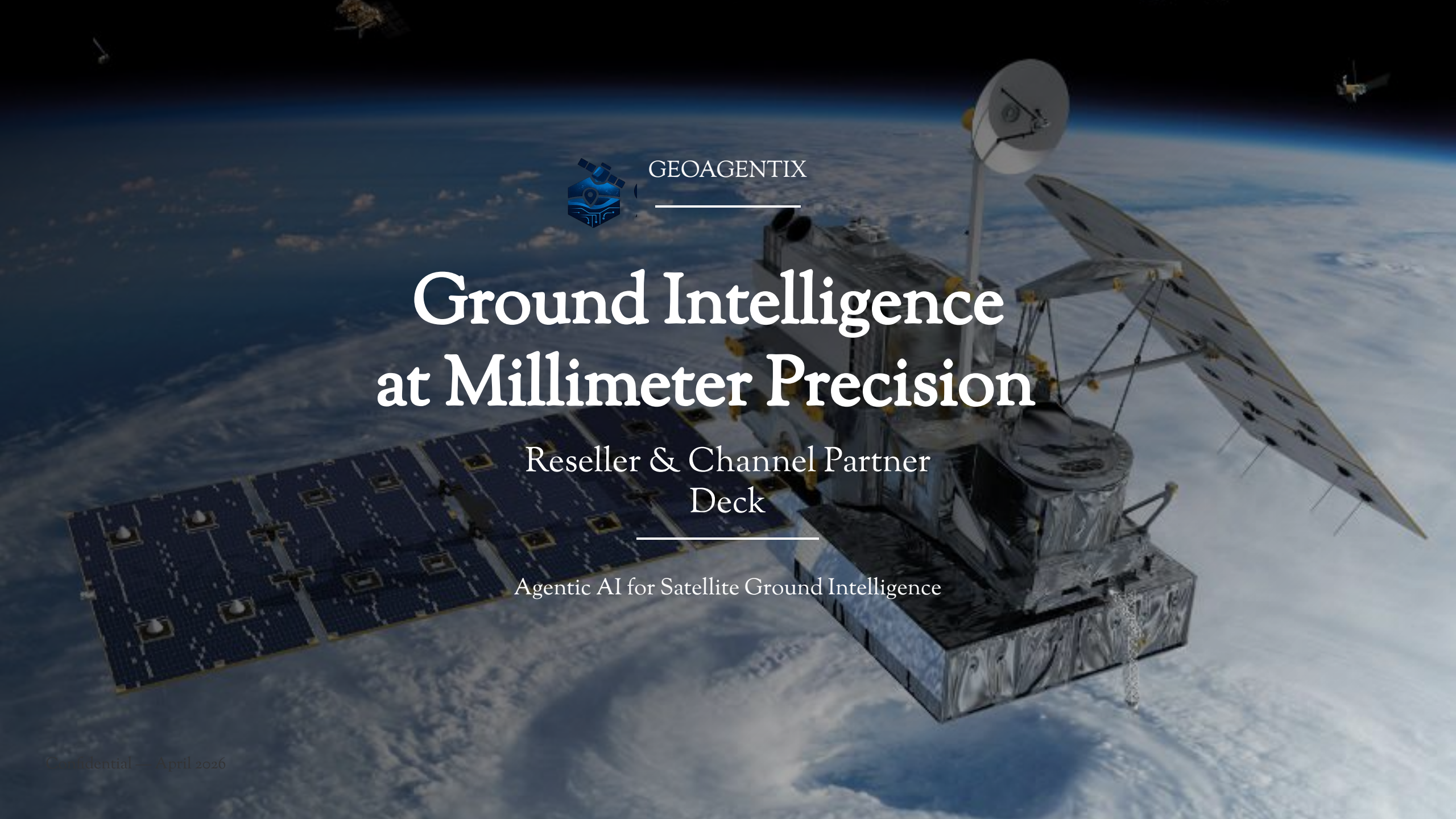


GEOAGENTIX

Ground Intelligence at Millimeter Precision

Reseller & Channel Partner Deck

Agentic AI for Satellite Ground Intelligence

Confidential — April 2026

1.1 Company Overview

GeoAgentix is an agentic AI platform that turns **SAR, optical, and hyperspectral** satellite data into ground-risk intelligence — autonomously, **10× faster** than traditional workflows.

±1mm	10×	100+
InSAR Precision	Faster Processing	Sites Monitored

Detect

mm-precision ground deformation from Sentinel-1 SAR, surface change from Sentinel-2 optical, and material signatures from hyperspectral imagery. One platform, any sensor.

PS-InSAR/SBAS sub-mm accuracy (Sci Reports 2023; PMC 2024)

Predict

Agentic AI pipeline autonomously ingests multi-sensor data, runs ML hazard scoring, and forecasts displacement trajectories — no manual GIS intervention required.

RF optimal for landslide susceptibility (Landslides 2025)

Monitor

White-label dashboards and automated alert reports delivered to your clients under your brand. Continuous monitoring across infrastructure, mining, and natural hazard sites.

InSAR enables wide-area, low-cost continuous monitoring (Sci Reports 2024)

Figure 1: GeoAgentix satellite-based ground deformation monitoring platform

1.2 Product Suite

01 TerraSense

InSAR Active

Urban Subsidence Monitor

Continuous urban and infrastructure subsidence monitoring at mm precision. Automated alerts and dashboards for asset owners.

PS-InSAR/SBAS accuracy validated to sub-mm level (Scientific Reports, 2023). InSAR RMSE of 2.17mm vs leveling (PMC, 2024).

- Millimetric precision
- Continuous monitoring

02 SlopeGuard

SBAS Analysis

Slope Deformation Tracker

Landslide detection and velocity mapping using SBAS time-series. Ideal for slopes, embankments, and infrastructure corridors.

SBAS-InSAR detected 59 landslides (34 previously unknown) in Xiaojiang Basin (Scientific Reports, 2025). 96% noise removal rate (Int. J. Disaster Risk Sci., 2024).

- SBAS/PS time-series
- Risk zone mapping

03 ChangeScope

Satellite Optical

Optical Change Detection

Optical satellite change detection for vegetation, land-use, and encroachment monitoring. Multi-temporal analysis.

NASA DIST-ALERT: global 30m change tracking via Landsat/Sentinel-2 (Nature Comms, 2025). SAR+optical fusion reaches 91.1% accuracy (Taylor & Francis, 2023).

- Multi-temporal analysis
- Compliance monitoring

Also available: IntelliFlow (ML debris flow prediction) & EcoMap (multi-layer GIS mapping). All products are sensor-agnostic and white-label ready.

1.3 Technical Methodology

SAR Data Acquisition

Sentinel-1 C-band SAR satellite data with 6-12 day revisit cycle. Free from ESA, global coverage.

ESA Copernicus Sentinel-1, C-band 5.405 GHz / 5.55cm wavelength (ScienceDirect 2024)

SBAS-InSAR Processing

Multi-temporal interferometric processing using small baseline subsets for millimeter-level precision.

SBAS-InSAR provides mm-level surface deformation measurements (Frontiers in Earth Science 2024)

Deformation Mapping

High-precision velocity maps and cumulative displacement time series for infrastructure monitoring.

InSAR deformation monitoring validated at RMSE 2.17mm vs leveling (PMC 2024)

ML Prediction Layer

Ensemble ML models for hazard susceptibility scoring and displacement prediction.

Random Forest optimal for landslide susceptibility (Landslides 2025); deep learning debris flow detection (Sci Reports 2025)

Client Dashboard

Web-based interactive visualization platform. Automated alerts, multi-format export (DXF, Shapefile, CSV, PDF), historical reports.

Digital Twin for continuous monitoring

Continuous tracking with configurable update frequencies: 6-12 days (rapid), monthly, or quarterly. Full audit trail of deformation history.

Higher precision and reliability through satellite-based continuous monitoring — no installation, no maintenance, no on-site access required.

2.1 Case Study: Joshimath — Urban Subsidence

Joshimath, Uttarakhand — Elevation 1,245–2,890m

Town built on ancient landslide deposit. 4,500+ families displaced in 2023 crisis. No early warning system existed prior to GeoAgentix analysis.

PS-InSAR urban subsidence monitoring at sub-mm accuracy (Gao et al., Sci Reports 2023)

5-Year SBAS-InSAR Analysis

Processed ~150 Sentinel-1 scenes from 2020-2025. Detected subsidence exceeding 30mm/year in worst-affected zones.

3 New Risk Areas Identified

Previously unmonitored zones discovered through InSAR velocity mapping, validated against GSI ground-truth surveys.

Global Applicability

Methodology directly applicable to urban slope monitoring in any mountainous or subsidence-prone region worldwide.

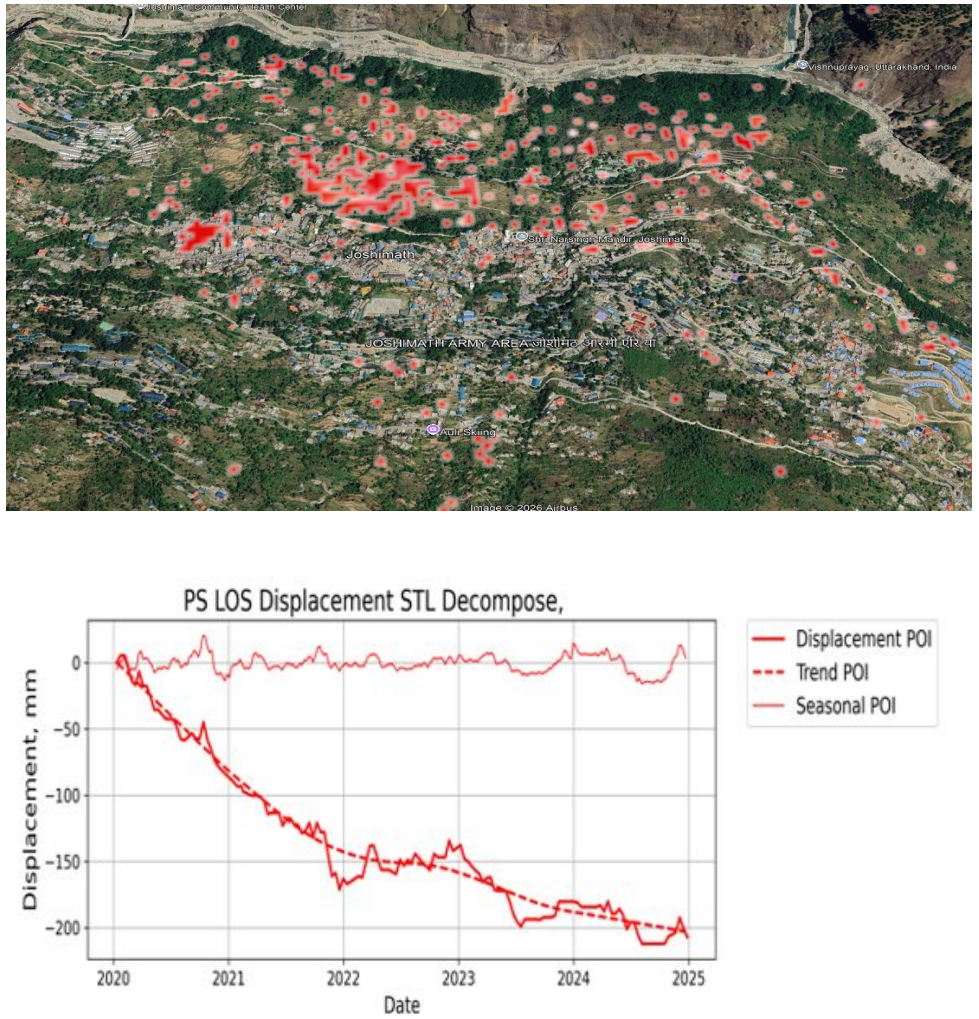


Figure 2: (Top) Satellite image with deformation points and (Bottom) InSAR displacement graph of Joshimath showing subsidence patterns

2.2 Ground Validation: Joshimath

Figure 3: Ground truth validation — (a,b) structural cracks in buildings, (c) wall collapse, (d) road deformation. All detected by InSAR before visible damage appeared.

InSAR deformation maps correlated with GSI ground-truth surveys — confirmed subsidence patterns prior to visible structural failure.

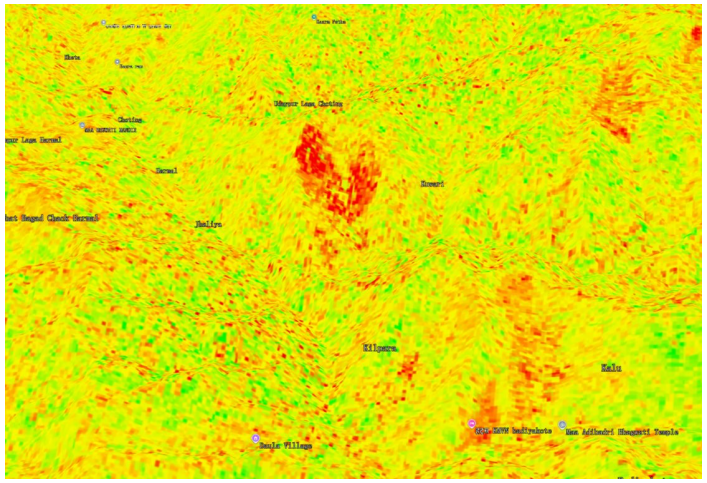
2.3 Case Study: Jhaliya — Slow-Moving Landslide

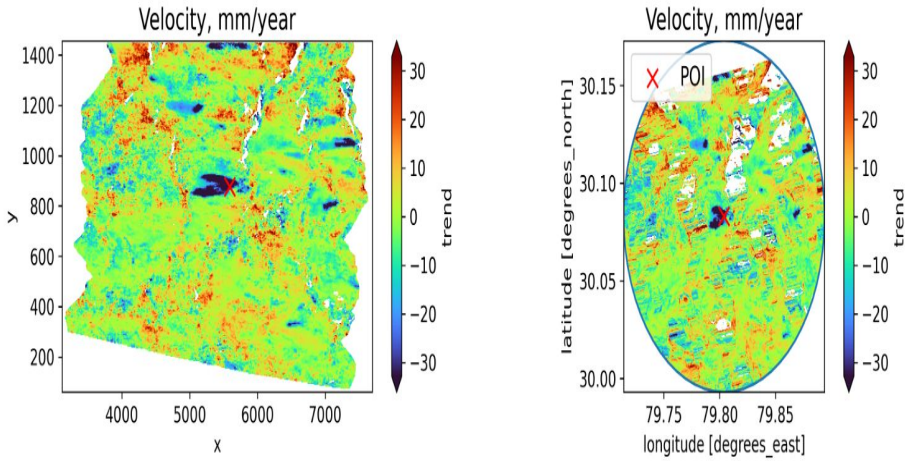
Jhaliya, Chamoli District — Elevation 2,800–3,400m

Slow-moving landslide on strategic military and pilgrimage road corridor. No prior deformation record existed before GeoAgentix intervention.

SBAS-InSAR detected 59 potential landslides, 34 previously unknown (Sci Reports 2025)

~150	2020–2025	>30 mm/yr	Under review
SAR Scenes Processed	Observation Period	Max Velocity (LOS)	Publication Status





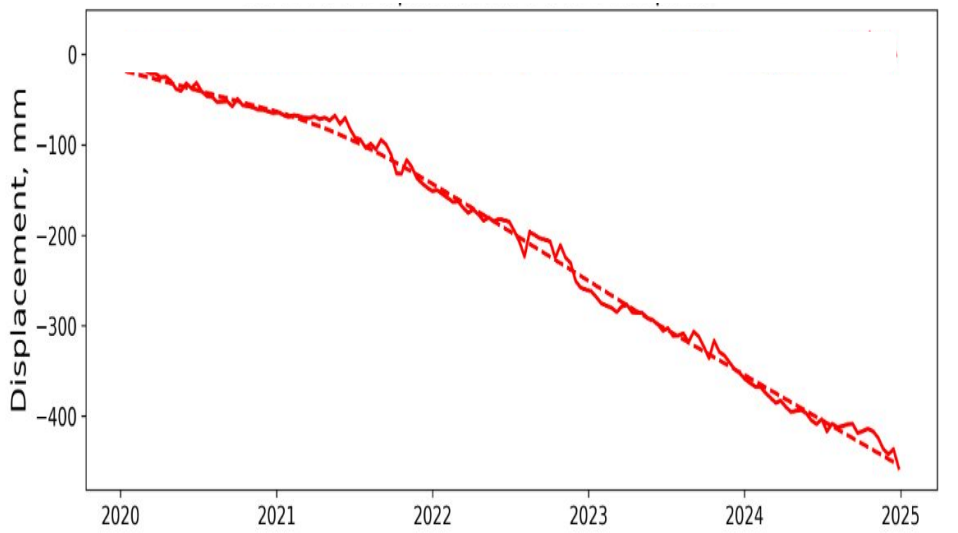


Figure 4: (Left) Satellite view, (Center) SBAS velocity map, (Right) Regional InSAR deformation of Jhaliya landslide corridor

2.4 Case Study: Kuwari — LLOF Risk Assessmer

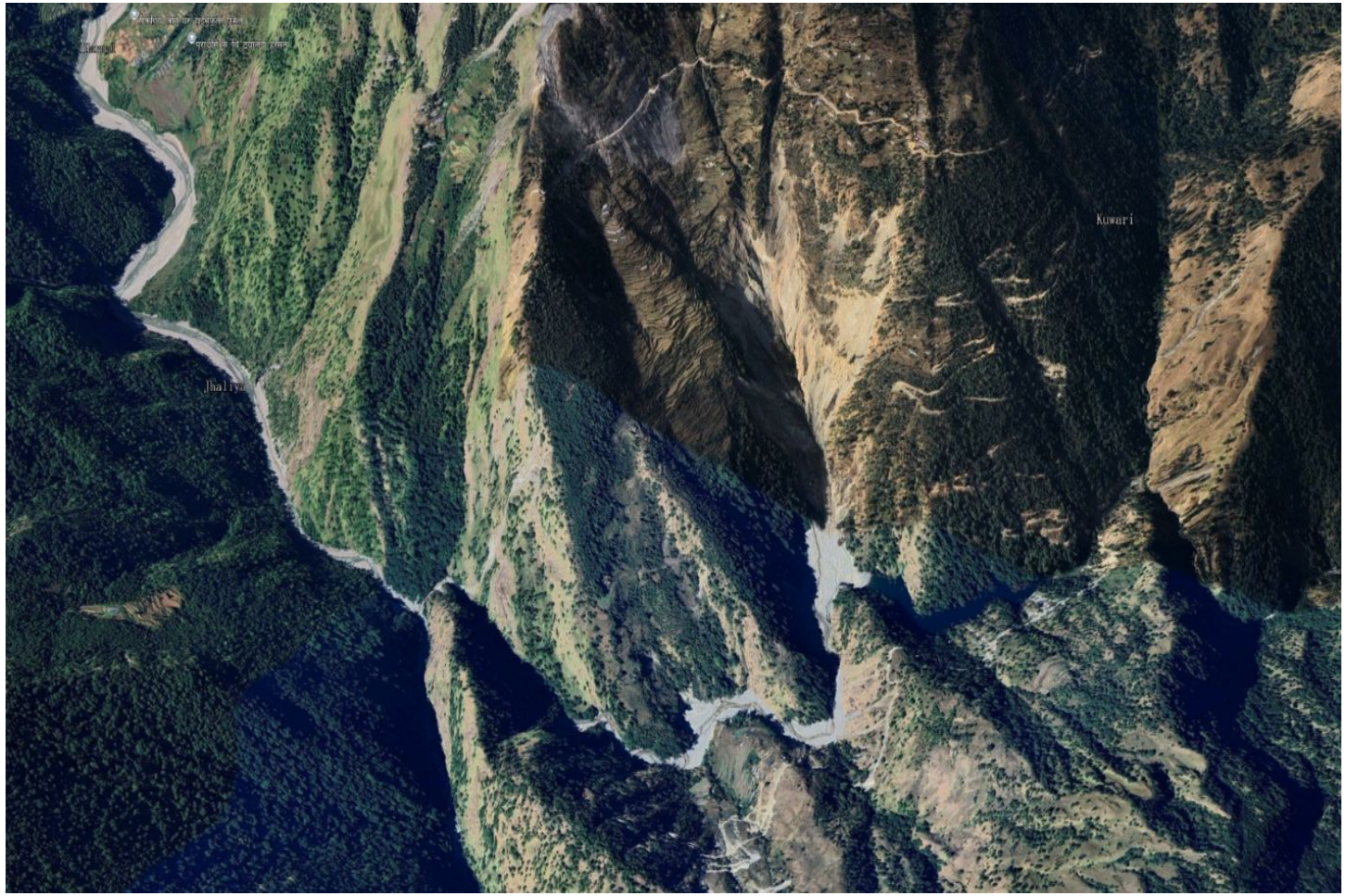


Figure 5: Kuwari landslide satellite imagery showing river-adjacent slope instability and LLOF threat zone

20 cm

Maximum cumulative displacement

Key Findings

- Persistent accelerating ground subsidence detected over 5-year observation period
- Time series analysis confirms serious LLOF risk from damming, breaching, or overtopping
- Highest displacement measured in this Himalayan corridor
- Under revision at Landslides journal

Partner opportunity: Dam operators worldwide need upstream slope monitoring. This methodology applies to any region with dam safety regulations.

InSAR enables mm-level dam deformation monitoring (Medici et al., Sci Reports 2024)

2.5 IntelliFlow: ML Debris Flow Prediction

We analyse optical data with Machine Learning to predict debris flow hazards and find actionable solutions.

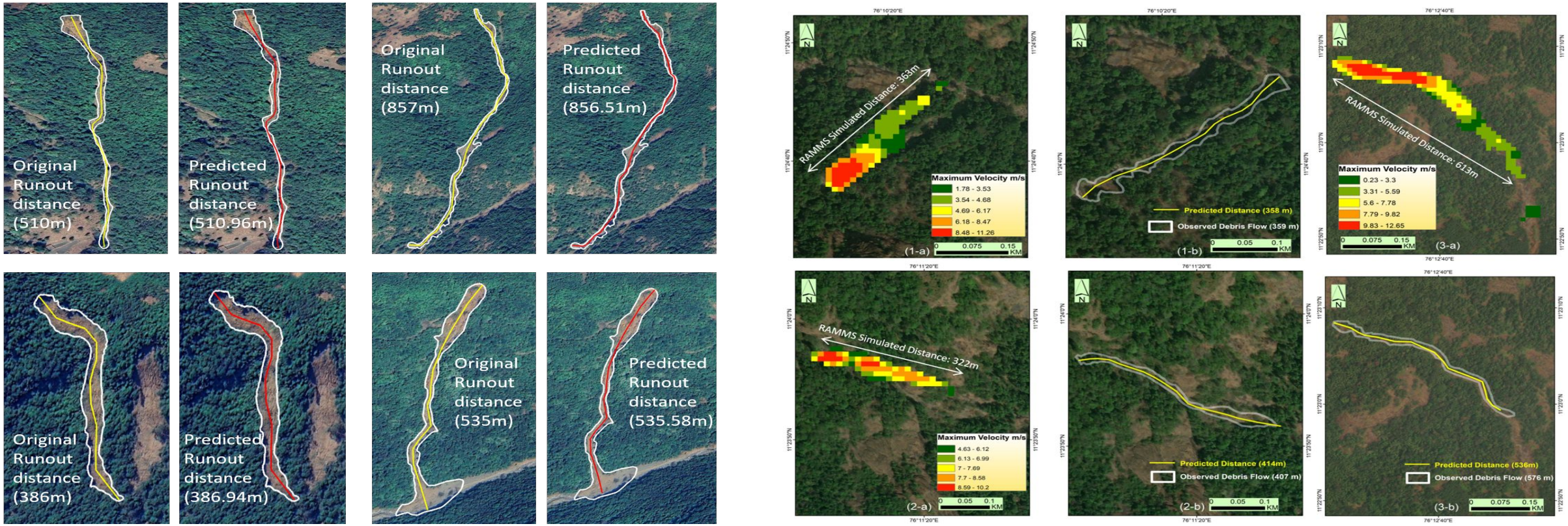


Figure 6: (Left) ML predicted vs observed runout distances. (Right) RAMMS numerical validation — Koyna landslide, Maharashtra, India

We analyze and predict the future of landscapes using AI-driven geospatial intelligence

3.1 Why Partner With GeoAgentix

Agentic AI Engine

Autonomous

End-to-end satellite data ingestion, processing, and report generation — no manual GIS intervention required.

Multi-Sensor Agnostic

SAR + Optical + Hyperspectral

One platform processes Sentinel-1 SAR, Sentinel-2 optical, and hyperspectral imagery. Serve any use case from a single backend.

White-Label Ready

Your Brand, Our Engine

Co-branded or fully white-labelled dashboards and reports. Your clients see your brand — we stay invisible.

10× Faster Delivery

Days, Not Months

Traditional satellite analysis takes weeks. Our agentic pipeline delivers actionable intelligence in days — your competitive edge.

White-label satellite intelligence powered by agentic AI — resell under your brand with zero R&D investment.

4.1 How It Works

01

01 — You Sell

You own the client relationship end-to-end. Your brand, your pricing, your contracts. Present satellite intelligence as your own capability — GeoAgentix never appears.

- Full client ownership
- Set your own margins

02

02 — We Process

Our agentic AI pipeline ingests satellite data, runs InSAR analysis, generates deformation maps, and produces white-label dashboards and reports — all autonomously, delivered in days.

- White-label deliverables
- Agentic AI pipeline

03

03 — We Both Grow

You add satellite intelligence to your portfolio overnight — no hires, no R&D, no infrastructure. We gain market reach through your local network and domain expertise.

- Zero hiring needed
- Scale with demand

Partner rates start at 35% below retail. You control the markup. One API, unlimited scale.

14 Team

Dr. Achu AL

Co-Founder
CSO & Lead Scientist. InSAR & remote sensing specialist with 10+ years in geospatial intelligence.

Ahammad Shibil

Founder & CEO
Founder and former venture capitalist in deep tech, specializing in scaling startups, strategy, and investments.

Athif Sayyaf

Co-Founder
CTO & partnerships lead. Manages channel strategy and ecosystem partner relationships.

Dr. Yunus Ali

Advisor
Scientific advisor. Leading researcher in landslide dynamics and geohazard risk assessment.

GEOAGENTIX

Agentic-powered satellite data processing using SAR and optical imagery for infrastructure

Let's Build Together

Confidential — April 2026