

BAUER AG: CONNECTED SHEET PILES (IOT)

Connecting load cells at the digital construction site – so that walls don't shake



“The project has been successfully used for approx. two weeks at the construction site and everybody is very satisfied. We want to thank T-Systems for the close cooperation.”

Thomas Lohner, project manager – Bauer AG

Sheet piles are used at construction sites to secure excavations or sharp breaks in slopes. To monitor their high load, they were previously inspected on site by engineers based on locally recorded data. Thanks to IoT, a more comprehensive monitoring and faster analysis of data is now possible – at any time, from any location.

CHALLENGE

- The topic of digitization is moving in quickly also at large construction sites: Networking is the magic word – of machines, workers and material
- Connecting robust and durable sensors / devices for use at construction sites as well as central visualization of the collected data
- Adherence to tight schedules – functioning operations can only be established if IT, construction site management and engineers work perfectly together

SOLUTION

- An especially robust IoT device transmits the data of the load cells online through the Telekom LTE mobile network to the cloud of Bauer AG
- The IoT device obtains threshold and limit values from the cloud for the data of the load cells and can therefore – if necessary – trigger alarms in real time
- The visualization of current data and the comparison with historic data provide a new tool for the engineer to identify changes and to initiate measures much earlier than before

CUSTOMER BENEFITS



Online visualization

Visualization of current data, comparison with historic data



Monitored threshold and limit values

Triggering of alarms if limit values are exceeded



Increased quality

Recognition of small movements and prevention of major damage



Online data

Digitization supports the cooperation of construction workers, engineers and construction machines



Simple comparison of construction sites

New opportunities for the engineer to compare and optimize constructions



More efficiency

The digital collection of the data and their central provision saves time and costs