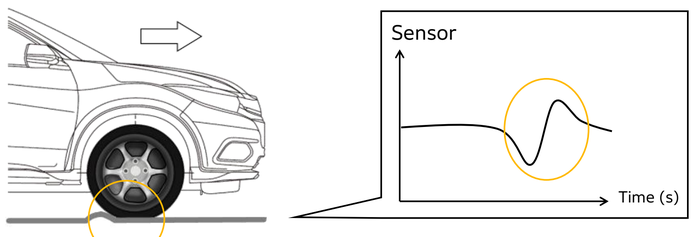
Utilization of Vehicle Data (Infrastructure Management) Toward Zero Traffic Accident Fatalities

Road Hazard Monitoring System

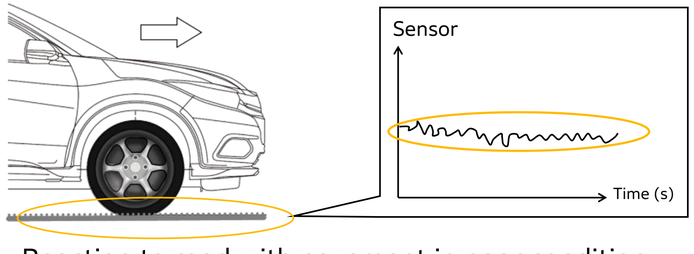
Utilizing mass-produced vehicle data enables real-time assessment of road conditions and deterioration prediction, facilitating more timely and cost-effective road maintenance.

Technology Details

- Road damage is scored by leveraging mass-produced vehicle data (location, speed, G-sensor, etc.).
- Road damage locations are visualized on GIS and highly damaged areas are identified by setting thresholds.
- Aging analysis of historical data enables identification of rapidly deteriorating areas and prediction of future road damage.



Reaction to local protrusion in the road (single road protrusion)

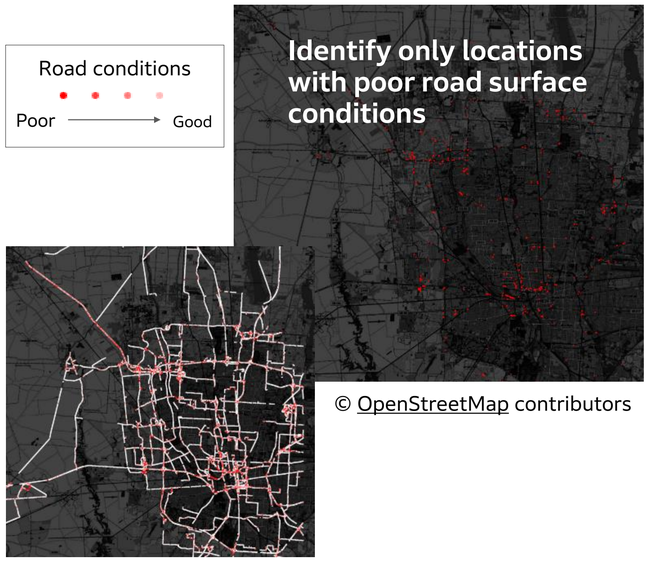


Reaction to road with pavement in poor condition (rough road)

Technology Characteristics

- Enables comprehensive monitoring of road damage conditions, including on local residential roads
- Enables real-time monitoring of road damage conditions
- Setting an appropriate threshold enables prioritization tailored to the conditions of each region
- Analyzing deterioration over time enables prediction of future deterioration

GIS Map Visualization



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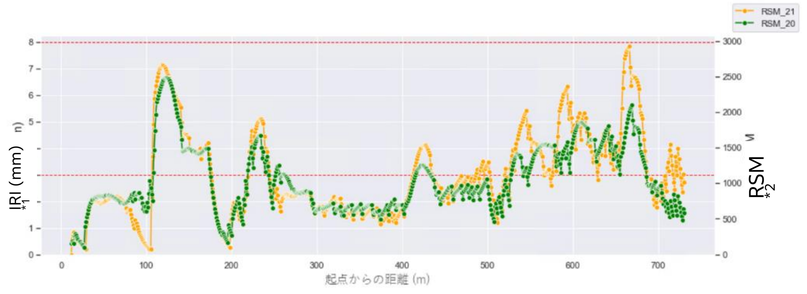
Aging Analysis Using Historical Data



Distance From Starting Point (m)

*1 IRI (International Roughness Index): International standard indicator for road flatness
*2 RSM (Road Surface Monitoring): Indicator for showing road flatness that is unique to Honda
*3 – – – – – –: General road surface control reference numeric value

Efficient management of various road infrastructures beyond road surfaces will be enabled with anticipation of the future spread of autonomous driving technologies.

HONDA