



# TRACK QUALITY AND BALLAST CONDITION

## Digital Performance on Track®

Our Vibration Monitoring Solution tracks degradation and sleeper movement caused by passing trains. It monitors sleeper displacement and rotation to diagnose track degradation, predict critical states and propose optimal maintenance timing (e.g. for tamping). Our vibration monitoring solution identifies operational parameters of passing rolling stock for data clustering, normalization and capacity monitoring.

- » Empowers predictive and prescriptive maintenance
- » Minimizes and shortens downtimes for superior overall performance
- » Extends the lifespan of assets and components
- » Decreases maintenance expenditures
- » Increases availability and profitability

### Efficient Capacity Monitoring:

Detect operational parameters of passing rolling stock material (axle distances, train types, speed, passing-route/direction) for data clustering, normalization and capacity monitoring, ensuring efficient railway operations.



### Track Degradation Detection:

Detect and diagnose track degradation caused by passing trains thus enabling timely maintenance and supporting safe operation.

### Optimal Maintenance Timing

Monitor sleeper displacement and rotation to predict critical states and propose the best time for track maintenance (e.g. tamping) thus minimizing downtime.



### Enhanced Mechanical Part Durability:

By monitoring sleeper movements and dynamic contact forces in the turnout the system prevents accelerated degradation of mechanical parts, consequently reducing the risk of failures.