



VAISALA

Six solutions for data-driven road maintenance year round

From winter road maintenance to asset management, maintaining safe roads is a year-round job. Vaisala's holistic approach to weather and environmental technologies provides end-to-end simplicity, valuable partnership, and a comprehensive portfolio of solutions that are constantly evolving.

Here are 6 ways road maintenance organizations can take advantage of the most up-to-date technology available.

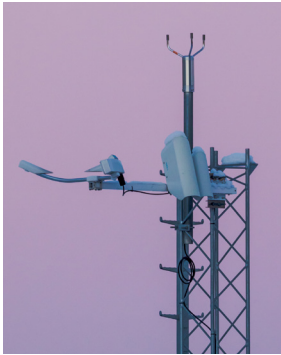
1 Wx Horizon

Vaisala Wx Horizon, part of our Xweather family of subscription based products, delivers road weather forecasts enhanced by integrated observations, radar and alerts in one subscription package. The fusion of accurate measurements with industry-leading weather forecasting and best-in-class road weather modeling delivers actionable information for specific use in transportation.

- Provides radar, 10-day atmospheric, and 72-hour forecasts created specifically for the pavement surface that show the impact of the weather on the road network — all in one package
- Can be used with GroundCast IoT sensor measurements with reference-grade accuracy
- Provides immediate alerts if any hazardous conditions are forecast to or appear on your road network



2 Road weather stations



The Vaisala Road Weather Station RWS200 is a reference-grade weather station that has been validated in the harshest winter weather conditions. An intelligent, rugged environmental sensing station (ESS), it is designed with sophisticated algorithms and smart power management for optimal reliability.

- Provides road conditions, improves road weather forecasts, and aids in chemical treatment decisions
- Uses high-grade components and materials to withstand the elements, and is easily expandable and upgradable

3 IoT sensors

Vaisala GroundCast provides key road weather measurements from critical road network locations, easily and affordably. The device installs almost anywhere and is ideal for agencies who are just getting started or looking to cover blind spots in their road weather observation network.

- This embedded sensor measures the real surface temperature plus road temperatures from different depths
- Helps to predict surface freezing risk across the road network to make proactive treatment decisions
- Automatically get access to observations and visualizations through Vaisala Wx Horizon or bring the data to your own network using the Wx Horizon API



4 Mobile sensors



The Vaisala Mobile Detector MD30 lets you accurately collect and transmit data on road surface state, grip, and surface temperature — in real time, just by driving the route. Designed for snow plow trucks, the data fills observation gaps and helps both the operator and the agency to make timely treatment decisions.

- Monitors road and runway conditions, and transmits weather data without disruption
- Compact, easy to install, and cost effective even for large fleet deployment
- Quick response time and high sensitivity enable reliable mobile road condition data year-round

5 Hybrid networks



A road observation network can include a variety of fixed and mobile sensors to create a complete observation system that enables the most efficient approach to winter road maintenance. The result is safer roads in less time.

- Combining different types of sensors in different locations, and bringing this data together in Wx Horizon, gives a better perspective of an agency's network
- Takes the best advantage of all types of observations
- Automated data collection and visualization eliminates guesswork

6 RoadAI modern road analysis

There's a revolution happening in road asset management. Many technologies for road conditions are either limited to time-intensive human observation or require expensive, specialized equipment. Now there's a better way.

Vaisala's RoadAI, part of our Xweather family of subscription based products, gives road maintenance organizations a quick, complete, and objective analysis of pavement conditions through an automated road survey methodology.

- RoadAI provides accurate and objective inventory collection
- Saves time, fuel and costs through automation
- Improves sustainability by eliminating some inspections
- Enables proactive and continuous road asset management



Keep roadways safe and efficient in any season.

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