

Anomalies Detected

We have lots of operations data, but miss important insights

Case study: One of Germany's largest manufacturing companies had a corporate initiative to meet the environmental targets set by the European Green Deal. However, achieving these goals was a complicated task due to lack of centralized data management, despite having EMS and BMS in place.

Problem: The decentralized approach to data collection made it difficult for the company to effectively analyze and optimize energy consumption across its facilities. Without an understanding of how energy was being consumed, distributed, used, and wasted, and where there were opportunities to improve energy efficiency, the company could not meet the environmental targets of the Green Deal.

Solution: The company turned to HiPer it! to mine data, structure it, and perform a comprehensive analysis of its processes. Using the HiPerWare platform as a single data collection and big data analysis solution, a thorough assessment of the processes was conducted to identify potential areas for optimization. Business Energy Model (BEM) was created to see how energy was generated, distributed, used, and wasted. This included analyzing production energy requirements, production cooling, HVAC systems, water supply, and other energy-consuming processes. The model visualized possible areas for improvement and energy savings, including energy re-use.

Result: After a thorough analysis of all processes, it was identified that one of the production workshops was simultaneously cooled and heated during winter, resulting in excessive energy consumption of 60 MWh of fossil fuels and 18.5 tons CO2 emissions per month.

As a result, the customer detected energy waste, by centralizing the collection and analysis of data from multiple sources to gain real-time insight into energy consumption, detect energy waste and tweak its processes for achieving the European Green Deal's environmental targets.

