

HOW A BELGIAN HOSPITAL CAN GROW 40% WITHOUT GROWING ENERGY USE



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In 2012 University Hospital Brussels (UZ Brussel) made a plan to become one of the most sustainable healthcare facilities in Belgium.

The hospital was going to grow 40% over the next decade, but it was not going to let energy consumption grow.

“We drew up an energy policy plan, and we agreed that by 2022 when the extension was finished, we would not consume more energy than in 2012,” says Jimmy Van Moer, UZ Brussel’s Energy Engineering Manager. “We must save energy. And money. Energy economy is one way to support the hospital’s finances.”

While reviewing the hospital’s existing heating system, Van Moer’s team found several outdated pumps. Grundfos

energy consultant Dirk Raes performed an Energy Check on all the hospital’s pumps and pumping systems. Raes presented a replacement plan for 217 pumps, calculating the energy-savings potential and return-on-investment for new pumps.

“The hospital is growing by 40%, but our energy use must stay the same. Highly efficient pumps are helping us to reach our goal.”

Jimmy Van Moer, Energy Engineering Manager, University Hospital Brussels

The plan estimated savings of more than 643,000 kWh per year if the hospital made the proposed replacements. That figure corresponds to about 65,000 euro and 140 tonnes of CO² per year.

“Seeing the figures gave us clear justification for undertaking the project,” says Jimmy Van Moer. “We will earn back all the money spent on pumps in four years. Some of the pumps consume up to 80% less than their predecessors.”

Van Moer’s team installed all 217 pumps, plus an additional 100 new Grundfos pumps in the new combined heat and power unit and in the boiler room. It must just work.



“We chose Grundfos firstly because of the service,” says Jimmy Van Moer. “We’re a hospital. We have to care for our patients 24/7. We cannot jeopardize their safety. It’s important to resolve malfunctions quickly. We can always call our personal contact at Grundfos, Dirk. He finds a solution. That’s very important for a hospital.”

Van Moer adds that the pump replacement came with other benefits – for the building management system, for example.

“Control and maintenance are much more efficient than before,” he says. “All the pumps are connected to the system, so we can control and monitor what is now more than 250 pumps.”

Overall, the new pumps have helped the hospital take its first step toward its 2022 goal.

“As a university hospital, it is important to contribute to sustainability,” Van Moer says. “We should set an example of how to run a building in a sustainable way. Pumps are certainly a part of that.”

GRUNDFOS SUPPLIED:

The University Hospital of Brussels replaced 217 pumps to high-efficiency Grundfos models. Most of these were MAGNA3 circulators, but the building also installed ALPHA2s, TPEs, NBEs and NKEs.

[See video](#)



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