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BRAINLAB

2014 European O.R. Integration
Customer Value Leadership Award

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50 Years of Growth, Innovation & Leadership

Customer Value Leadership Award
O.R. Integration
Europe, 2014

Frost & Sullivan's Global Research Platform

Frost & Sullivan is in its 50th year in business with a global research organisation 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 2014 European Customer Value Leadership Award in O.R. Integration to Brainlab.

Key Industry Challenges

With about 100,000 operating rooms (O.R.s), Europe contributes to about 25 to 30% of the procedural volume of surgical operations. The surgical space in Europe is facing a sharp rise in the volume of surgical procedures coupled with a shortage of staff, including physicians. Efficiency in the surgical environment becomes imperative, and access to medical images, patient information, and history will facilitate its environment. Most healthcare organisations and providers have existing O.R. solutions such as picture archiving and communications system (PACS) or other advanced visualisation solutions and traditional O.R. automation solutions. However, Frost & Sullivan's research reveals that the imminent need is an O.R. integration solution that can integrate with any third-party healthcare application such that end-user preferences on data management can be met. Furthermore, O.R. integration facilitates modularisation instead of purchasing a full solution and does not impose an expensive all-at-once approach. This allows healthcare providers to make the most of their previous investments in healthcare information technology (IT).

The interoperability of several healthcare IT applications running simultaneously in O.R.s is extremely important, and this is a major reason for benchmarking O.R. integration solutions that use parameters such as increase of efficiency and safety in the surgical environment. O.R. integration solutions are required to facilitate the surgical workflow without any disruption and improve patient safety/sterility standards in a high-acuity healthcare environment.

O.R. integration solution providers that continuously improve the features and functionalities of their products to meet customer preferences are best poised to grow in this European market. This also enables them to enjoy a competitive edge over the other participants in the market and to be held in high regard within the healthcare industry.

Best Practice Award Analysis for Brainlab

The Frost & Sullivan Award for Customer Value Leadership is presented each year to the company that has demonstrated excellence in implementing strategies that proactively create value for its customers with a focus on improving the return on the investment that customers make in its services or products. This award recognises the company's inordinate focus on enhancing the value that its customers receive, beyond simply good customer service, leading to improved customer retention and ultimately customer base expansion.

Brainlab Performance in O.R. Integration

Brainlab is a leading provider of O.R. integration solutions that was established in 1989 in Munich, Germany, and has operations across the globe, including the United States, China, India, and the Middle East, in addition to its presence in other countries in Europe. As a market leader in image guided surgery and stereotactic radiosurgery, the company offers its services to major healthcare providers, with more than 5,000 systems installed in about 80 countries. The company's services are centred on the objective of making surgeries minimally invasive and highly efficient using software support through image guided surgery technology. O.R. integration solutions from Brainlab work on the principle of enabling physicians to have ready access to patient data by providing software-driven medical technology that facilitates increased collaboration between physicians and patients. The company has 17 offices worldwide and employs 1,150 staff members, of which 290 are in research and development.

Key Performance Drivers for Brainlab

Frost & Sullivan's research shows that key Brainlab performance drivers, which have been instrumental in enabling the company to render superior customer value, include delivering operational excellence through an integrated technology solution that has been developed using a customer-centric approach. Frost & Sullivan notes that another major advantage offered by a Brainlab solution is increased efficiency and productivity in the client's surgical environment.

Factor 1: Operational Excellence through Integrated Technology Solution

Buzz™, the digital O.R. solution from Brainlab, is an O.R. integration system that has a DICOM viewer and video-routing capabilities, enabling enrichment of data using intelligent algorithms. An interactive touch-based DICOM viewer with video-routing capability is the core component of this digital O.R. offering from Brainlab, and unlike O.R. solutions from other vendors that depend on external displays to view the DICOM images, Buzz has a single integrated solution. The connections to video routing and connected displays can be easily performed without using a video matrix, and the O.R. solution comes with a large touch display that comes with an attached workstation. Frost & Sullivan's competitive analysis shows that the key differentiating element of Buzz is that the O.R. solution is

dependent on software while other solutions in the market are dependent on hardware. Furthermore, Buzz uses an interactive user interface and workflows that are less cluttered and are easily manageable. This differentiates the features of Buzz from the solutions from PACS vendors that are mostly designed for radiology. Buzz also allows for universal device operation, which supports the information flow to and from the O.R. between Buzz and a variety of healthcare applications. The other key features of the integrated technology solution are information pairing between Buzz and other Brainlab navigation systems and the ability of Buzz to perform live conferencing, streaming and recording.

Overall, Buzz serves as an intelligent hub that routes patient information that is enhanced using intelligent algorithms to multiple displays so that O.R. staff can access, record and stream the information from a variety of interactive applications.

Factor 2: Enhanced Value with Customer-Centric Approach

Brainlab believes in establishing relationships and gathering input from the medical community for product development. New product prototypes are tested in cooperation with medical professionals so that their feedback can be tailored into the clinical workflows for the product. This customer-centric approach also provides the physicians and other O.R. staff members with an opportunity to get acquainted with the latest technology from Brainlab and further supports potential adoption. Furthermore, the company has established Brainlab Academy® to provide training to medical professionals on using its products and, thereby, help them achieve improved surgical outcomes. Training comprises hands-on training on the products at Brainlab offices and at selected hospitals in addition to the traditional lecture method of training.

Brainlab offers support to its clients across the entire sales-service spectrum, with about 220 service engineers working in its offices across the globe, and helps clients achieve assured returns on their investment. The objective of the support services is to maintain the product so as to optimise its utilisation, thereby generating maximum revenue while reducing the downtime. Furthermore, the company provides customer-service specialists who provide round-the-clock support via telephone, email and on-site service. The company also runs surveys for assessing the feedback from customers regarding the service response times and the quality of service, so that processes can be continuously monitored and improved.

Frost & Sullivan's independent research shows that the customer-centric approach from Brainlab is key to the company's market leadership in the O.R. integration space.

Factor 3: Increased Efficiency and Productivity for Customers

Buzz from Brainlab ensures integration of healthcare IT applications and medical devices in the O.R., in such a way that it improves clinical workflows at optimised cost. Frost & Sullivan finds that Buzz makes data management in the O.R. easier, as the computer and

Internet-protocol (IP) based system, coupled with control interface, enables intuitive management of medical images and patient data. Buzz can be easily adaptable for any O.R. application, with flexible modular configurations that are designed to fit the needs of any O.R.. For instance, the University of Munich hospital and clinics have implemented 64 Buzz digital O.R. systems in the hospital's 32 surgical suites comprising all the clinical disciplines, including neurosurgery, oncology, orthopedics, ENT, CMF, and spine and trauma. The flexibility to use Buzz for any O.R. application allows the hospitals to maximise their return on investment and increase productivity. Furthermore, Buzz performs enrichment of data using intelligent algorithms; an example of this is 3D modeling of the bone structure based on a CT/MRI. Buzz also has provisions for planning functionality and image fusion, which allows the physician to view a CT and MRI scan in the same pane and compare them side by side.

By transforming data to clinically relevant information, the Buzz O.R. integration solution enables increased surgical efficiency and enhances productivity for its customers.

Conclusion

Frost & Sullivan's independent analysis of the O.R. Integration market clearly shows that the Brainlab solution enables real-time access to patient data, thereby increasing surgical efficiency in the O.R., given the increasing number of procedures and shortages of surgical staff. Frost & Sullivan's research on O.R. integration confirms that the solution enhances customer value by facilitating the surgical workflow through software-guided support for surgical procedures.

Recognising this persistent drive for customer value, Frost & Sullivan is pleased to present Brainlab with the 2014 Customer Value Leadership Award in O.R. Integration.

Chart 1: 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.