Success Story Predictive Maintenance
# Building Management

## Background

Buildings, factories and industrial plants are among the largest energy consumers worldwide. Heating and cooling in particular play a major role and make an efficient energy management system indispensable. This can only be achieved if systems work as well as possible and no faulty operation occurs. At the same time, the demands of residents and users are increasing in terms of comfort. This in turn leads to more complex installations and more diverse operating scenarios.
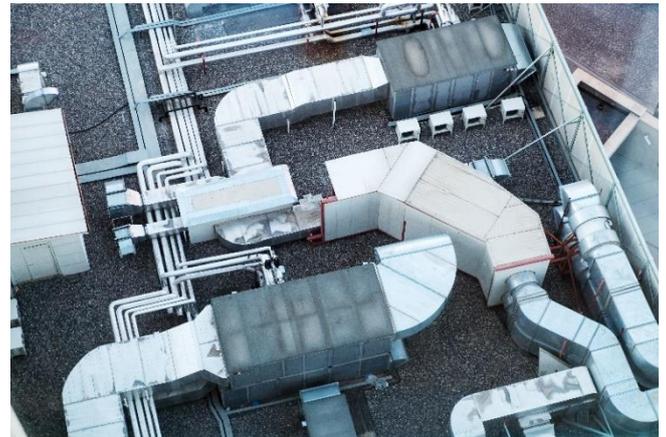
## The Case

- One of our customers uses a large number of buildings, machine halls and numerous peripheral facilities with over 100 rooms
- While some areas are frequently occupied, some rooms are only visited rarely
- In the given case, a window in an adjoining room was tilted in late summer and not closed again in accordance with regulations
- At night, when the temperatures were well below the freezing point after a change in the weather, the temperature in the room dropped significantly – with a tendency to values below 0 °C
- As soon as the temperature in the room dropped noticeably below 10 °C, the AI alerted the control center so that freezing and bursting of water-carrying pipes could be prevented

## Highlights

- The temperature in the rooms can vary greatly depending on the use
- Theoretically, conditions valid for all areas can be defined and an alarm can be triggered in case of a violation
- However, this is a manual process that cannot cover all scenarios. This approach is therefore blind to non-predefined risks
- No rules need to be defined for our AI, they are learned automatically
- The specific use of each facility and each room is mapped
- The AI is permanently improved by user-specific knowledge. With just a few entries, additional user-defined rules are created and applied throughout the building

## > 90%

**automatic coverage of**
**critical and semi-critical**
**incidents**

Processes and systems are getting more and more complex in order to keep up with the latest requirements for efficiency and comfort. The AI of **mi solutions** helps to keep an overview of machines and processes. This also includes events that are not detected by manufacturer-specific procedures or that have been omitted in the identification of possible causes of faults.
The existing sensor technology is fully utilized to make processes more reliable and ensure a smooth workflow.

## Your Contact

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## About Us

It is our mission to enable customers worldwide to create an impactful value from their data helping them to stand out. Our broad wealth of experience in applying AI sets the basis for this mission.