# RAILMAPPER®

3D laser mapping

IGI®

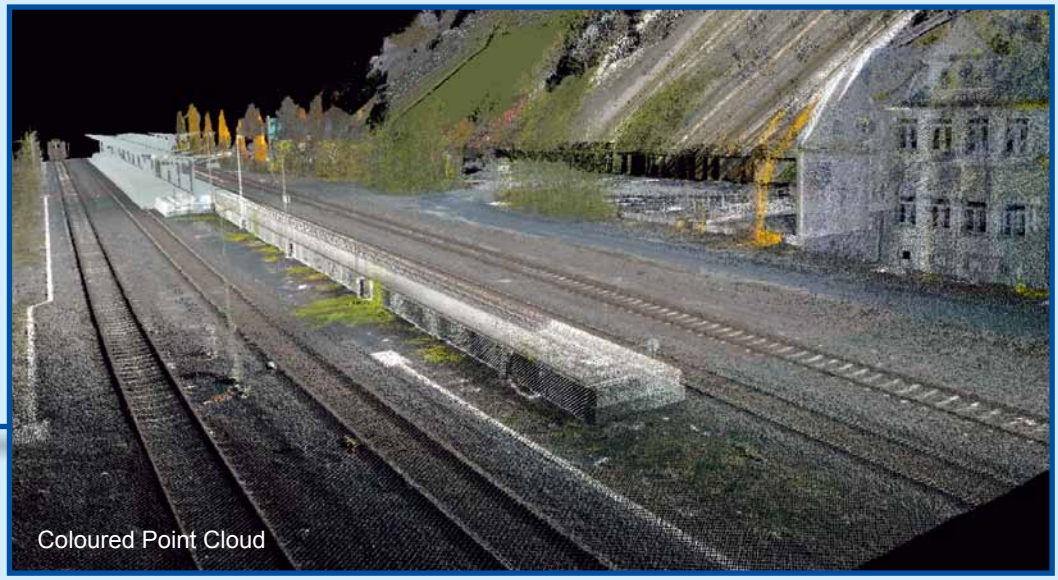
## Mobile Mapping System for Rails

**360-degree Field of View**

**Precise Geo-Reference**

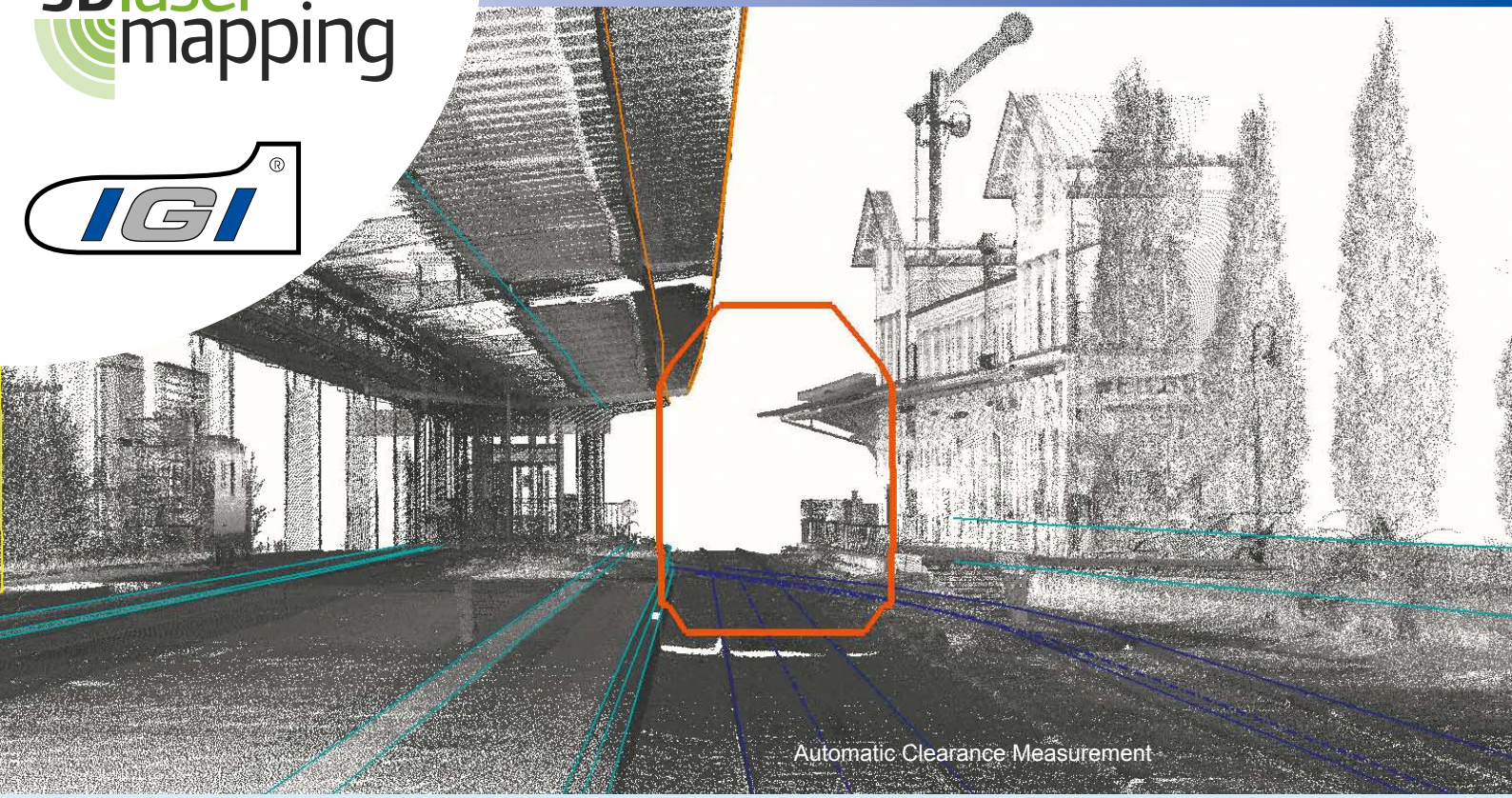
**Clearance Measurement**

Based on the world's most accurate mobile mapping system, *StreetMapper*, the *RailMapper* system is applicable for clearance measurement, sign detection, new construction, refurbishment and monitoring of rails and tunnels.
Using the very latest laser scanning technology, precision navigation and advanced data processing coupled with innovative system design, *RailMapper* delivers proven accuracies in the most challenging environments.



Coloured Point Cloud

# RailMapper


Automatic Clearance Measurement

## Precision Navigation

The onboard navigation system includes a high end GPS/GLONASS receiver, a fibre optic gyro based Inertial Measurement Unit (IMU) and the latest Direct Inertial Aiding Plus (DIA+) system to assist in areas of poor GNSS reception. *RailMapper* is the only system on the market to offer this level of precision navigation.

Measuring Track Distance

## Multi Sensor Mapping

*RailMapper* offers a 360-degree field of view with different sensor options. The scanners combine new, higher performance sensors with more than 1 million points per second or a range of 800m. An integrated high resolution digital camera can be used to capture either still or video images. For thermal images the *DigiTHERM* sensor system is available.

## Innovative Design

Based on IGI's Modular System Concept the system is interchangeable to different vehicles. High accuracy levels and dense point cloud data make the *RailMapper* practical for many mapping applications such as clearance measurement or rail surveying with overhead wires.
Clearance measurements are used for the safe usage of railroads by normal trains and especially for oversize trains of enormous importance. Even small objects that protrude into narrowings or minimal displacement of railroads can cause great damage and costs. Possible slight rail movements or relocation of structures both require regular inspections and surveying. Interference with daily train travel may not result from surveying activities. A prerequisite is a surveying train with a minimum speed of 90 km/h or more, so that it can be used on high-speed tracks. *RailMapper* can be operated on speeds above 100 km/h and is a complete system solution with established workflow.

*RailMapper* is the result of a joint venture between guidance and navigation specialist IGI mbH and 3D Laser Mapping Ltd.

More info
in the web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