

## Healthcare

Trade press release

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**ECR 2008**

### **A new dimension of ultrasound:**

The European debut of the new system Acuson S2000 from Siemens

**Siemens Healthcare is showing its Acuson S2000, the first ultrasound system of the new product series S, at the ECR (European Congress of Radiology) 2008 in Vienna. This system platform includes integration of the newest technologies to optimize workflows and once again considerably simplify the physician's work. Thus the Acuson S2000 has been equipped with comprehensive software applications such as a new software for breast imaging. The system is also well equipped for future technologies: It enables the implementation of innovative ARFI (Acoustic Radiation Forced Impulse) imaging and is prepared for integration of new silicon ultrasound technology, which is almost ready for the market. The Acuson S2000 is suitable for internal medicine radiology imaging including vascular diagnosis and echocardiography as well as gynecology and obstetrics.**

One of the most innovative ultrasound applications of the new system is the so-called ARFI ultrasound. It compresses the tissue using acoustic energy and thus allows for qualitative and quantitative evaluation of the stiffness of deep tissue. Current research work indicates that this type of evaluation can be helpful in differentiating abnormalities such as liver tumors or quantifying the advancement of fibrosis (development of excess connective tissue).

The Acuson S2000 has already been designed for integration of the future silicon ultrasound technology, the first groundbreaking development in probe technology in over 40 years. This technology uses the precise procedures of semiconductor production and realizes isotropic 3D and 4D ultrasound imaging for the first time, which allows for the same true-to-detail representation in every direction.

"We believe that the ARFI and silicon technologies will change ultrasound imaging as extensively as Doppler imaging did in its day", says Klaus Hambüchen, Chief Executive Officer of the Ultrasound Business Unit. "The Acuson S2000 combines innovative technology, the most advanced clinical applications and a highly modern ergonomic design in a single system. It is our new premium platform, which will have a lasting impact on the further development and significance of ultrasound."

In addition to this, Siemens is preparing the Acuson S2000 for Automated Breast Scanning (ABS). This method provides automatically created, reproducible 3D ultrasound volumes of the breast. ABS is important for screening, early detection, diagnosis and aftercare for breast cancer and complements mammography, especially for women with dense breast tissue. As compared to manual breast ultrasound, ABS shortens the examination time and reduces user dependency. This makes ultrasound imaging more reproducible and provides more uniform results than before.

Innovative applications of the Acuson S2000 such as the so-called "SieClear Spatial Compounding" additionally increase the reliability of the doctor's diagnosis. At the push of a button, this procedure allows for highlighting of anatomical boundaries and improves tissue contrast as a whole. When using the Dynamic TCE technology at the same time, these innovations reduce speckle patterns and noise signals and ensure an excellent image quality, even in patients for whom it is otherwise difficult to obtain good ultrasound images. For the first time the Acuson S2000 will use this 3D TCE with speckle reduction to acquire 3D images. The High Density (HD) probe technology also results in exceptionally fine signal levels for excellent depth and contrast resolution.

In addition to this, the Acuson S2000 integrates knowledge-based applications, which make ultrasound examinations significantly more efficient than before. One example is the software solution syngo Auto OB, which creates semi-automatic biometric measurements of the fetus and saves the operator up to 75 percent of the operating steps in a routine examination. The system is equipped with Advanced-fourSight technology, which provides improved functionality for volumetric acquisition, data rendering and postprocessing. This software also includes Amnioscopic Rendering, which represents a unique method of surface rendering to show almost photorealistic and detailed views of the fetus. The additional imaging with Fetal Heart STIC (Spatio-Temporal Image Correlation) acquires data over the course of several cardiac cycles and creates a 3D volume of the fetal heart, which the physician can use to view the heart in several layers.

The software syngo eSie Calcs is yet another special feature of this system. This software is intended for boundary detection and segments the scan areas of interest and automatically calculates all parameters that are important to the physician. The simple definition of a delimited area allows for tracing of lesions and calculating either their volumes in 3D or their surfaces in 2D.

The Acuson S2000 was completely redesigned with ergonomic aspects in mind: It is equipped with a simple, intuitive interface that users can adjust to their individual needs. The control panel and the 19-inch flat screen are adjustable and thus accommodate differing user needs. The Acuson S2000 is available for delivery starting in April 2008.

You will find the press images to accompany this press release at the following address:

<http://www.siemens.com/med-bilder/AcusonS2000>

**Siemens Healthcare** is one of the world's largest suppliers to the healthcare industry. The company is a renowned medical solutions provider with core competence and innovative strength in diagnostic and therapeutic technologies as well as in knowledge engineering, including information technology and system integration. With its laboratory diagnostics acquisitions, Siemens Healthcare is the first fully integrated diagnostics company, bringing together imaging and lab diagnostics, therapy, and healthcare information

3 / 4

technology solutions, supplemented by consulting and support services. Siemens Healthcare delivers solutions across the entire continuum of care – from prevention and early detection, to diagnosis, therapy and care. The company employs more than 49,000 people worldwide and operates in 130 countries. In the fiscal year 2007 (Sept. 30), Siemens Healthcare reported sales of €9.85 billion, orders of €10.27 billion, and group profit of €1.32 billion. Further information can be found by visiting <http://www.siemens.com/healthcare>