

BMW Group: Track and Trace for 260,000 special load carriers



Where are there expensive special load carriers in the logistics cycle? Are they being used to optimum effect? How can their use be optimized? Thanks to Track and Trace from Bosch, the BMW Group is able to answer these questions both quickly and efficiently – for some 260,000 load carriers by the end of 2024.

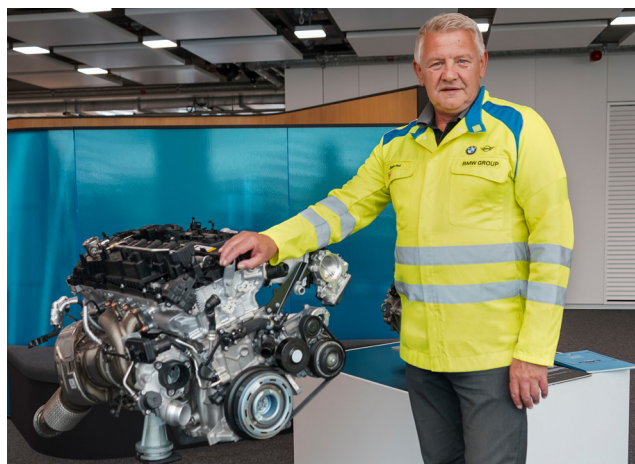
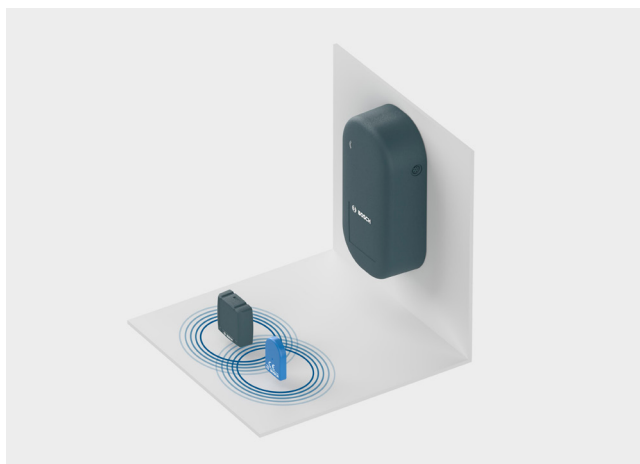
At the BMW Group, the inventory of special load carriers was previously a manual process. Collecting the data across the entire cycle and across multiple locations has often proven to be a difficult, time-consuming, and – most significantly – error-prone process. To maintain an uninterrupted supply, the Group frequently had

to purchase additional load carriers. Given the high cost of the containers, however, this situation was simply not sustainable.

Therefore, in 2019, the company began its search for an intelligent tracking system that would provide a simple, long-term solution to these problems. The aim was not to identify a high-volume solution that offered millimeter-accurate localization. Instead, the focus was on simple, intuitive, and cost-efficient implementation with the potential for a later rollout. The system had to monitor the individual process stages as well as record and prepare the existing data in a way that optimization potential could be easily identified and exploited.

“Our employees spent too much time looking for unrecorded containers. Bosch offered the simplest solution on the market to provide us with the necessary transparency.”

Jürgen Bail, head of container development and planning for powertrains at the BMW Group



From the pilot project to the global rollout



In the production network of the BMW Group, cylinder head containers are transported from one European city to another. Following a joint analysis of the existing value stream, a pilot project was launched in which initial containers were equipped with sensors and gateways installed at relevant positions in the plants and at supplier sites.

The focus of this endeavor was on the position, whereabouts, and transport duration of the load carriers. The project was so successful that the company is now gradually retrofitting its entire container stock with sensors. New load carriers will be equipped with these sensors directly by the supplier, which will make the processes even more efficient.

“Three factors were crucial to the success of the project, in my opinion: the easy implementation, the committed cooperation between Bosch and the BMW Group, as well as the shared objective of getting a major project up and running.”

Jürgen Bail, head of container development and planning for powertrains at the BMW Group



Other plants within the BMW Group are already benefiting from the experiences gained in the pilot project: a parallel project is already underway in South Africa, with further initiatives to follow. In the field of electromobility, the BMW Group regards complex and automated special load carriers as another impor-

tant application of the container tracking system. Consequently, a total of around 260,000 load carriers are to be equipped with Track and Trace by the end of 2024. The framework agreement concluded between Bosch and the BMW Group has transformed the pilot project into the largest Track and Trace acquisition project from Bosch.

How Track and Trace works

The sensors transmit signals to the cloud via the gateways. Thanks to the software's web interface, the received data can be clearly displayed in the form of dashboards. This provides all parties involved in the process with permanent access to the position as well as transport, throughput, and standstill times of the loading units. Based on the supplied and collected live data, new target parameters can be defined and target/actual comparisons performed – both with regard to transport times and to the process times of individual stages. This helps to reduce losses and empty periods, which in turn enables more accurate planning. The system also eliminates expensive reinvestments, while increasing the overall efficiency of the logistics process.

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<https://www.bosch-mobility.com/de/loesungen/software-und-services/track-and-trace/>