Positioning of Wagons in a Maintenance Facility

AT A GLANCE
- real-time localization of rail wagons
- location overview on digital map including service life data
- intelligent parking system
PROBLEM DEFINITION
A railway company has a large workshop hall, where wagons are parked on tracks in order to repair them. Because of the size of the area and the high number of trains, the technicians have problems finding the train they want to work with. In addition it should be avoided that wagons impend each other from leaving the hall.

SOLUTION
Every single wagon is being located with the help of Indoor Tracking based on Ultra-wideband (UWB). Employees can access a digital map via terminal or app, on which the wagons are displayed. At the same time, an intelligent system helps parking the wagons so that they won’t obstruct each other.

TECHNICAL IMPLEMENTATION
In the hall, infsoft Locator Nodes are installed and connected to the electrical grid. An infsoft Locator Tag with an UWB module is attached on both sides of each wagon. The Locator Nodes scan for signals of Locator Tags in their surrounding and transfer the values to the infsoft LocAware platform®. Subsequently, they are stored in a database and sent to a web interface. Employees can access the data via app or browser application and find the wagon in a map with an accuracy of less than 30 centimeters.