

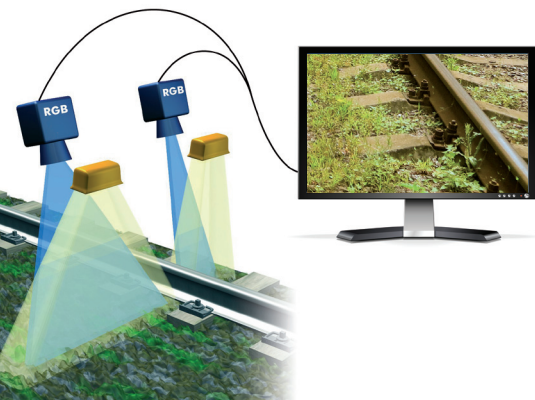


# VegetationCheck

For the sake of the environment

VegetationCheck enables the automatic detection of the degree of vegetation in the

- track span area
- periphery
- track area



Principle structure of a VegetationCheck System



Recording system of VegetationCheck

VegetationCheck is an automatic inspection system, which inspects the entire area of the rail bed structure, the periphery and track area at speeds of over 100 km/h. The system produces a rail condition protocol as a result, which generates an objective status of the inspected rail for the user with high quality and safety in the shortest time. Using the latest image processing technologies VegetationCheck ensures that the rail bed structure inspection is faster, safer and more reliable.

## Recording

The image is recorded by four digital, colour line scan cameras and lenses with a fixed focal length. The cameras are controlled along the optical path length by means of an incremental position encoder linked to the wheels. The cameras are mounted in weather-resistant protective cases on the carrier frame of the picture recording system with heating against dewfall and are thus protected against environmental influences and damage. The inspection area of the line scan cameras is illuminated by powerful HQI headlights. The headlights are assigned to the cameras in a fixed geometric arrangement.

## Evaluation / Documentation

The resulting pictures are evaluated online by means of ultra-modern image processing algorithms. The fault patterns are classified automatically and the results are provided in a fault protocol immediately after inspecting the rails, archived in a database or forwarded to superordinated systems.

In addition to this, the online evaluation enables a coupling with spraying systems so that chemicals are only applied in places where this is needed.

## Résumé

The system includes the following features:

- High detection performance.
- Low incorrect detection rate.
- Easy operation; intuitively controllable user interface.
- Modular concept.
- Low maintenance expenditure.
- Proven suitability for railway vehicles.
- Open system; thereby easy adaption to country-specific database systems or central data acquisition on the vehicles.