Asset Tracking and Temperature Monitoring in the Laboratory

AT A GLANCE
• Indoor positioning of refrigerators
• storage time
• monitoring of storage temperature
• process surveillance
**PROBLEM DEFINITION**
Several thousand samples are constantly stored in a large laboratory. The storage location, the storage time and the temperature are important so that the samples do not change. In addition, mechanical or physical stresses on the sample materials can lead to incorrect results. Correct storage and careful transport are therefore of utmost importance for the quality of laboratory results.

**SOLUTION**
The location of the samples is determined with the means of indoor positioning via Bluetooth Low Energy Beacons. The location and all important information, such as temperature, humidity, shocks and the last cleaning appear in an app or dashboard. In addition, the historical course of the measured values can be called up at any time.

**TECHNICAL IMPLEMENTATION**
The boxes/containers in which the samples are stored are equipped with Bluetooth Low Energy (BLE) beacon stickers. Using infsoft Tracking, attributes such as temperature and humidity can be assigned to the BLE Beacons, which can then also be searched for.

In the laboratory, infsoft Locator Nodes are installed, which receive the signals from the BLE Beacons and forward them to the infsoft LocA-ware platform®. Here the position is calculated and displayed via a dashboard. With an app or browser application, employees can access the data and see the location of the sample on a map.

Using the infsoft Analytics Tool, historical data can also be called up, evaluated and compared with the real-time data at any time.