

External Press Release

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Frost & Sullivan Commends Ziehm Imaging's Technological Leadership of the European Mobile C-arm for Interventional Radiology Market

LONDON, October 18, 2007 – The 2007 *Frost & Sullivan* Technology Leadership of the Year Award in the European mobile c-arm for interventional radiology market is conferred on Ziehm Imaging for creating innovative imaging technologies such as object detected dose control (ODDC) which, in conjunction with the company's expertise in radiological imaging, has supported advancements in the field of image guided intervention.

Ziehm Imaging's sophisticated ODDC technology significantly reduces and suppresses image artifacts and offers superior imaging quality using the lowest possible radiation doses. This unique technology also allows for real-time motion detection and makes automatic adjustments to reduce noise levels and adjusts the fluoroscopy pulse frequency according to the level of motion in the image.

"A notable feature in ODDC is the, real-time image control with 3 X 256 measurements cells covering the whole field of view, which presents radiologists with a larger viewing angle while covering a wider anatomical area without the need of repositioning the C-arm for the interventional process," observes *Frost & Sullivan* Research Analyst Darshana De. "The technology intends to ensure optimally exposed images regardless of size, shape and position of the object. This helps to capture moving images while simultaneously reducing motion artifacts, thereby providing clinicians and radiologists with sharper, high resolution images for more accurate diagnosis and treatment at a minimum dose."

With the help of Ziehm Imaging's pioneering, variable isocentricity technology, 2D image sequences can be used to obtain 3D visualisation. Additionally, with Ziehm Imaging's implementation of intelligent virtual mechanics (IVM) technology, the isocenter can be chosen freely. Consequently, it facilitates the positioning of the patient for the following 3D scan. A system with isocentricity can be used to obtain full anatomical viewing, with the additional information yielded by 3D image sequences further simplifying the surgical assessment required during intervention.

"This method offers a cost-effective solution for hospitals as it does not require the installation of an additional system for 3D visualisation and represents a landmark

achievement for Ziehm Imaging as traditionally image guided intervention yielded only 2D real time images that were not as informative,” adds Ms. De. “With the implementation of virtual mechanics, the remaining dimension can be reconstructed, thus presenting doctors and radiologists with improved clinical information.”

Further testifying to Ziehm Imaging’s technological leadership is its unique 3D back projection algorithm that can create a 3D volume and MPR Multi Planar Reconstruction from an isocentric 2D imaging sequence with an extremely high image resolution. This technology helps in the calculation of the volume of the anatomy being viewed and supports better visualisation of the image in different planes.

In alliance with CAS innovations AG, a provider for computer- assisted surgery, Ziehm Imaging has introduced a new system, Ziehm CAPPa IS, which can be used for spinal procedures. It integrates different solutions such as computer-assisted surgery and navigation in the c-arm for the interventional process. This way Ziehm CAPPa IS offers surgeons greater flexibility in carrying out required procedures even while allowing them to concentrate on the real-time images obtained on the monitor. In addition, NaviPort is the open interface from Ziehm Imaging, which is applicable to multiple CAS solution providers.

“The 3D–image reconstruction helps pin-point the exact reference in the bone-anatomy, enabling the surgeon to plan operations in advance with the assistance of the different dedicated 3D trajectory tools provided in the data set,” says Ms. De. “Surgeons can thus better guide tools along the planned path and increase the precision of the treatment.”

The *Frost & Sullivan* Technology Leadership of the Year Award is bestowed each year upon the company that has demonstrated excellence in technology leadership within their industry. The recipient company has demonstrated technology leadership by excelling in all stages of the technology life cycle-incubation, adaptation, take-up and maturity-to ensure a continuous flow of improvements. By innovating leading-edge concepts the company has pioneered client applications.

Frost & Sullivan Best Practices Awards recognize companies in a variety of regional and global markets for demonstrating outstanding achievement and superior performance in areas such as leadership, technological innovation, customer service, and strategic product development. Industry analysts compare market participants and measure performance through in-depth interviews, analysis, and extensive secondary research in order to identify best practices in the industry.

About Ziehm Imaging

Ziehm Imaging specializes in the development, manufacturing and worldwide marketing of mobile x-ray-based imaging solutions. The company has been market leader in Germany for more than seven years as well as in many other European countries. Today, Ziehm Imaging is a global systems provider, employing over 250 people



worldwide. Extensive in-house development know-how is reflected in the Ziehm C-arms' high medical imaging performance, intelligent generator technology, significant dose savings and seamless digital network integration. Building on competence and creativity, as well as continuous dialog and close cooperation with renowned universities, research centers and hospitals, Ziehm Imaging has developed groundbreaking technologies that have made the company a global trendsetter in intelligent interventional imaging. Ziehm Imaging products are known for their outstanding versatility and their easy handling for a wide variety of medical applications. In addition, they offer seamless integration into existing IT environments for digital image data acquisition, image evaluation and image management. For more information, visit: www.ziehm.com

About Frost & Sullivan

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