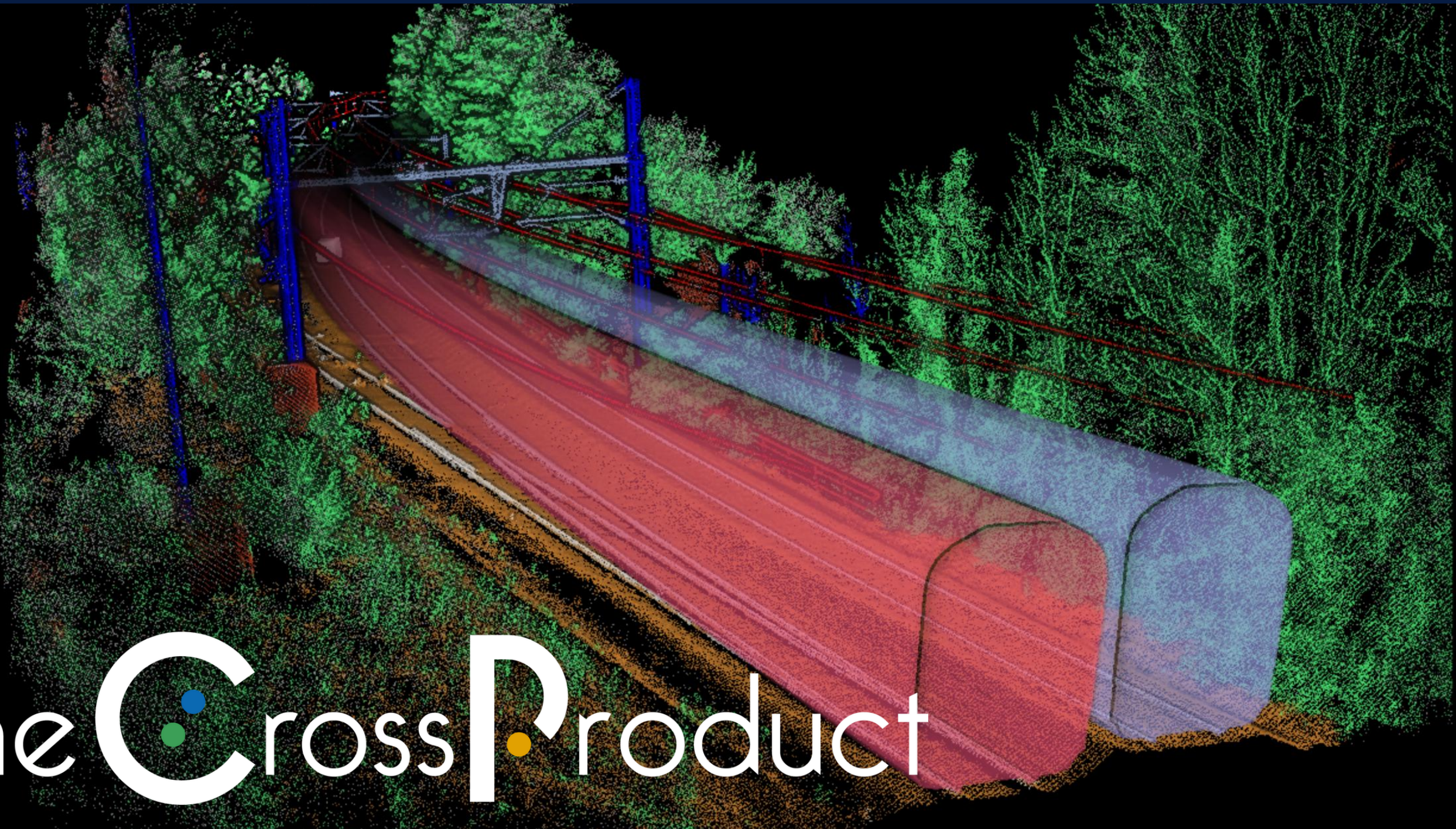
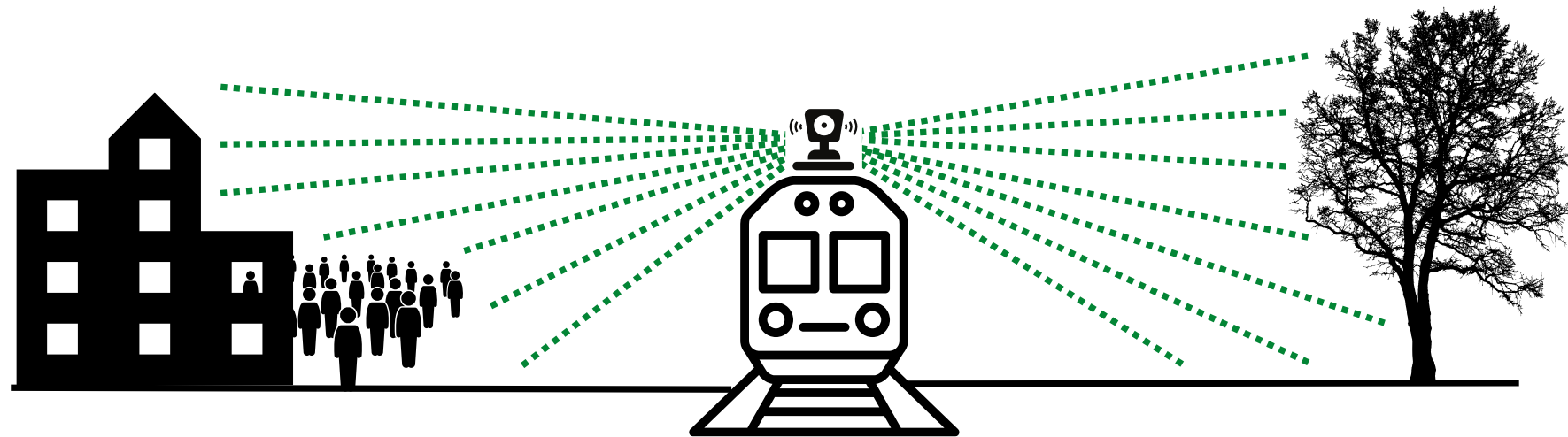




The Cross Product

Infrastructure Remote Inspection with AI and 3D LiDAR

3D LIDAR TECHNOLOGY



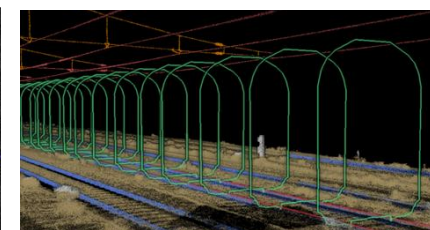
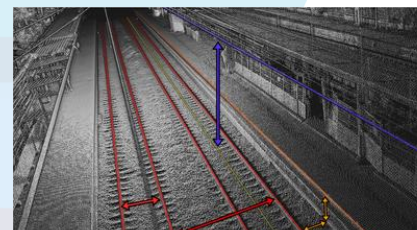
OUR ALGORITHMS

**100% Software
Cloud Processing Solutions**

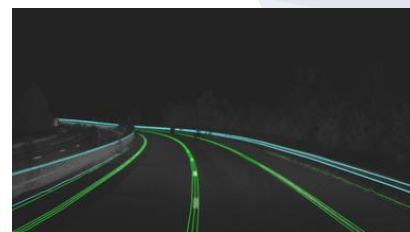


TCP
TheCrossProduct

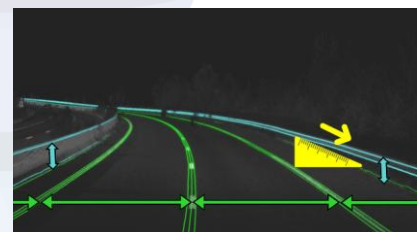
**Enabling processing
at scale !**



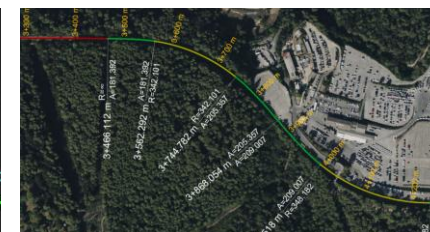
Asset Management



3D Modelling



3D Inspection



Compliance Check



- 

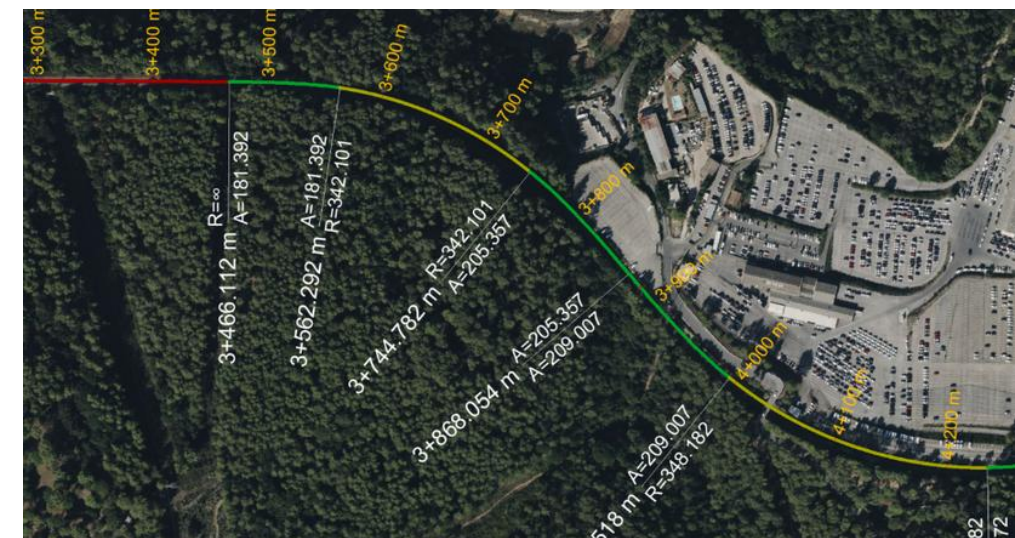
+ BENEFITS

- 100% Automated
- 6 x Cheaper than offshore
- 100 x Faster than manual
- Confidentiality (No offshore)



- Road platforms
- Lanes
- Safety barriers

- Spirals
- Curves
- Tangents



USE CASE – CLASH DETECTION

Customers



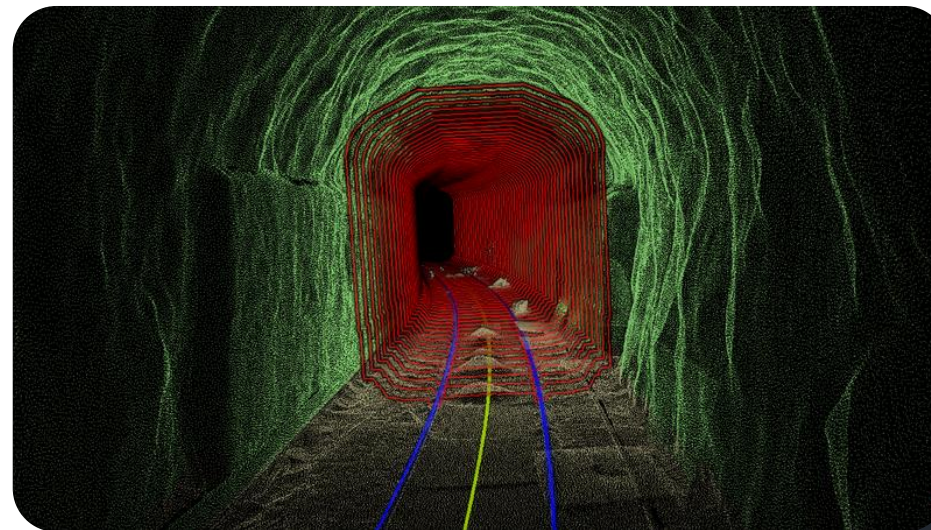
CLEARANCE ANALYSIS

- Identification of collision risks
- Oversized load transportation



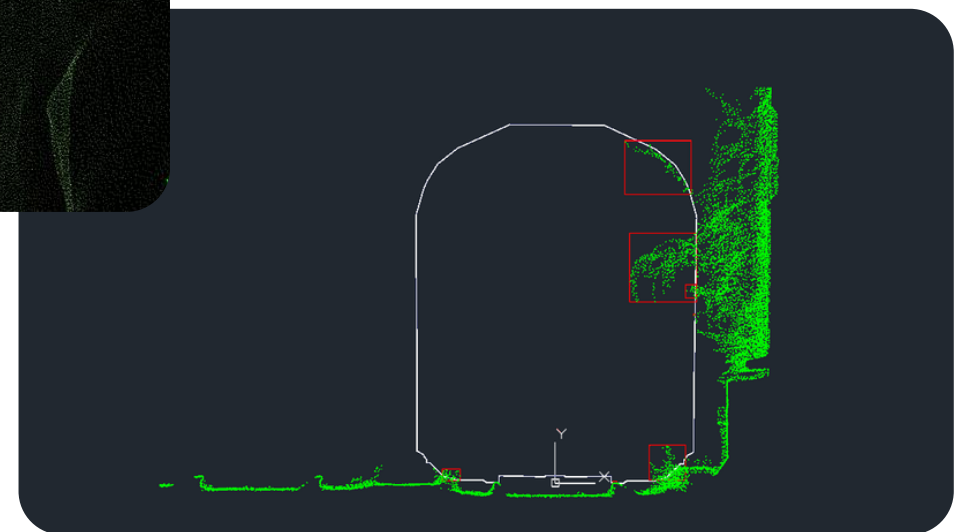
THE CROSS PRODUCT SOLUTION

- Fully automated
- Ergonomic
- 6 x Cheaper than offshore
- 100 x Faster than manual
- Confidentiality (No offshore)



BENEFITS

- **Ergonomic**
- **10 x Faster**
- **6 x Cheaper**
- **Scalable over hundreds of km**



USE CASE – DEFECT DETECTION



DEFECT DETECTION

- Inspect the whole infrastructure to Identify rail and road deformations

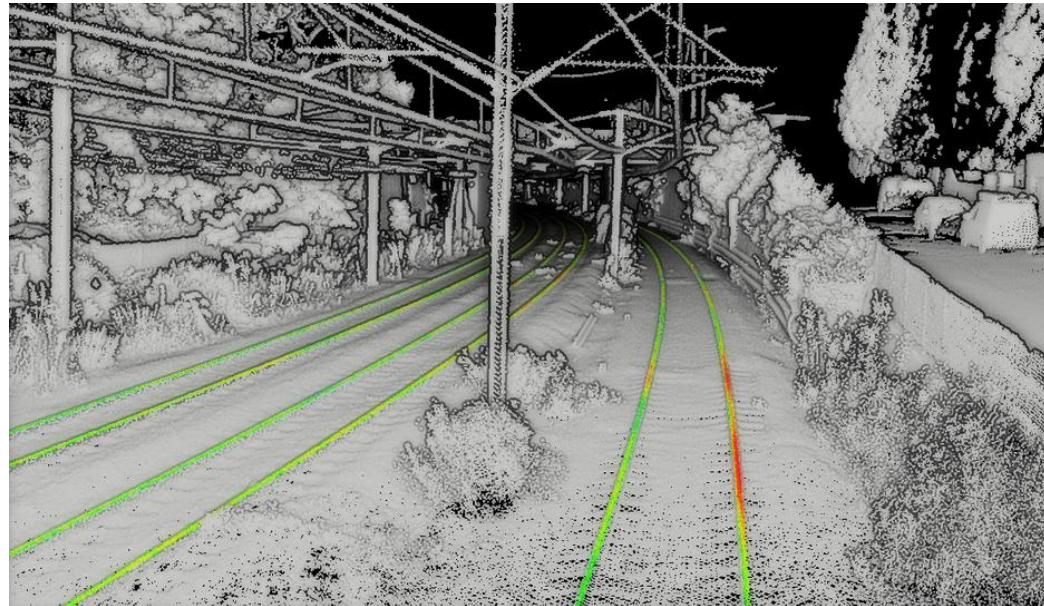


THE CROSS PRODUCT SOLUTION



BENEFITS

- 100% Automated
- 6 x Cheaper than offshore
- 100 x Faster than manual
- Confidentiality (No offshore)



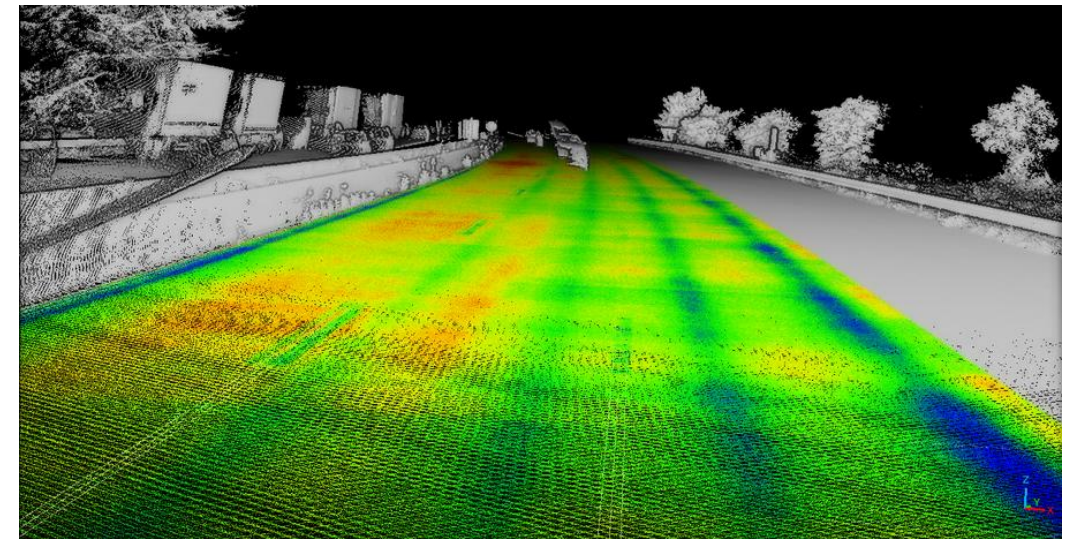
Rail deformation detection

- No deformation
- Ongoing deformation
- Deformed rails



Road deformation

- No deformation
- Hollow
- Bump



USE CASE – VEGETATION



VEGETATION MANAGEMENT

- Where and when to cut vegetation



THE CROSS PRODUCT SOLUTION



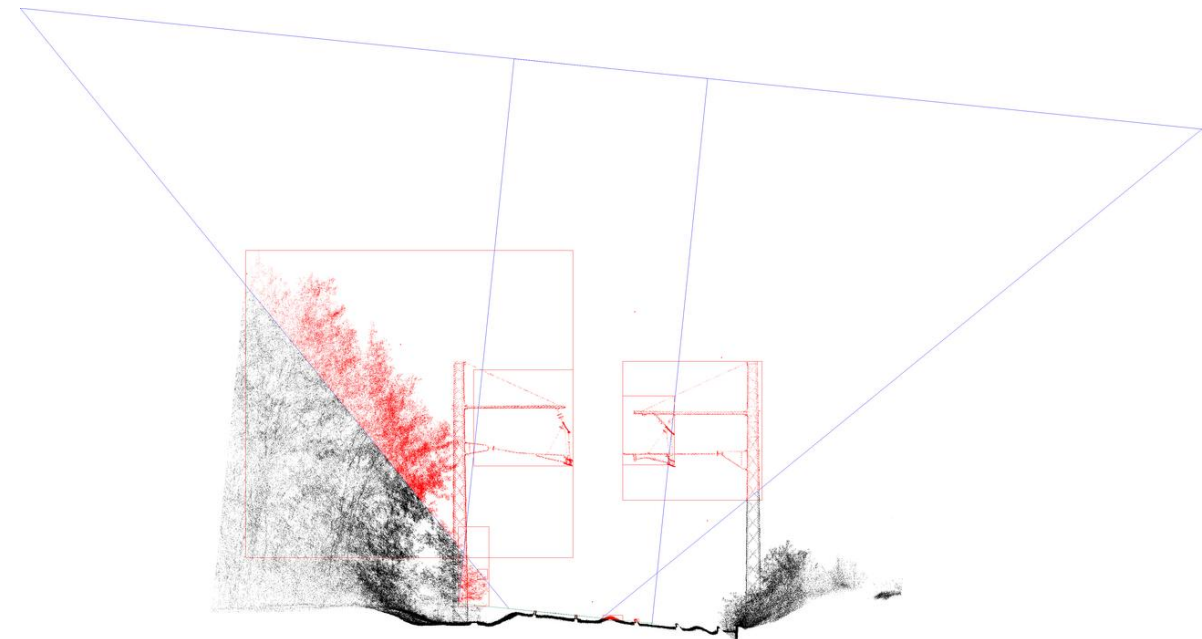
BENEFITS

- Optimize field interventions
- Fully automated



BENEFITS

- Train delays cost **1.5 billion €/year** to French economy
- SNCF vegetation management budget : **225 M€/year**
- **500 000 minutes** of delay per year are due to vegetation



USE CASE – VISIBILITY



VISIBILITY ANALYSIS

- Automate safety and visibility checks across an entire infrastructure.



THE CROSS PRODUCT SOLUTION



OUR APPROACH

- Fully automated
- Direct point cloud analysis, avoiding simplified models
- Skip time-consuming 3D modeling steps.



KEY CAPABILITIES & BENEFITS

- Identify safe areas for maintenance stops
- Ensure exact compliance with stopping sight distances
- Capture real-world obstructions like overgrown vegetation
- Evaluate sign occlusion, vertical curve clearance, and lane-specific visibility

