



**RoadMetrics**

**Case Study**  
roadmetrics.ai

## **Eurovia/Ringway performs a POC with RoadMetrics AI for Hertfordshire County Council**

### **About Eurovia/Ringway**

Eurovia UK and Ringway, a joint venture is the largest road infrastructure services company in the UK. The Eurovia/Ringway team collectively maintain, through a public-private partnership, the Hertfordshire County Council road network, situated to the north of London.

Annually, the company performs continuous assessments totalling 28,000 km in network length. An AI system for inspecting their road network condition is ideal for their team in performing preventive and reactive road maintenance.

### **Scope of work**

Earlier in May of 2022, Eurovia UK and Ringway agreed to perform a 680 km proof-of-concept assessment within Hertfordshire County Council's road network.

***"The purpose of the POC is to test the suitability, accuracy, viability, and ease of use of the RoadMetrics AI system for assessing road condition and asset information."***

***—Yogesh Patel, Innovations Director, Eurovia UK***

### **Survey data upload**

The survey data collection efforts were led by Rob Payne, Service Manager at Ringway. Using smartphones pre-installed with the RoadMetrics Data Collection App and standardised windshield mounts, the Eurovia Team uploaded close to 700 km of video survey data. The video survey was instantly uploaded on to RoadMetrics' AWS servers in London.

Driven surveys, with the smartphone attached to the windshield using a mount, were performed by their routine inspection vehicles. The video survey captures the entirety of the road carriageway with the relevant GPS coordinates.

The duration of the data upload was close to one-month under varying lighting conditions.

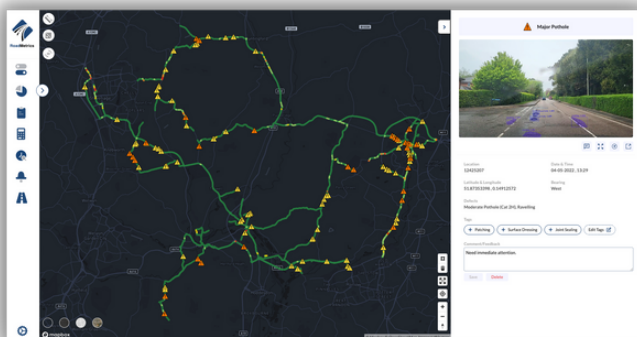


Condition survey data uploaded by the Ringway team using the RoadMetrics Data Collection App.

## The results

Once the data was uploaded, the RoadMetrics team processed the data and the assessment covering close to 700 km was ready in less than 7 days.

The results were available on the RoadMetrics Enterprise web-based GIS application. The Eurovia/Ringway team were able to visualise the road network and identify areas of investigation within their road network.



Assessment results using the RoadMetrics Enterprise web-based GIS platform.

## Feature additions

RoadMetrics worked extensively with the Eurovia/Ringway team on the following features and improvements to the RoadMetrics AI system.

- HMDIF export functionality with UK PMS compliance
- better video survey compression and virtual server location optimisation for faster upload speeds
- significant improvement in the AI model prediction accuracy for road defects

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HISTART ukPMS 001 " " ; \
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SECTION NETWORK, NUMBER, LABEL, NORMDIR, SURVDIR, MASTER, LENGTH, COMMENT, SDATE, EDATE, STIME, ETIME, INSP;
OBSERV NUMBER, DEFECT, VERSION, XSECT, SCHAIN, ECHAIN;
OBSVAL PARAM, OPTICAL, VALUE, PERCENT;
OBNOTE NOTE, COMMENT;
TEND;
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RoadMetrics' HMDIF export functionality with UK PMS compliance.

## The outcome

The results from the RoadMetrics AI system were compared to manual inspections and an alternative AI system. The results suggested an 88% correlation to a manual road condition inspection by their trained inspectors.

***"Once the data collection was complete, we ran a comparison with the inspectors output as well as another AI system that we have. The results of the analysis correlated reasonably well, and we were able to confirm the RoadMetrics system picked up the road condition accurately."***

***—Rob Payne, Service Manager, Ringway***



RoadMetrics with the Eurovia and Ringway team.