



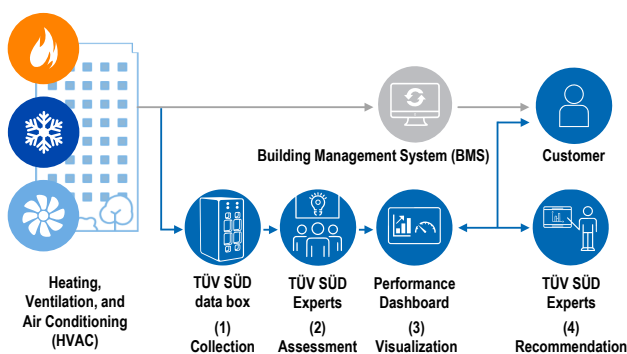
Add value.
Inspire trust.

Technical Monitoring in buildings

Do not heat, ventilate and cool your
money out of the window



The increasing complexity in Heating, Ventilation, and Air Conditioning (HVAC) systems can result in malfunctions. This can increase operating, energy and maintenance costs as well as CO₂ emissions.



Optimisation of building services engineering

- TÜV SÜD data box collects information from sensors, actuators and operating states.
- Data is automatically transmitted and evaluated by TÜV SÜD experts.

- Results are visualised in real-time in a performance dashboard.
- TÜV SÜD experts provide support to optimise operations.

What is Technical Monitoring?

Technical monitoring is the testing of technical parameters in the building equipment through a continuous target/actual comparison.

Which malfunctions does TÜV SÜD detect with Technical Monitoring?

Fans that are always in operation when the ventilation system is switched off; simultaneous cooling and heating of rooms, supply pumps that are in operation without demand; refrigeration machines that constantly go “on” and “off” due to incorrect parameterisation. These are just a few examples that have been uncovered by our experts through Technical Monitoring.

Why Technical Monitoring?

Technical Monitoring results show you which components of the HVAC are not functioning properly and/or are not optimally coordinated with each other. This enables you to immediately recognise where action is needed to reduce energy, operating and maintenance costs, and prevent avoidable CO₂ emissions.

When can Technical Monitoring be used?

All buildings with a building automation system that controls and regulates supply systems such as heating, ventilation, cooling, etc. Optimally, an open and standardised communication protocol is used.

What basis is used for target specifications for Technical Monitoring?

Functional descriptions, operating instructions, requirement specifications, etc. serve as a basis. In the case of incomplete documentation, our experts check according to the generally recognised rules of technology.

What is the difference between an existing Building Management System (BMS) and technical monitoring?

Current values such as temperature, valve positions, operating states, etc. are displayed in the building management system. Technical Monitoring evaluates these values in the form of coherent rules and shows how well they correspond to the target specifications.

What is the project process and how long does the Technical Monitoring take?

As a rule, you will receive access to the dashboard within 2 weeks. We recommend Technical Monitoring for at least 12 months in order to assess the influences of the seasons on the building or the supply systems. Continuous monitoring after the first 12 months is encouraged.

Case Study 1



Client: Large property manager



Buildings: 18,000 m² GFA
HVAC: 6 utilities



Technical monitoring:
70 identified deviations



Costs: € 9,700 (one-off)



Savings: € 7,100 per year
RoI: 1.4 years

Case Study 2



Customer: Manufacturer



Buildings: 12,000 m² GFA
HVAC: 9 utilities



Technical monitoring:
40 identified deviations



Costs: € 12,000 (one-off)



Savings: € 19,000 per year
RoI: 0.6 years

Add value. Inspire trust.

TÜV SÜD is a trusted partner of choice for safety, security and sustainability solutions. It specialises in testing, certification, auditing and advisory services. Through more than 25,000 employees across over 1,000 locations, the company adds value to customers and partners by enabling market access and managing risks. By anticipating technological developments and facilitating change, TÜV SÜD inspires trust in a physical and digital world to create a safer and more sustainable future.

Related services

TÜV SÜD provides the following related services:

- BACnet certification of components for building automation systems
- TÜV SÜD Climate action plan
- Sustainability rating system