



CASE STUDY



1 | Challenge : **Poor organisation of the vehicle fleet**

One of the leading logistics service providers turned to HOPPECKE via a contracting company, as the existing charging stations were to be converted with equipment from different manufacturers and optimised with a monitoring system.

Yesterday one bought the winter coat, today the first T-shirt for the summer is already in the shopping basket. Delivery of both items including the ordered water pump for the swimming pool in the garden by the end of the week. How does something like this work? Through well-organised logistics management.

Grown structures and different fleets of vehicles from several manufacturers in the individual departments were the starting point for the customer. These factors made it very difficult to adapt to short-term fluctuations in capacity utilisation. Instead, avoidable downtimes and incorrect battery removals were the order of the day.

Therefore, the main goal was to find a solution that could integrate the different components into one system as efficiently as possible. An overview of the individual status of each battery and a smart use of the batteries was a first step in this direction. In addition, the solution should take up as little space as possible in order to maximise the efficiency of the entire logistics centre.

Based on a specification developed by the customer, HOPPECKE set about developing a solution.

Growing requirements
in distribution centres

Delayed processes
because of downtimes

Mistakes during battery change
because of false removals

Fluctuating battery utilisation
due to lack of monitoring

„We found the right solution for a space saving organisation of the chargers and a clearly arranged management system.“

Holger Allmang
HOPPECKE Motive Power

Top cost-benefit ratio
by using the existing
chargers

Space saving by
combining the
chargers

Increased efficiency
through a battery
changing station

**Better battery
utilisation**
through management
system

2 | Solution : **Optimum battery use through monitoring system**

With a total of 28 exchange points, two new charging stations were finally put into operation.

Batteries and chargers from different manufacturers are used in the changing station. This significantly minimised the space required in the charging area, as the different batteries and vehicles no longer need their own charging stations.

A monitoring system connected to the charging station makes it possible to swap identical batteries for vehicles from different manufacturers. In this way, the batteries are used more evenly and flexibly. In addition, more battery exchange points could be provided in a smaller space than with the previous solution.

The intelligent management system trak | monitor 4.0 provides the user with real-time data on the battery status of the individual batteries and thus creates maximum transparency in fleet management: starting

with simple control of the batteries up to complete peak load management. Battery life can be significantly extended through the systematic use of all batteries, while at the same time downtimes and maintenance costs are reduced.

In order to link the various chargers with the trak | monitor 4.0 system, the charging station was upgraded with UCM boards. This means that data such as the state of charge and the operational readiness of the individual batteries can now be processed. As a result, the user can see on the monitor which battery can be changed next.

The solution not only saved space, but also significantly reduced downtimes and the error rate when changing batteries. With the new system, the customer can now react flexibly to order fluctuations and cope with future enlargements of the centre.

Key Benefits

- Investment protection through optimum battery operation and battery charging
- Extended battery life through systematic use and best possible utilisation of the battery pool
- Increased vehicle availability
- Increased productivity through optimised processes: no time lost due to journeys to a central charging station.
- Higher efficiency through more transparency
- Precise adaptation to operational processes

3 | Products :

► **Batterymanagementsystem:**

trak | monitor 4.0



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