Precise Tracking for a Sports Car Manufacturer

Challenge
A large sports car manufacturer required innovative software to organise production flow and applications for its prototype vehicles in a more efficient way. For this purpose, the vehicle manufacturer was looking for an automated and reliable RFID solution. This solution is to be used to track and optimise the development and movement of the prototypes in the development centres and on test drives.

Background
The objective was to precisely identify individual components which have been installed in various prototypes in the course of numerous test drives and procedures. Furthermore, the vehicle manufacturer also wanted to be able to follow and analyse the location of each prototype vehicle both on the factory site and on test tracks in combination with the data of the onboard unit.

Solution
The sports car manufacturer fitted approx. 200 components and prototype groups with EPC-UHF-RFID tags. An individual ID which carries specific information, such as serial number and other relevant details, is assigned to each RFID tag. After the test completion, the vehicles pass through an RFID gate where all components are automatically identified and the data generated is forwarded. In addition to the current parts list of a prototype vehicle, the RFID system enables the vehicle manufacturer to track the prototype vehicles on the factory site.

Results
The Kathrein RFID solution meets the highest expectations of the premium sports car manufacturer. By means of the RFID technology, it is possible to precisely identify and monitor which components are installed in which prototype vehicles during the tests. It rationalises the manual and time-consuming documentation processes considerably and reduces the risk of human error. It is possible to determine in real time where the prototype is located. Within the scope of a roll-out project, the use of RFID has also been expanded to the vehicle distribution in the series manufacturing section.