

UZ Leuven's IT Ecosystem

Reaching towards the digital hospital

"A hospital can be a really exciting IT environment. IT is truly crucial for us; without it the hospital stops working." These words underline the approach Reinoud Reynders, IT Manager Infrastructure & Operations at UZ Leuven, takes towards the IT infrastructure for UZ Leuven and the other hospitals that use the KWS hospital information system it developed in-house. But how close has UZ Leuven come to achieving the goal of becoming a "digital hospital"?



Reinoud Reynders, IT Manager Infrastructure & Operations, first presented this case at the BELTUG X-change (users only) with UZ Leuven and the Hôpital Civil de Charleroi on 22 Sept. 2011

CHALLENGES

Using IT to meet today's healthcare demands

Today's IT technologies create both challenges and amazing opportunities for healthcare environments. "Of course, the overall goal of the hospital is the best care for the patient," says Reinoud. "But it is also a reality that like every sector, we need to be cost-effective. And as a large, leading hospital, we lead the way for smaller healthcare facilities. Our IT solutions have to do just that." As UZ Leuven continues its journey towards becoming a completely digital hospital, it has several goals beside the best patient care and safety: to empower the patient, to share its know-how with other hospitals, and to continue to be a pioneer in new ways – whether medical or IT - to improve patient care. It also has to address the changing needs – and demands – of patients, such as those Reinoud refers to as "Google-patients" (or "G-patients), who want to be informed about and involved in the care process. And rather than fighting this trend, UZ Leuven embraces it.

“When we built the KWS, our own HIS (Hospital Information System), we didn’t originally have the idea of sharing it, but it happened quite organically. Smaller hospitals simply don’t have the resources to build something like this. *Reinoud Reynnders, IT Manager Infrastructure & Operations, UZ Leuven*



UZ Leuven (the University Hospitals of Leuven) is a network of hospitals on campuses at Gasthuisberg, Lubbeek, Pellenberg, Sint-Pieter and Sint-Rafaël. Its 8500 staff deals with 650,000 patient consultations each year. With some 2000 beds, it is one of the largest hospitals in Belgium. In addition to caring for patients, UZ Leuven conducts research and provides academic training.

There are 120 IT staff at UZ Leuven. Their goals are to build internal expertise and develop solutions internally, create strong integration between applications and offer a shared IT infrastructure.

SOLUTIONS

One system, several front-ends

“We set up MyUZ as an interactive interface where patients can get the information they want and need. This includes administrative info, but also correct and timely details about their condition, treatment, etc.” Patients have really always partners in their own treatment, he comments. “Before, they used handwritten logs at home to note down data on e.g. blood sugar levels and medication. With MyUZ, the data is immediately available to the treating physician, who can act proactively is necessary.”

MyUZ is part of the UZ Leuven IT ecosystem that includes its KWS system, which it now shares with 7 other hospitals. “When we build the KWS, our own HIS (Hospital Information System), we didn’t originally have the idea of sharing it, but it happened quite organically. Smaller hospitals simply don’t have the resources to build something like this. About 2 years ago, we came to the decision to intensify the medical cooperation between UZ Leuven and other hospitals through KWS. By sharing an IT infrastructure, we can create a shared Electronic Patient Record (EPR).”

Importantly, all the hospitals use the full KWS interface; only MyUZ has a separate interface. “There is no data synchronisation or copying: it’s the same system. Only the front-end is different.”

LESSONS LEARNT

Lower costs mean more investment in care

For Reinoud it is important that the different healthcare players understand that a healthcare enterprise is a business. “Patients’ attitudes have changed over the last 20 years. Today’s patients are better informed (G-Patients) and looking for answers about quality and price (My-UZ). Even during their hospital stay, patients are more demanding in terms of internet and digital television services. Hospitals need to treat patients as customers and meet their needs, offering them a pleasant stay and participation in the care process.”

He also comments on the advantages of having a strong hospital cooperation group, like NexusHealth. “When you have a strong group working together, you lower costs. That means you have more resources to invest in quality care. So no-one can argue that cost-effectiveness doesn’t have a role in healthcare.”