

## European rail agency adopts EarthWorks to identify maintenance issues and monitor railway infrastructure

New case study shows ASTERRA satellitebased solution supports safe rail transport

PARIS, FRANCE, March 9, 2023 /EINPresswire.com/ -- The recent railway catastrophe in the U.S. state of Ohio which spilled toxic chemicals into the environment was a wakeup call across the globe. According to Time, this was just one of the approximately 1475 train derailments which occur each year in the U.S. alone. Across the globe, old railway infrastructure and systems present grave safety concerns, but there is a monitoring solution to

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Points of interest on the rail line determined by

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Points of interest on the rail line determined by ASTERRA satellite technology.

make them safer. In a case study released today, ASTERRA describes how its <u>EarthWorks</u> solution enabled a European railway to monitor its system, solve a complicated engineering issue, and protect rail passengers.



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Elly Perets, chief executive officer of ASTERRA

"The recently completed project using EarthWorks for rail in Europe shows how easy it can be to identify substantial improvements and protect the safety of railways. These improvements are critical to the industry and to communities," stated Elly Perets, chief executive officer of ASTERRA. "There is only one solution that surveys thousands of miles of rail lines at once and provides the likely points of failure of this structure."

Considered the pioneer in using L-band SAR satellite technology to illuminate and mitigate damage related to

infrastructure failures, ASTERRA solutions are used all over the globe. EarthWorks analyzes

satellite imagery to detect soil moisture, including water leaks and seepage from pipes, earthen dams, levees, railroads, and more. EarthWorks performs <u>infrastructure monitoring</u> that covers thousands of square kilometers at once, without any sensors or devices on the ground. It penetrates the soil up to ten meters and sees through trees, concrete, and most surfaces at any time of day and in any weather. Actionable insights are shared through the EO Discover monitoring platform.

The case study arose because the concessionaire of a high-speed rail-line in Southwestern Europe knew there was an infrastructure problem, and sought ASTERRA to help pro-actively resolve it. The railway agency had observed subsidence on an embankment on a stretch of the line. Subsidence is the gradual sinking or caving in of an area of land. These areas of subsidence could not be readily identified by traditional methods. Through ASTERRA's investigations using EarthWorks, the problem and solution became obvious. EarthWorks identified that the problem was likely associated with the embankment construction. This led the railway to a mitigation strategy focused on the true problem that required resolution, saving time, money, and protecting lives.

Aged infrastructure is an urgent concern everywhere. Utility and corporation leaders are turning to solutions like EarthWorks, which prevent accidents and are effective, economical, and prudent. Among the benefits of satellite technology are that no preparation, set-up, sensor deployment, or maintenance is necessary.

"The solution scans for saturated ground below the surface and may identify problems at a very early stage, thus making repairs less costly," stated Perets. "EarthWorks has the ability to repeat scanning of specific sections as needed to verify repairs or to track changes in sensitive locations," he added.

ASTERRA's EarthWorks solution employs the same award-winning solution used in over 64 countries to save over 276,000 million gallons of potable water, reduce carbon dioxide emissions by 176,640 metric tons, and save 690,000 MWH of energy, all in support of United Nations Sustainable Development Goals. EarthWorks uses the solution in a new way, to successfully monitor infrastructures and provide actionable insights to mitigate damage.

Most importantly, railways can use this proven solution to better assure the safety of their rail infrastructure.

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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. Headquartered in Israel with offices in the United States, United Kingdom, and Japan, ASTERRA's innovative data solutions are used in multiple verticals around the globe. For more information on ASTERRA and to learn more about their technology, visit <a href="https://asterra.io">https://asterra.io</a>.

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