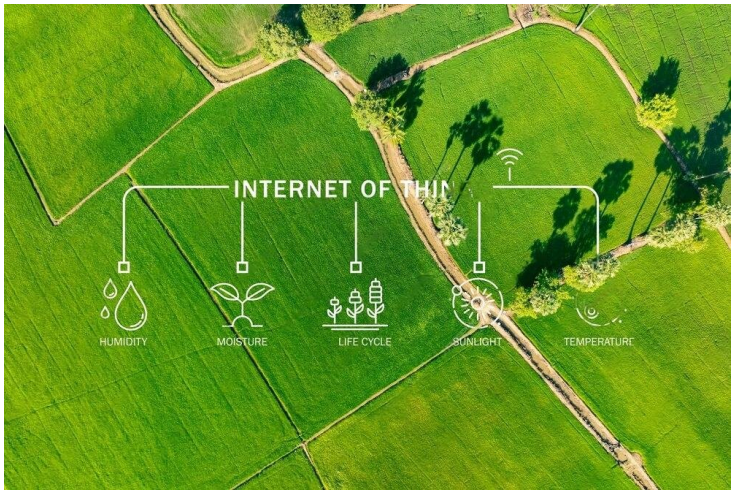
AgroSpectrum ASIA
Envisaging Future | Updating Present

Matter Intelligence secures $12 M Seed funding to revolutionize Remote Sensing and Global Perception

04 November 2024 | News

Earth observation dataset ever compiled



Earth observation dataset ever compiled

Matter Intelligence, a California-based remote sensing startup, has emerged from stealth, unveiling its plans to launch space sensors capable of capturing never-before-seen data about all matter on Earth, from surface to atmosphere. Matter specializes in advancing sensor infrastructure that captures incredibly detailed, beyond-visible data of both natural and artificial materials â?? creating the most comprehensive â??extreme resolutionâ? Earth observation dataset ever compiled. This data will power industries and helps AI models better understand and predict real-world events like never before.

The startup has securedÂ $12 millionÂ in seed funding led byÂ Lowercarbon Capital, with participation fromÂ Toyota Ventures,Â Pear,Â Mark Cuban, andÂ E2MC. The funding will accelerate the development of Matterâ??s sensing infrastructure.

Co-founder and CEOÂ **Vishnu Sridhar** said â??We are developing sensors that allow us to understand material makeup at the molecular levelâ??capturing composition, temperature, and structure from orbit with sub-meter precision. This is a game changer for industries that rely on detailed, real-time data to make critical decisions.â?

Next-Generation Hyperspectral Technology for Real-World Applications

Matter Intelligenceâ??s sensors use hyperspectral imaging, a method that captures thousands of narrow spectral bands of light to distinguish unique material properties. This allows Matter to detect and classify objects and materials that are invisible to traditional optical, radar, or multispectral sensors. Matterâ??s sensors, designed for deployment on satellites, drones, and

aircraft, will offer the world's first sub-meter hyperspectral and thermal satellite capability.

The startup's first satellite, EARTH-1, will create the first global encyclopedia of Earth's material composition, imaging the entire globe with *more than 500 times* the information density of todayâ??s existing sensors. By pushing hyperspectral imaging boundaries, Matter is driving the next evolution in mapping and analytics, providing critical information across multiple sectors such as:

Environmental Monitoring & Agriculture: Early detection of diseased crops, monitoring biodiversity by identifying plant species, assessment of acid mine drainage, identification of oil spills.

Energy & Resource Management: Identification of critical mineral reserves including rare earth elements and lithium, monitoring pipeline integrity, and tracking gas emissions including methane.

In addition, Matter will assist in **National Security** (Detection of hidden military assets, tracking activities in sensitive areas, and monitoring critical infrastructure) and **Insurance** (Global COPE data such as direct measurement of roof properties and building occupancy).