

# ASTERRA and National Highways shortlisted for Ground Engineering Award for digital innovation

EarthWorks satellite infrastructure monitoring solution recognized for providing insights into infrastructure asset management on England highways

LONDON, ENGLAND, UK, April 19, 2023 /EINPresswire.com/ -- <u>ASTERRA</u> and

National Highways were named to the shortlist for the 2023 Ground Engineering Awards for their use of <u>EarthWorks</u>, a solution developed by ASTERRA to meet infrastructure monitoring and environmental goals in a sustainable way.

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We are thrilled ASTERRA's EarthWorks solution has proven effective in England to provide National Highways information that could help mitigate damage of property or injury to people along their roads" *Elly Perets, chief executive officer of ASTERRA*  National Highways is proactively identifying and resolving potential infrastructure failures along their roadways using digital innovation. They sought ASTERRA to identify areas of concern underground without environmental destruction or creating traffic hazards.

"We are thrilled ASTERRA's EarthWorks solution has proven effective in England to provide National Highways information that could help mitigate damage of property or injury to people along their roads," said Elly Perets, chief executive officer of ASTERRA. "The Ground Engineering Award recognises the importance of pro-active identification of infrastructure problems while not

destroying the environment."

When EarthWorks is employed for ground engineering purposes, it uses L-Band Polarimetric Synthetic Aperture Radar (PolSAR) to determine the concentration of below ground <u>soil</u> <u>moisture</u>. This provides the ability to indicate future infrastructure or drainage problems in existing earthwork assets, such as cuttings and embankments. With EarthWorks, 2D soil moisture maps are generated for viewing in cloud-based software or for import into GIS packages.

National Highways used EarthWorks on two major roads in the southwest of England, both known to be problematic. It was important to keep these strategic routes open during evaluation. ASTERRA's method of detecting below ground soil moisture is non-intrusive and uses satellite radar combined with their patented algorithm and artificial intelligence to detect potential areas of concern quickly and efficiently without boots on the ground. Soil moisture data was provided over the entire site. EarthWorks identified points of interest already known to the National Highways engineers, confirming the accuracy of ASTERRA's PoISAR data. EarthWorks also depicted areas of elevated soil moisture which were previously unknown, had not yet manifested themselves at surface, and had the potential to cause future problems if left unattended.

EarthWorks enabled National Highways to understand problem areas, determine if intervention is necessary, and to target spending to improve the drainage and stability of their assets. The ability to view large areas or individual sites without setting foot on the ground reduces the need for site visits. This keeps people safe while reducing the carbon footprint and costs associated with any work by enabling targeted interventions.

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### About ASTERRA

ASTERRA (formerly Utilis) provides geospatial data-driven platform solutions for water utilities, government agencies, and the greater infrastructure industry in the areas of roads, rails, dams, and mines. ASTERRA services use Polarimetric Synthetic Aperture Radar (PolSAR) data from satellites and turn this data into large-scale decision support tools. The company's proprietary algorithms and highly educated scientists and engineers are the keys to their mission, to become humanity's eyes on the Earth. ASTERRA is investing in artificial intelligence (AI) to bring its solutions to the next level. Since 2017, ASTERRA solutions have been used in over 64 countries, saving over 276,000 million gallons of potable water, reducing carbon dioxide emissions by 176,640 metric tons, and saving 690,000 MWH of energy, all in support of United Nations Sustainable Development Goals. For more information on ASTERRA and to learn more about their technology, visit https://asterra.io.

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