the Product	Leverage Leading Edge Technologies in Product	Value Added Features/Benefits	Increased Customer ROI (small change)	Customer Acquisition/Penetration Potential	Weighted Rating
Relative Weight (%)	20%	20%	20%	20%	20%	100%
Recognition Technologies, Inc.	9	8	9	9	8	8.6
Competitor 1	8	8	8	9	9	8.4
Competitor 2	8	9	8	8	7	8.0



#### **Criterion 1: Innovative Elements of the Product**

The key strength of speaker verification or voice verification biometric technology over other biometrics, such as fingerprint, face, or iris recognition, is its remote authentication capabilities, which enable users to be enrolled or verified without requiring the individual's physical presence. The technology is considered unique, as it is the only biometric technology that can be deployed without additional hardware requirements and that can be used with standard telephones and microphones. Since no additional hardware is required, this makes for an effective, low-cost solution. Financial institutions, call centers, and healthcare organizations are coming to regard voice biometrics as the next logical phase in identity management.

Frost & Sullivan independent analysis confirms that the speaker-recognition engine offered by Recognition Technologies takes a leap forward in speaker verification technology, with its focus on automated identification, improved efficiency, and the development of future-proof solutions. Incorporating high precision, industry-leading processing speed, and technological features, the speaker-recognition engine can be customized and adapted specifically to client needs. The convenience of an easy-to-use platform supports an unlimited number of voice samples and can be scaled as needed. The company recognized the lack of text independent and language independent features in the world of speaker verification and built its platform with the aim of granting the public access to unique technology at a commodity price.

The growing demand for innovative technological solutions, alongside the ability of Recognition Technologies to rapidly launch products on the market, is likely to help the company strengthen its position in the industry. When compared to other market participants' practices in this space, Frost & Sullivan expects that Recognition Technologies' strong emphasis on R&D will supply the company with a distinct competitive advantage.

#### **Criterion 2: Leveraging Leading Edge Technologies in the Product**

The speaker-recognition engine can be licensed as a standalone application that operates on audio files, is integrated with the RecoMadeEasy Interactive Voice Response (IVR) engine, or is combined with the RecoMadeEasy Speaker Recognition SDK. The engine's capacity to perform identification (closed or open set), verification (text independent, text dependent, and/or text prompted), speaker and event classification, speaker detection, speaker tracking, and speaker segmentation give the product a head start over the competition in the current marketplace.

The product has been developed in such a way as to render integration with third-party components and interfaces notably easier. The RecoMadeEasy IVR engine is a ready-to-use application that is capable of being used for Dialogic JCT series cards. The RecoMadeEasy Speaker Recognition SDK can be used to develop applications with any of the technologies



that the engine offers. In addition, for an additional fee, the SDK can be customized to meet end users' needs. The speaker-recognition engine is the result of the company's years of technological expertise in developing biometric solutions that exceed set industry standards.

The company has invested a significant amount of time and resources into developing this technology. It is proud to possess a team of skilled technicians with wide and varying experience that has successfully built and brought to market products and Web sites that are used by millions worldwide. The company is committed to innovation and has set a leading example with its unique technological innovations. Satisfying client requirements and achieving customer satisfaction have been two of the company's most important factors to success.

## **Criterion 3: Value Added Features/Benefits**

The speaker-recognition engine is a full-featured and cost-effective platform that provides the user with stand-alone applications, as well as applications bundled with the SDK solution. The engine can be customized to meet end-user requirements and offers the convenience of opting for text independent or dependent features. In addition, the system is designed with such innovative features as speaker tracking, which follows the voice of an individual speaker through a conversation, and speaker segmentation, which partitions a multi-speaker sample into segments, based on who is speaking. The modular design allows for easy integration, depending upon user requirements.

#### Features that add value include:

- Cost-effectiveness
- Flexibility
- Robustness

#### **Criterion 4: Increased Customer ROI**

The company's biometric recognition technologies are innovative, cost-effective, and easy to integrate, enabling end users to adapt to ever-changing technological demands. The company's active involvement in standards development for speaker recognition by means of its association with the VoiceXML Forum has engendered fast, efficient, and widespread delivery of it benefits.

### For example:

Language Testing International (LTI), a language-proficiency testing company that serves government and private industry across the globe, wished to ensure that its clients' employees, prospective employees, and others were able to speak and understand the languages required to function effectively in their respective positions. LTI was able to successfully automate the verification process using speaker verification from Recognition

Technologies. The system ensures that the person actually taking the test is the same candidate as the one who registered.

The company's research and development team has a proven track record of success and has demonstrated an ability to deliver long-lasting value to its clients and partners and to expand the applicability of biometric technology in the marketplace. Apart from providing the market with leading-edge biometric solutions that will change the way in which the biometrics industry operates, the company has been able to nicely accelerate its return on investment and to capitalize on the benefits of voice biometrics technology.

#### **Criterion 5: Customer Acquisition/Penetration Potential**

The company's industry experience and its close working relationship with its clients have helped it understand customer requirements effectively. Moreover, the quality of service that the company provides, along with its technical expertise and customer support, has contributed to the company's outstanding performance. This strategy has enabled the company to cater to disparate end-user groups by offering them solutions that complement their operations and offer superior client value. The company has been proactive in acknowledging the necessity of developing a comprehensive portfolio of end-user focused security solutions. Clients testify that the company's highly skilled technicians focus on the quality of the solution, encouraging the maintenance of a long-lasting relationship with the customer.

The company has successfully forayed into a range of domains, implementing solutions for areas, such as finance, access control, teleconferencing, surveillance, and fraud detection. By providing the market with innovative biometric solutions, the company has successfully established its footprint in the biometric recognition market, which is deemed to be one of the fastest developing segments among the technological domains. Organizations and industries ranging from healthcare to forensics and the legal profession have been able to leverage the company's solutions. The company has a significant product portfolio that protects and facilitates its methods, business model, and solutions, along with long-term business relationships within the security industry and distributors, in order to market its solutions to end users.

# **Conclusion**

The strength of Recognition Technologies lies in its advanced technological innovation with the speaker verification platform, which has given the company a leading edge over its competitors. Frost & Sullivan firmly believes that Recognition Technologies' success is attributed to the development of an excellent product, a speaker recognition engine that caters to an extensive array of application areas, while achieving a high level of customer satisfaction. The company invests a high proportion of its revenues in R&D, which enables it to continuously upgrade and enhance its existing product features. In addition, supplying

top class products to customers worldwide has contributed to the company's growth and has made Recognition Technologies the worthiest recipient of the 2011 Frost & Sullivan New Product Innovation Award.

# The CEO 360-Degree Perspective<sup>TM</sup> - Visionary Platform for Growth Strategies

The CEO 360-Degree Perspective<sup>TM</sup> model provides a clear illustration of the complex business universe in which CEOs and their management teams live today. It represents the foundation of Frost & Sullivan's global research organization and provides the basis on which companies can gain a visionary and strategic understanding of the market. The CEO 360-Degree Perspective<sup>TM</sup> is also a "must-have" requirement for the identification and analysis of best-practice performance by industry leaders.

The CEO 360-Degree Perspective<sup>TM</sup> model enables our clients to gain a comprehensive, action-oriented understanding of market evolution and its implications for their companies' growth strategies. As illustrated in Chart 5 below, the following six-step process outlines how our researchers and consultants embed the CEO 360-Degree Perspective<sup>TM</sup> into their analyses and recommendations.

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Chart 5: The CEO's 360-Degree Perspective™ Model



# **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 6: 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 <a href="http://www.frost.com">http://www.frost.com</a>.