Turf wars

By Stefan G Ruehm MD, Associate Professor of Radiology and Director of Cardiovascular CT at the David Geffen School of Medicine, University of California Los Angeles (UCLA, USA)

Imagery technology, and rely on the comprehensible perception that cardiologists may lack knowledge about CT technique and equipment, radiation physics and safety. Radiologists are often frustrated that other medical professionals frequently do not share this perspective. Many radiologists view cardiologists as the group of physicians that has already taken from them coronary angiography, echocardiography and increasingly renal and peripheral artery interventions. They perceive the cardiologist’s interest in cardiac CT as just another example of infiltrating their turf.

On the other hand, cardiologists feel that they have more expertise in invasive coronary angiography, better understanding of cardiovascular anatomy and pathology and better understanding of the clinical implications of normal or abnormal findings of a cardiac CT study, so they can find the best way to integrate results with patient management. They feel that cardiac CT – under their control – will help them to better control their patients and that they should be the logical heirs of this modality. In addition they often regard CT imaging as a mandatory tool to increase revenues in a declining reimbursement environment. However, depending on their knowledge of peripheral vascular anatomy or nonvascular pathology in the chest, it appears justified that radiologists are required to also read all CT studies for potential nonvascular findings.

On the basis of this analysis, it should be clear that a simple duplication of a practice model for cardiac CT to be operated separately by cardiologists and radiologists offers no real competitive advantage for either side. A joint model, based on true teamwork, with the idea of division of labour and responsibilities, could yield a mutually successful strategy. Both physicians and patients might benefit from an interdisciplinary approach that utilises both cardiologists and radiologists to make treatment decisions.

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The EOS digital x-ray unit

Traditionally, radiography systems have an X-ray tube at one end, film-screen cassette or detector at the other, a table between, and perhaps a mounted assembly on a U-arm or chest stand. Visitors to the French firm Biospace Med’s stand at RSNA 2006, in Chicago, were therefore intrigued to be shown the EOS digital X-ray unit - a radical new digital radiography design that resembles a department store dressing room.

Biospace Med explained that the EOS linear-scanning architecture begins with a pair of X-ray tube and detector assemblies, positioned at 90° right angles, much like a dual-head cardiac gamma camera. “These assemblies are mounted on vertical rails and slide up and down during an examination, with the patient standing or sitting inside the system at a point where the X-ray beams from both assemblies intersect.”

Designed for orthopaedics, the EOS low irradiation 2-D and 3-D digital X-ray scanner covers the body from head to toe. With a patient in a standing position, the system scans two simultaneous, perpendicular planar X-ray views to provide the clinician with corresponding digital planar radiographs and a 3-D bone envelope image. A 2-D spinal examination can be performed within 5–10 seconds; a full body scan in under 25 seconds. The manufacturer also points out that patient irradiation is 5–10 fold below the dose received during conventional CR or DR examinations.

‘High image dynamics allow the simultaneous observation of soft and bone tissue,’ Biospace Med points out, adding: ‘The 3-D bone envelope, calculated using a proprietary technology, can be derived from the two digital radiographs for the spine, knee and hip. It replaces the 3-D image obtained from highly irradiating CT multiplanar digital imaging.’

Developed in collaboration with ENSAM/LBM (Laboratoire de Biomecanique de l’Ecole Nationale Superieure des Arts et Metiers), Paris, and ETS/LIO (Laboratoire de recherche en Imagerie et Orthopedie de l’Ecole de Technologie Superieure), Montreal, the EOS has successfully undergone clinical trials at the Hôpital St Vincent de Paul, Paris, and Hôpital Erasme (Brussels) within an EU-funded programme. The EOS will be in sale from mid-2007.

Mercury’s Visage

Integrating clinical applications and promising new levels for image quality

Coronary artery analysis: just a few clicks and the software automatically tracks the arteries, enabling assessment of the vessel lumen, calcifications, and adjacent structures

Visage CS cardiac package

Visage CS will feature improved bone removal and vessel visualisation tools that greatly improve the performance and simplicity of CT angiography workflow.

Visage also points out that its Visage PACS, a web-based, scalable, enterprise-grade image management system, now features “…powerful new functions that enable flexible arrangement of multiple viewers, powerful new options for side-by-side comparison, as well as hanging protocols. Visage PACS is fully integrated with Mercury’s 3-D thin client technology, delivering consistent and efficient image and database access through both 2-D web viewers and 3-D thin clients.”

At ECR 2007, Mercury Computer Systems will be in Expo C, booth # 343

Accuvix XQ upgraded

Accuvix XQ, made by Korean firm Medison (pioneer of the first commercial real-time 3-D US scanner) has been upgraded and re-released as Accuvix XQ Prestige 07. Since its launch in 2003, this equipment has been continuously improved and the firm reports it is now considered a ‘next-generation ultrasound diagnostic system with future standards’. Medison adds that, during its debut at SIUGO 2006, Accuvix Prestige 07 attracted keen support among international visitors due to its Spatial Compound Imaging(SC), which achieves striking enhancement of 2-D image quality; 3-D Compound Imaging (3-D CI), which dramatically improves image quality of C-plane – a drawback of current ultrasound diagnostic systems, and the 3-D Auto-Center, which greatly reduces 3-D, thereby setting new standards for premium ultrasound systems and helping to produce more precise and convenient diagnosis.

Accuvix XQ Prestige 07 has various advanced probe functionalities, such as 128-024 channels, Clip Cine Store and easy-to-handle User interface.

Accuvix XQ Prestige 07

Contemporary Ultrasound Systems will be in Expo C, # 343
Imaging for everyone and every facility

“Even in today’s increasingly digitised radiology environment, hard copy imaging remains an invaluable diagnostic and communication tool for medical professionals. However, up to now the design of radiology imagers has been largely limited to centralised, large, all-in-one systems that are shared between many departments. Not only do these offer more capability than most practitioners will ever need, they also do not offer the on-demand, customised performance that the modern hospital requires.

Flexible solutions

Sony has taken a radically different approach to radiology imaging, offering small, even personal, dedicated imagers that provide maximum quality with incredible space and efficiency savings. The latest range of Sony Digital Radiology Imagers is designed with the practitioner in mind, to give them the freedom to pay only for what they need and make maximum savings on capital investment, space and running costs.

Able to produce monochrome and colour paper, as well as blue diagnostic film hard copies the range can be tailored and matched to specialist applications.

Workflow efficiency

The biggest innovation, however, is in efficiency. Sony’s Digital Radiology Imagers offer practitioners next-to-application, mobile printing, which allows quick access to film and paper hardcopies and saves valuable time and manpower during the diagnostic process. This specialised and modular concept provides enormous workflow advantages: rapid diagnosis, improved time management, on-demand printing and tailored output for every need.

It is this aspect of the Sony range that marks a break with traditional centralised imaging workflow. The aim is to move towards a more flexible and more efficient vision of radiological imaging, in which practitioners are not beholden to a large and often cumbersome central system. Sony believes the future lies in small, versatile and fast imagers that enhance radiology facilities’ patient treatment capability.

Whether specialised in CT, MRI, CR/DR, nuclear medicine or working with PACS, our range offers easy connectivity and advanced architecture design, to allow users to take full advantage of both current and future modality trends. Even the format size can be varied from 8”x10” up 14”x17” imaging, offering an even wider range of option at radiologists’ fingertips.

Maximum performance, minimum space

Sony’s Digital Radiology Imagers also have the smallest footprint in their class, further enabling convenient and time-saving next-to-application installation, even in the smallest environments. The latest designs can be installed vertically or horizontally for even greater unique space saving capability.

However, size does not belie their performance. Sony has led the development of dry thermal print technology for the past 25 years; all its radiology imagers feature automatic image control technology to provide high contrast, high-density images with superb clarity and sharpness. All colour paper images are coated with a special laminate for enhanced durability and reliability. Furthermore, with no wet processing, darkroom or chemicals involved in the processing and using digital thermal technology rather than complex and maintenance-intensive laser optical components, the company’s products offer the benefits of small size, low power use and minimum maintenance.

Dramatic changes are afoot in the medical imaging market. Watch this space…”

Ludger Philippsen,
Senior Manager at
Sony Healthcare,
says modular workflow solutions are ‘the future’

Consider digital mammography?

Trust us to share the secrets of the move to a digital environment. Beyond our CR, RIS, PACS, CAD, and image management solutions, we offer the expertise to advise, support and guide you. When you face the complexities of the digital transition, you’ll need a friend. Look to Kodak. www.kodak.com/go/mammo

Meet our team at ECR 2007

Expo Hall E. Booth 551
Discovering Toshiba

Toshiba Medical Systems Corporation is a global medical solutions company covering research and development, manufacture, sales and service for medical diagnostic X-ray systems, CT scanners, magnetic resonance imaging (MRI), ultrasound, nuclear medicine systems, as well as healthcare IT systems and radiation therapy equipment. Daniela Zimmermann, of European Hospital, recently visited Toshiba’s massive manufacturing factory based in Nasu, an industrial area located 150 km north of Tokyo. Toshiba Corporation is one of Japan’s biggest leading companies - just as Siemens is in Germany. The medical business is one of the core businesses of the entire Toshiba organisation; it is a rapidly growing and promising business segment.

At Nasu factory, which is noticeably clean and organised, lots of eager, busy people are engrossed in their work. Innumerable products awaited deliveries after system assembly and strict quality control tests. As the No.1 supplier of diagnostic medical systems in Japan, Toshiba manufactures more equipment than offered in Europe, e.g. clinical laboratory systems and Healthcare IT solutions. Daniela next travelled to Toshiba’s global head office, a high-rise building located in the heart of Tokyo (far right), to interview Masamichi Katsurada, President and CEO of Toshiba Medical Systems Corporation worldwide and a former chairman of the Japan Industries Association of Radiological Systems (JIRA).

Daniela Zimmermann: What trends do you foresee in healthcare in the next five to ten years?

Masamichi Katsurada: It is most important to envision our future. Fundamentally, in any country - Japan, the USA, those in Europe - social security expenditure and aging population are most challenging. Roughly half of social security expenditure is for healthcare. All the developed countries are struggling with this, trying to improve healthcare efficiency and quality. Humans are the same everywhere, striving for better life, better healthcare, resulting in healthcare cost increase.

In short, the recent global trend towards cost containment for social security and medical treatment is changing the medical environment. In addition, developed countries must properly manage healthcare related issues for their aging populations, while developing countries usually focus on establishing basic medical care facilities.

To satisfy the wide range of medical requirements, we always endeavour to maximise clinical value. We use our advanced technologies to provide clinically high-value-added solutions over the entire process of medical care from preventive medicine and screening, to diagnosis, to treatment, and to follow-up. We also contribute to the containment of medical care cost and to the improvement in medical service efficiency, as well as to the enhancement of the quality and safety of medical care by providing optimal solutions for the needs of the market, i.e. for the needs of the medical care field.

Our philosophy is summarised in our slogans ‘Made for patients’, ‘Made for you’ and ‘Made for Life’. Our goal is to contribute to medical care and to society by providing clinical value. Does Toshiba offer financing to doctors, clinics, or hospitals? In Japan we have a financing company. Also in the US, our own financing company is in operation. In Europe we offer finance with different models and partners depending on countries. Finance is one solution for our customers. Let’s talk more about our business. In Japan, we not only offer diagnostic imaging systems, but we’re also in the hospital solutions business, providing excellent after sales service. The Toshiba Group has a lot of experience and know-how in PC business, IT solutions business and home electronics and so on. By utilising these resources, we strongly promote healthcare IT solutions business in Japan. Because of differences in healthcare systems and languages, we have alliances with healthcare IT firms in the US and Europe.

Is China a market for you? China has huge potential but is also challenging. Their social system is different from western countries. I think we have opportunities in China; bit by bit we are developing and establishing IT software there. In the next five to ten years, there will be many changes in the healthcare environment and the way they will use technology for screening and so on, and then IT will also be important. We are looking in that direction.

What kind of role does the European market play for Toshiba? The European market is very important for us, as well as the US market. We started our business in Europe around 1970. Today there are 27 EU member states and, beyond that there are 41 countries in Europe, including Russia, where Toshiba is doing business. We established Toshiba Medical Systems Europe B.V. in 1981. On the basis of a well established customer base in Western Europe for more than 35 years, we are now expanding our market share also in Eastern Europe and the CIS, with particular emphasis on the new EU member states, where substantial growth in GDP and healthcare investments are expected. We will contribute to healthcare in these countries.

Our defined mission in Europe is to contribute to healthcare in Europe, establish, grow and maintain market leadership and customer satisfaction in four main imaging modalities: Ultrasound, CT, MRI and X-Ray, which are important in the medical imaging field. We are seeking to achieve this mission through consistent and clear communication of tangible performance benefits and demonstrated product innovation leadership in combination with strong and continued investments in our European customer support infrastructure.

Through close clinical cooperation with leading universities and luminary sites across Europe, and through many kinds of alliances with European enterprises, we continue to develop our product capabilities to meet and exceed the changing needs of the European customers and markets. Currently, we are experiencing a strong focus on ‘clinical outcome’ and ‘Life cycle cost & management’ objectives, which are central elements of
Let’s discuss molecular imaging. What does Toshiba think about this development? Our business activities are focused on medical systems, IT systems, and healthcare solutions that contribute to the entire process of medical care from preventive medicine and screening, to diagnoses, to treatment, and to follow-up. We feel that molecular imaging can make significant contributions in a variety of areas. We plan to employ molecular imaging to provide individualised medical care by developing new technologies in various areas such as DNA-based diagnostic techniques, in vitro diagnostics, and clinical application software for diagnostic imaging systems based on molecular imaging. We are participating in the national projects and collaborative research programs with universities and will continue to invest our resources in this field.

Toshiba is at the very high end of technology with its 256-slice CT and the 3-Tesla MR. What is your strategy to implement those technologies in the global market, and what is your strategy to combat competition?

We are using our technological leadership to advance global collaborative development of these new technologies, including clinical applications, with the goal of providing the highest possible clinical value.

In the field of CT, we are conducting the ‘CorEth’ global multicentre research project in collaboration with nine leading healthcare institutions in seven countries. In this global research project, we have been evaluating the results of CT coronary angiography obtained using our Aquilion 64-slice CT system, and comparing these results with those obtained by conventional coronary angiography using cardiovascular X-ray systems. This research is yielding significant results. We believe that 256-slice CT will be a great breakthrough that will revolutionise the conventional CT studies. We have started the clinical development of this new technology in collaboration with clinical researchers. The keywords include ‘extremely low dose’ and ‘whole-organ perfusion’.

Currently, we are also conducting a global collaborative research project in the field of MRI. Our superior technology has led to the expansion of our MRI system sales. These technologies include high-speed cardiac scanning by parallel imaging, we call it ‘silent scan’ technology, and outstanding clinical applications such as Fresh Blood Imaging (FBI), which can depict blood vessels without contrast medium. As for the 3-T MRI, we have continuously performed its basic research and development and are considering the time of release. Currently we are developing a commercial 3-T system, which we, as a leading supplier of MRI systems, will promote globally.

We provide leading ultrasound imaging technologies such as myocardial strain imaging and Micro Flow Imaging. We have a large diagnostic X-ray system line-up that covers the full range of clinical applications. Our recently released IPD vascular system with multi-access C-arm has quickly gained an excellent reputation worldwide. In addition to medical imaging technologies, we also provide IT services to improve efficiency in healthcare activities.

Another of our priorities is research and development for future healthcare technologies, such as a surgical robot and Computer Aided Diagnosis (CAD) systems. Why did your MRI enter the German market so late? MRI involves significant investments and therefore business volume is important. We need volume to fully support our customers and provide excellent service and maintenance. Only recently did all pieces of the puzzle come together for us, hence the renewed MRI activities in the German market.

Japanese companies are known worldwide as being very IT and technology oriented. What strategy does Toshiba have to guide clients and enhance communication with them?

Although IT and technology are areas in which we are extremely competitive, our primary strategy is to build on our technological leadership to develop medical systems that provide the highest possible clinical value to our customers in actual medical practice building on our technological leadership. We always place the greatest importance on building long-term relationships with our customers. Based on this policy, we have enjoyed close relationships with our customers in Europe since we first began operations there 37 years ago. In the future, we will continue to invest aggressively in sensor, detector and systems integration technologies, since these are core technologies, in which we have extensive experience. To maximise clinical value, we will continue our research and development with a focus on actual clinical practice. In Europe, we also plan to further strengthen our partnerships with medical institutions by conducting collaborative research and so on. In addition, after-sales service and customer training programs are essential to ensure that the customers can always get the maximum out of their systems. We will strive to further improve our after-sales service and training programmes, which is very important for achieving the highest level of customer satisfaction.

One destination. Many paths.

We’ll take you there.

Your radiology department and your path to digital is unique. Yet, your goal to provide the highest level of care is shared worldwide. We know. Found in 1 of every 2 hospitals, Agfa HealthCare works alongside radiologists every day. Our systematic steps to integrated digital radiology allow you to advance at your own pace, without jeopardizing current systems or investments. This allows you to choose the solutions you want: advanced imaging systems, integrated RIS/PACS/Reporting, sophisticated data management, or integrated digital workflows for radiology, mammography, cardiology and the healthcare enterprise. So as you consider your chosen path, let our proven experience support your next step, and every step after that.

Learn more about our proven solutions. Visit Agfa HealthCare at ECR, Expo B, booth 212.
Endovascular brachytherapy has been successfully modified by scientists at Isotopen Technologie München AG (ITM), solving problems of radiation exposure to Rhenium-188. The researchers are now producing Rhenium-188 with previously unknown high specific activity in a new type of generator, Isotopen Technologie reports.

The itm Rhenium-188 PTA solves the problems previously experienced with endovascular brachytherapy in the peripheral area. As there is a lack of suitable stents for the femoropopliteal area, restenosis following conventional PTA has been a big problem. Rhenium-188 with very high specific beta-activity is administered via a radiopaque catheter immediately after dilatation of the stenosis. The radiation time is individually determined for the patient; it is generally between seven and ten minutes.

Using the itm Rhenium-188 PTA is simple, fast and safe, the firm reports. ‘A special applier ensures that doctors are not exposed to any noticeable levels of radiation despite the high activity levels used.’

Rhenium-188 beta rays have ideal characteristics within the vessels and radiation levels drop quickly. Radiation penetrates to a maximum level of about 3mm so that only the vascular walls are selectively radiated. The procedure is carried out on an angiography table and there is no need to transport the patient to the radiotherapy department, the company points out.

A centring unit is not needed in the vessel with the itm Rhenium-188 PTA. The catheter centres itself within the vessel when filled with the isotope, so the radiation series of dose is also homogenously distributed in vessels with irregular configuration, Isotopen Technologie says, adding: ‘Only 23% of long and complex vessels with recurrent vascular obstructions still remain open six months after PTA. With the itm Rhenium-188 PTA, the cumulative rate achieved after two years is around 46% of arteries treated.

The Activion16 Multislice CT System at the ECR: Booth 316 (Expo C Hall).

**The impact of PACS**

RADIOLOGISTS DIVERSIFY INTO NEW FIELDS

Sweden – PACS is pushing radiologists towards increasing specialisation, according to a new study - among the first to examine the impact of PACS on radiologists’ careers – published in the Journal of Digital Imaging (27/12/2006), Dr Kent Fridell, of the clinical science, intervention and technology department at the Karolinska Institute, said the study ‘...is unique in both timing and scope’ and, he added: ‘The consequences to radiologists’ training have shown that where analogue files are replaced with digital images viewed on a computer, radiologists’ diagnostic practice also changes.’

In the study, work practice is defined as professional role, diagnostic practice, and technology in use. Dr Fridell found that, following the introduction of a PACS, radiologists tend to shift from a position of individual professional expertise to that of an actor in a network. ‘As the flow of images takes new routes, new relationships are created between actors in the network,’ he said. Prior to the advent of PACS, clinicians would meet with the experts – the radiologists - in clinical meetings, for example. But PACS has given clinicians access to images and, with this, their ability to read the images improves, which in turn tends to turn the radiologist into a consultant.

Additionally, since digital imaging developed, reading X-rays has become more technical. ‘Suddenly, radiologists’ training shifts away from greater exposure to technology courses rather than interpretive diagnostic techniques,’ said Dr Fridell.

Initially, the increase in the technology focus can cause insecurity, as radiologists worry that their reading skills will become lower. However, the technology also provides superior ability to illustrate anatomic details using new digital techniques such as 3-D reconstruction, opening the door to specialisation.

For example, to help the neurosurgeon, the vestibulocochlear nerve could be imaged in full length by the radiologist. ‘In this way, the radiologist has become a new and important advisor in discussions with the neurosurgeons,’ Dr Fridell pointed out. This change in working practice makes radiology more specialised and creates new subspecialty opportunities, he added.

The new Wolfcam applicator is said to significantly reduce radiation exposure during Rhenium-PTA.
Hospital managers frequently view radiology both as a devil and as an angel," says Professor Christian Herold, President of ECR 2007, in his welcoming address to participants at European Hospital’s 4th Hospital Manager Symposium. The ‘devil’ view relates to radiology being a sophisticated specialty at the high end of technology-driven medicine, and thus frequently associated with high costs, he explains. The ‘angel’ perspective is based on the notion that radiology stimulates improvement in hospital IT service, is also at the forefront of quality and risk management initiatives, and improves the quality of care through largely non-invasive or minimally invasive diagnostic and interventional procedures.

This now well-established Hospital Manager Symposium will examine the economic, organisational and managerial challenges related to radiology in a hospital environment. Finally he advises: ‘Come prepared for a lively and interactive session.’

Certainly European Hospital’s selection of speakers, all experts in management, finance and information technology, promises to bear out the professor’s prediction.

At the Managers symposium
Dr Pitz will discuss:

Consumerism – the impact on healthcare business models and processes

Business models and business processes have radically changed in industries such as manufacturing and trading during the last few decades. This change has reduced costs through streamlining processes both within enterprises as well as significantly across enterprises by extending the value chain towards customers and suppliers. Cost reduction has freed up resources to drive innovation.

Market forces have had a significant role to drive this radical change. As a key player, consumer behaviour - shopping for the best price on almost every product or service - has made a major contribution to this. As all those changes wouldn’t have been possible without strong IT support, IT has become strategic in enterprises, enabling efficiency through standardisation, and providing flexibility and adaptability to accelerate innovation in increasingly competitive environments.

Why hasn’t all that happened in healthcare? In nature, healthcare in terms of diagnoses and treatment is something people need and nothing people want. Health insurances are covering the majority of the cost so no patient really looks at costs or better prices. Due to a lack of incentives, individual stakeholders, such as provider organisations, insurances or pharmaceutical industries, have not driven cross-organisational change. Thus, so far, consumerism as a key market force in many industries has been limited in healthcare.

However, we expect this to change significantly over the next years, and strong signals already exist in the healthcare market. Today, provider experiences, advice and discussions for radiologists and managers


We have a shared passion. A desire to transform healthcare. By listening to your needs and putting the strength of the world’s leading scientists, engineers and business people together, anything can happen. The future of healthcare can change forever. Predict, diagnose, treat, monitor and inform in ways never thought possible. Help patients experience what we call early health, which focuses on early prevention rather than late diagnosis. If we can find disease sooner, we can help people live longer, fuller lives. Together we can re-think, re-discover and re-invent.

To see Radiology Re-imagined, come visit us at the European Congress of Radiology (ECR), Booth 202/Expo B, or visit www.gehealthcare.com/re-imagine
continued from page 7

organisation, for example, publicly speak of competition and gaining market share; this would have been perceived as unethical years ago. Cost pressure, caused through ageing population and increasingly expensive treatments to accomplish this efficiency in all kinds of organisations. However, similar to industries such as manufacturing and trading, the patient being transformed into an informed consumer will again play a significant role.

Well-being through prevention, attractive environments, and information to supply people want and increasingly expect, as well as higher cost awareness, as co-payments and postcode schemes increase. This will lead to patient centric processes, which will reach beyond hospitals to the collaborating stakeholders. Collaboration will require information sharing, enabled by privacy laws protecting the data and patients’ rights. In fact, the patient might become the owner of his/her data and decide about its distribution around patients and collaborate with others. It will need to become strategic to accomplish this in a competitive way. Currently the IT industry is investing in service oriented architectures to enable that change.

Dr Jaeger will demonstrate how to …

Take a new approach to hospital management

Look in the crystal ball and share risks with suppliers

Rising from the ashes – lessons learnt from six years of turnaround process of one of the largest hospital providers in Europe.

When the Vivantes project was launched, by merging 10 hospitals and 14 nursing homes previously run by the regions of Berlin, nobody knew whether that experiment would work. Putting together more than 5,000 beds at 10 sites in Berlin – a mixture of ancient buildings and new architectural experiments of the 1980s – was a challenging idea, with many sceptics. Now, six years later – and after a period close to bankruptcy – Vivantes has shown that you can have efficient structures and operations as a non-private hospital provider.

Over the last years, Vivantes reduced costs of about 250 million euros, while increasing cases treated by a couple of percentages. Being one of the most efficient hospitals in Berlin – in one of the most competitive hospital markets – is a good starting point for further growth.

Centralise administration processes and specialised medical services – the outcome rewards the struggle

Centralisation, standardisation and specialisation – all principles run against people wanting to keep everything like it is and has been. But it is worth the struggle. Seeing new consultants coming in with a new attitude towards professionalism and also quality parameter outcomes rising due to centralised provision of specialized care (e.g. first line breast cancer treatment with remote adjuvant therapy) highly reward the effort to start the ignition.

Look ahead – yes, there is a scientific way to gaze into a crystal ball: Nothing is as sure as the future

Most in-patient cases come via general practitioner (GP) referral. So, the GP is mainly the gatekeeper for which hospital to choose. The influence of patients’ choice will increase, but the GP is the key – at least for the time being. We asked our consultants to talk to the GPs – on a more systematic and regular basis. We helped them to identify who sends more, or less, patients by using monthly statistics. Furthermore, based on demographic data, we were able to prioritise the list of GPs to see – those with high patient potential and little Vivantes market share are top of the list. That sounds easy in theory – but getting that effort to life is not.

Change your clinicians’ perspectives – let them talk to local GPs, but in a focused way

The speech will demonstrate – those with high patient potential and little Vivantes market share are top of the list. That sounds easy in theory – but getting that effort to life is not. Change your perspective – in everyday business, take the patient’s viewpoint

Hartwig Jaeger MD PhD, is Directer for Corporate Development of Berlin-based Vivantes - one of Europe’s biggest hospital groups. There he works on business opportunities for hospitals based on internal and external factors such as demographics and technical development.

Dr Jaeger is a medical doctor (for his PhD theses he worked on molecular mechanism of biliary cholesterol secretion). His gained experience in the business side of healthcare during his five years as a consultant with McKinsey.

In 2005 he joined Vivantes, which runs 5,000 hospital beds at nine hospital sites in Berlin.

Business Intelligence has helped Imelda Healthcare organisation will treat 110,000 in-patients and 500,000 out-patients annually. Vivantes also runs nursing homes for about 2,000 inhabitants in 15 specialised out-patient clinics.

A graduate of Leuven University and specialist in vascular imaging, from 1983 until last year, consultant radiologist Jan Schilbeecks was the Chairman of the Imelda Hospital in Borinzeid, Belgium. In addition, from 1996 – 1999, he also served as Chairman of the Belgian Professional Society of Radiology. His Board Certifications include the Belgian Society of Radiology; RSNA (Radiological Society of North America); ECR (European College of Radiology); EuroPACS Society (of which he has been a Board member); SCAR (Society of Computer Assisted Radiology), and the ACR (American College of Radiology).

Dr Schilbeecks’ focus at the symposium will be:

Business intelligence in healthcare

Turning strategy into action

Business Intelligence is a process that enables hospital management to understand and formulate hospital groups business strategy together with the objectives and measures that support it. While the term ‘Business Intelligence’ is often confused with IT infrastructure, it is a management process that uses IT.

This presentation will show how managers can make best use of IT investments by following the business intelligence process. The aim thereby should be to define and verbalise the existing business strategy and to attach the right objectives and Key Performance Indicators (KPIs) to it. Through data mining of existing IT systems, followed by a data validation procedure, management can gain a much better transparency of their actual business processes, such as handling of scheduling, waiting times, billing etc.

The speech will demonstrate how continuous Business Intelligence has helped Imelda Hospital, in Borinzeid, Belgium to keep its yearly productivity increase high, along with patient and staff satisfaction. This will be
complemented with a comparison of operational data in another hospital (in a different country and with a different scale). The aim of this comparison is to show how hospitals can differ substantially when it comes to processes and business ramifications.

The objective of this presentation is to show how the business intelligence process will almost certainly unearth huge gaps between the management’s perceptions of business processes with the real picture on the ground. By understanding the real situation better, managers can make intelligent decisions to close those gaps.

Current market research clearly shows that patients mainly care about quality – that is not new. But how do they really feel about hospitals? What is their main concern? And what do they base their first impression of a hospital on? A qualitative market research revealed in detail how patients and their relatives feel about hospitals. Not surprisingly, anxiety leads all emotions and hardly allows an unbiased perception of information. Getting beyond that feeling of fear is key – there are many ways to demonstrate that the hospital tackle that issue seriously.

**Innovate co-operation – take your suppliers on board, and share risks**

PPP is a modern buzzword in hospital management – but what comes next? Is ‘sale-and-lease-back’ the answer to short term investment barriers? Who pays the bill in the long run? Looking at different industries where high volume investments are common, what can we learn from them? Clean-room technologies for chip production or drug research labs and manufacturing sites, these all use an ‘open book’ for fair compensation.

Hospitals could follow this, possibly by starting with medical product suppliers. Instead of paying for each item or each service (i.e. usage), we can see a risk sharing approach, as we have in the DRG compensation system. We, as a hospital provider, are reimbursed by case, not by every service or syringe used on that case. Why don’t we also have suppliers who get reimbursed by case? Combined with an ‘open book’, i.e. sharing insights about real cost structures and adding capital costs and surpluses, that trust-building partnership could be the next S on the curve.

**MANAGER SYMPOSIUM**

Dr Feldhaus will discuss

**Efficiency and ethics in hospitals – a contradiction?**

After an apprenticeship as a butcher, **Dr Stephan Feldhaus** studied philosophy, theology and economics at the universities of Munster, Rome, Zurich, then gained his PhD in theology from Munich’s Ludwig-Maximilians-University. Following this he worked at the university as an assistant in the catholic-theological faculty.

He was head of the scientific editorial department of the Bioethics/Ethical Economics magazine in Munich from 1992–98, when he also was a freelance at the Rat von Sachverständigen für Umweltfragen in Wiesbaden (a council of experts for environmental matters).

Up to 1998 he also held lecturing positions at Munich, Weihenstephan and Eichstätt universities.

His scientific work regarding ethics focused on economic, environmental and energy technology issues, and has been documented in various publications.

In 1999, Dr Feldhaus joined Siemens AG, in Erlangen, where he became responsible for the Internal Communications department of the Power Generation group. In 2001, he was made head of Group Communications and also represented Power Generation in the Economic Council of Siemens AG.

He was appointed head of Employee Communications and Market Communications within the Corporate Communications department at Siemens AG’s headquarters in Munich, in 2005. Since October 2006 he has headed the Corporate Communications department of Siemens’ Medical Solutions Group.
Dr Rimikis will be discussing:

Secure, effective clinical data archiving with the Hitachi Content Archive Platform

Advances in clinical technologies have enabled healthcare professionals to increase the quality of healthcare as well as improve the overall patient experience. As these technologies are implemented, integration of information technology within the clinical infrastructure is critical to providing a comprehensive solution. That is, a solution that not only supports clinical workflows, but delivers highly available, uninterrupted access to data and all kinds of applications. The ongoing adoption of new clinical technologies places increased demands on the healthcare IT infrastructure, underlining the need for reliable, flexible storage solutions that can scale as required.

Hitachi Data Systems has defined a new approach to the active archive market, which combines industry-leading Hitachi storage with open standards-based archiving software. The Hitachi Content Archive Platform establishes an active archive environment - a single online repository that enables protection, search, and retrieval across fixed contents and other content types. Fixed content means that an item reflects a particular real-world event that happened at a point in time - for example, an X-ray image of a broken arm, an e-mail message, or a completed digital video. For the item to remain valuable in the future, its content must remain fixed to accurately reflect the original state.

There is a clear trend towards regionalisation of healthcare institutions. In search of better investment models, large networks of hospitals and diagnostic imaging centres are consolidating their IT networks.

Government initiatives, such as the UK’s NHSN, the USA’s RHCOs, or Canada’s Infoway, extend the scope of such consolidation to countries. Large projects, together with the adoption of heterogeneous PACS in multiple locations, are bringing new challenges for enterprise-wide image and data management systems: despite the heterogeneity of source systems and their geographical distribution, users expect that information will flow transparently through all locations and data distribution will be anywhere at anytime.

Simultaneously modern medicine is increasingly asking for fast, easy access to all data related to a patient. Speciality practices (cardiology, oncology, mammography, etc) require access to a global view of a patient’s record to properly assess their lifecycle. A grid is incrementally built with media obsolescence. Grid-based archival technology is coming to healthcare. This allows archival features to be provided to any application on an ‘as-needed’ basis. A grid is incrementally built access, from entry-level hardware and provides high reliability by constantly adapting to a changing environment.

The first PACS generations are clearly no longer adapted to these trends. They have generated infrastructures composed of a central system to function as a medical archive, with media obsolescence.

At the EH symposium, Dr Algayres will discuss:

Key trends in medical archive systems

Bernard Algayres PhD is a Business Manager for Europe, Africa and the Middle East, for Eastman Kodak’s Health Group. As an engineer, his technical expertise includes software development and systems integration, and includes a focus on storage and archival systems over the last decade. He was involved with the design of the ECR VIParchive, Kodak’s leading healthcare information management system, from its inception. Today this system is installed in over 200 healthcare centres worldwide.
Two major trends are obvious: Hospital financing will change fundamentally, shifting from public subsidy financing to classic credit financing. In the future hospital, the decision of whether to invest, or not, will have to be calculated by its professional managers, following fundamental and objective cost-advance evaluations. In all aspects of business economics, including the costs of interest and amortisation, whenever a result is positive investment should be seriously considered.

All professionals in a hospital must participate in that decision process. Privately-owned hospitals give an impressive example of how this should work: their investments are profit-oriented, free from governmental and political regulations, and meet with remarkable success. They often use leasing as an external financing source for their investments.

Leasing for medical equipment and IT includes a variety of contract models; each should be evaluated to find the one that best fits a hospital’s individual needs. The classic well-known method of public bidding can be transformed to a catalogue of financing specifications tailored to a hospital’s needs. In particular, the exchange of medical equipment at several stages of the planned amortisation period must be considered – normally at the end of the assumed period of usage, but earlier exit scenarios should also be taken into account. In this field, leasing is advantageous compared with a loan, because the VAT in leasing is only applied on the effective year and tear. Modern instruments of leasing resolve the hold up of investments in a combination of classic loan financing for buildings and floating capital and leasing to finance tangible goods. An advanced financing strategy will enable hospitals to shift from traditional institutions that present treatments to patients, to modern companies that meet the demands of their customers.

Sabine Eidmann points out that Comprendium Leasing, which has a track record of 25 years in Germany for individual leasing offers, belongs neither to a bank nor manufacturer. Its refinancing is conducted through capital markets, an independence that, she says, enables creative and new ‘off the beaten track’ concepts.

At the symposium Sabine Eidmann will discuss the type of financing models available and necessary to boost hospital profits and will present:

**What leasing companies can provide**

Both income and expenses adversely affect profitability for German hospitals. In combination, they reduce the scope of investments, although these are necessary to cut costs and increase revenues. The actual hold up of investments is said to amount to around €50 billion. In many hospitals expenses exceed revenues because treatment costs are far too high due to a lack of modern equipment and processes. There is a clear trend: On a long-term basis, the government will only provide the political framework in which an increasingly market-oriented hospital system will develop.

A recent study by RWI/admed showed that a fifth of all hospitals face closure within the necessary reform process. The hospital that survives is the one that uses intelligent strategies for both internal and external situations, drawn from modern management methods; financing; marketing; cost structuring and revenue generation. It is of minor importance whether the hospital is public or private, or a charity. To keep up competitively, sufficient financing for necessary investments will be a fundamental requirement for future hospitals.
Healthy fundraising efforts can produce great outcomes as well as rich and poor people give for hospital needs. Dependable the target set, such donations pay for anything from a restful patients’ garden to an MRI scanner or even new wards and buildings. In the United Kingdom the healthcare sector is one of the fastest growing areas for fundraisers and a significant number of healthcare facilities are empowered by their philanthropic support. says Peter Fletcher CFRE.  

Peter Fletcher speaks as an expert. His working life began in the motor trade in Australia, but he soon chose to enter a Salvation Army Training College to become a minister, a role in which he gained early experience as a fundraiser.  

From 1990-92, as Residential Director of the Salvation Army’s Red Shield Appeal, in Victoria, he co-ordinated the Annual Door to Door appeal, raising with the media, undertaking speaking engagements, and much else. All of this resulted in an astonishing $3,000,000 in both years of his directorship.  

In 1993 as Resource Development Officer for the United Church Synod of Victoria, his department ran a successful: fundraising appeals for special programs, over 40 overseas aid.  

From 1995, in succession he worked as Fundraising Manager for the Lifeblood Foundation, Muscular Dystrophy Association, and the Royal Adelaide Hospital.  

During the latter, he instigated an $80m awarness and Major Gift Campaign. This raised around $5,000,000 – ‘one of the best campaigns I have seen in Adelaide’, Peter himself exclains.  

Today Peter Fletcher is Director of Philanthropy at University Hospital Birmingham Charities in the UK. He is also a frequent speaker at Fundraising Conferences in Canada, America, New Zealand, and Australia. Now living in the UK, he is a member of the Institute of Fundraising (UK), Chair of its Midlands Region division, and Chair of its Hospital Special Interest Group. Peter is also a member of the Association for Healthcare Philanthropy (USA) and an associate member of the Association of Fundraising Professionals (USA).  

Peter was also the founding Programme Director of ‘Madison Down Under’, a four-day workshop for Fundraisers based on the Association for Healthcare Philanthropy’s Madison Institute at Wisconsin. Arguably the best and most intensive fundraising workshops in the South East Asia region, he points out. He also continues to be a welcome participant in other fundraising training courses and workshops.  

Given his expertise, and particularly his responsibility for this large healthcare facility’s business plan, Dr Maniadakis has much to impart on the pros and cons of Leasing, private investments, private equity, PPP and fund raising.  

Given the dramatic changes in healthcare delivery over the past half century - which include the dawn of our digital age - healthcare costs are rising in an exponential manner, all of which challenges healthcare managers’ abilities to plan and fund new investments. Traditionally this has involved private money and equity. As funds are not usually readily available, leasing represents a good alternative option, especially for medical equipment, because costs can be spread over years and advances in technology can also result in the leasing value.  

More recently, the public sector has used the private sector in partnership to develop large investments, drawing the initial funding from the private sector. The result is that the cost is spread over years and usually private firms are better at delivering projects on time and on cost compared with the public sector. Donations could be a big source of income – certainly some prominent institutions receive large amounts of money annually – but this is not the case for the great majority of hospitals. Overall, different funding methods present advantages and disadvantages, and are more suitable for certain types of projects. When implementing healthcare projects, it is important to seek other funding beyond the purely financial. For example, in many cases considering the cost benefit of new projects not just in terms of financials, but also in terms of how the life years gained for every euro spent in new investments.  

Over the past few years a steady growth in the number of private diagnostic facilities has been observed. Observation reveals few dominant trends in this process. It shows, in general, on the origin of such facilities. Despite the development of some major multinationals, firms companies based in the bulk of this market. Large or small, these companies represent two different philosophies in terms of operation: one being limitation of costs to maximise profit; the other is uncompromising quality, even at some cost to profit margin. In between, there is some balance between these two attitudes, but that is in the minority. So far the ‘ultimate quality’ approach seems to have the upper hand. In some cases the result is so successful that even medical universities decide not to purchase their own equipment but to outsource diagnostic imaging altogether.  

Refunds for services from the National Health Fund remain a burning issue. At the moment, the refunding examination costs for hospitalised patients and co-funded examinations, where primary health care facilities share the cost of out-patient examinations. In the past, the role of diagnostic imaging in the efficiency of the medical system has been underestimated, in some cases such an examination. Diagnostic examinations were not refunded unless referral was after a hospital admission. This was far from efficient. Nowadays, awareness of the importance of diagnostic imaging is growing, which is reflected by the increasing number of screening studies sponsored by local authorities. Of course there are issues to be resolved. One is the lack of provision of procedures limited by contract, leading to long waiting lists. Another important issue is the case of procedures performed over the contract. Private and public diagnostic entities are required to stay within limits of the contract. However, on the other hand they are obliged to perform every procedure in life threatening circumstances. Obviously this results in exceeding the number of examinations, leading to vigorous disputes with the NHF, sometimes ending in court. Fortunately these are not the only sources of disputes. Over the years the constant percentage of patients at a level of 10%, have examinations financed by private insurance companies or with their own funds. Also this is worth mentioning the ever-expanding involvement of private diagnostic centres in an increasing number of pharmaceutical trials. What about the future outlook? It is extremely optimistic. More and more projects to expand private diagnostic centres are being financed with European funds. At the moment the number of such beneficiaries is already quite substantial. Also there is growing awareness, even at the lowest levels of local authorities, that early diagnosis results from a timely diagnostic procedure is highly beneficial and therefore important. We can look forward with confidence to the future and expect a steadily growing market share of private companies in the business of diagnostic imaging.
ON SHOW AT ECR 2007
The world’s first wireless & radio controlled injector with Bluetooth technology

Launching its newest Accutron series injector, Medtron AG proudly presents an injector of the highest levels of accuracy, efficacy, and safety result from fifteen years’ experience in development, the intensive research of the expert team, their close follow-up of imaging modalities and, finally, their experience in addressing end-user input and needs.

The company’s new Accutron MR, for example, is the only totally wireless injector on today’s market. Its batteries, which run the shielded motor, need only an overnight charge to provide regular operating power for several days. Wireless Bluetooth technology was chosen for its higher compatibility with MR field environment to allow direct control of all injection parameters and operation via the remote control. Medtron adds. “The same one page touch-screen controls the injection head. Using the exclusive ELS (Easy Loading-Syringe), even next shift can benefit from this easy handling. Sticking to the latest MR imaging suits and protocols, the double head Accutron MR brings the widest scope of injection capacity up to 3-Testa.”

Reporting on the development of its Accutron CT single head, Medtron explains that the aim has been to optimise the injection work-flow, cost effectiveness and patient comfort, whilst also presenting users with the same quality of standard contrast CT protocols.

Future developments
Examination times, shortened by IT and Computer Assisted Diagnostics (CAD), require a deeper integration and simplified management of contrast media injection for the imaging sequence. Medtron points out. To this end, along with many large imaging corporations, the company is involved in the CANopen project (already available for its double-head CT injector, the Injektron CT 2).

The company predicts its projects will result in the next generation of CIA425-approved injectors, which will communicate with and be fully controlled by imaging software, so that injection parameters can be automatically adapted to the image acquisition sequence.

Medtron will demonstrate the new Accutron range at this year’s European Congress of Radiology, Extension Expo A, # 16

Time-saving breast biopsy tools
‘The large range of accessories includes adaptations for customary vacuum guns. The biopsy unit can be tailored to various software systems. A co-ordinate system will be available shortly. Noras points out that, being modular, this system is more cost-effective for newcomers. ‘The different components (PostFillar or grid system, 4-ch coil) can be assembled according to the user’s needs and the accessories can be adapted to his biopsy system.’

The CPC 8-phased array multipurpose coil – “This 2x4ch coil, provided with an adjustable holder, offers high-resolution image quality and has been designed for parallel imaging. As it enables a great number of imaging applications – carotid artery, jawbone, ears, eyes, as well as movement studies of all articulations – this device represents a cost-saving examination solution. The development of customised holders for the musculoskeletal system is also possible. The MR-safe trolley with instrument table, LED light and vacuum pump for fixation mats can also be used to store the CPC coil and various instruments,’ Noras adds.

View the Noras range at ECR, Expo A, booth 125.

Mobile positioning table takes heavyweights
To gain approval from US and other global markets, Provotec GmbH & Co KG, of Espelkamp, Germany, increased the patient load of its Prognot XPE tables. A bucky table is an expensive tool in the X-Ray department, Provotec points out. “However, due to the increasing use of movable stands, especially combined with digital image receptors, further requirements to the patient positioning table do arise. Along with tabletop movements in XYZ directions, to optimise the advantages of movable stands, table movement is desirable with a patient in the room.”

The Prognot XPE is a mobile patient positioning table with motorized elevating and floating tabletop, which allows variable patient positioning as well as optimal use of modern X-ray tube/image receptor combinations.

‘Not having a line cable makes the Prognot XPE - Akku particularly comfortable,’ Provotec says. “A rechargeable battery (acci) supplies sufficient energy to moving patients to the desired working heights. While one accu supplies energy to the table, another is loaded in the loading station. This is very user-friendly, because the accu can be changed simply and quickly and without a tool. Even if charge signals are overlooked and the accu is “suddenly” empty, changing it takes only seconds. The loaded accu can be removed with one hand from the loading station and replaced in the Prognot XPE Akku, against the empty one. Using a fixed working height, but the advantage of a mobile table with the floating tabletop, Prognot XP is the right choice. Neither line cable nor electricity is necessary.’

Additionally, all versions can be equipped with a moveable bucky, or cassette holder under the tabletop.

Details: www.provotec.com
Molecular imaging and other things. to understand not only how the many technologies and sciences RG

14

whole-body imaging MR that each condition. bodies, as well as Parkinson's differentiates between same treatment, you can actually tremors, because if you use the Parkinson's disease from other You have to differentiate subject?

identify dementia with Lewy for example, we received to evolve. Only a few months ago, that it improves sensitivity and molecular imaging standpoint is ML

end the eternal bickering formulate standards so as to relevant European professional hospitals handle this in a very operate closely. Most other associations and are recognised with surgeons. There is one thing that also can be applied at local disagreements?

This sounds very harmonious, according to the disease is, I believe, an important strategy. If you can identify them early, they be much more successful than if the patient's chance of survival lead – to the identification of specific tracer. That's where it will changes and the indications are validated approaches, they could be used to identify specific diseases using our imaging agent in conjunction with a PET machine. Now, we know what we can do in the laboratory, on the side; we can optimise the equipment, and, because of that, we can optimise the imaging agent. That's why you're able to develop this product.

What could this development lead to?

PET applications, for example, FDG (fluorodeoxyglucose) is currently the generic kind of isotope that identifies tumours. and change the outcome for the patient. If you don't treat people, most likely they will die. You can in many cases remove the cancer either surgically or by chemotherapy. If the cancer is metastatic and has already spread to other parts of the body, it is more difficult and in many cases impossible to treat. If it is caught early enough, you can manage it and there's a high probability of eliminating it. The earlier we can detect a tumour, the greater the chance of treating it. Studies have shown that if you can catch breast cancer at phase one, the patient's chance of survival over the next five years is more than 90%. At phase four it is 20%. It's similar with colon cancer. So, by the time you find what kind of tumour you have, to use a more specific tracer. That's where it will need – to the identification of specific kinds of cancer with much more certainty and sensitivity. That means you'll be able to find cancers much earlier, when they are smaller, and also be more certain of what the disease is. And it's now possible to significantly regressive the disease areas showing inflammatory conditions that could potentially be cancer. It's just like PET but there is no injection, it's another way of thinking about molecular imaging. We are the only ones who can do what we are doing. We can perform a PET-like application.

Right now we are working on tracers to identify new degenerative diseases and cardiac conditions. As the research

continues and the indications are validated approaches, they could be used to identify specific diseases using our imaging agent in conjunction with a PET machine. Now, we know what we can do in the laboratory, on the side; we can optimise the equipment, and, because of that, we can optimise the imaging agent. That's why you're able to develop this product.

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What is important from a molecular imaging standpoint is that it is extremely sensitive and specific. We need to understand the biology of cells and molecules, the way they react to certain stimuli that are created via another chemical component in the body such as an imaging agent, and tracers. Els, have there been any significant advances at GE since we last spoke on this issue?

It's an evolution and will continue to evolve. Only a few months ago, for example, we received approval to use DaTSCAN to identify dementia with Lewy bodies, as well as Parkinson's disease. This is important, because treatment is specific to each condition. A great application we have is a whole-body imaging MR that can identify them early, they could receive a simple treatment to prevent coronary disease or a heart attack. That's where our technologies are becoming more critical.

Politicians should be alerted to these cost factors. Yes. If you have a heart condition and then you have a heart imaging attack, I could take drugs to eliminate that probability; they'd cost me $1,500 a year. If I don't know about my condition, then you have a heart attack and survive it, treatment would cost more than ten times the $1,500. It is far less costly to address the problems earlier. You have to be under control and never allowing me to have a heart attack is just one example that shows how significantly less expensive this is. Along with molecular imaging equipment, what else might GE launch in the next five years? We won't deviate from the path of Early Health. This is an important strategy, one that really defines who we are. If you invest your money in R&D, the way we operate and the way we communicate. Everything I have been talking about has been about Early Health. We are really trying to address disease-specific challenges. It's not about making equipment; greater, smaller – it's about what the big disease challenges are and what we need to do to address them. That's what defines our work today.

You can't abandon equipment development – you have competitors. No, but equipment will evolve to adapt to diseases. Ultimately, what are doctors for? To identify diseases; so if we can meet the challenges of diseases, doctors will buy our equipment, not equipment from somebody else. Because of the focus on disease, equipment will evolve; think about the VCT (volume computed tomography). We were trying to solve a big cardiology challenge: How can I have a non-invasive test of the heart? To do this, you have to image the heart in five beats and it is a big step. If you pursue the strategy of resolving disease, your product will be developed faster. At that point, you will be much more successful than if a bunch of engineers simply developed new products. Among other things, we are focusing mainly on three areas that are relevant to the whole: cardiology, oncology and neurodegenerative diseases. MR could be used in conjunction with CT, ultrasound, PET, cath labs and even X-rays. All these areas have been adapted and focused on one disease. Although we have been discussing this according to the disease is, I believe, an important strategy. If you can identify them early, you should be able to continue to that strategy with existing systems. Of course, new products to tackle those three major diseases will also come on the market.

M: The recent consensus paper by American radiologists and cardiologists will make their cooperation much smoother and improve the quality of cardiovascular imaging. Are relevant European professional associations also trying to formulate standards so as to exchange between cardiologists and radiologists?

EVHN: Obviously, we've been discussing unified and clearly defined procedures in Europe – for years. So far, we haven't been able to arrive at a pan-European solution. However, at local level there is a close rapprochement between cardiologists and radiologists. In my institute there is a constant exchange between ourselves and radiology colleagues. We have defined internal procedures that satisfy both sides and we cooperate closely. Most other hospitals handle this in a very similar way. What we don't have is an agreement that is valid for all countries, but at the same time takes into account the requirements of the individual countries, and even hospitals. That's the problem. In principle, cardiologists and radiologists agree that the best outcome, and best possible interpretation of images requires joint efforts and exchange. The disciplines are linked – that's a fact that physicians must
NEW FOR EUROPE

Light therapy supports diagnostic imaging

Colourful lighting: not only enhancing, but able to instruct patients in the CT scans

patients feel very uncomfortable during MRI and CT exams, and sometimes they have specific problems - such as claustrophobia. So we opted for Ambient Lighting, a dynamic lighting concept by Philips. It’s designed to create a soothing environment in the examination environment. Light creates wellness is the motto of this concept. A patient being moved through the scanner can look at a harmonious play of pastel colours that soothes and relaxes him, or her, and detracts from the examination. The felt scanning time is shorter, the play of colours reduces fear and makes patients feel secure and at ease.

Asked how the lighting is integrated into a clinical procedure, and whether it resembled a pre-programmed light show in a discotheque, Dr Alth said the interaction of the homogeneous general lighting system and the additional wall-mounted LEDs is controlled manually, to be able to adapt it to individual situations. ‘Another advantage is that we can communicate with patients with hearing problems via colour codes. In MRI or CT scans you often have commands such as “hold your breath” or “resume breathing”.

In MRI or CT scans you often have hearing problems via colour codes. The advantage is that we can communicate with patients with hearing problems via colour codes. In MRI or CT scans you often have commands such as “hold your breath” or “resume breathing”. Now, for example, a green light, can tell the patient to breathe again, while a red light tells him to hold a breath. That makes life easier not just for patients but also the staff.

At the clinic, wellness seems to be a leitmotiv – from the reception through the waiting area to the hallways: generous light, pictures, and friendly colours. ‘It’s almost like in an art gallery, I remarked. Dr Alth was pleased. ‘I’m happy that this is your spontaneous impression, because that is exactly what we wanted to achieve with our focus on superior service and where we consciously want to offer an alternative to the often quite depressing hospital routine. And indeed, we opened with a large Prachenský vernissage. Others will follow.’

On 700 m2 the management have installed a state-of-the-art equipment park for imaging diagnostics and plan to handle up to 500 patients daily. ‘That’s quite a task for the medical staff’, I suggested, but Dr Alth was not fazed. ‘We have a team of top specialists and a board of experts that will support us with complex cases,’ he said reassuringly. ‘So, fast and accurate diagnoses are guaranteed.’
As an experienced radiologist, you’ll want the best possible equipment for your patients. The latest range of Sony Digital Radiology Imagers are smaller and faster than all-in-one products enabling you to benefit from optimum performance, cost and versatility.

Designed to meet the specific needs of radiologists, these highly personal imagers offer outstanding quality and connectivity while minimising space and wastage. Featuring ultra small footprints, they can easily be sited in space-restricted locations for convenient next-to-application film and paper printing.

All Sony Digital Radiology Imagers rely on direct digital thermal technology, ensuring low maintenance. And because you pay only for the dedicated features you need, capital investment and running costs are kept to a minimum for excellent cost effectiveness.