



TRE
ALTAMIRA
A CLS Group Company

Monitor bridge stability with satellite InSAR data

MONITOR STRUCTURAL HEALTH AND DETECT AREAS AT RISK



Non-invasive InSAR technology offers clear cost-benefits by providing ongoing, precise measurements of displacement for both the asset and the surrounding area to mitigate long-term threats. The frequency of monitoring is tailored to clients' needs.

Infrastructure such as bridges often span large, complex environments. The risk of interruption to activities due to natural disasters or structural weaknesses requires new technological solutions that are able to monitor risk over wide and diverse areas. The challenge for managers is to optimise monitoring activity and ensure the safety of the infrastructure which might be at risk.

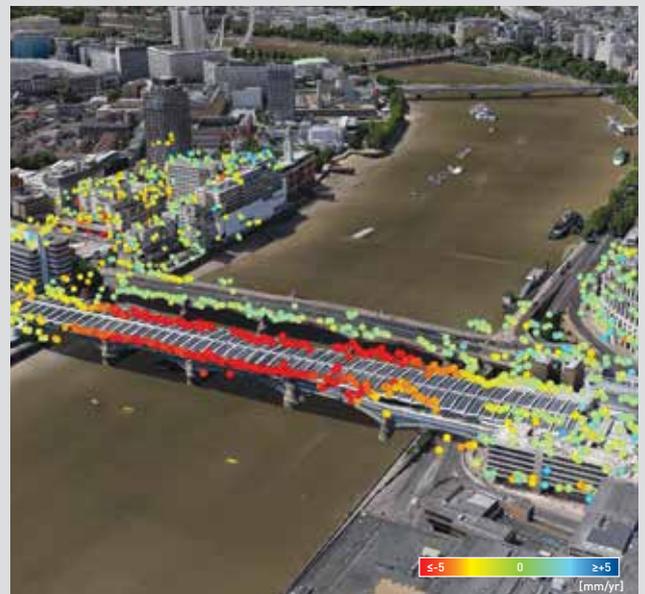
ASSESS RISK

Monitor land movements along entire infrastructures, highlighting hotspots where changes in movement are occurring.



PRIORITISE MAINTENANCE

Highlight areas displaying abnormal motion to focus on structure that may require further investigation or remediation.



TECHNOLOGY

TRE ALTAMIRA employs its patented algorithms to extract information from satellite radar data.

SqueeSAR® is the industry standard for advanced InSAR analysis, providing measurements of ground deformation to millimetre accuracy.

Trend variation with SqueeSAR® enables the highlighting of changes in motion dynamics over time, serving as a tool to flag up areas that may require further investigation.



BENEFITS



Spatially dense and precise results

Measurement point density can exceed 10,000 points/km². Movement precision is typically around 1 mm/year.



Cost-effective

No other technology provides such dense measurements at a fraction of the cost of other survey techniques.



Non-invasive scalability

Completely remote, satellite InSAR is unrivalled in its ability to obtain displacement measurements over large or small areas.



Historical data

Satellite data archives extend back to 1992 and can be processed to assess past movement trends.



Fast delivery

Repeated satellite image acquisition and rapid delivery of results allow our InSAR service to be part of your operational plan.



Movement vectors

Measurements of vertical and horizontal displacement can be retrieved.

With over 20 years' experience, **TRE ALTAMIRA** is globally recognized as the world leader in satellite SAR technology. We offer our clients reliable and timely information on how areas of interest are changing over time, allowing them to mitigate risks, optimise operations and plan future activities.

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