

A woman in a white lab coat with a green collar and a man in a grey suit and orange glasses are standing by a large window, looking out at a city street. The woman is smiling and has her hand near her chin. The man is pointing towards the window. The window view shows a street with a crosswalk, a white car, and a person walking. The text "How can we ensure staying at the leading edge in cardiology?" is overlaid on the top part of the image.

**How can we ensure staying at
the leading edge in cardiology?**

Focusing your resources.

Cardiology Solutions from Siemens.

Answers for life.

SIEMENS



Innovations throughout history – Siemens

Setting trends, upholding high quality, and providing state-of-the-art technology: Siemens is known for these values. Backed by decades of experience in the medical field, Siemens Healthcare is counted among the market leaders.

1896 – First industrially manufactured X-ray tubes for medical diagnostics

1953 – First echocardiography system

1983 – First nuclear magnetic resonance tomograph

2001 – First PET-CT scanner

2005 – First dual-source CT scanner

2007 – First robotic C-arm for interventional cardiology

And the story continues: Whether for example real-time 3D echocardiography or low dose coronary CT angiography – our solutions help you offer high-quality care for your patients from diagnostics to follow-up.

Cardiology has undergone a tremendous development over the last two decades. Efficient diagnostic and especially therapeutic measures enable an efficient management of patients with cardiovascular diseases.

Patients with an acute myocardial infarction have the chance not only to survive, but to survive without or only minimal residual damage to their heart. And when high-grade coronary stenosis has to be treated, percutaneous intervention is meanwhile a valid alternative to bypass surgery. Children with congenital heart disease have today the chance to live a nearly uncompromised life, dependant on the severity of the underlying disease. They may grow old in good health. Patients with severe cardiac diseases like end stage heart failure benefit from sophisticated device therapy (CRT) that helps to improve their quality of life significantly.

At the same time, cost of healthcare delivery has also increased, but in many cases not at the same pace as reimbursement did. This may compromise the financial health of healthcare providers as some innovative approaches in cardiac care can only be delivered by subsidizing these. And also other factors impact the future of cardiology, like shortage of experienced physicians, nurses and technologists. Their workload is increasing steadily, not only by increasing numbers of patients, but also by increasing requests for documentation and other paper work.

But nonetheless the future of cardiology seems to be bright. Experience how partnering with Siemens can help you to strengthen your business and position it in these challenging times.

Committed to Business Excellence. We can help you gain a competitive edge.

Demographic changes, a rising number of patients with chronic cardiovascular diseases, and the demand for better care on the one hand – tighter resources and rising competition on the other. These and other trends increase the pressure to differentiate your institution from competition. However, every challenge opens up new opportunities. As a partner you can rely on, we support you in meeting your strategic and metric goals. We offer consulting on investment decisions and improvement of workflow efficiency. We provide innovative technologies for in-vivo and in-vitro diagnostics as well as innovative services over the entire life cycle of your systems, while you can enjoy peace of mind. We deliver innovative IT solutions to support communication within your institution and with your stakeholders. In short: Siemens guides you through a complex environment of ever-changing clinical and economical demands. So you can successfully compete in the changing world of cardiovascular care – today and tomorrow.



Consulting

We can help you leverage your potential

**Are the services you offer in line with the requirements of your market?
Do your internal processes really support an efficient workflow?
And does your IT infrastructure as well as your imaging and lab equipment
mirror the demands of today and tomorrow?**

With our Healthcare Consulting, we help you answer these questions – by helping you optimize organizational, administrative, and financial aspects. The different modules of our consulting concept can be ordered individually or as a package and are specially tailored to meet the requirements of clinical administration as well as business management.

Enhance your competitiveness by refining your business

As a basis for a strategic realignment of your cardiology department, Siemens offers dedicated market and competitor analyses. You also receive support in defining a service portfolio according to current needs in a changing healthcare market as well as in setting up cross-sector cooperation models, for example with primary care providers. So your cardiology department stays competitive today and in the future.

Increase quality of care by operationalizing your strategy

To help you operationalize your strategy, Siemens provides you with best practices and international benchmark data for selected indications. Moreover, we support you in optimizing your processes according to clinical pathways.

Support your processes with the facility and infrastructure tailored to your needs

Whether medical technology, IT infrastructure or lab equipment – Siemens helps you identify the necessary equipment, tailored to the needs of your cardiology department and beyond. Profitability analyses, for example for a hybrid operating room or a cardiac CT scanner, are created as a basis for a sound investment strategy.



We can help you realize your vision

You plan to expand or restructure your institution or even build a new hospital or cardiology center from the ground up and get it ready for the future?

Helping you realize your vision – every step of the way

Whatever the size and scope of your project, you can count on our full support in construction, building infrastructure, information technology and medical technology.

As one of the largest electronics and electrical equipment company spanning the branches of healthcare, energy, and industry, we are very well positioned to help you realize your project on schedule and within budget. Jointly developing the project, we then offer a true turnkey solution – including feasibility study, architectural designs, procurement and installations, project management and financing solutions.

All hospital areas from power systems, heating, ventilation and air-conditioning, fire and security systems, elevators to medical equipment, laboratory and IT systems will be covered and smoothly integrated and implemented – all from Siemens.

Finance and Leasing

We help you grow profitably

In today's environment of shorter technological cycles, ownership of technical equipment is associated with a number of serious drawbacks. To help you stay on the competitive edge, we offer you financing solutions tailored to your budget.

Investments according to your strategy

In an era of escalating healthcare costs, our broad spectrum of financing solutions, including leasing, lease-purchase and rent as well as innovative usage models, help physicians and hospitals use their capital more efficiently. Financing is provided for medical technology, equipment used in hospitals, labs and doctors' offices, IT and telecommunication equipment, software and services as well as all types of mobile investment goods.

Participate in Siemens' stability and strength

Siemens combines financial strength with detailed know-how regarding the needs and financing possibilities of healthcare institutions. In more than 20 years, we could provide funding for more than \$6 billion worth of healthcare equipment for over 4,700 customers. From our global presence with an international network of more than 20 leasing companies to in-depth knowledge of country-specific tax and legal systems, we provide all prerequisites to find a financing solution that is individually tailored to your requirements – no matter if your institution is publicly owned or privately operated.



Medical Imaging and Therapy

We can help you stay at the leading edge of healthcare innovation

Siemens has built one of the industry's most extensive healthcare technology portfolios with the goal of helping make patient care more efficient and more personalized. By partnering with us, you can be assured of bringing healthcare innovations to your patients.

Your strong and reliable partner

Patient management in cardiology is becoming more and more complex. The number and age of patients suffering from cardiovascular diseases is growing dramatically, the rate of serious co-morbidities is rising and has a big impact on patient handling. In order to deliver state-of-the-art cardiac care for all patients, you need talented and experienced people and leading-edge technology: Either from lab testing, imaging or Healthcare IT.

For more than 130 years, Siemens has been a recognized leader in medical innovation. Our cutting-edge technologies help improve the quality of life for people around the world. Today, Siemens spends 1.0 billion Euros annually on research and development in its Healthcare Sector. In close

collaboration with world-renowned institutions, we develop technologies that change the way healthcare gets delivered.

One illustrative example is our MAGNETOM Espree, a MR scanner that offers high-end image quality. That is the basis, but the MAGNETOM Espree offers much more. From scratch, patient friendliness was in the genes of the system: It offers unmatched space for the patient, making a MR scan a comfortable experience, especially with reduced examination times based on the highly advanced MR technologies. The fact that no more helium refills are necessary helps reduce life cycle costs significantly as well as the impact on the environment. The MAGNETOM Espree is only one example of Siemens' innovations that help make state-of-the-art care available to every patient.



Refurbished Systems

We can help you benefit from affordable state-of-the-art technology

In today's changing world of healthcare, budgets are tight, but the need for state-of-the-art medical equipment is growing. Refurbished medical systems can be a viable and less costly alternative to high-end equipment.

Staying competitive – cost-efficiently

Our Proven Excellence systems for cardiac imaging completely cover the requirements of every cardiology department, starting with highly cost-effective solutions and reaching up to systems that feature the latest technology available on the market.

Low total cost of ownership

Refurbished equipment from Siemens delivers high quality with great customer satisfaction at lower costs. A number of factors come into play when calculating the total cost of ownership, among them are the cost of the unit, service, parts availability and, if provided, warranty. This is why our refurbished systems offer warranty and service equivalent to new equipment to increase your return on investment.

Outstanding in performance and price

As a leading original equipment manufacturer, we are well positioned to offer you high-quality refurbished medical systems with the capability of innovative clinical applications. Within the scope of our Proven Excellence Program, which is certified according to EN ISO 13485:2003 and ISO 14001:1996, we put pre-owned equipment back into operating condition and equip it with innovative Siemens technology, customized to your needs. Our Proven Excellence quality seal stands for a high quality standard and fulfills the strict specifications of relevant international and national norms.



Information Technology

We can help you improve your data flow

Due to advances in medical technology, the amount of healthcare data is increasing continuously. But the information challenges are not just clinical. Payer contracts get more complex, insurance plans spawn endless variations, patient data gets more fragmented, and disparate systems pose administrative problems. Our healthcare IT and infrastructure solutions meet both the clinical and business objectives of your organization – whether it's a small community hospital or a large health system.

Innovative and integrated IT systems

Siemens is a pioneer in healthcare IT. We have a rich legacy of clinical and financial software implementations dating back to 1969. Since then, we have expanded our research and development efforts with innovations and many market-leading products and solutions. It is our commitment to innovation that today enables us to garner best practices of thousands of customers in multiple countries and use those practices as working models in our development cycle. Further, our solutions are capable of processing data from administrative systems and findings from other departments as well as from the cardiology department. This means an integrative approach and makes it possible to manage all medical and administrative data – whether of image acquisition, electronic health records, laboratories or accounting.

IT infrastructure covering all communication needs

Our solutions for communication and IT infrastructure optimize cardiology processes by using specialized software, security tools, and appropriate multimedia terminals that are suitable not only for providing bedside TV and multimedia entertainment and information, but also for the retrieval of medical data. Examples range from sustainable communication platforms suiting every hospital and workstation to Wireless LAN technology that helps your staff communicate without local restrictions; from security solutions to contact centers for outstanding patient and partner communication. And last but not least, we offer various possibilities to take over the whole organization of IT processes and tools at clearly calculated costs – from maintenance to the outsourcing of an entire internal information communication technology service department including its staff.



Education, Training, and Service

We can help you stay competitive

Whatever your needs, we can do more for you – from training your staff to keeping your medical equipment up and running. Highly trained personnel will increase both the competence and the reputation of your cardiology department and your entire institution – which may highly affect the number of your patients. And thanks to our wide range of proactive services, you can prevent unscheduled system downtimes and thus patient rescheduling.

Increasing know-how – the key to success

With our vast array of educational courses, we want to help you tap the full potential of your systems, so you can really improve your workflow and offer your patients a higher quality of care. Our offering includes clinical and continuing education from interactive tutorials to practical hands-on sessions and fellowships, IT and PACS training as well as technical services training.

Siemens UPTIME Services – solving tomorrow's problems today

Especially in a cardiology department, imaging systems play an increasingly important role in providing critical support for interventional procedures. Siemens UPTIME Services therefore helps you increase system availability, workflow efficiency, and system utilization. As an essential part of our Enhanced Productivity Services, the Guardian Program™ for example offers remote system monitoring on an ongoing real-time basis. By continuously supervising your system for possible deviations from current norms, the Guardian Program ensures a high level of system availability in your cardiology department, making it possible to detect and resolve system errors even before malfunctions occur.



Setting new standards of care

The challenge

The Mazankowski Alberta Heart Institute in Edmonton, Alberta, Canada, is one of few North American heart institutes to handle both pediatric and adult patients under one roof. When moving into a new institute, the staff wanted to take the opportunity to create a more patient-centered culture. To support this change, they needed to identify performance measures and introduce technological and architectural improvements.

The solution

From room and functional planning, IT and technology consulting, process and performance optimization, concepts to increase patient satisfaction to patient-centric care concepts – the Siemens Healthcare Consultants helped the staff at the Mazankowski Alberta Heart Institute start thinking outside the box. Together, they examined existing and planned cardiology practices and how they relate to patients as well as how technological, structural, and cultural changes could be introduced to the way care is delivered.

The result*

- Intensive Care Unit designed to provide patient and family privacy while reducing risk of spreading infection
- Integrated bedside terminals for easier patient admission, physicians' access to electronic patient records, and patient education
- Decentralized nursing stations and wireless communication devices to eliminate stress-inducing overhead pages
- Coaster-sized pagers for clinic patients to allow them a new degree of freedom when waiting for treatment
- A sea change in culture necessary to deliver patient-centric care

Siemens solutions at work

Medical Imaging:

- Single-plane and biplane cath labs
- Magnetic Resonance

Healthcare IT:

- Bedside terminals
- Headphones
- Pagers for patients
- Telehealth sessions

“ Healthcare Consulting
took it all down to what’s
best for the patient. ”

Carol Manson McLeod
Senior Operating Officer, Mazankowski Alberta Heart Institute,
Edmonton, Alberta, Canada

Experience Business Excellence by Siemens

Backed by decades of experience and know-how in healthcare, IT, financing, and turnkey solutions, Siemens is your reliable partner to successfully meet today’s clinical and economical challenges in cardiology. We tailor a solution right to the individual needs of your department or institution. And you only need to turn to one source – Siemens.

For more information on our cardiology solutions
please go to: www.siemens.com/cardiology

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