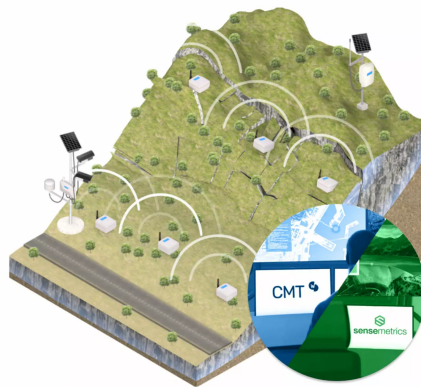# New Early Warning System, the end-to-end solution for early detection of ground movements

Featuring wireless sensors and real-time data visualisation software

Barcelona, Spain, 19th October 2023

Climate change and increasingly rigorous regulations are compelling infrastructure owners to better prevent and minimize the effect of natural disasters. The potential collapse of critical ground structures (such as slopes, embankments and alike) poses significant environmental and societal risks, requiring vigilant monitoring in industries such as mining, transportation, and construction.

Engineers require advanced early warning systems capable of real-time trend analysis and rapid response, but the complex integration of sensors, networks, and software often poses challenges for engineering firms.

The Early Warning System, a comprehensive solution for early detection of ground movements

In this context, Worldsensing has teamed up with Sensemetrics, the IoT data visualization platform, to launch the Early Warning System, an end-to-end solution

designed to detect ground movements in real time and automatically trigger preventive actions.

This new offer is an easy-to-deploy, plug-and-play system, featuring wireless sensors and seamless data visualization software that minimizes IT resources and expertise.

Wireless sensors
Worldsensing provides the [Event Detection Tiltmeter solution](#), a robust device with edge-processing capabilities, delivering threshold-based alerts in a few seconds. This sensor is capable of transmitting data via long-range radio to a gateway connected to the Internet up to 9 miles/15 km away.

Data Visualization Platform
The sensors seamlessly integrate with [Worldsensing's CMT](#) and Sensemetrics platforms using MQTT protocols. Alert notifications are sent with a minimum 2-second latency, enabling engineers to activate cameras, sirens, or other alert control systems with precision.

Connectivity
The system is complemented with a [ThreadX3](#), enabling the connection of data-intensive sensors like cameras, weather stations, sirens, etc., that enhances overall system robustness and supports actions and response plans. This autonomous sensor connectivity device comes with an optional integrated 4G/LTE cellular modem and wireless mesh networking.

About Worldsensing

Worldsensing is a global IoT pioneer. Founded in 2008, the infrastructure monitoring expert serves customers in more than 70 countries, with a network of global partners to jointly drive safety in mining, construction, rail and structural health.
Worldsensing is headquartered in Barcelona and has a local presence in the UK, North and South America, Singapore, Australia and Poland. Investors include Cisco Systems, McRock Capital, ETF, Kibo Ventures, JME Ventures and Bentley Systems.

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