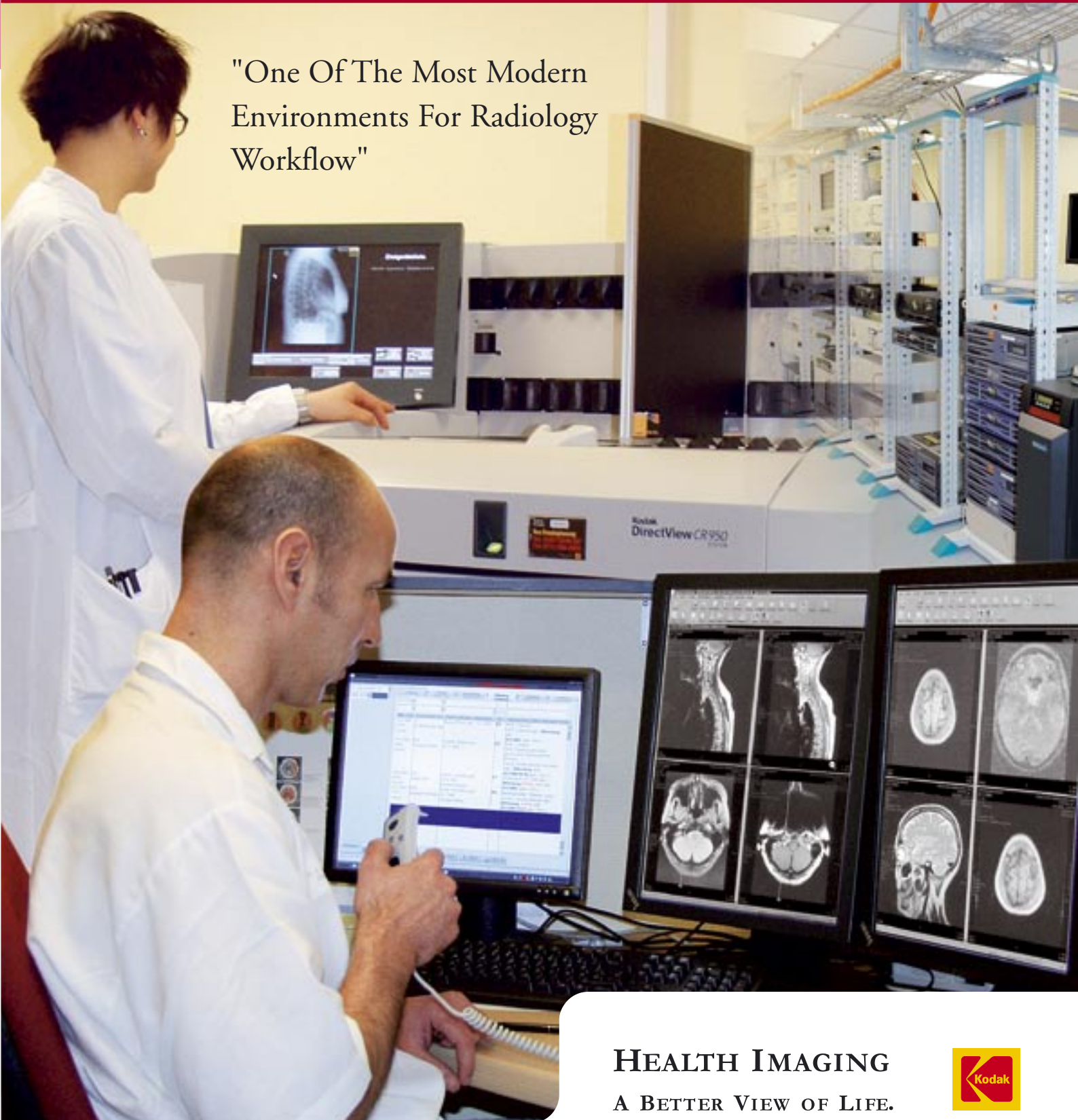


# AMMERLAND CLINIC - WESTERSTEDE, GERMANY

"One Of The Most Modern  
Environments For Radiology  
Workflow"



**HEALTH IMAGING**  
A BETTER VIEW OF LIFE.



# KODAK AND THE AMMERLAND CLINIC IN



The installation of a KODAK DIRECTVIEW enterprise solution has given the Ammerland Clinic in Westerstede a pioneering role among northern German hospitals on the way towards digitized radiology. In just three short months of close collaboration, Kodak and the clinic succeeded in fully integrating a variety of information systems from different manufacturers to produce a uniform hospital solution.

When the Westerstede project team reviewed potential PACS providers, they were most impressed with Kodak's Health Imaging Group. "When we visited a reference customer, we were able to witness for ourselves the full range of Kodak products and applications – from analog radiology and digital imaging to a complete PACS – in one of the most modern environments for radiology workflow," says Dietmar Imhorst, Director of the Ammerland Clinic, explaining his choice. "It was also important for us to see that absolutely no problems were evident when the devices and system concepts were demonstrated, even in combination with devices from other providers. Kodak was exemplary in this regard."

**"Because we produce 80,000 X-ray images each year, problem-free handling, workflow, archiving and access for all our records are crucially important"**

Introducing modern communication technology can improve the quality of patient care in a clinic. The volume of data generated for a patient in diagnosis and therapy is simply too great. "Because we take around 80,000 X-ray images each year, problem-free handling, workflow, archiving and access is crucially important for all our

records," explains Professor Martin Zwaan, Senior Radiologist at the Ammerland Clinic. "The introduction of standard reimbursement rates per case highlighted the urgent need to integrate our conventional system with modern, fully digital IT solutions in the hospital."

After just three months, the installation of the new filmless DIRECTVIEW enterprise solution provided by Kodak had paid off for personnel and patients alike, according to Professor Zwaan, "Radiation doses are lower and our communications have improved. We have also been able to reduce the length of time patients have to remain supine, thus further cutting costs."

# WESTERSTEDE SET NEW STANDARDS



In order to seamlessly integrate all diagnostic imaging equipment, clinical workstations and information systems from different manufacturers and achieve a full digital department workflow, Professor Zwaan decided on the KODAK DIRECTVIEW PACS System 5, an application that can be tailored to offer the flexibility and performance for almost any hospital situation. The system can automate a large number of routine tasks – for example the retrieval/query of images from a variety of imaging modalities (e.g. MRI, CT, DR and CR), the retrieval/query of previous

reports and the archiving of images and data. Professor Zwaan's group was particularly impressed with the complete web-based platform of the DIRECTVIEW PACS System 5. Web clients enable doctors, radiologists, research scientists,

**“Seamless integration of the DIRECTVIEW System has definitely made the workflow much, much easier and efficient.”**

and collaborating doctors to have authorized access to images and reports anytime and anywhere.

“The successful and seamless integration of the DIRECTVIEW PACS System 5 into the existing environment has definitely made the

workflow much, much easier, while the potential for savings achieved through digitization is enormous,” enthuses Zwaan. The Kodak Professional Services team has leveraged the open architecture of the PACS application and integrated the systems and equipment to fulfill staff requirements. Patient and study relevant data are made automatically, real-time, available to diagnostic modalities. Errors are significantly reduced and administrative time-savings are achieved.

Additionally, by introducing the KODAK DIRECTVIEW CR950 computed radiography systems in the department, the workflow has become completely digital, cutting down on errors, procedure repeats and expenses involved with the printing and scanning of traditional diagnostic X-ray images. Furthermore, the radiologists can

report directly on high-resolution screens. The workstations have fully-integrated 3D processing functions for MPR/MIP

(Multiplanar Reconstruction/ Maximum Intensity Projection), tissue definition and vascular tracking enabling radiologists to view original examination images and 3D reconstructions at the same time.





Building on the PACS application delivered by Kodak, the IT group developed a clinical IT infrastructure that allows doctors to have the complete patient clinical

**“Clinical laboratory values, digital X-ray images and medical reports are integrated into one common access for quicker and more complete patient information”**

position from their workstation. Clinical laboratory values, digital X-ray images and findings are integrated for access to quicker and more complete patient information “Even former advocates of film imaging have recognized the benefits of being able to query and display any patient X-ray image from

the archive in seconds in order to compare it with others”, emphasizes Professor Zwaan. Doctors and radiologists can also access the images from their home computers or laptops.

Professor Zwaan is enthusiastic about the time advantages that can be achieved: “Our connection to affiliated clinics and doctors enables diagnosis and treatment within a matter of hours instead of days, as used to be the case.” Local general practitioners, who have a connection to the practice’s network can obtain a specialist’s advice quickly and easily. Reports and images can also be made available digitally to referring physicians by the use of

**Diagnoses are made quickly and therapies can be flexibly planned and executed.**

The summary of all data and round the clock availability of imaging information at any number of workstations not only improves co-operation between departments within the clinic, but also the quality of medical care. Diagnoses can be made more quickly and therapies can be planned and executed more flexibly, resulting in shorter waiting times for the patients and optimized procedures for doctors and hospital personnel.

Professor Martin Zwaan comments: “It is increasingly important for us to make procedures more efficient. Our new filmless X-ray department and digital patient files mark a decisive step in this direction. This enhances the effectiveness of the whole hospital in an age where the health sector has become extremely cost-conscious. In the final analysis, the intelligent simplification of administrative processes gives medical personnel more time to look after the most important people in the hospital – their patients.”

KODAK Secure Email, quickly and securely. The application enables the institution to send encrypted and protected emails to anyone in the world. Digital encryption techniques, similar to those used by banks and insurance companies, prevent unauthorized access to patient data.

“Because the majority of the staff are doctors and nurses rather than IT specialists, professional advice plays a key role in the transition to digital”

This is why networking specialists from Kodak’s Healthcare Professional Services visited the Ammerland Clinic prior to the installation of the PACS system in order to gain an understanding of the operation, and the level of training and advice that would be

required to support the system.

“Although other providers submitted us proposals, our partners at Kodak really did their homework in the truest sense of the word,” says Mr. Holger Kuper, Director of IT at the Ammerland Clinic, describing the collaboration. “They visited us at the clinic, analyzed our work processes in detail and asked the staff who would be affected by the planned changes, as well as the IT group, about their specific requirements. After this, a plan was presented that described how Kodak’s digital acquisition, PACS and Enterprise Information Management platform would meet our requirements and integrate seamlessly in the hospital’s existing systems and storage infrastructure.” Mr Ebken,

Director of Purchasing comments, “Kodak offered an extraordinarily smooth system implementation, every commitment was fulfilled.”

Professor Zwaan sees ongoing support as another important aspect for successful collaboration between his staff at the Ammerland Clinic and Kodak, “From the outset we had a dedicated contact that was with us every step of the way during network and integration planning and installation. Even now, after installation is complete, Kodak is still available to us for network maintenance, upgrades and many other service activities including staff training and support.”



# AMMERLAND CLINIC - WESTERSTEDE, GERMANY

The exemplary PACS system services portfolio was developed by Kodak as a response to the increasing demand for IT systems that:

- Integrated multiple systems and merged operations;
- Improved speed of clinical results;
- Provided quick and detailed information for diagnoses and therapies;
- Ensured integrity of patient data.

The advantages of the Kodak digital solution based on the DIRECTVIEW PACS System 5 are:

- Simultaneous availability of image information from different locations.
- Improvement in the quality of medical care through round the clock availability of image information at any number of locations. Safe and fast diagnosis, more flexible planning and implementation of therapy, reducing waiting times for patients.
- Reduction in labour-intensive searching for visual information e.g. before starting treatment, for daily or weekly rounds, prior to operations and examinations under general anesthetic.

- Improvements in medical research and staff training, through the use of specific visual information that can be searched and displayed, and be made available to a larger audience by means of projection systems. It is possible to process the image information digitally in word processing and presentation programs, making it much easier to share necessary information where it is needed.
- Reduction in the number of printed images, thus reducing expenditure for operating conventional film archives:

## **Kodak Solution installed at Westerstede:**

- KODAK PACS DIRECTVIEW System 5.1
- KODAK DIRECTVIEW Versatile Intelligent Patient Archive
- KODAK Secure Email
- KODAK DIRECTVIEW CR950 plus KODAK DIRECTVIEW Remote Operations Panel
- KODAK DRYVIEW 8900 LaserImager

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For further information, contact your Kodak representative, or visit

[www.kodak.com/go/medical](http://www.kodak.com/go/medical)

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