

# TAKE CONTROL OF PAVEMENT ASSESSMENT: Using better data for optimal road maintenance decision-making

## The challenges

Conventional road pavement condition surveys are traditionally performed manually. In general, these inventories are expensive, error-prone, slow, resource-intensive, and therefore, infrequent. Other key challenges include:



Maintenance funding **is typically insufficient** for long-term sustainable road asset management with the existing decision-making tools currently in use.<sup>1</sup>



**No visual validation data exists** to support programming and making data-driven decisions.



**Data is critical** for capital improvement plans and maintenance budgeting, yet accurate and up-to-date data is hard to obtain.



Road users may report pavement deterioration, but the **overall consumer experience remains poor** and more extreme remediation efforts are required.

**The solution? Pavement condition analysis requires high-quality data and a reliable methodology to support decision-making.**

## Vaisala RoadAI: Effortless data collection

Unlike traditional pavement condition assessment, RoadAI is a user-friendly tool that enables the operator to collect data using a smartphone without the need for the presence of a second person in the vehicle.



Provides comprehensive, accurate, and **granular data**



**4X faster** than other methods



**1/2 the price** of traditional pavement analysis



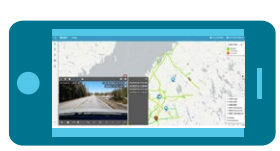
**Objective and consistent** in analyzing pavement conditions



Tested and proven; **over 100,000 road miles** inspected globally

## Data analysis with artificial intelligence

RoadAI combines effortless mobile data collection with artificial intelligence analysis.



1 phone



A fleet vehicle



Artificial intelligence analysis



**The right data for the right decision**

- Visual data is scanned for defects using artificial intelligence and assessment can be verified by the user from the accompanied visual data.
- Automation and machine analysis remove human error and subjective assessment.
- The system detects multiple different defects including both severe and moderate defect types.

## Data-driven decisions

With better pavement condition data comes better decision-making. RoadAI empowers users to:

- **Prioritize road maintenance projects**
- **Optimize maintenance budgeting**
- **Reduce the cost of pavement surveys**
- **Improve road user experience**