

Swiss Factory Boosts Rail Bogie Efficiency, Traceability

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The hybrid RFID and QR code-based solution from Identech allows Stadler Winterthur to provide project-specific instructions to its workers, capture data about production, and enable maintenance-based information collection for its rail-service customers.

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Apr 12, 2020 Swiss manufacturer [Stadler Winterthur](#) had developed a hybrid UHF RFID- and QR code-based system that automatically collects data about the materials going into the assembly of each of its railcar bogies (train undercarriages), as well as the individual doing the work, thereby boosting efficiency and traceability. The solution, which was taken live last summer, is expected to provide a return on the company's investment within 1.6 years.

Stadler Winterthur's deployment is a finalist in the [2020 RFID Journal Awards](#) for Best Manufacturing Deployment (see [Finalists Unveiled for 14th Annual RFID Journal Awards](#)). Winners will be announced at the [RFID Journal LIVE!](#) event, to be held in Orlando, Fla., on Sept. 9-11.



The solution, provided by Switzerland-based RFID technology firm [Identech](#), includes the company's AIMSOC middleware to manage the RFID- and QR code-based data, as well as mobileRFID readers that also scan 1D and 2D barcodes, supplied by [FEIG Electronics](#). In addition, the system includes M-Rook UHF RFID tags from [The Tag Factory](#) with built-in [Alien Technology](#) Higgs-3 chips, and DistaFerr UHF RFID tags from [Schreiner Protech](#), which are worn by staff members.

Large-format MultiSync P404 displays, provided by [NEC Display Solutions](#) and used in the production area, are programmed by Identech to display the order data, including all tasks that need to be accomplished, as well as the QR code required to begin accessing and collecting data in the welding cabinets, on the assembly site floor.

Stadler Winterthur serves as the competence center for bogies within train maker [Stadler Rail](#). The bogie frames typically consist of two longitudinal beams, connected by a cross tube or cross beam to make a frame in the shape of an "H." Main components are then built into the bogie, such as engine brakes, wheelsets, primary suspensions, bogie bolsters and automatic train control devices, in order to ensure passenger comfort.

The plant, located near Zurich, has been growing its capacity in recent years. Initially providing approximately 900 bogies to Stadler and other companies each year, it is now able to make approximately 2,000 annually. The company initiated a combination of lean building practices and automation to make this possible, according to Sebastian Kohl, Stadler Winterthur's process engineer.

