



# KEEPING PRODUCTION MOVING AT MERCEDES-BENZ

MOTOTRBO™ DISPATCH AND TRACKING SOLUTION FOR STATE-OF-THE-ART FACTORY



To increase safety and maximise productivity at its new € 800 million factory in Kecskemét, Mercedes-Benz Manufacturing Hungary Ltd issued a tender for an integrated two-way radio network and patrol control system.

The company's manufacturing plant is situated 90 kilometres outside the capital city, Budapest and has created employment for some 3000 workers. It spans an area of 400 hectares and has the capacity to manufacture over 100 000 vehicles a year. The plant currently produces the Mercedes B-class compact models.

Motorola partner Fercom surpassed several major competitors to win the contract for a MOTOTRBO digital radio system with Neocom's TRBOnet Enterprise dispatcher software to manage communications between security guards, the on-site fire department and maintenance teams. Radio users can be tracked and monitored in real time with a TRBOnet Indoor system, which uses beacons to locate personnel quickly and easily in an emergency.

## CUSTOMER PROFILE

**Industry Name**  
Manufacturing

**Motorola Solutions partners**  
Fercom Ltd (Distribution Partner)  
Neocom Software Ltd  
(Professional Radio Application Partner)  
Kilchherr Elektronik (Professional Radio Application Partner)

## Key Benefits

- Reliable, consolidated voice and data communications
- Real-time personnel tracking
- Easier to manage multiple transmissions
- Reduced downtime, enhanced safety

## Product Name

- 26 DP 3600 portable MOTOTRBO radios
- 36 active patrol control points (K-TERM70 Beacon)
- 1 DM 3600 MOTOTRBO dispatch radio
- TRBOnet Enterprise dispatcher application

**MOTOTRBO delivers reliable, clear communications throughout the plant, improving collaboration between workers and expediting decision-making to boost productivity. With the TRBOnet application, the customer can manage communications between work groups more easily, while the ability to track personnel has enhanced staff safety.**

Mr. László Imre, Sales Manager, Fercom Ltd.



## THE CHALLENGE

The large buildings and extensive metal machinery used at the Mercedes-Benz factory can pose a challenge for wireless telecommunications, as they interfere with radio transmissions. Analogue radio is particularly susceptible and interference can result in inaudible communications and limited range.

Although digital radio is not immune to interference, it has the ability to reconstitute the original voice quality throughout the coverage area, delivering clearer communications over an extended range. To optimise communications throughout the plant, Fercom had to give careful consideration as to where to install the repeater and antenna system.

Additionally, GPS signals generally don't work indoors, so an alternative solution had to be found for identifying the location of radio users. Neocom integrated a K-TERM70 beacon and option board developed by Kilchherr Elektronik to develop the TRBOnet Indoor tracking system. Each time a radio user passes a beacon in the plant, it transmits a unique ID which is detected by the option board in the radio and transmitted over the voice channel, back to the control room. This data is then transferred via the TRBOnet Enterprise dispatcher software onto a 2-D map to pinpoint the exact location of the user.

## THE SOLUTION

Using a single DR 3000 repeater with full redundancy to cover the entire plant, Fercom was able to deliver reliable, integrated voice and data communications to Mercedes-Benz's security, maintenance and emergency response personnel.

Motorola's Repeater Diagnostics and Control (RDAC) software enables the repeater to be managed remotely, so the control room can react quickly if a technical problem arises. In the unlikely event of a failure on the primary repeater, the antenna commander system can be used to automatically switch over to a secondary repeater, to minimise any disruption to communications.

Mercedes-Benz's staff are using DP 3600 portable display radios with full keypad, programmable buttons and text messaging capability, allowing them to choose the most

efficient means of communicating. The battery provides up to 13 hours of talk time, keeping work groups in contact throughout extended shifts.

All voice and data messages are recorded by the TRBOnet Enterprise application, which helps dispatchers to monitor user activity, send scheduled text messages and identify whether a radio is switched on or off. In an emergency situation, the control room is able to respond quickly and effectively by linking multiple talkgroups at the touch of a button and using the one-call function to override all communications.

## THE BENEFIT

Whether they're operating independently or interacting with other groups, the MOTOTRBO radio system delivers business-critical communications to workers across the plant, enhancing co-operation and decision-making to promote efficiency and safety for Mercedes-Benz's diverse work teams.

Security guards patrolling the plant have the reassurance of reliable, clear communications throughout the area and managers can react quickly to machine breakdowns, locate engineers more easily to minimise downtime and alert staff instantly if there is a safety risk.

The factory's fire brigade also depends on the system to co-ordinate a rapid response in an emergency situation and is able to identify the exact location of personnel to aid rescue operations.

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