

ENERGY-EFFICIENT AUTOMATED HVAC SYSTEM IMPROVES MANAGEABILITY OF **CULTURAL CENTRE DE WERF**

Cultural Centre De Werf in Aalst (NL) has various venues for cultural events, including a ballet hall, exhibition rooms, meeting rooms, a studio and a foyer. The crowd pullers are the 766 m² theatre with 599 seats and a 210 m² auditorium with seating for 200.

In 2019, Priva replaced the air handling units for these two halls and upgraded the building management system.

Challenge: Consumption costs too high

'The cultural centre's HVAC control system was due for replacement,' says Edwig De Vis, engineer for the City of Aalst. 'Our infrastructure has been in use since 1988, and the air handling units were at the end of their service life. The regulation no longer functioned optimally, and the energy consumption was too high.' The City of Aalst therefore went looking for the right partner to update De Werf's heating and ventilation system.

Solution: Modern building management system

The City of Aalst chose HVAC specialist Celcio for the project at CC De Werf via a call for tenders. Luc Vlaeminck and his team replaced two air handling units and fifteen trench radiators, among other things.

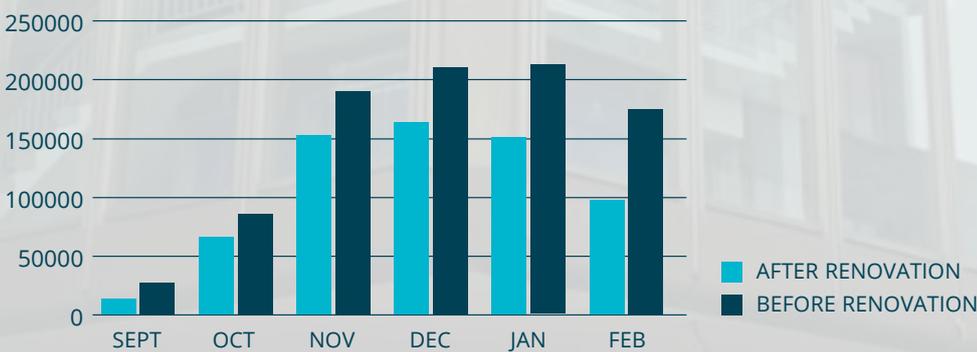
In order to improve the ease of use, Priva controllers and sensors were added to the new air handling units. For this work, Celcio called in SVD Solutions. Silvaan Van Driessche of SVD Solutions tells: 'We upgraded the building management system to meet today's standards. This allows the customer to easily control the installation from any computer or smartphone in their IT environment.'

Benefits: Automatically heated and ventilated halls

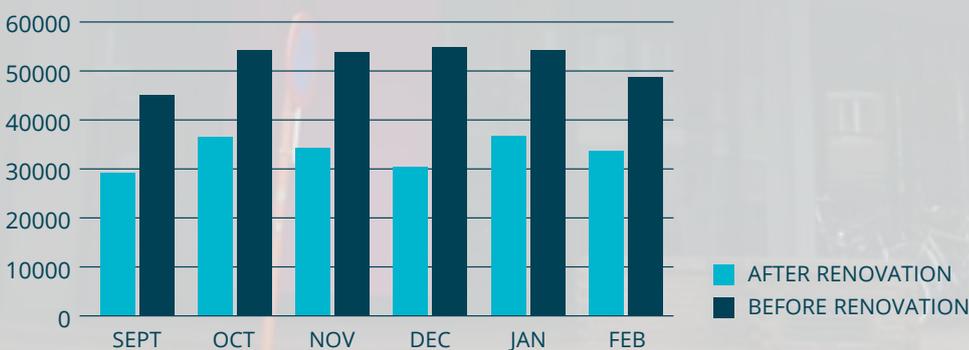
'The results are remarkable: around a 30% reduction of the electricity and gas costs,' says Edwig De Vis of the City of Aalst. 'What's more, it's much simpler to operate than before. The installation is tied into the booking system for the various venues, and the temperature is regulated automatically based on when the rooms are in use. Energy wastage is reduced to a minimum.'

'We developed the software and linked it to the Priva system,' explains Silvaan Van Driessche. 'When a performance runs from 6 to 10 in the evening, for example, De Werf can be certain the auditorium will be well ventilated, automatically, for the entire block of time.'

Gas consumption (kWh)



Electricity consumption (kWh)



PRIVA CONTROLLERS FOR RENOVATION

Project Manager Luc Vlaeminck of Celcio supervised the renovation: 'The City of Aalst felt it was important to be able to easily monitor the indoor temperature and CO2 level. Priva's controller was chosen as the best and most user-friendly solution.'

At CC De Werf, Priva controllers from the Blue ID C line were used. Their compact size makes them perfect for renovations. They are also very easy to use, due to their intuitive operation and the networking and communication features.



FREE CHOICE OF PRIVA PARTNER

The new building management system visually displays what is happening. 'The customer can now see at a glance whether and when an air handling unit is running and whether it is functioning correctly,' says Silvaan Van Driessche. 'The system gives an overview of the heat demand for each circuit and passes this on to the installation that produces the heat,' adds Edwig De Vis. 'This way, we maintain better control of the production and we are alerted to any problems faster.'

Meanwhile, the city keeps its options open. Silvaan Van Driessche: 'Priva is an open system with various certified partners. Certainly in the procurement market, this is an added value. As a customer, you have the reassurance of knowing prices will not suddenly rise when something needs replacing. That can happen with other manufacturers who have a monopoly on their software.'



MODERNISATION WORK

Performances at CC De Werf typically run from September to June. Celcio and SVD Solutions therefore had to update the installations during the summer period. By the time the new concert season started, the installations were fully up and running. 'Replacing the old system was a major challenge, as is often the case in existing buildings,' says Edwig De Vis.



HEAT RECOVERY FROM THE AIR

Celcio placed a new air handling unit with a capacity of 6,500 m³/h in the basement of CC De Werf. It heats the building's theatre hall. A large air handling unit with a capacity of 23,000 m³/h was placed on the roof, to serve the theatre.

'We can now recover about 80% of the heat from the air, thanks to the rotary heat exchanger in the air handling unit,' says Edwig De Vis. 'Because we're happy with the renovation, we're now also planning a renovation for our foyer and the former library.'

Fotography: Ossip van Duivenbode