

Innovation on the road: How the borough of Bexley is gaining efficiency with RoadAI



The challenge: Improve road surveys, leverage more data

Bexley is an outer London borough situated on the edge of Kent and maintains a predominantly urban road network with medium traffic flows. Despite the high usage, however, its legacy third-party road condition survey process only provided full pavement condition data every 4 years (25% of network is surveyed annually) — complicating maintenance and hindering leaders trying to predict and budget for repairs.

What Bexley needed was obvious (more data, faster) but the right solution wasn't so obvious until Vaisala started a conversation about RoadAI.

The solution: More data, more value, less time on the road

Bexley was an existing Vaisala customer — the borough has used

a Vaisala weather station for 15 years — and its leaders say they trusted Vaisala and its products a great deal. So, when RoadAI entered the picture, they were confident and excited to start a pilot program.

Bexley's RoadAI deployment uses several RoadAI-equipped mobile phones to capture real-time road condition data, which is streamed back to headquarters. There, road managers can begin using the data almost immediately. They can also export and interpret the data to judge road condition changes over short time intervals — something that was impossible with their previous surveys.

RoadAI is conveniently integrated into Bexley's existing systems and practices, too. Managers typically extract and filter the road data on Microsoft Excel sheets, and link directly through to those defective sections of road to plan accordingly.

The client:

London Borough
of Bexley

Industry:

Local government
Roads and maintenance

Vaisala provided:

Consulting services
Vaisala RoadAI computer
vision

Today, road data can be presented in 10m or 100m sections, and Vaisala is exploring a 500m option at Bexley's request. Leaders say this level of responsiveness and flexibility affirms the value of the pilot.



**The benefits:
Better decisions, trend
assessment, and stronger
budget negotiations**

With RoadAI, it takes an inspector just 1-2 days in a “network blitz” to get complete coverage and analysis of their portion of the road network — a process that used to take weeks. Inspectors also have the option to capture RoadAI data while conducting other routine work; RoadAI runs in the background with little or no intervention from them.

This speed and flexibility is a stark change from the old process of waiting for a third-party assessor to send data obtained over much longer intervals.

The result is better decision-making and planning. For example, Bexley can now conduct pre-winter and post-winter surveys, which allow them to understand and address seasonal road deterioration much better than ever before.

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Crucially, the RoadAI data enables Bexley officers to enter budget negotiation conversations with much more strength and certainty. Because they have more granular assessments and can judge changes over time, they can bring data-driven needs and forecasts to the table.

Officers also report that they’ve been pleasantly surprised by RoadAI’s video functionality, which (among other things) automatically blacks out all vehicles and pedestrians so there’s no filtering or preparation required before the footage can be put to use.

