



## ESAH-Mobil

### Diagnosing the condition of frogs

Turnouts are exposed to extreme loads. Compared to the rest of the track, they have a shorter service life and significantly higher life cycle costs. The resulting requirements, combined with the existing complexity of influences, necessitate not only further developments in design and materials but also precise analysis of loads. The ESAH (German abbreviation for Electronic Frog Analysis System) was developed for just this purpose.

ESAH-Mobil from DB Systemtechnik (DBST) records the loads that occur, including accelerations. Now in its fourth generation, one of its most impressive features is the simplicity with which the sensors are installed. It can be operated intuitively by the user using any mobile terminal and delivers useful results while the operator is still on site. This enables ESAH, as a module of the switch diagnostics system, to determine the quality and condition of the frog-section from the first day of use.



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**Our  
knowledge  
is your success.**



#### Our services

ESAH-Mobil is an integrated product solution that allows you to “predict and prevent” rather than “find and fix”. The DB Systemtechnik service includes:

- Sale or hire of the mobile measuring system for easy installation
- Advice on materials and welding
- Measuring and evaluation services and/or associated support at the customer’s site
- Evaluation software
- Cloud connection with realisable AI application for further improvement of condition forecasts

#### Your benefits

The ESAH-Mobil diagnostic system for frog-sections can extend the service life of a common crossing exposed to typical loads by up to 40% and significantly reduce lifecycle costs.

- Precise and timely determination of points condition
- Recording of loads before damage occurs to frogs and the track
- Optimum predictability of maintenance tasks
- Technology, support, sales and rental from a single source

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