Referencie

Smart heating transition in a school



Uponor participácia

- GF EcoMate – IoT sensors, ultrasonic heat meters and communication hardware, as well as the associated smart software.

Smart heating transition in a school

GF EcoMate reduces the energy consumption of the heating system at Sixtus Bachmann Primary School in Obermarchtal.

The municipality of Obermarchtal is using GF EcoMate as a pilot project for smart heating optimisation at the Sixtus-Bachmann Primary School. The AI-powered solution analyses weather forecasts, room and flow temperatures, as well as usage times, and automatically optimises the heating control system. Without the need for structural alterations or initial investment, this is intended to reduce energy consumption, heating costs and CO₂ emissions. The predicted energy savings average between 20 and 30 per cent.

Fakty o projekte:

Location	Dokončenie
Obermarchtal, Germany	2026
Typ budovy	Product systems
Školy / univerzity	Digital Controls & Services
Typ projektu	
Renovation	

The municipality of Obermarchtal is using EcoMate from Georg Fischer (GF) to harness artificial intelligence and reduce the energy consumption of the heating system at the Sixtus-Bachmann School. Without any structural alterations, without an initial investment, and using a savings-based model, an existing installation is being transformed into a digital efficiency

project.

Obermarchtal is a tranquil municipality with around 1,300 residents at the foot of the Swabian Alb. At the town hall, it is the aim not only to talk about digitalization, but to make it a tangible part of everyday life – even far from the big city and high-tech campuses. Whilst elsewhere people are still debating whether artificial intelligence belongs in local government processes, the municipality is already using AI: in the town hall, in administrative procedures – and now even in the primary school's boiler room. With GF EcoMate, the municipality is asking for an AI-supported solution. The pilot project aims to demonstrate how smart heating control reduces energy costs and cuts CO₂ emissions, whilst proving that even a small town can be at the forefront of technology.

A pilot project in the day-to-day life of a local authority

The starting point is typical for many local authorities: the primary school's wood chip heating system is environmentally sound, but expensive to run. Heating the building costs around 10,000 euros a year. At the same time, demand fluctuates significantly – school hours, after-school care, weekends, holidays and public holidays. Until now, the installation has responded almost exclusively to the outside temperature, rather than to actual usage. "Our proposal to reduce energy consumption using our GF EcoMate innovation was immediately well received by Mayor Martin Krämer," says Jasmin Kabella, EcoMate specialist at GF Building Flow Solutions in Ehingen. The Obermarchtal local councillors were also quickly convinced following a presentation of the system.

GF service technicians installed the system the very next day following the decision as part of a pilot project, as Peter Steib, Product Manager for Digital Services at GF, explains. No structural alterations to the heating system were required: "The system does not interfere with the heat distribution network, nor does it replace any heating technology; instead, it is based on artificial intelligence. In just over two hours, our service technicians had assembled several IoT sensors, an ultrasonic heat meter and the communication hardware, and connected them to the intelligent software." Day-to-day operations were not affected. Since then, GF EcoMate has been analysing weather forecasts, room and flow temperatures, usage times and the building's thermal behaviour in real time. This results in self-learning heating schedules that are modified according to the data.

All details about the EcoMate solution

Impressions from GF EcoMate Obermarchtal









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