



USE CASE

Saving energy at the office

How smart temperature control saves this company 35% every year



What if you could save 20.000 euros a year on energy costs – just by heating your office building in a smarter way? Investing in Smart Basics or Smart Buildings may seem daunting, because it's hard to estimate the ROI of such projects beforehand. Until today.

In the following real-life case, you will discover how edge computers and ICONICS software can save an office building with 9 rooms 35% of energy costs – without cutting back on any comfort for the employees.

Building

Imagine an office building with 9 spaces:

- 2 open office spaces with flex desks (200m² each)
- 2 large meeting rooms (50m² each)
- 2 small meeting rooms (30m² each)
- 1 lunch room (50m²)
- 1 kitchen (30m²)
- 1 storage room (30m²)

Problem

Before taking the leap to smart temperature control, heating or air-conditioning in all spaces was turned on one hour before the first employees arrived and stayed on until the last employees left: from 7AM to 6PM, so 11 hours per day. Taking into account weekends and

holidays, the spaces were either heated or air-conditioned 247 days per year. This set-up did not take into account room occupancy.

Solution

Sensors are installed in all 9 spaces measuring room temperature, light and movement. These sensors are connected to the internet using a gateway and edge computer. They can then be connected to a central system in the cloud using ICONICS IoT Worx or Genesis64 software. All data is stored centrally and can be analyzed and visualized.

Temperature control in the office building is now 100% optimized, smart and adapted to the actual needs of the people using the spaces. The light and movement sensors affect the heating settings.

The storage that barely has any passage, is now only heated or air-conditioned 1 hour a day instead of 11 hours. Meeting room temperature is adapted to the room occupancy. Heating or air-conditioning is only active in the lunch room for 2 hours a day. Collecting data makes it possible to do what is actually just common sense – only using energy where you need it – but in an automated way. No need to point to hold someone accountable when the heating isn't turned off after a meeting for example.

The drastic cut in energy consumption isn't just beneficial for the company's financials, it is a win for the environment too.

Numbers

You can create great ROI by making your temperature control smart. The solution is simple, yet the impact is huge! Don't take our word for it, just have a closer look at the convincing numbers.

- Heat required: 40W/m²
- Price: 0,8€/kWh

Before:

- 294,8 kWh / day
- Cost per day = €235,84
- Total cost per year = €58.252

After:

- 191 kWh / day
- Cost per day = €152,8
- Total cost per year = €37.742

Smart Temperature Control saves you €20.511 per year, or 35% of the total cost! Taking into account the license cost, cost of sensors and gateways and and implementation cost, **the investment is earned back within 1,5 years.**

Want to discuss what Smart Basics can do for your business? [Contact us today!](#)