

Rail freight transportation development projects

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Rail logistics industry needs to develop

Examples of VR projects

Rolling stock

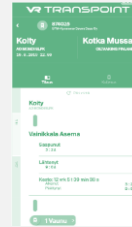


Locomotives: Siemens Vectron (Sr3), Stadler Dr19



Wagons: modular container solutions

Digitalization and IT development



Customer online interface: Transparent real-time info



Artificial intelligence: algorithm-based planning

New transportation technologies



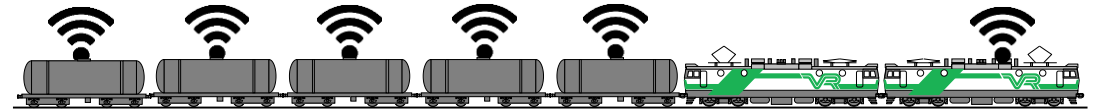
Digital freight train: sensor-monitored wagons and locos



Sensor-assisted visibility: locomotive cameras

Digital freight train

Objective: a combination of locomotive and wagons that are connected to a cloud. It is a platform that enables us to do continuous measuring during operation.



Maturity: first field production test completed. In further development for wider adoption.



Sensor-assisted visibility

In co-operation with GIM Robotics and Business Finland

Test locomotive equipped with cameras, IR, thermal vision, radar and LiDAR

Enables safer and efficient operations by providing sensor-assisted video feed to the shunting-operator



Thank you