

SATELLITE LANDSCAPE INTELLIGENCE TO DETECT RISK TO LOCAL AUTHORITY INFRASTRUCTURE.

MONITOR & MITIGATE THE RISK OF INFRASTRUCTURE FAILURE WITH POWERFUL SATELLITE DATA ANALYTICS

At Rezatec, we help Local Authorities work more efficiently and make savings by providing landscape intelligence that aids business decision-making. Through analysis of Earth Observation data we are able to accurately identify locations at risk from natural hazards, map green spaces and detect changes across a wide geographical area.

Using Earth Observation data can be significantly more cost-effective than traditional ground monitoring and can act as an early warning system to alert Local Authorities to a range of issues. Regular updates to the data mean that large areas can be monitored on a continual basis, allowing potential hazards - such as subsidence - to be detected before they lead to major disruption.



Rezatec

ASSET RISK MONITORING

Across the UK, buildings, roads and other infrastructure are at risk from ground movement. Our satellite data products provide a complete and frequently updated picture of risk over vast and sometimes remote geographical areas, alleviating the need for labour-intensive ground observation activities. Using powerful data processing techniques and the latest technology we can measure terrain motion to within millimetres, presenting an accurate picture of areas where ground movement could put infrastructure at risk of failure. In addition, we can identify areas where vegetation incursion can cause costly disruptions. By incorporating other contributing factors, such as the nature and location of historic incidents, we can also help identify where future issues are most likely to occur.

Early identification of high risk locations enables further assessment and preventative work to be carried out before a catastrophic problem evolves. This can result in substantial repair, disruption and reinstatement costs being avoided.

GREEN SPACE MAPPING

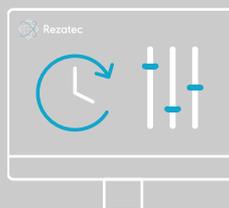
The importance of green spaces is becoming increasingly apparent for conservation, temperature control, and health and wellbeing in urban areas. Rezatec can accurately map the green spaces across a Local Authority and monitor how these change over time. This is important for understanding urban creep, loss of habitats and habitat connectivity. Our user-friendly online portal powered by sophisticated analysis and machine learning algorithms, provides broad land classification and monitors how this changes over time, allowing areas to be managed in a more environmentally-conscious way.

CHANGE DETECTION

Over the years, Local Authorities have used UAV technology and aerial surveys alongside more traditional methods -such as ground surveys - to monitor changes. Although these techniques are helpful in identifying where illegal construction work has taken place and where land use has changed, they are often costly and infrequently used. By utilising regularly updated satellite data, Rezatec can help Local Authorities identify locations where change is occurring, allowing them to act swiftly and prevent unsafe or illegal land use and construction.



POWERFUL VISUALS Our geospatial data analytics are presented through an easy-to-understand portal. Maps, graphics and alerts are provided to make it immediately apparent where maintenance activity or additional infrastructure investment should be prioritised.



WORK EFFICIENTLY By regularly monitoring areas using satellite data, Local Authorities can realise substantial savings over the cost of traditional ground-based methods by using this scaled data to intelligently deploy ground resources to more effectively prevent expensive failures.