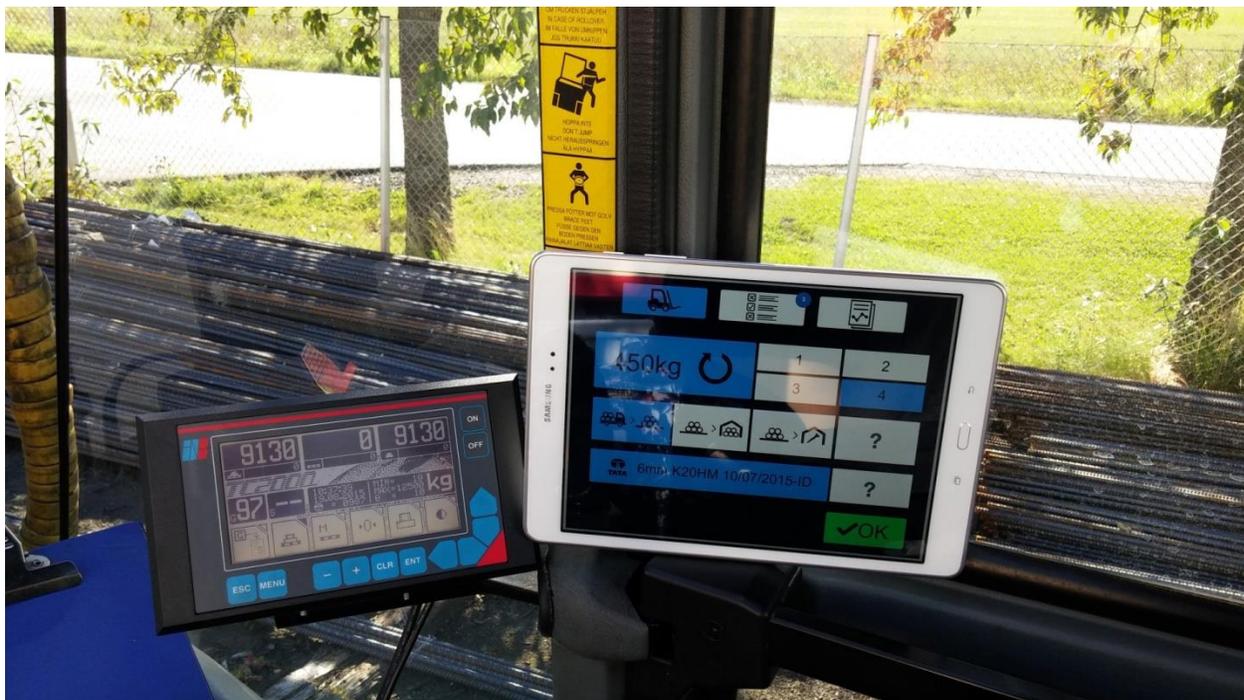


## Intelligent and automated material flows by Havamax | Case Pintos

*Havamax Solutions provides manufacturing industry with efficient, safe and usable work process automation solutions. They have a special focus on material flows and logistics. Havamax Solutions is an IoT software company, based in Finland, and supports customers in Nordics as well as throughout mid-Europe. Pintos is a Finnish family-owned company manufacturing basic reinforcements and nails.*

Pintos needed an accurate and real-time inventory for better business performance. The delivered solution relies on automatic and real-time data from the material flows. The solution design started with work flow, material flow and system audits. The critical information points were identified as lift truck operators' individual work flows, loading, unloading, material weight and material location. The installed system now automatically delivers real-time information throughout these key information points and the whole material flow.

The tailored Havamax app for Android was modified to support the identified flows and integrated with the key systems. The lift trucks were installed with basic Android tablets including the Havamax app. Each lift truck operator is now visually guided through their task list by the app UI. Loading and unloading information is now easily tracked by the lift truck operators due to the user-friendly app UI. For weight information the system was integrated with TC2000, one of the most accurate weighing devices for hydraulic machines. For real-time visibility across different business functions, the system was integrated with Pintos ERP. All of the solution elements are connected via wireless network.



*Picture: the tablet is installed into a lift truck and connected to TC2000 mobile weighing device. The tablet shows the ordered items and asks to weight the material on the truck. The truck operator only needs to choose the right material from the menu and press a button to weight it. This takes about five seconds.*

The introduction of integrated tablet app to a lift truck, in addition to reaching the set targets for the co-operation, enables all other mobile benefits as well. These include normal messaging, work process management, inventory needs and several other issues providing both immediate benefits as well as a stepping stone for additional development. The important goal of making employees' work easier and more enjoyable was also reached in this project.

For more information, please see

[www.havamax.com](http://www.havamax.com)