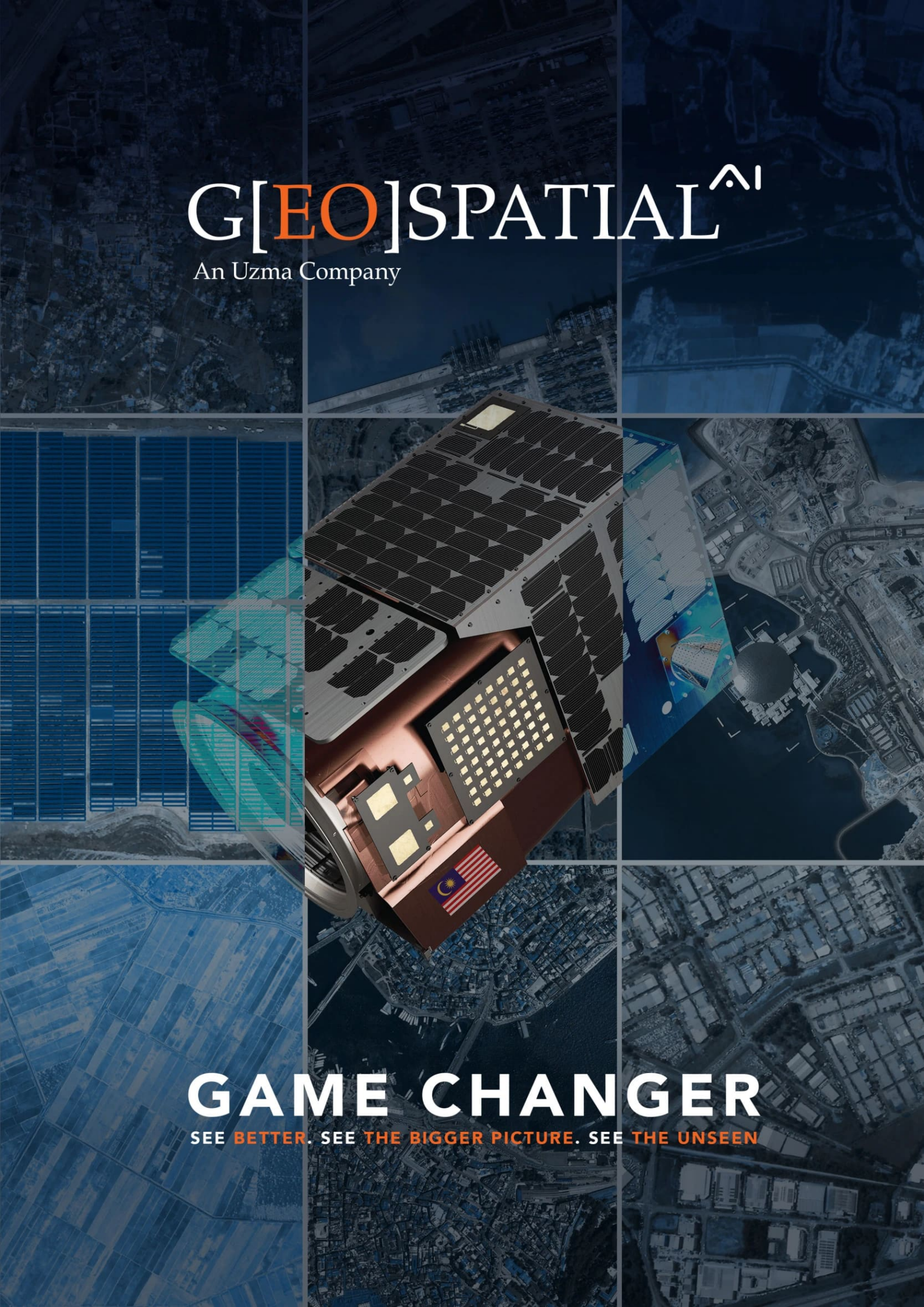
G[EO]SPATIAL AI

An Uzma Company



GAME CHANGER

SEE BETTER. SEE THE BIGGER PICTURE. SEE THE UNSEEN

G[EO]SPATIAL AI

An Uzma Company

ABOUT US

- **Geospatial AI Sdn Bhd**, founded in 2021, is a leading geospatial analytics provider, leveraging AI-driven satellite-based enterprise solution for super large-scale data capture and analysis.
- Our expertise lies in utilizing satellite imagery and cutting-edge technology to provide actionable insights and information about various aspects of Earth, from urban planning to environmental monitoring.
- A wholly owned subsidiary of Uzma Berhad
- A member of : IGRSM INSTITUTION OF GEOSPATIAL AND REMOTE SENSING MALAYSIA



WHAT WE DO

BIG DATA

- Provide satellite images and any spatial data services for various commercial, government and defense applications.

  Example:
  Satellite imagery (Optical & SAR) & Digital Elevation

PROFESSIONAL TRAINING COURSES

- Provide consultancy and bespoke training course on remote sensing and GIS for various sectors.
- Off-the-shelf and bespoke training tailored to your needs.

TAILORED PLATFORM

- Intuitive and secured platform development tailored to end-user needs and requirements

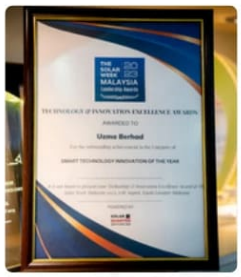
ANALYTICS & SOLUTION

- Utilizing AI-driven solution and expert remote sensing analysis to transform geospatial dataset to critical insights.

AWARDS & ACHIEVEMENTS



YEAR 2021
Satellite-Driven Flood Risk Assessment and Geohazard Identification for Solar Farms



YEAR 2023
Advanced Ground Movement Risk Assessment in Solar Farm Environments Using Satellite-Based InSAR Technology



YEAR 2024
Malaysia Technology Excellence Award – Emerging Technology for UzmaSAT-1 Programme

1,270,637
Hectares Analysed

7 Countries





GAME CHANGER

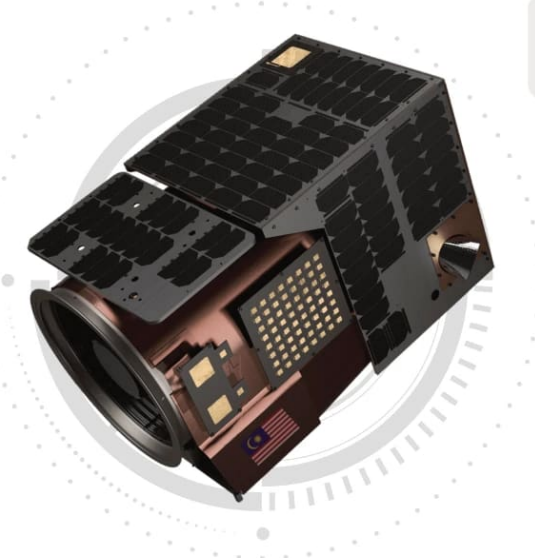
UZMASAT-1

A major milestone was achieved with the successful launch of **UzmaSAT-1** on January 15, 2025, aboard SpaceX's Falcon 9 Transporter-12 from Vandenberg Space Force Base. UzmaSAT-1 delivers high spatial resolution optical imagery with frequent revisits throughout the day.

With the satellite now operational in orbit, we are expanding our reach and opening new opportunities for geospatial intelligence across various sectors and industries that rely on satellite-based insights such as agriculture, energy, infrastructure, and environmental monitoring.



UZMASAT-1 SPECIFICATIONS



MASS	DIMENSIONS	AVERAGE OPERATION
45.4kg	508mm x 575mm x 813mm	460km – 525km

- Multispectral camera with sub-meter GSD and 6.5km swath
- Up to 50cm Resolution
- Wavelengths:
  - Blue: 450-517 nm
  - Green: 517-583 nm
  - Read: 597-690 nm
  - Near-IR: 759-890 nm





UZMASAT-1 ADVANCED FEATURES

HIGH TEMPORAL

Ensures frequent revisit rates of any point of interest, offering regular and consistent updates

HIGH SPATIAL RESOLUTION

50 cm multispectral data with top industry-level radiometric values

BIG DATA

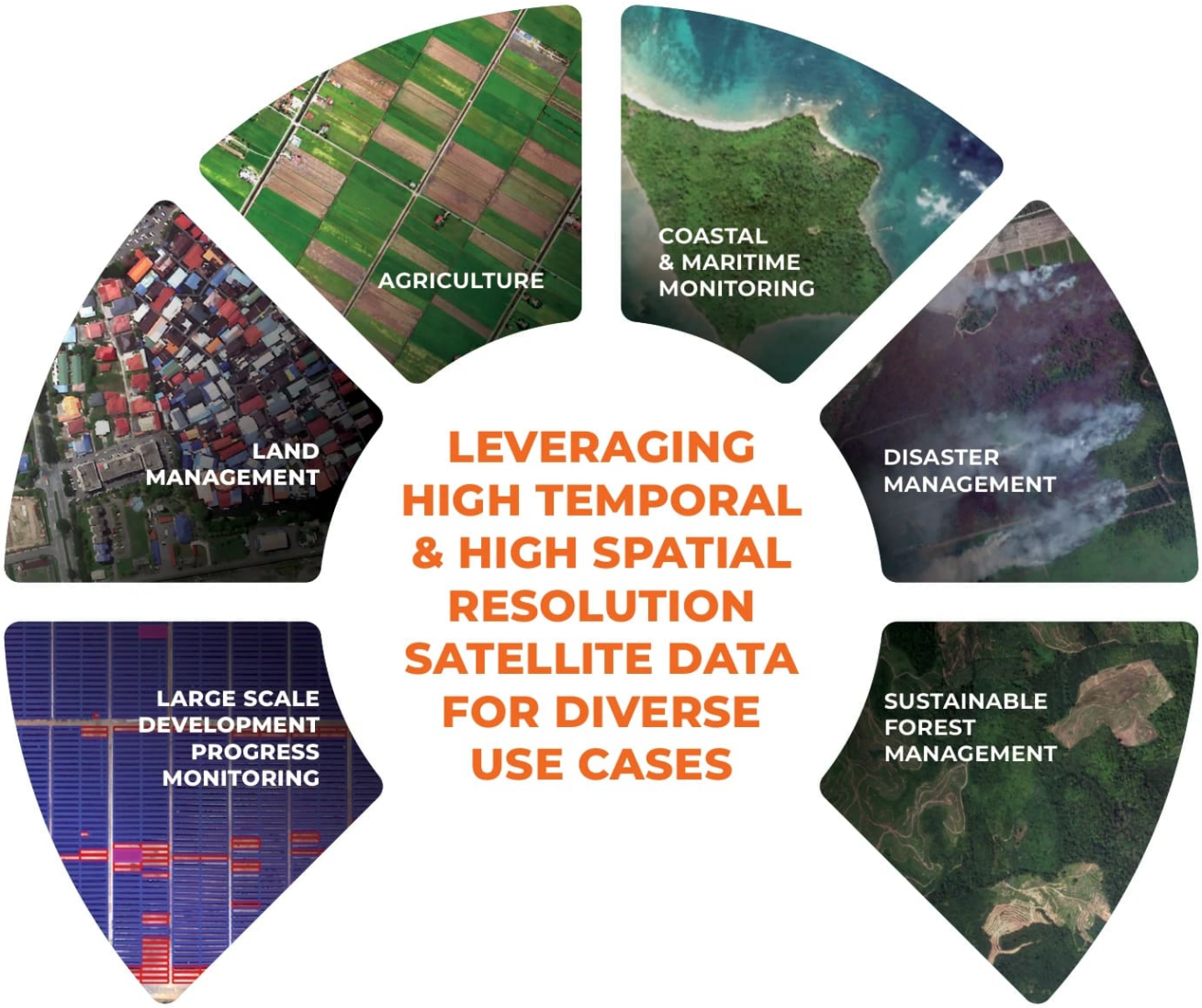
Analyze large areas of spatial data efficiently

TROPICAL PRECISION

Calibrated Malaysian atmospheric tropical model for accurate insights and analysis

LOW LATENCY FOR RAPID RESPONSE

Task and access satellite imagery in under 6 hours



LEVERAGING HIGH TEMPORAL & HIGH SPATIAL RESOLUTION SATELLITE DATA FOR DIVERSE USE CASES

AGRICULTURE MANAGEMENT

TRANSFORMING AGRICULTURE THROUGH SPACE AND DATA

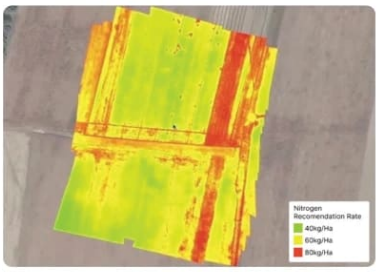
Transform your agricultural operations with Geospatial AI's precision agriculture solutions, powered by advanced analytics and high resolution data from UzmaSAT-1.

By combining satellite imagery, geospatial insights, and predictive modelling, we help you monitor crop health, soil conditions, and climate factors in real time to enable smarter decisions that boost yield, lower costs, and reduce environmental impact.



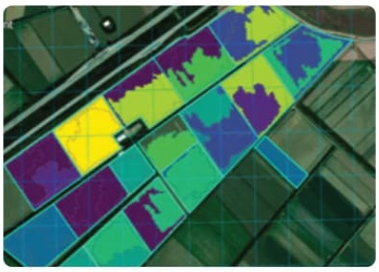


KEY FEATURES & BENEFITS



Fertilizer Management

Helps farmers to understand theirland better and make informeddecisions for healthier cropsIdentifies



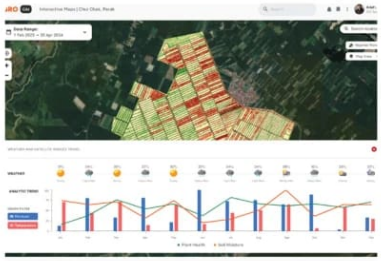
Disease Detection

Identifies crop diseases infestations before they spread



Irrigation Management

Ensures each zone gets the right amount of water, preventing over-or-under-irrigation



Weather Forecast

Provides insights on ideal conditions forrice growth. Rainfall Predictions - helps plan irrigation and avoid water stress



Growth Monitoring

Monitors overall plant health. Tracks crop growth stages to predict yields



PLANTATION MANAGEMENT

PLANTATION MANAGEMENT FOR A SUSTAINABLE FUTURE

Maximise your plantation's productivity and sustainability with Geospatial AI's innovative solutions powered by high-resolution data from UzmaSAT-1. With advanced geospatial analytics and satellite imagery, we deliver valuable insights into your land, crops, and climate to help you optimise planting, monitoring, and harvesting for better efficiency and long-term sustainability.





KEY FEATURES & BENEFITS

Precision Mapping of Aging Plantations

Identify and prioritize plantations exceeding 19 years of age, allowing targeted replanting efforts.

Replanting Progress Tracking

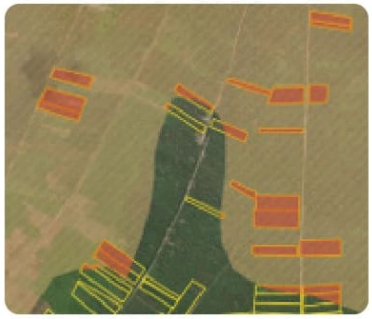
Identify deforestation, land clearing, replanting activities, and tree count fluctuations.

Monitoring Sustainability Practices

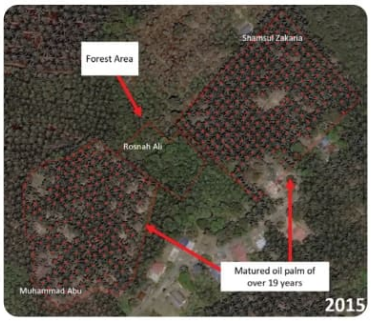
Identify and monitor oil palm or rubber plantations established on peatlands to minimize ecological impact and ensure compliance with sustainability standards.

Compliance and Traceability with High-Resolution Imagery

Enable plantation managers to monitorland use, ensure regulatory adherence,and provide verifiable, real-time evidencefor sustainable and transparent supply chains for EUDR compliance.



Oil palm planted on peatland area; requiring environmental remediation



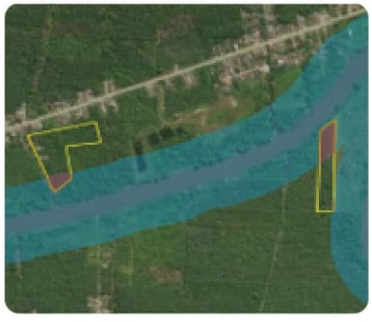
Oil Palm planted in 2015



Oil palm planted on steep slope >25; requiring environmental remediation



Oil Palm planted in 2017



Oil palm planted within riparian area; requiring environmental remediation



Oil Palm planted in 2024



URBAN PLANNING & DEVELOPMENT

BUILD SMARTER CITIES WITH GEOSPATIAL AI'S ADVANCED INFRASTRUCTURE AND URBAN PLANNING SOLUTIONS

Leveraging geospatial analytics and high resolution satellite imagery from UzmaSAT-1, our infrastructure and urban planning solutions are set to provide valuable insights for sustainable and efficient development.

By understanding the unique characteristics of your urban environment, we can optimize infrastructure planning, asset management, and urban renewal.



TRANSFORMATIVE ROLE OF SATELLITE-BASED REMOTE SENSING IN URBAN MONITORING

Satellite-based remote sensing plays a transformative role in urban monitoring by providing critical data to support smart city initiatives, low-carbon goals, and green, sustainable urban development

URBAN SPRAWL, GREEN SPACES, AND HEAT ISLANDS MONITORING

With high-resolution satellite imagery, we can track urban sprawl, monitor green spaces, and analyse heat islands, all of which inform urban planning for better resource allocation and environmental impact reduction.

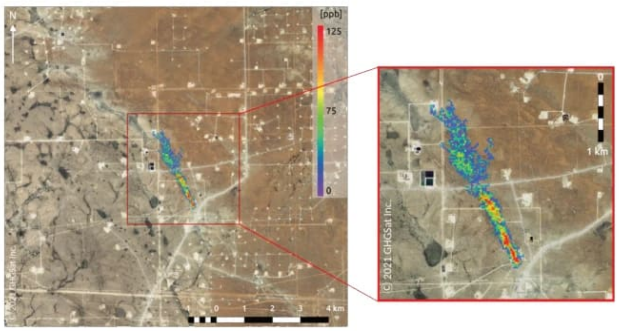
KEY FEATURES & BENEFITS

URBAN PLANNING AND DEVELOPMENT	OBJECT-BASED IMAGE ANALYSIS	RISK ASSESSMENT AND MITIGATION
		
Site Selection	Object-oriented segmentation	Geological hazard assessment
Urban Renewal	Integration of spectral, spatial and textural features	Emergency response planning
Transportation planning	Rule-based and machine learning classification	Early ground movement detection

ENVIRONMENTAL MONITORING

INTEGRATED ENVIRONMENTAL MONITORING USING SATELLITE TECHNOLOGY

Satellite technology, combined with advanced geospatial analytics, plays a vital role in detecting and monitoring greenhouse gases (GHG) such as methane (CH_4), carbon dioxide (CO_2), and nitrogen dioxide (NO_2). By using shortwave infrared (SWIR) spectral analysis, it offers accurate, real-time insights into atmospheric emissions. These capabilities can support governments, industries, and environmental agencies in enhancing regulatory compliance, reducing environmental risks, and making informed decisions to promote sustainable development.



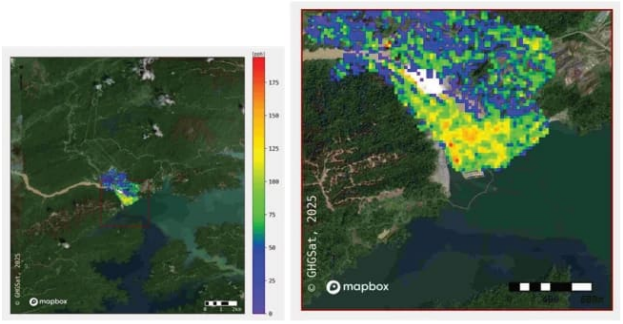
Satellite-Based Environmental Monitoring And Emissions Tracking

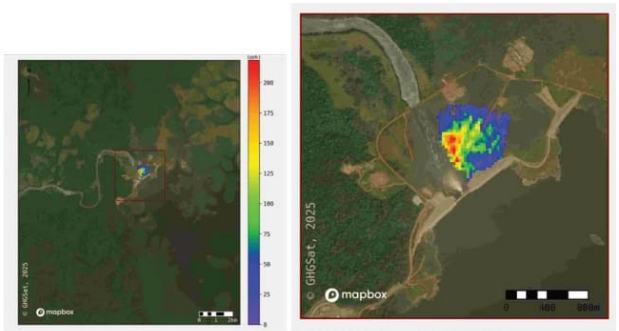


Climate Monitoring And Data-Driven Decision Making

KEY FEATURES & BENEFITS

- **Real-Time GHG Monitoring**
  Continuous detection of CH_4, CO_2, and NO_2 emissions using satellite-based SWIR imaging.
- **Wide Area Coverage**
  Monitor vast geographic regions with high temporal frequency and resolution.
- **Actionable Environmental Intelligence**
  Gain insights for policy formulation, emission source tracking, and environmental compliance.
- **Scalable and Customizable**
  Easily integrates with existing systems and can be tailored to specific industry or regulatory needs.
- **Supports Climate Goals**
  A powerful tool to support ESG initiatives, carbon tracking, and global climate commitments.





Methane Monitoring

GROUND MOVEMENT MONITORING

WHAT IS INSAR?

Interferometric Synthetic Aperture Radar (InSAR) is an advanced technique used to monitor ground movement. It works by analysing phase differences between two or more Synthetic Aperture Radar (SAR) images to measure surface deformation or topography with high precision.

These satellites shoot radar beams at Earth, then scientists analyse how the signals bounce back to measure tiny ground shifts, down to the millimeter accuracy.



SINKHOLE MONITORING



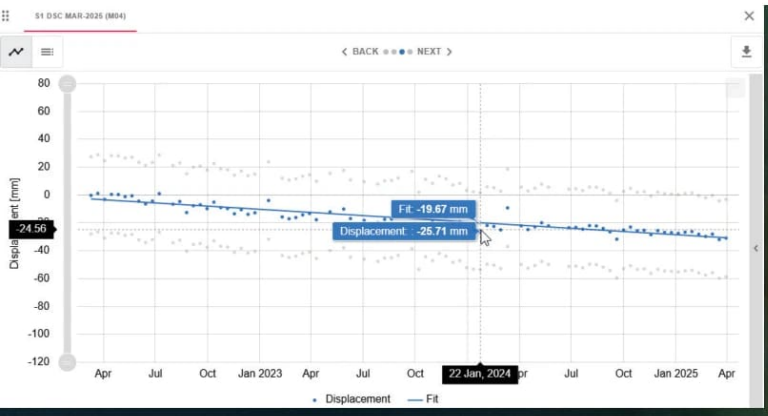
LANDSLIDE MONITORING

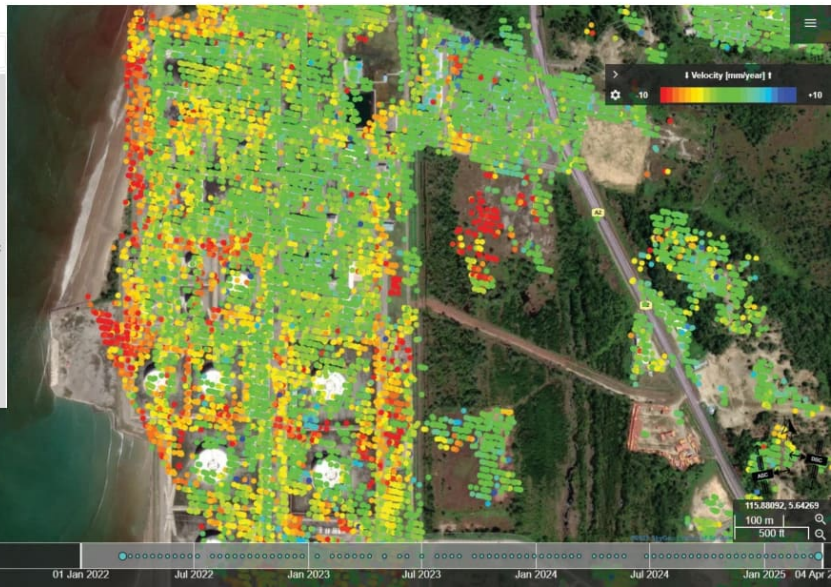


INFRASTRUCTURE MONITORING

WHY SHOULD WE CARE?

- Ground movement can silently damage buildings, roads, mines, dams, or pipelines – often before anyone notices
- InSAR helps detect these risks early, enabling preventive action and protecting critical infrastructure
- It's weather-proof and day-or-night capable, since radar works through clouds and darkness
- InSAR supports informed decision-making in road construction by improving maintenance planning at every stage – before, during, and after construction







DEFENSE & MARITIME

COMMAND THE SEA FROM SPACE. FORTIFY THE DEFENSE WITH UZMASAT-1

Modern defense and maritime security require real-time data, strategic foresight, and technological precision. By leveraging geospatial intelligence, remote sensing and high resolution satellite imagery from UzmaSAT-1, we support maritime domain awareness, coastal defense and strategic operations.

We provide defense forces, naval commands and coast guard agencies with space-based actionable intelligence to enhance surveillance, border protection and maritime awareness.

KEY FEATURES & BENEFITS

Satellite-Based Surveillance and Intelligence

Monitor vast marine areas for vessel movement and border activities using high-resolution optical and SAR imagery, enabling effective asset tracking and situational awareness.

Detect changes and activities across wide areas, or conduct regular monitoring of specific sites to analyse patterns of life and operational trends.

Enhanced Situational Awareness

Real-time tracking of maritime traffic and national borders, including suspicious, non-registered vessels and unauthorized development

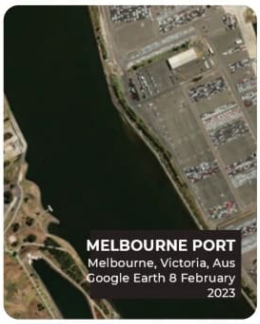
Disaster & SAR Response

Quickly assess and respond to oil spills, vessel accidents or natural disasters

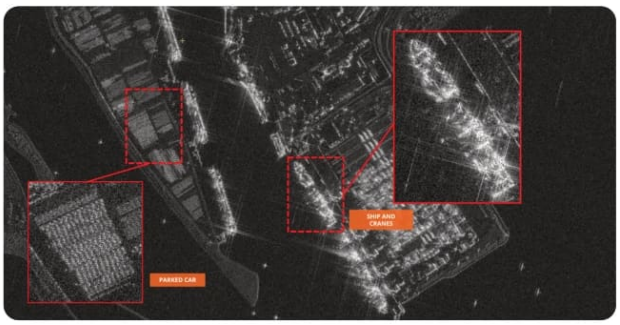
National Security Support

Support national military base surveillance, troop deployment planning, and coastal infrastructure defense













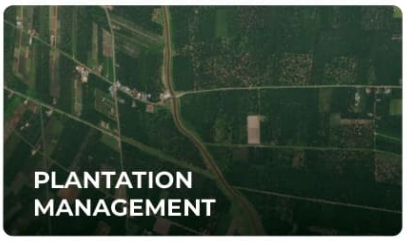


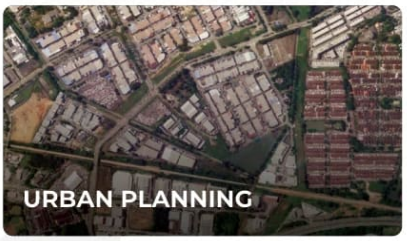
Location: Nunukan, Kalimantan Utara, Indonesia

UZMA DIGITAL EARTH

Digital platform that leverages satellite imagery, advanced sensors, and locally-trained AI to deliver deep insights across sectors, including agriculture, environmental and assets monitoring, urban planning, and plantation management.



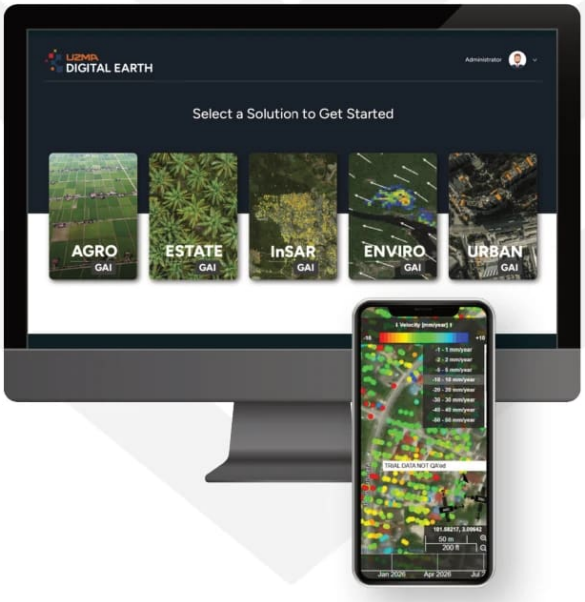












PLATFORM FEATURES

- **Cloud-based platform integrating AI and satellite imagery**
- **Real-time analytics and visualization**
- **Modular architecture for industry-specific applications**
- **Tailored to local parameters**


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WANT TO REACH US FAST?
SCAN HERE
UZMA