



**2011 European Technology Award
in Skin Cancer Diagnosis**





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 Europe Technology Innovation Award in Skin Cancer Diagnosis to SciBase AB based out of Stockholm, Sweden.

Significance of the Technology Innovation Award

Key Industry Challenges Addressed by SciBase's Skin Cancer Diagnostic Device Technology

Over the past three decades, there has been a steady rise in the global incidence of both non-melanoma and melanoma skin cancers. WHO estimates the global annual occurrences of non-melanoma and melanoma skin cancers to be between 2 and 3 million and 132,000 respectively. Of the different forms of skin cancers, melanoma is the most deadly and fastest spreading cancer, accounting for nearly 37,000 annual deaths. Worldwide, about 60-70 million visual inspections are performed on suspicious moles, but despite this huge number of visual inspections, mortality rates have been as high as 23%, with reasons attributable to much delayed diagnosis of melanomas. Added to this, treatment costs for melanoma alone costs \$1.5 billion a year. This explains the criticality of the need for early detection, which calls for extensive screening. However, today's methods used for detection and visual inspection give only subjective results and are prone for uncertain diagnosis. Besides missing melanomas, they may give rise to false positives resulting in unnecessary biopsies. It is estimated that only 3% out of the 6-7 million excisions performed annually turn out to be malignant melanoma. Other techniques are available such as OCT, confocal microscopy and dermoscopy, but have limitations. OCT has a greatly reduced viewing field and does not give a reliable diagnosis of early tumor invasion. Moreover, its current usage is limited to non-melanoma cancers. Confocal microscopy, despite giving accurate results comes with a very high-price tag limiting its use. Dermoscopy on the other hand depends on the appearance of classic dermoscopic features and hence is unreliable for detection of very early and featureless melanomas. Moreover, result interpretation requires prior user experience. Swedish firm SciBase AB has developed a non-visual, accurate and objective method based on Electrical Impedance Spectroscopy (EIS) for the detection of malignant melanoma.

Impact of Technology Innovation Award on Key Stakeholders

The Technology Innovation Award is a prestigious recognition of SciBase's accomplishments in the skin cancer diagnosis sector. An unbiased, third-party recognition can provide a profound impact in enhancing the brand

value and accelerating SciBase's growth. As captured in Chart I 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.

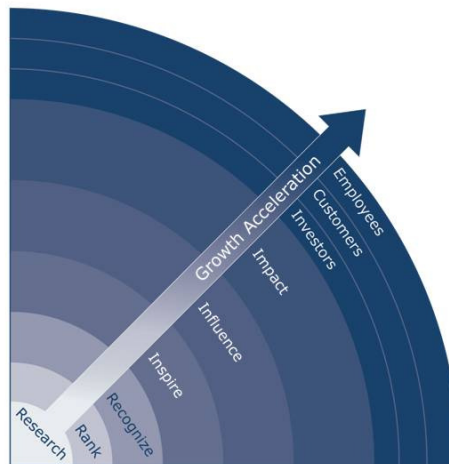
- **Customers**

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 SciBase's executive team and employees. Such public recognition can boost morale and inspire your team to continue its best-in-class pursuit of a strong competitive position for SciBase.

Chart I: Best Practices Leverage for Growth Acceleration



Key Benchmarking Criteria for Technology Innovation Award

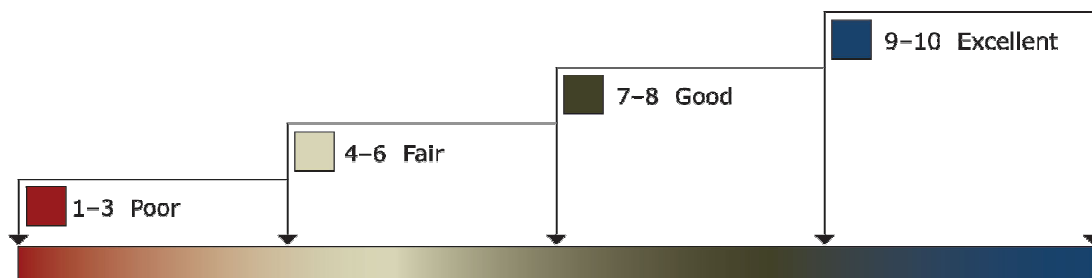
For the Technology Innovation Award, the following criteria were used to benchmark SciBase's performance against key competitors:

- Uniqueness of Technology
- Impact on New Products/Applications
- Impact on Functionality
- Impact on Customer Value
- Relevance of Innovation to Industry

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 SciBase AB

The Decision Support Matrix, shown in Chart 4, illustrates the relative importance of each criterion for the Technology 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 Technology Innovation Award

Measurement of 1–10 (1 = lowest; 10 = highest)	Award Criteria					
	Uniqueness of Technology	Impact on New Products/Applications	Impact on Functionality	Impact on Customer value	Relevance of Innovation to Industry	Weighted Rating
Relative Weight (%)	20%	20%	20%	20%	20%	100%
SciBase AB	9.5	9	9	8	8	8.7
Competitor 1	8	8	8	7.5	7	7.7
Competitor 2	8	7.5	7	7	7	7.3

Criterion 1: Uniqueness of Technology

SciBase's skin cancer diagnostic platform is based on the unique technology of EIS. It measures the overall resistance within the skin tissue on applying alternating currents of varying frequencies. The CE marked device comprises of a handheld probe connected to a small device that provides results on screen. The device measures EIS by applying a weak, alternating electrical current between the electrodes on the probe's tip and gives immediate results within a few seconds. The device uses a unique classifier that has been trained to interpret the electrical resistance and detect characteristics that relate to malignancies. Another unique feature relates to the use of frequencies that are of clinical relevance to skin. All these features make SciBase's EIS based device a unique and valuable tool for physicians allowing them to make an objective evaluation of suspicious lesions and make life saving diagnosis.

Criterion 2: Impact on New Products/Applications

In early stages, melanoma lies hidden underneath the normal appearing and electrically insulating layer - stratum corneum, which complicates melanoma detection. This problem has been overcome by carefully choosing the components of the technology. The microinvasive electrodes used effectively short circuit the insulating layer providing access to epidermis – where melanoma originates. The length of the spikes has also been carefully chosen so that they do not hit the dermal layer, due to which there is no pain. Moreover the electrodes are also disposable which eliminates infection risk.

The device is currently being studied in clinical trials and results show that the device allows the differential diagnosis of benign and malignant moles with a sensitivity exceeding 98% and specificity over 20 percentage points better than study dermatologists. In addition, the device also has been shown to distinguish other types of non-melanoma skin cancer from benign moles with close to 100% sensitivity and 87% specificity. This goes to prove the clinical significance of the accuracy levels of the SciBase EIS method. In summary the device's unique design and its advanced signal processing capabilities make it a highly desirable system for detection of multiple forms of skin cancers.

Criterion 3: Impact on Functionality

The SciBase EIS technology enables early detection of skin cancers thereby saving lives. By allowing physicians to rule out benign lesions and scientifically evaluate suspicious lesions prior to excision, the portable device significantly reduces the time and money spent on unnecessary excisions. Moreover, SciBase technology detects skin cancer in less time and does not require any invasive procedures. In addition, the technology's reliance on electrical impedance, one of the most important physical properties of tissues, makes it a potentially useful technique for monitoring alterations. Further, the micro-invasive electrodes used enable deep skin measurements and the methods used for data analysis are robust and do not suffer from a preconceived paradigm.

Criterion 4: Impact on Customer Value

SciBase EIS based device offers multiple stakeholder benefits. For physicians, it enables a faster and efficient diagnosis and decision making. The time gained allows them to attend to more number of patients and maximize their revenue potential. For patients, it provides procedural convenience and cost savings, due to reduction in the number of biopsies and surgical procedures. On top of these, it represents a life saving solution to patients due to early discovery of melanoma. This makes it an inspiring medical device, with potential to meet the large clinical need with extremely good sensitivity and specificity. In addition, SciBase technology is also expected to be a financially attractive technology for users with disposable single use electrodes with attractive margins. The company is also evaluating to extend the device to additional indications such as cervical, colon as well as other epithelial cancers based on accessibility. This would further make it a device worthy of investment.

Criterion 5: Relevance of Innovation to Industry

With global increase in skin cancer incidence and the risks involved with current diagnostic methods pertaining to missed melanomas, there has always been a market demand for a reliable, fast, portable, accurate decision support tool for objective evaluation of suspicious lesions. Currently, around 60-70 million moles are being screened annually, with nearly 10% of them leading to biopsy, each representing a market size of \$2-\$3B and \$400M respectively. SciBase EIS technology has emerged as a novel technology capable of meeting the market demand by addressing the multivariied needs of physicians both at hospitals as well as individual clinics and ultimately benefitting the patients. The CE approved technology has performed exceedingly well in clinical trials conducted till date and over 4000 lesions have been clinically documented. SciBase EIS has therefore emerged as a new technology paradigm which is highly adapted to market requirements for malignant melanoma diagnosis.

Conclusion

The 2011 Europe F&S Technology Innovation Of The Year Award in skin cancer diagnosis is presented to SciBase AB in recognition of the company's pioneering development of a EIS for melanoma diagnosis. Global rise in skin cancer incidence, especially melanoma and technical drawbacks of current technologies in detecting melanoma at early stages has created the need for a promising technology that can fill the void. The introduction of SciBase EIS technology is going to set the stage for new standards in melanoma detection – which is saving lives enabled through early detection.

The CEO 360 Degree Perspective™ - Visionary Platform for Growth Strategies

The CEO 360 Degree Perspective™ 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™ is also a “must-have” requirement for the identification and analysis of best-practice performance by industry leaders.

The CEO 360 Degree Perspective™ 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™ into their analyses and recommendations.

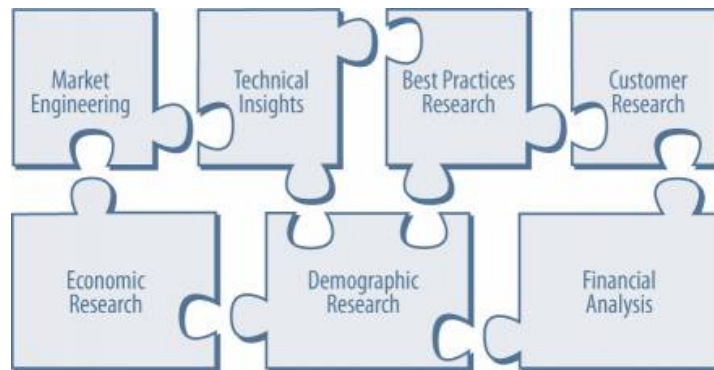
Chart 5: How the CEO's 360 Degree Perspective™ Model Directs Our Research



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 SciBase AB

SciBase AB is a privately held Swedish medical technology company, founded in 1998. SciBase has developed a unique patented method based on Electrical Impedance Spectroscopy (EIS). The novel technology is the result of years of academic research at Karolinska Institutet, Sweden. The company is applying its platform technology initially for early detection of deadliest skin cancer form – malignant melanoma, with future scope to extend it to other cancer types. Final product development is completed with clinical trial training study finalized and pivotal verification study ongoing in Europe and US. The company's goal is to commence market introduction in Europe and file for PMA in the US during 2Q2012. SciBase has recently won VC funding of SEK 92 million (\$13million), which will allow the firm to successfully complete the ongoing final clinical verification process and proceed towards commercialization in Europe/Australia.



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>.

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