

# *Odense delivers smarter school heating*

## **Towards Class A - Shining examples**

...are everywhere and in a town near you...

### Introduction

The heating in Rosengårdsskolen did not match the way the students and teachers used the buildings. This led to low comfort levels, high energy consumption, and high heating costs.



Rosengårdsskolen shines because it shows straight forward and cost effective improvements to heating controls are possible. The changes lowered energy consumption by almost one quarter and improved comfort levels at the same time.

### Heating control upgrades

Their solution was to replace the old six zone heating system with 80 zones. Motorised thermostatic radiator valves were installed and are now controlled by a central computer.

The system is now scheduled to heat a zone to 20°C only when it is occupied; otherwise the temperature automatically drops to 16°C.

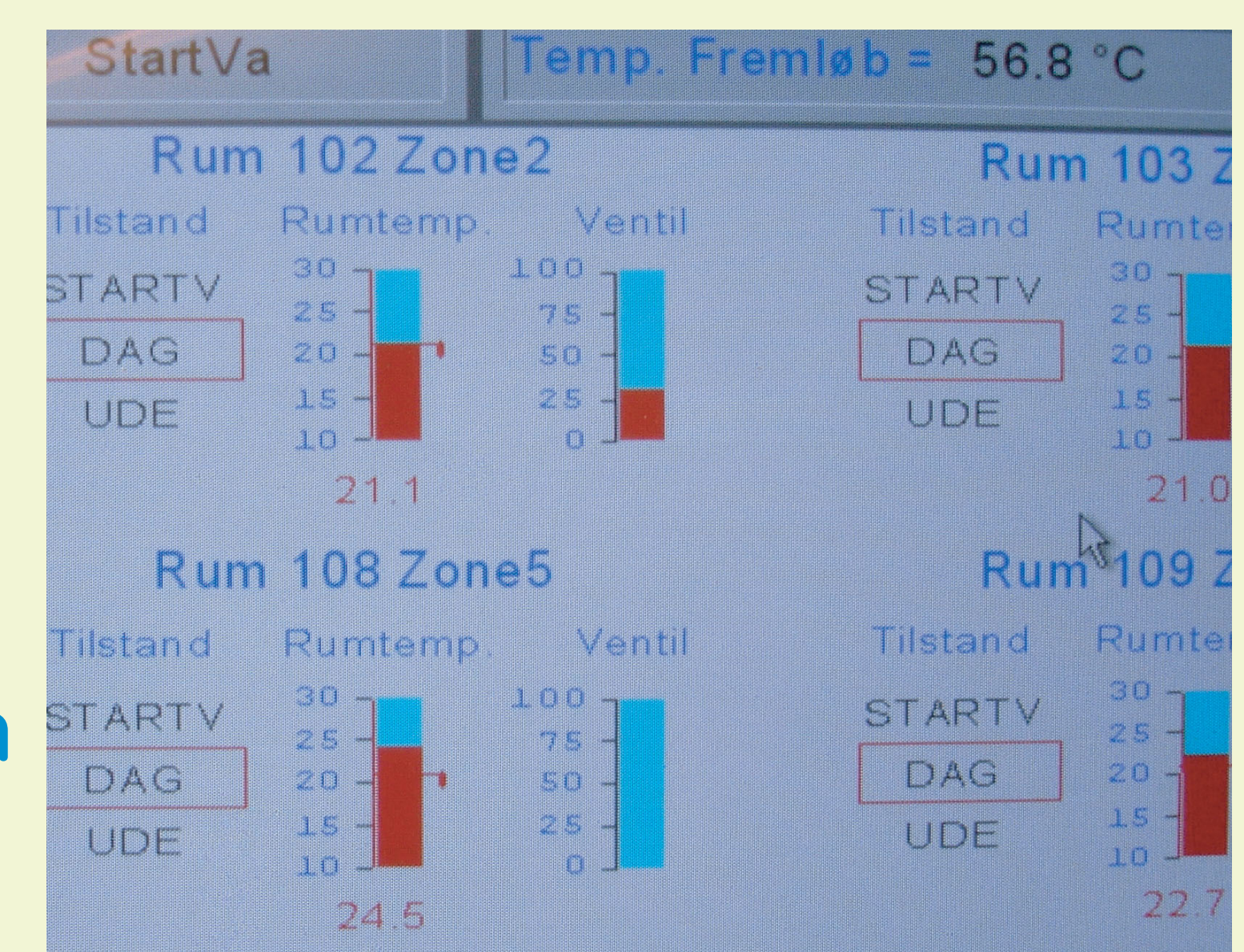


### Savings realised

Rosengårdsskolen was upgraded through a national programme that provided a grant of Euro 80000. Energy bills are now Euro 20000 lower, a payback of four years.

Before the project the 16000m<sup>2</sup> school used 2.0 MWh per year, or 120 kWh/m<sup>2</sup>. The improvements dropped consumption to 1.5 MWh per year, or 92 kWh/m<sup>2</sup>.

This saves 75.6 tonnes of CO<sub>2</sub> per year.



### Lessons learned

Through a collaborative approach involving energy consultants from Odense, a local energy expert and school staff, a more efficient and comfortable solution was tailored when compared to installing main pipe valves.

Costs were also minimised by replacing the old and worn valves at the same time. This approach meant that only the marginal cost of valve replacement was incurred.

An energy evaluation is carried out annually, and energy consumption is measured every month. Rosengårdsskolen runs a communication campaign, which enables the school to promote its energy savings.

**[www.display-campaign.org](http://www.display-campaign.org)**

### Partners



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