

# OVERHEAD LINE MONITORING SYSTEM

## PRINCIPLE

Pantograph Health Monitoring System consists of a compact System mounted on a locomotive to monitor continuously the overhead line.

Abnormal events like impacts are automatically notified with GPS stamp.

Several locomotives can be equipped with a PHMS to cover the complete Network.

## Automated monitoring of the overhead line network with PHMS.



## INSTALLATION

The PHMS is compact and custom made to suit any pantograph implementation.

The long term battery pack allows to operate several months without maintenance.

## REFERENCES

EMEC Expertise supported the successful introduction of the first standalone and compact pantograph Monitoring System in the Belgium railway.

## Benefits



Early detection of critical concerns on the overhead line saves money.

Catastrophic failures can be avoided if critical concerns are detected and reported on time.

The PHMS is compact and custom made to suit any pantograph implementation.

The powerful Data Management System compiles the Data from several PHMS to cover the complete Network.

EMEC Expertise is an independent company dedicated to engineering services and technology transfer.

We select or develop the most appropriate hardware and software to meet the customer specifications.

Our flexibility is appreciated by our customers in several aspects e.g. innovation, costs and services.

# Overview

## THE FOLLOWING FIGURE ILLUSTRATES THE PRINCIPLE OF THE OVERHEAD LINE MONITORING SYSTEM :



1. Accelerometers mounted directly on the pantograph.



2. The standalone Data Logger is mounted directly on the pantograph and communicates wirelessly with the control unit. It is powered from a long life battery pack.



3. The Control Unit mounted in the carriage is equipped with GPRS to transfer the Data to the server.



4. Wireless advanced communication protocols allow to transmit the data from the pantograph to the carriage and from the carriage to the Server. It allows also remote operation to modify settings of the Data Logger.

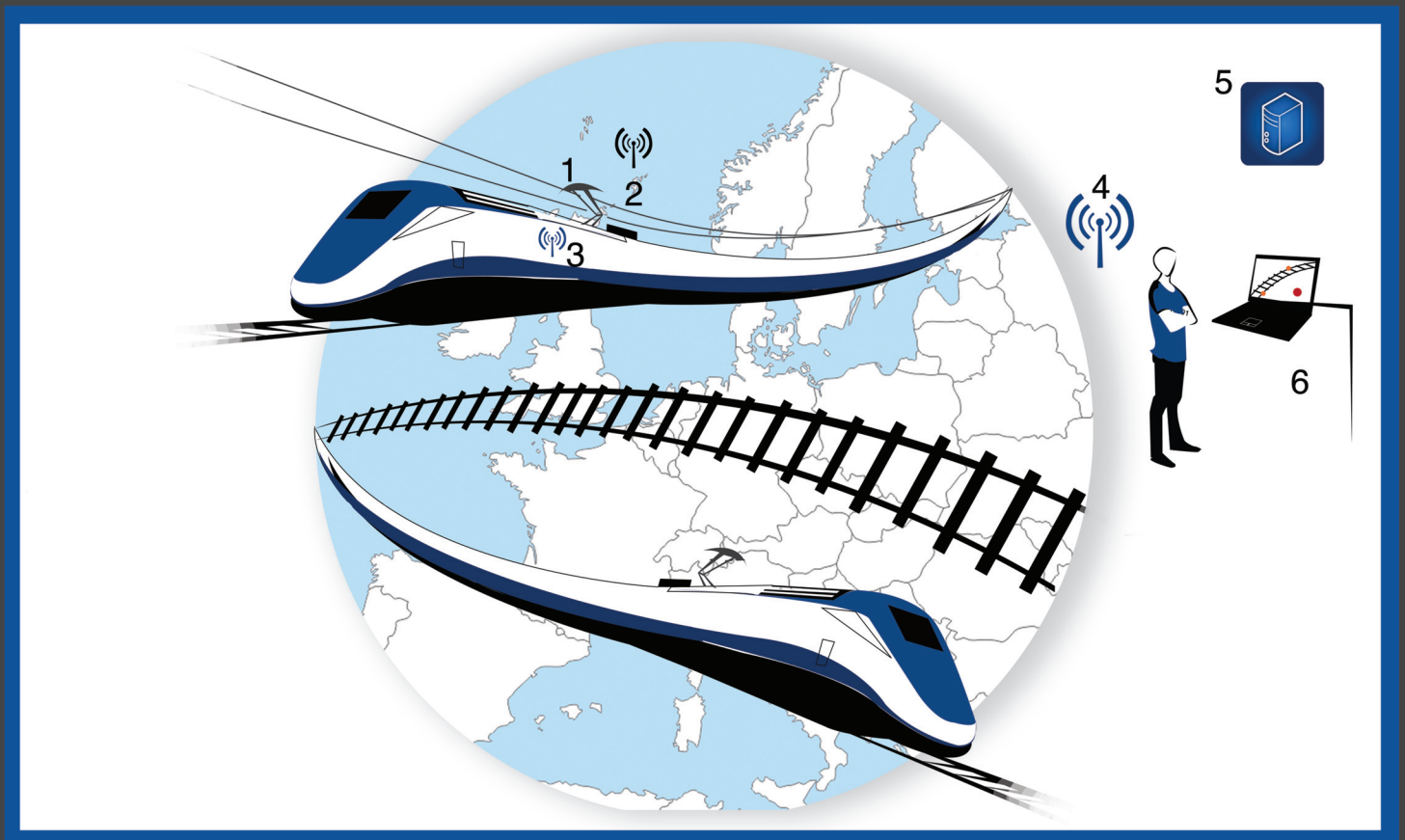


5. The server collects and stores the data from several PHMS in a Database.



6. The user's interface allows to quickly visualize the main concerns from any place with an internet connection.

**Advanced wireless communication and signal processing allows the user to monitor the Data from any place with an internet connection.**



### More information :

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