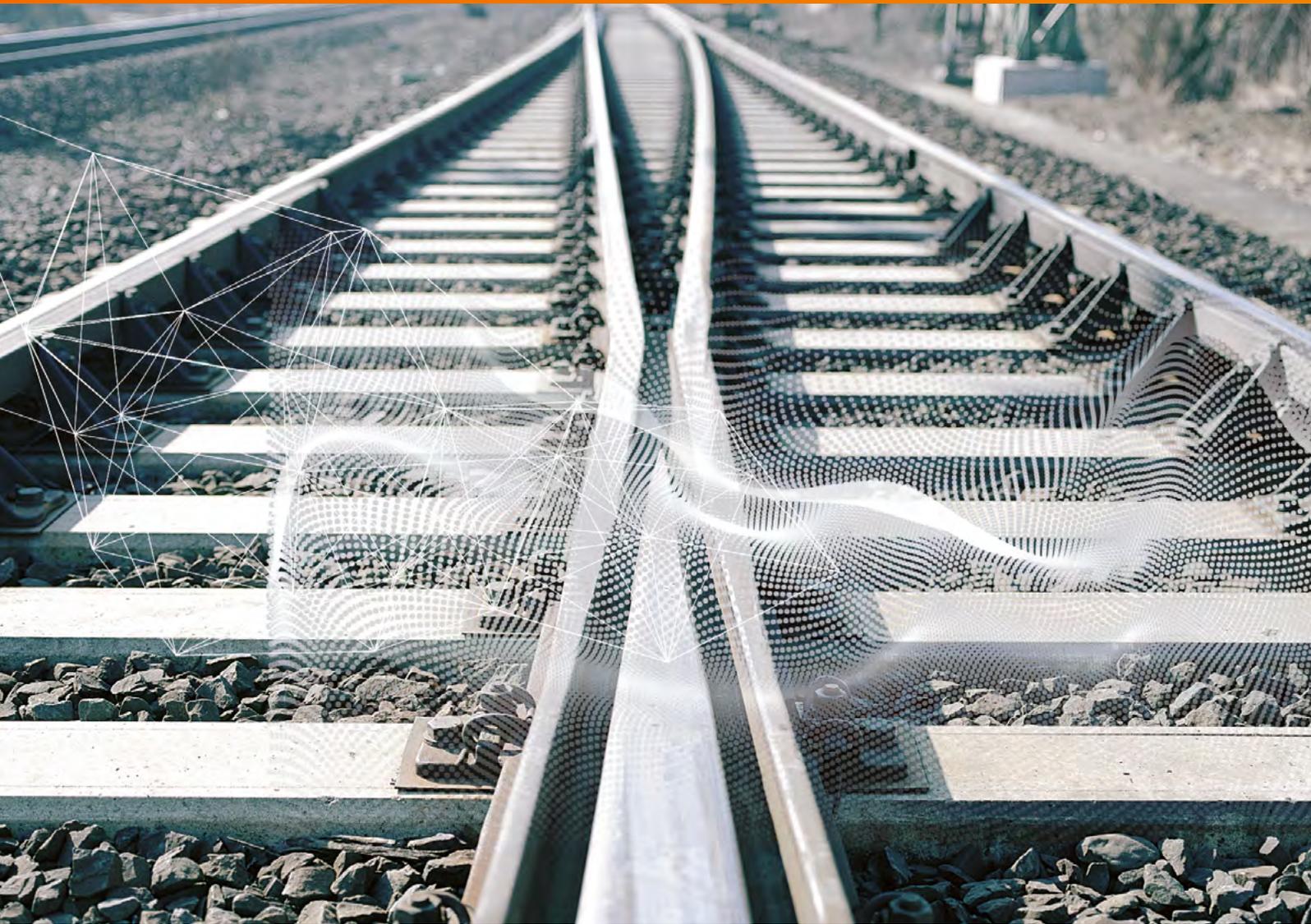


# zedas<sup>®</sup>asset

Asset Management for Railway Infrastructure



## Expertise all along the line

zedas<sup>®</sup>asset is the comprehensive asset management software for railway systems.

The railway-specific LAM (Linear Asset Management System) forms the foundation for the economical and safe operation and maintenance of railway infrastructure companies (RIC). zedas<sup>®</sup>asset combines the classic functions of a maintenance planning and control system with innovative enhancements. The software integrates all process participants and ensures a continuous flow of information.

Our clients have access to experienced consultants who bring excellent expertise to the complete implementation of their projects. Through a clear release strategy, we ensure a continuous innovation process of the solution, providing our customers with a high level of investment security.

### Digitization of Railway Processes

ZEDAS develops standard software products for the asset management of rail vehicle and railway infrastructure, as well as for the logistics management of rail freight traffic. Our specialization and expertise make the difference, benefiting our customers! Leading companies in the industry have trusted us for over 30 years.

## Leading companies in the industry rely on zedas<sup>®</sup>asset



# Intelligent Maintenance with zedas<sup>®</sup>asset



Increased availability and reliability of railway systems



Reduction of maintenance costs



Visual condition overview for optimal resource planning



Key performances indicators for informed management decisions (investment planning)



Seamless, legally compliant documentation without additional effort



Predictive personnel and maintenance planning



Extension of asset life cycles through condition forecasting



Improved service quality as well as employee and customer satisfaction



Weak point detection and prediction of remaining service life



Full integration of external service providers, measuring devices and service partners

# Perfect track setting for a seamless maintenance process

Digitalization forms the foundation for modern and efficient maintenance, which not only increases the value creation within the company but also strengthens its competitiveness in the market.



## 1. Data Collection

All relevant data from inspections, surveys, measurement runs and manual measurements are captured in real-time and directly integrated into maintenance planning.



## 2. Planning

The collected data is analyzed and organized into prioritized work packages to optimally combine preventive and corrective actions, ensuring efficient use of resources.



## 3. Task Assignment

Maintenance tasks, along with the planning of tools and materials, are assigned to mobile teams based on geographical locations.



## 4. Execution

On-site, mobile teams access all necessary information in real-time to carry out maintenance tasks digitally, efficiently and without paper-work.



## 5. Documentation

Upon completion, the work is reported in real-time, ensuring audit-proof documentation and a complete lifecycle record.



## 6. Forecasting

The collected data is analyzed to identify patterns, enabling informed investment decisions and the creation of detailed availability analyses and reports.



## Digital lifecycle record: Everything in one place and accessible from anywhere

A comprehensive data foundation is key to making informed decisions. With zedas®asset, completed maintenance activities can be reported and documented in compliance with current laws and regulations. The complete documentation of maintenance activities ensures seamless traceability of the entire maintenance history for all railway infrastructure systems, including their components.

### More Transparency for efficient collaboration

Collaboration between different departments is simplified, creating greater transparency across all areas. The need for internal coordination is significantly reduced, opening up opportunities to design streamlined maintenance processes.

### The Complete Lifecycle at a Glance

The digital lifecycle record provides a quick overview of the entire lifecycle of infrastructure assets, thanks to the stored data. This creates a comprehensive view. With this extensive history, meaningful reports can be quickly generated, patterns recognized, and trends identified. In addition to enabling well-founded investment decisions, it also highlights improvement potential as part of continuous improvement processes (CIP). Additionally, the lifecycle record serves as a central knowledge database for accumulated asset expertise, allowing new employees to get up to speed quickly.



## Track Overview and Visualization

The Spatial Asset Viewer provides an intuitive visualization of the entire railway infrastructure, including detailed information on track conditions and assets. It supports the quick identification of problem areas and facilitates decision-making through real-time data. With its user-friendly interface, relevant data can be easily analyzed, enabling targeted maintenance and optimization measures for the infrastructure.

The screenshot displays the Spatial Asset Viewer interface. The main map shows a network of railway tracks overlaid on a satellite-style map. A legend on the left lists various infrastructure elements, with 'Gleis' (Track) selected. Below the map, a detailed data table provides information for a specific track segment.

Oberbau	
Gleisbettung	Beton
Schwellenart	Beton
Fahrdrabt	Ja
Gleisumgebung	Wiese
Weitere Eigenschaften	
erlaubte Gefahrgutklassen	Schotter

## This is how you plan maintenance measures smarter and more precisely

With the zedas®asset Track Analyser

The zedas®asset Track Analyser is a powerful tool for managing and optimizing your railway infrastructure. It integrates comprehensive information on tracks, switches, crossings, overhead lines, and signaling technology, essential for the planning, execution, and feedback of maintenance activities. By visualizing and analyzing this data, the Track Analyser provides a solid foundation for planning maintenance measures.

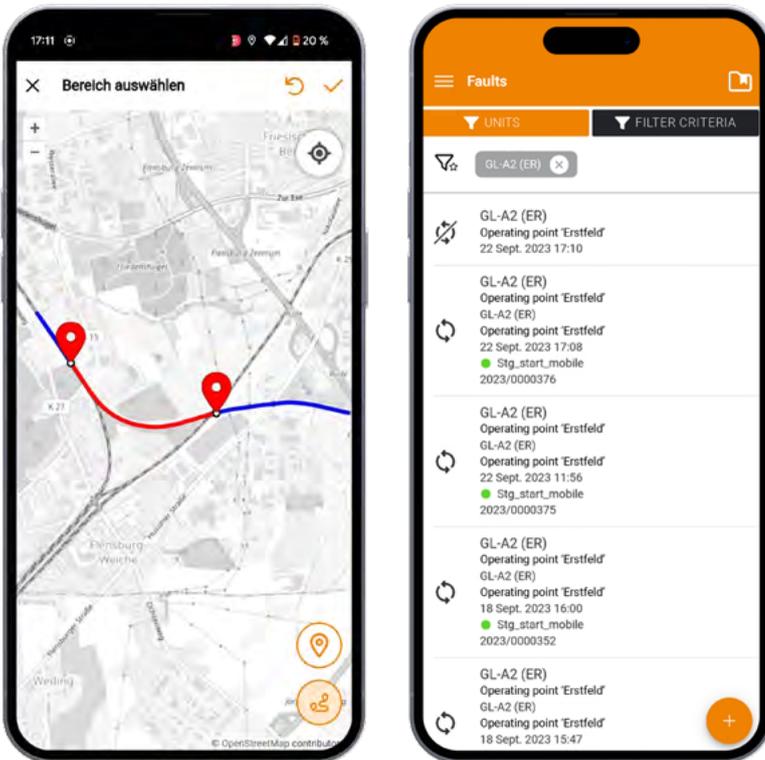
Using color codes, the future condition of assets is projected for the next five years, allowing maintenance activities to be planned in advance to prevent failures. Additionally, the Track Analyser offers a graphical representation of track characteristics and measurement data along the entire route, supplemented by a comprehensive display of preventive and corrective measures as well as a detailed history of all infrastructure elements. Automated analysis, evaluation and archiving of measurement data ensure the continuous optimization of your infrastructure.



### Turning Big Data into Smart Data

Make the most of your data and choose the best maintenance strategy—whether corrective, preventive, or predictive. The foundation for this is the integration and historical tracking of measurement data, as well as the complete documentation of all maintenance activities in one database. Using innovative technologies, we turn Big Data into Smart Data.

## Mobile infrastructure maintenance



### Highlights

-  Seamless Process Management for georeferenced Assets
-  Orientation and location using Points of Interest (POI)
-  Mobile Management of defects and disruptions
-  Defect-related checklists and repair instructions
-  Autonomous operation thanks to offline functionality
-  Photo documentation for precise information capture

### On-site defect reporting

zedas<sup>®</sup>asset Smart connects your mobile employees directly to the system. Through the app, mobile maintenance or external service teams can report defects and disruptions found at infrastructure objects directly on-site. The integrated map provides users with visual orientation and assists in precise location identification. Specific forms and queries, as well as a pre-installed defect catalog, make inspecting the assets easier.

### Use of Points of Interest (POI)

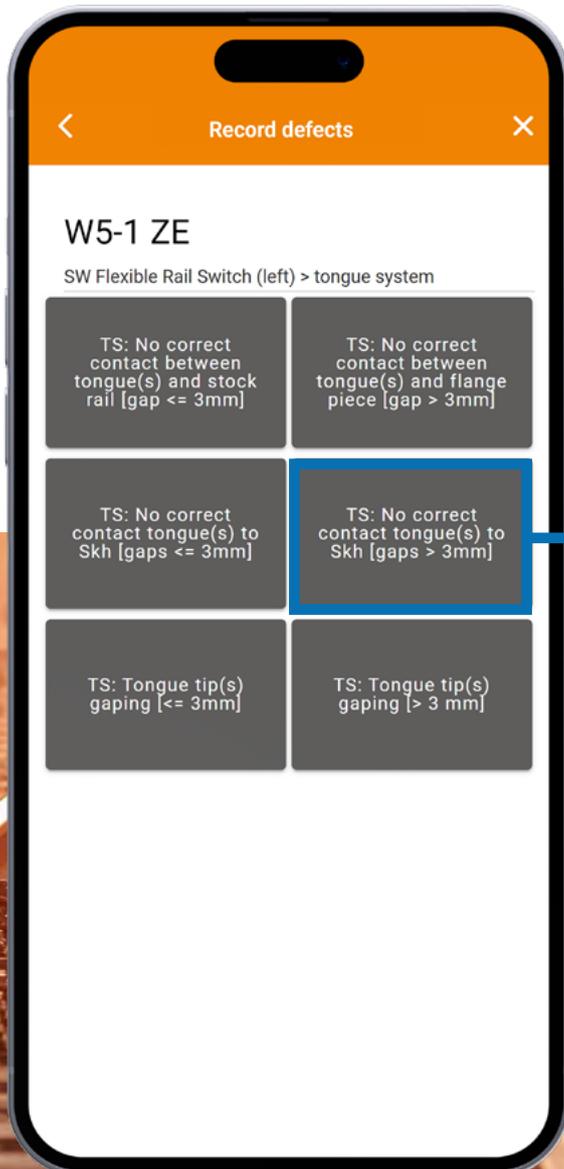
Points of Interest (POIs) are used to represent any fixed points and can be utilized for more precise information during defect or disruption reporting. This makes it easier for users to accurately describe the location of a defect area. POIs are georeferenced and stored in a historical format, allowing users to track how POIs have changed over time.

# Process improvement through mobile maintenance

The modern, intuitive user interface of the app, developed in collaboration with practitioners, makes it easier to carry out inspection and maintenance tasks. The digital assistant guides the user step by step through the process. [Workflows, checklists and defect related repair instructions](#) provide additional support for the maintenance technician, ensuring minimal input effort and high user acceptance.

## Poor network coverage - no problem

Thanks to the [integrated offline functionality](#), no continuous data connection is required for use. All data is available directly in the central asset management system zedas®asset. This enables up-to-date condition assessments and forecasts for all infrastructure assets. For you, this means: standardized processes, no media disruptions, fewer manual errors and increased transparency.



*Depending on the type of defect, repair instructions are provided based on the expert knowledge of maintenance service providers*

Defect pattern	Error cat.	Maintenance advice
tongue tip(s) are gaping > 3mm	1	Rework clamp tip lock
	1	Align tongue tip(s) with flame (autogenously)
	1	Align tongue tip(s) mechanically with tongue straightening press
	1	Rework switching device

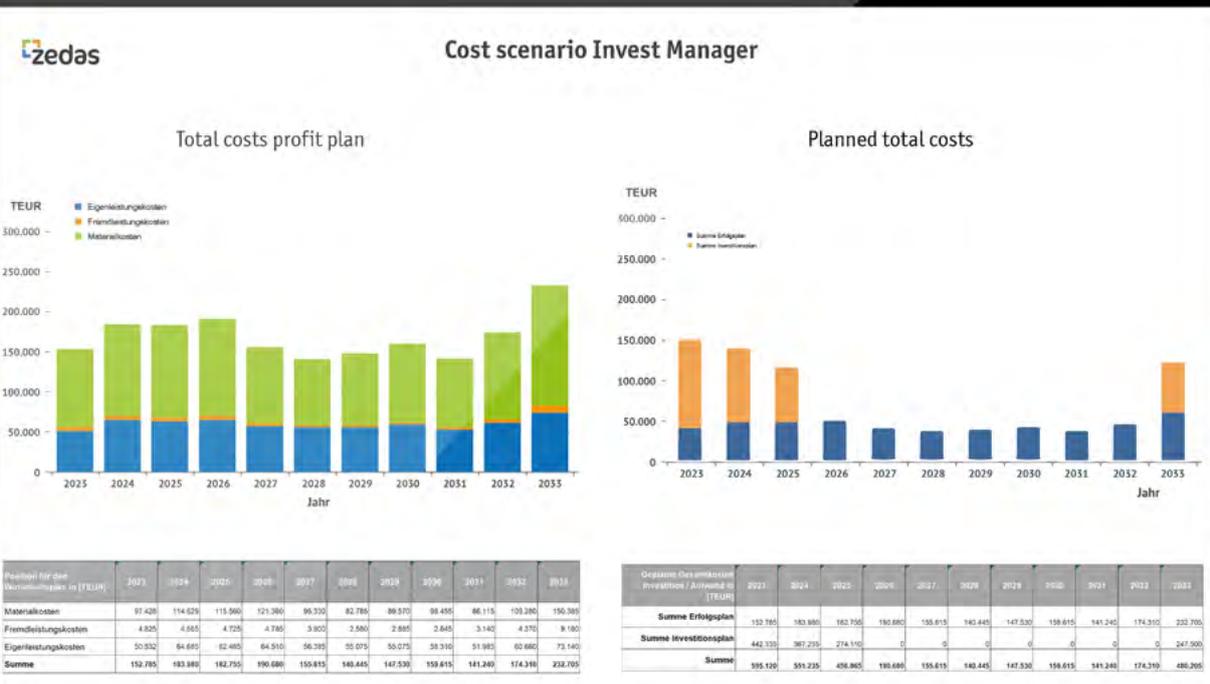
# Cost-Benefit-Analysis made easy

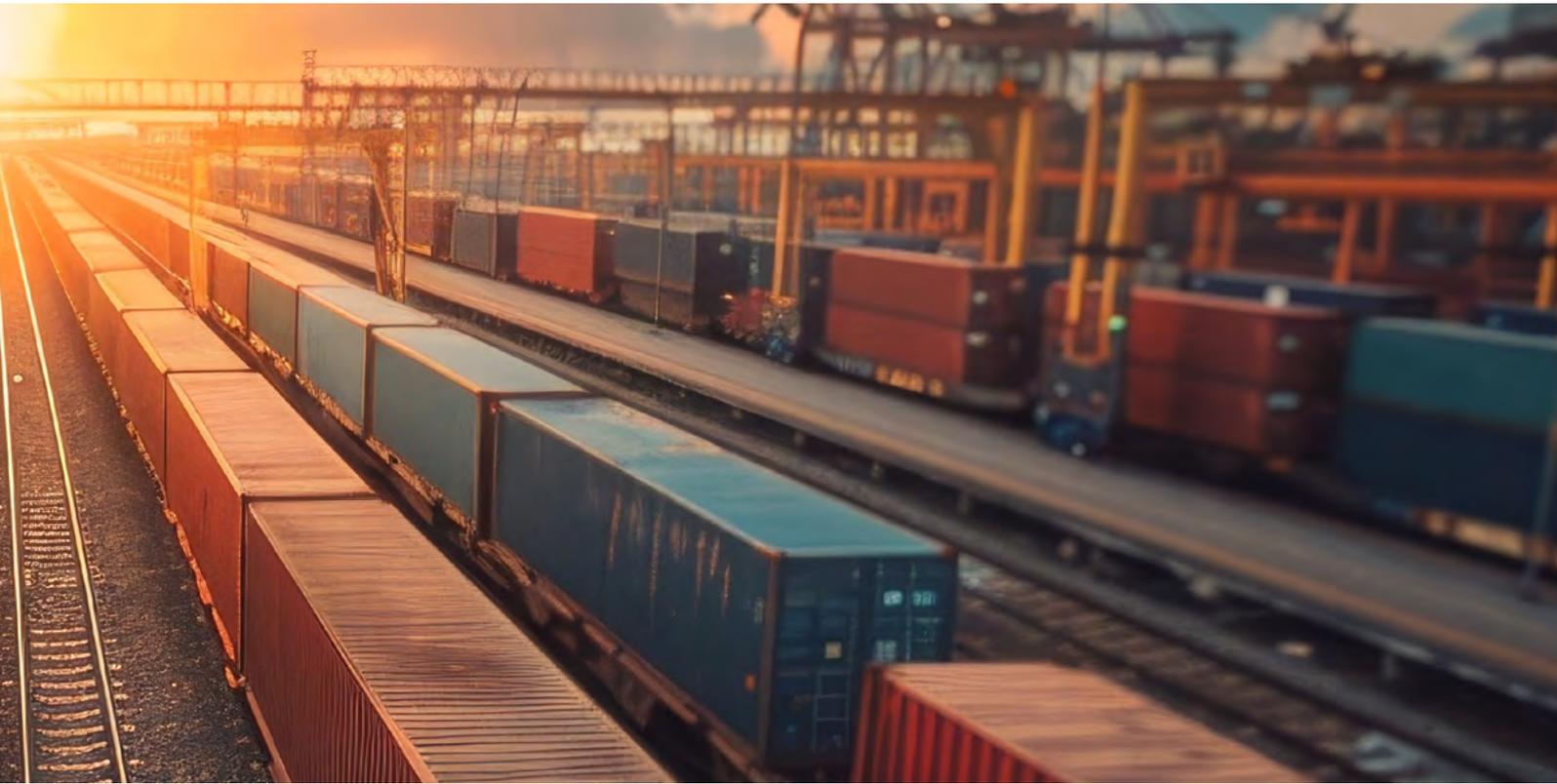
Are you looking to allocate your budget wisely? The zedas®asset Invest Manager enables a detailed and long-term cost-benefit analysis for railway vehicles and infrastructure. With this tool, companies can make informed investment decisions by using real data for precise budget planning.

By analyzing lifecycle costs and future maintenance needs, the Invest Manager helps maximize the efficiency

and profitability of railway projects. Thanks to its forecasting functions, maintenance activities can be planned in advance, ensuring that financial resources are used optimally.

This not only increases the availability of your assets but also enhances your company's competitiveness in the market. Use the zedas®asset Invest Manager to sustainably optimize your investment strategies.





## Optimize Maintenance Processes with KPI's

With zedas®asset, you not only gain comprehensive control over your maintenance processes but also benefit from intelligent reports and automation that ensure the smooth operation of your assets and enable tailored maintenance strategies.

**Real-time insights into your Infrastructure:** Detailed reports on threshold violations and approaching limits in measurement data provide an up-to-date overview of the condition of all railway infrastructure objects (tracks, switches, signals, etc.). Automatic updates enable proactive monitoring, minimize the risk of failures and support the targeted planning of maintenance activities.

**Analyses, that bring clarity and ease decision-making:** Thanks to an extensive history, meaningful reports can be generated, patterns recognized and trends identified early. This simplifies informed investment decisions and helps identify improvement potential as part of the continuous improvement process (CIP).

**Strategic Planning through precise data analysis:** Use key performance indicators (KPIs) to identify weaknesses and cost drivers. This allows you to effectively plan your budget and derive appropriate maintenance strategies based on asset condition.

## Safety first

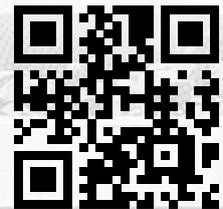
Railway infrastructure companies must fulfill a variety of documentation obligations within the Safety Management System (SMS). zedas®asset provides a solid foundation for this by offering standard documentation with just a click or through automation. This includes reports and documents such as the network condition report.

# zedas<sup>®</sup>asset

Asset Management for Railway Infrastructure



Go to website



Scan me!



**Schedule a personal  
consultation!**

**Thomas Landskron**

E-Mail: [tlandskron@zedas.com](mailto:tlandskron@zedas.com)

Telefon: +49 3573 70 75-61

