When properties are subjected to a core refurbishment, the aim is usually to achieve modern furnishings and more living comfort and to extend the service life of a property. The residents are usually not present during this process. The renovation of operating theatres in a hospital poses a much greater challenge: The ongoing operation has to be maintained and at the same time the safety of the patients has to be guaranteed.

The Marien Hospital in Hamburg also faced exactly this challenge. A total of 7 operating theatres were to be refurbished, and further construction measures were planned for the hospital. As the technical and IT equipment of the operating theatres was also directly affected by the refurbishment, it was decided in Hamburg to use a limited tender procedure in order to find suitable partners for the project. The Marien Hospital was supported among others by Rein Medical GmbH. The Mönchengladbach-based manufacturer and developer of software and hardware solutions in the medical IT sector supplied monitors and PCs in various sizes to northern Germany for wall installation.

**PROFESSIONAL COMPETENCE REQUIRED**

In the run-up to the tender, the responsible persons in Hamburg had already clearly defined their project requirements and thus also the requirements for the possible external partner. "It was important for us to find a supplier who specialised in the hardware required for the operating theatre and who could supply high-quality products," explains Rolf Rathjen, Head of Medical Technology at the Marien Hospital in Hamburg. "In addition, the PCs and monitors should integrate very well into the walls - we didn't want to see any cables in the operating theatre," emphasises Rolf Rathjen.

"In the end, however, professional time management also had top priority for us," explains the Head of Medical Technology. "Particularly in such a comprehensive restructuring process, we believe that meeting deadlines is crucial for success."

At the end of 2015, Rein Medical was chosen as the partner for the required hardware, and the renovation of the operating theatres began at the beginning of the new year. At the same time, another company was commissioned by the hospital to supply the OP integration software - not an unusual situation from Rein Medical’s point of view.

"We are used to working professionally and in a team with all our project partners," says Roland Schleberger, Key Account Manager at Rein Medical and responsible for the project. "Therefore, there were no difficulties in Hamburg either. Quite the opposite: "Our partner commissioned by the hospital to supply the OP integration software asked us to also supply the hardware required for its part in the form of 55" monitors for wall installation," explains the project manager. "The special feature is the 4K UHD imaging: Our Operion 3 monitors are also available in UHD versions and are offered with various display diagonals", explains Roland Schleberger. "We are proud to have accomplished our first project with a 4K UHD display in Germany."

**CASE STUDY**

**MARIEN HOSPITAL HAMBURG**

**MODERN HARDWARE FOR PATIENT CARE**
In total, Rein Medical supplied two 27” OPERION displays with PC for wall installation and one 55” OPERION display (4K) each for each operating theatre. The company also provided a 24” CLINIO PC with touch screen for the introduction. All monitors and PCs were installed on site by the employees of the Mönchengladbach specialist, Rein Medical is also responsible for the training of the Hamburg personnel.

“We were able to rely on our partner at all times in the project,” says Rolf Rathjen happily. “From our point of view, both coordination and delivery were perfect and always on schedule,” continues the Head of Medical Technology. The hospital information system (HIS) was then integrated by the Marien Hospital itself, in the guise of the team led by IT manager Norbert Groth.

**IT HOME AND DRY - EVEN UNDER ADVERSE CONDITIONS**

The renovation of the operating theatres in Hamburg was not an easy task. For the conversion, the operating theatres were taken out of commission, which meant that at the same time other rooms had to be fully available for the ongoing care of the patients. The operating theatres of the Marien Hospital were also gutted, the ceilings removed, a completely new storey ceiling built - then two new storeys were added. It goes without saying that in such a mammoth project one or the other thing goes wrong.

“Who knows the weather in Germany and above all in Hamburg, knows that we already have “Schietwedder - "sh**ty weather"”, smiles Rolf Rathjen. “So, we had to fight with water here and there.” So, it’s a good thing that everything went smoothly in terms of IT. “We felt very well looked after by our contact persons at Rein Medical”, Rolf Rathjen sums up the co-operation. “Above all, the sharpness of the images and the attention to detail in the presentation of the endoscopic images on the 4K displays impressed our employees more than anything else, so that no one wants to miss them anymore,” continues the Head of Medical Technology.

**FLAWLESS LIVE OPERATION AFTER JUST UNDER A YEAR**

Hamburg is more than satisfied with the progress of the project. Since the end of last year, the systems have been running flawlessly in live operation in four completed operating theatres. “Rein Medical impressed us with the quality of the PCs and monitors, and also with the professional execution of the project,” Rolf Rathjen praises the partner. “The co-operation, also with the other service providers commissioned by us, was uncomplicated and problem-free,” says the Head of Medical Technology. Currently, construction phase 3 is already underway at Marien Hospital: the refurbishment and prefabrication of the last three operating theatres. Rein Medical is also responsible for the IT equipment here, analogous to the already renovated and newly equipped operating theatres. “We are pleased that our partner is also at our side in the third and final construction phase,” says Rolf Rathjen.

“In future projects, too, we will certainly be happy to return to the specialist knowledge and products of Rein Medical,” says the Head of Medical Technology.
ABOUT THE MARIEN HOSPITAL HAMBURG

With 605 beds and around 100,000 patients per year, the Marien Hospital is the largest denominational hospital in Hamburg. In 13 specialist departments and with over 1,900 employees, Marien Hospital offers comprehensive medical care and professional nursing.

The Marien Hospital focuses on modern minimally invasive surgery, obstetrics with approx. 4,000 births per year, the oncology centre with oncological oriented surgery and the focus on modern system and implant therapies as well as therapeutic interventions using imaging techniques (interventional radiology).

Further information at www.marienkrankenhaus.org