

## Medical Solutions

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### **Background information: Siemens Medical Solutions**

The Curriculum Vitae of a Global Player: Strategy, Organization, History

**Siemens Medical Solutions (Med) is one of the largest providers in the world-wide health care enterprise. This division of Siemens AG stands for innovative products, services and complete solutions. Med covers the entire spectrum of imaging systems for diagnosis and therapy, the electro-medical arena and audiology up to IT solutions that optimize workflows in hospitals and private practices alike and result in higher levels of efficiency. The product spectrum also includes Med's role as application service provider at the customer site. In this capacity, Med's services range from handling data management at the customer's site to process management aligned with specific disease patterns in prevention, therapy and care.**

### **Strategic approach**

It is the objective of Siemens Medical Solutions to become world-wide the most successful solution provider for the health care sector. For this purpose, Med provides its customers with tailor-made solutions for their medical and business-related requirements that provide them with proven clinical or financial outcomes - in short a better quality of health care at reduced costs. This concept of "Proven Outcomes" includes, for example, increased patient throughput, more efficient processes with the help of performance-oriented software and database architecture, error reduction in the area of e.g. administering medication through use of digital files – and last but not least a noticeable increase in satisfaction for patients, physicians and staff alike. In striving toward this objective, Med puts the company's emphasis on integrated solutions, that is, on

combinations that comprise innovative medical technology, modern information technology service and maintenance as well as competent consultation in the area of process optimization.

The implementation of this solution strategy successfully transformed Med from a purely product-based manufacturer to today's process-orientated company. Today as in the future, close-knit partnerships with customers are to ensure that the requirements of private practices and hospitals are met to their full satisfaction. The bon mot for today and tomorrow is: from the customer to the customer.

### **Activities around the globe**

Med employs approximately 33,000 employees world-wide (of those 8,000 in Germany). at a wide range of manufacturing sites in Europe, the US and Asia. Among the world markets, the US is the most important. Med's US sales for fiscal year 2004/05 approximated close to 1/2 of overall sales (Germany: 9%, rest of Western Europe: 18%). Another burgeoning market is the Southeast Asian region, where the medical engineering market for China alone has been estimated at more than 2.5 billion EUR. Overall, the Southeast Asian region showed a healthy 8% of overall sales for the last fiscal year. When including the Japanese market, the percentage of sales rises as high as 14%.

### **Trendsetter with a high rate of innovations**

For more than 125 years, Med has contributed countless innovations to further the advances made in medicine. In 1890, for example, Med introduced the first industrially manufactured, electrical dentist's drill to the market. A host of other innovations followed. Listing them briefly, the most important were: in 1896 – one year after the discovery of X-rays – the first X-ray tube, in 1911 the first electrocardiogram with electronic signal amplification, in 1913 the first electrical hearing instrument, in 1958 an implantable pacemaker developed in Sweden, in 1966 the first ultrasound echography system with realtime display and in 1975, the first instant image generated by a computed tomograph. As early as 1982, Siemens technicians installed a magnetic resonance system in the US; by 1992 Siemens Med was involved in the first digital networking of an X-ray department at a hospital in Vienna. In 1999, *syngo*, a common and user-friendly operating platform based on Windows NT was developed for viewing images and operating workstations.

More innovation highlights:

- The world's unique computed tomography system with two x-ray tubes and two detectors is the Somatom Definition. For the first time ever, it is possible to examine every patient with top quality – regardless of size, condition and heart rate. The new technology bases on the revolutionary x-ray tube Straton, which was nominated for the German Future Prize 2005.
- One of the highlights is Tim (Total imaging matrix) a method for magnetic resonance that provides for the first time whole-body images in excellent image quality – consistently, and not just limited to a single examination. In 2004, the method was awarded the prestigious German Business Innovation Prize.
- A new radiation therapy, known as particle therapy with heavy ions, is anticipating a promising future. The therapy was developed together with GSI, a german company for heavy ion research. Its advantages are the treatment of difficult-to-access tumors in a particularly tissue-sparing manner.

Med is a highly innovative force. Today, two thirds of all Siemens Med products are under three years old. Currently, the division is filing an average of three patent applications per work day. In FY 04/05 Med invested 728 Million EUR in Research and Development – this translates nearly 10% of overall sales.

### **A role model in production, product design and environmental protection**

One of the current innovative highlights is the new method used in magnetic resonance tomography. In 2004, the method known as Tim (Total imaging matrix), was awarded the prestigious German Business Innovation Prize. AX, the business unit for angiography, fluoroscopy and radiography, was awarded with the title of “factory of the year 2004“ by the American consulting company A.T. Kearney and the German magazine “Produktion”. The Straton X-ray tube, a core element in the world's fastest computed tomography system, is nominated for the German Future Prize 2005, the winner will be announced on November 11 in Berlin. Med is also deeply involved in environmental issues. In view of the pending remanufacturing program, Med instituted years ago a comprehensive recycling program for outdated electronics. Ninety-five percent of the components for new medical engineering products can be returned to the raw material cycle.

## **Global Player**

While Siemens Medical Solution is headquartered in Erlangen/Germany, research and development, production and sales are not handled in Germany alone. Large parts of them are located in international Siemens subsidiaries: there are sales offices in more than 120 countries alone.

The German headquarters in Erlangen comprise the business units Magnetic Resonance Tomography (MR) and Special Products (SP), as well as the Siemens Audiology Group (S.A.T) a subsidiary of Med. Angiography, Fluoroscopy and Radiography systems (AX) as well as Computed Tomography (CT) are located in the neighboring city of Forchheim. An additional four business units are located in the US. These include Radiation Therapy (OCS, Concord/California), Molecular Imaging (MI, Hoffman Estates/Illinois), Ultrasound (US, Issaquah/State of Washington) and HS (Malvern, Pennsylvania). Internal business units, such as Components (C0), X-ray Tubes/Vacuum Technology (RV), Software Components and Workstations (SW), are the primary suppliers for the business units mentioned above.

Since July 2003, the previous Electromedical business unit (Solna/Sweden), is involved in a joint venture between Siemens Medical Solutions and Drägerwerk AG known in the market as “Dräger Medical – A Dräger and Siemens Company.” The objective is to combine the worldwide activities of the companies in the critical care unit for the OR, anesthesia as well as intensive care and emergency medicine with the products for the home care sector. The planned employee population will reach 5,700 people, of these approximately 4,800 are from Dräger Medical and approximately 800 from Siemens Med. In turn Siemens received 35% of the limited shares capital of Dräger Medical AG&Co. KgaA.

## **Financial growth**

With up to one billion EUR, Med is able to exhibit an excellent group profit in fiscal year 2004/05. Among the 16 different subsidiaries of Siemens AG, Med is one of the most profitable. Especially the large successful imaging modalities (AX, CT, MR) of the division as well as the Audiology group contributed to these year end results. The product innovations in these groups enabled Med to reach a business volume of 7.6 billion EUR.

**Siemens Medical Solutions** is one of the world's largest suppliers to the healthcare industry. The company is known for bringing together innovative medical technologies, healthcare information systems, management consulting, and support services, to help customers achieve tangible, sustainable, clinical and financial outcomes. From imaging systems for diagnosis, to therapy equipment for treatment, to molecular medicine to hearing instruments and beyond, Siemens innovations contribute to the health and well-being of people across the globe, while improving operational efficiencies and optimizing workflow in hospitals, clinics, home health agencies, and doctors' offices. Recent acquisitions in the area of in-vitro diagnostics – such as Diagnostic Products Corporation – mark a significant milestone for Siemens as it becomes the first full service diagnostics company. Employing approximately 36,000 people worldwide and operating in more than 130 countries, Siemens Medical Solutions reported sales of 8.23 billion EUR, orders of 9.33 billion EUR and group profit of 1,06 billion EUR for fiscal 2006 (preliminary figures). Further information can be found under: <http://www.siemens.com/medical>