SiteSense

THE AI ASSURANCE PLATFORM FOR CRITICAL INFRASTRUCTURE

See it. Verify it. Act on it — continuously.

SiteSense turns field inspections, images, video and sensor data into continuously verified infrastructure intelligence — built for African conditions, and ready for autonomous inspection.

Product pitch | AI-Assisted Audit | Pilot Validation

Nexus Aspire · sitesense.site

WHY THIS MATTERS

Infrastructure is inspected with incomplete, delayed and unverifiable evidence

Owners of towers, power, fibre and distributed assets are flying blind between site visits.

Fragmented inspection

Reports, photos and asset records live in disconnected channels. Inspections are periodic, manual, and unreliable in low-connectivity locations.

Unverifiable evidence

A photo doesn't prove location, date, asset identity or condition. Manual review can't scale across thousands of sites and contractors.

Reactive decisions

Issues surface after failure. Leaders lack a live view of condition, risk and compliance — and teams collect reports instead of acting.

The real gap: not a lack of data — a lack of trusted, connected and actionable infrastructure evidence.

Sensitivity: Public

WHAT SITESENSE IS

One platform that captures, verifies and acts on every inspection

A continuous loop that works even where connectivity is unreliable.

01

CAPTURE

Offline-first mobile forms · geotagged photos & video · IoT, cameras, drones

02

UNDERSTAND

Computer vision · data-quality validation · anomaly detection · evidence fusion

03

ACT

Risk & compliance scoring · alerts · human review · dashboards & reports

04

LEARN

Reviewer feedback · asset history · model improvement · predictive insight

Intelligent assurance & insights for every asset.

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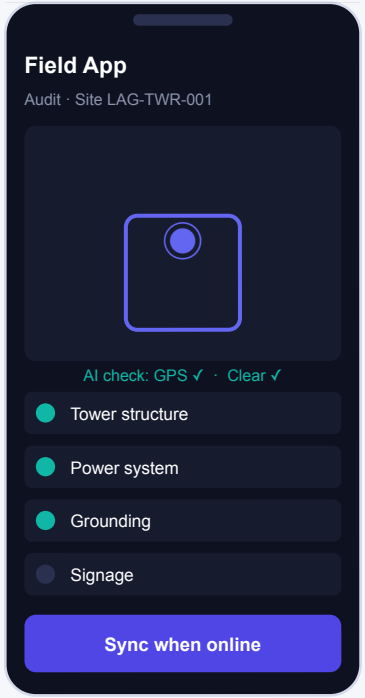
WORKING TODAY

From the field to the control room, in one connected workflow

A live application: mobile capture, operations oversight, and an intelligence command centre.



Live today

- Offline capture
- GPS-verified
- AI quality check
- One-tap sync
- Live dashboards
- Audit trail

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THREE SURFACES, ONE SYSTEM

Purpose-built experiences for the field, operations and leadership

Every role works in the tool designed for them — connected by the same evidence layer.

Field App

Mobile · offline-first

- Assigned inspections
- Offline evidence capture
- GPS & timestamp validation
- Instant AI quality feedback
- Automatic sync on reconnect

Operations Portal

Web · oversight

- Inspection assignment
- Review & approval
- Exceptions & remediation
- Vendor & SLA oversight
- Full audit trail

Command Centre

Web · intelligence

- Asset-health map
- Risk hotspots
- Compliance trends
- Predictive alerts
- Executive reporting

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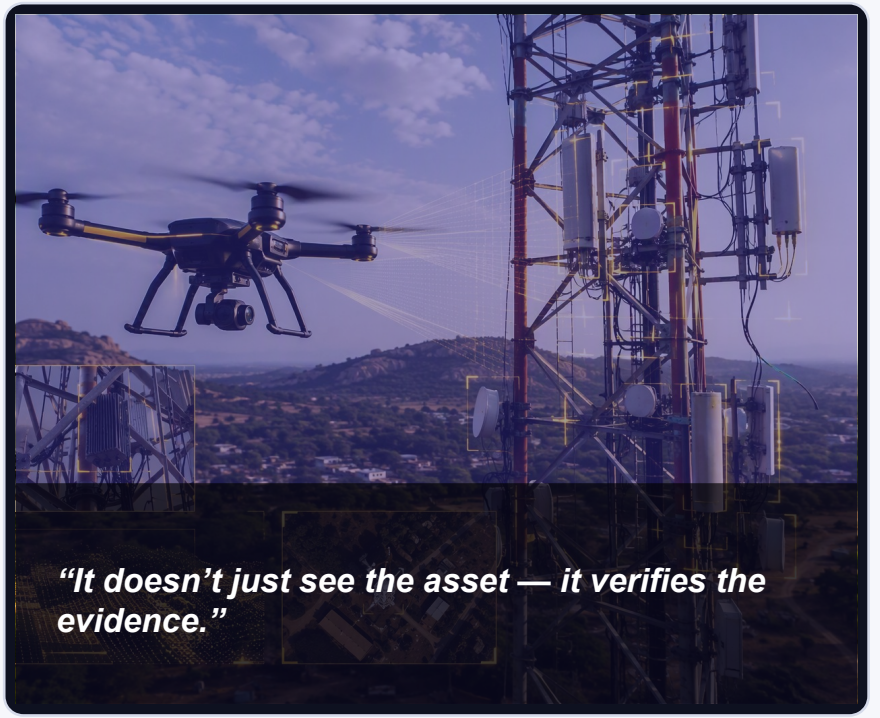
OUR MOAT

SiteSense doesn’t just collect data — it understands and verifies it

Five compounding layers turn raw field inputs into trusted, defensible intelligence.

1. **Multi-modal evidence**
   Forms, images, video, geolocation, sensor readings and site history — combined, not siloed.
2. **Infrastructure-specific vision**
   Models tuned to identify assets, detect anomalies and test evidence against inspection rules.
3. **Contextual validation**
   Is this evidence credible for the asset, location, task and prior condition? It checks before it trusts.
4. **Human-in-the-loop assurance**
   AI flags uncertainty; authorised reviewers decide and feed corrections back into the models.
5. **Compounding asset intelligence**
   Every verified inspection strengthens site history, risk profile and future inspection strategy.



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CLOUD & AI STACK

Cloud-native architecture & multimodal AI pipeline

A working cloud-native foundation — combining Next.js, Supabase, and multimodal AI workflows.

01

Next.js 15 & PWA

BUILD & VALIDATE

Rapid prototyping of the app experience, workflow and early user validation.

02

Genkit AI Flows

ADD INTELLIGENCE

Reasoning, natural-language interaction and AI-assisted decision support.

03

Multimodal Vision

SEE IMAGE & VIDEO

Multimodal vision workflows in technical validation for real-world equipment images.

04

Supabase & Cloud

INDUSTRIALISE

App integration, security, model access, data services and scalable deployment.

05

Real-world APIs

EXPAND

Connect AI to operational data, devices, partners and external systems.

Already built, not just proposed: SiteSense combines a live Next.js and Supabase field audit PWA with multimodal vision models in technical validation.

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PRODUCT ROADMAP

From AI-assisted audits to autonomous infrastructure inspection

The app runs today. Drones and robots are the next product horizon — always with humans in the loop.

STAGE 1

Human-led, AI-assisted audit

Field teams capture structured evidence offline; AI validates; admins review, assign and track.

STAGE 2

Drone / UAV mast inspection

Autonomous or piloted UAVs fly around masts and tall assets for multi-angle, access-constrained evidence.

STAGE 3

Autonomous ground-site inspection

Camera robots patrol large compounds and outdoor sites — safe, repeatable, scheduled or on exception.

WHY AUTONOMY NEEDS US

Autonomy is only valuable when the evidence can be trusted

SiteSense is the data-integrity and integration layer that governs every human, drone and robot inspection.

1 Capture integrity

Device identity, mission, site & asset, GPS, time and requirement bound to every item.

2 Evidence integrity

Secure ingestion, original-media preservation, versioning, tamper-evidence and lineage.

3 Context integrity

Confirms evidence matches the right asset, angle, location, time window and standard.

4 Intelligence integrity

Vision, anomaly detection, historical comparison, confidence scores and traceability.

5 Workflow integrity

Verified findings drive alerts, tasks, review, vendor accountability and reporting.

We don’t need to build the drone or robot. Our moat is being the trusted platform every autonomous inspection runs through.

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WHERE WE ARE

A functioning product — engineered for Tier-1 telecom validation

Clear claim discipline: what is live, what is being validated, and what is next.

AVAILABLE NOW

Running application

- Offline-first mobile inspection
- Photo & video evidence capture
- GPS-supported site validation
- Assignment, review & submission
- Web admin, user & vendor workflows
- Dashboards & reporting
- AI-assisted validation (initial)

IN VALIDATION

Photo Classification

Computer vision classification and asset verification in technical validation.

- Validate workflow & evidence
- Measure user adoption
- Test the business case
- Capture the KPI baseline

NEXT · ROADMAP

Product direction

- UAV & drone mast inspection
- Autonomous ground-robot audits
- Fixed-camera & sensor monitoring
- Advanced infrastructure vision
- Predictive asset-risk scoring
- Risk-led mission scheduling

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PROOF, NOT PROMISES

The KPI system governed field pilots will measure

No invented targets — a measurement framework across five layers, with a focused pilot scorecard.

1 Inspection productivity

- Cycle time per inspection
- On-time completion
- Inspections per resource
- Manual review time
- % completed offline

2 Evidence integrity

- % complete evidence
- Resubmission rate
- % valid GPS & timestamp
- Traceability coverage
- First-time acceptance

3 AI performance

- Anomaly precision & recall
- % auto-cleared
- AI–human agreement
- Model drift
- False +/- rate

4 Operational impact

- Detection→assignment time
- Avoided field visits
- Assignment→resolution
- Vendor SLA compliance
- % issues pre-failure

5 Platform & autonomy

- App availability
- UAV mission-data success
- Offline sync success
- Robot mission completion
- Ingestion success

Pilot priority scorecard

Cycle time · first-time acceptance · evidence completeness · offline-sync · review time · AI–human agreement · critical-issue detection · adoption · audit-trail completeness

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BEACHHEAD & EXPANSION

Start with telecom. Expand across every distributed asset network

Infrastructure is scaling faster than the capacity to inspect and assure it manually.

Why now

- Towers, power, fibre & data centres expanding fast
- Assets span difficult terrain & weak connectivity
- Heavy reliance on contractors & field teams
- Regulators & enterprises demand traceable evidence
- Falling AI inference cost makes continuous viable

BEACHHEAD

Telecom infrastructure

- Tower & radio-site assurance
- Power & energy systems
- Asset inventory verification
- Safety & maintenance inspection
- Vendor compliance
- Regulatory evidence

EXPANSION

Adjacent verticals

- Fibre & utility infrastructure
- Energy & renewables
- Data centres
- Transport infrastructure
- Industrial facilities
- Public-infrastructure oversight

Same engine — new templates, ontologies & models.

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HOW SITESENSE EARNS

A recurring infrastructure-intelligence platform

Multiple, compounding revenue paths built on the assurance workflow.

Platform subscription
Per monitored asset / site

User licences
Field & operations users

AI analysis
Consumption-based intelligence

Autonomy modules
Drone & advanced inspection

Compliance & ESG
Regulatory reporting

Enterprise integration
Implementation & connectors

Managed assurance
Assurance-as-a-service

Partner marketplace
Approved inspection providers

Land with a governed pilot → expand by asset, user, module and sector → recurring platform revenue.

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DEFENSIBILITY

Built for the conditions global platforms treat as exceptions

Four advantages that compound over time.

01

Africa-ready by design

Offline operation, intelligent sync and mobile-first field workflows — not a bolt-on.

02

Domain-specific intelligence

An evolving asset-assurance data & model layer, not generic form automation.

03

End-to-end workflow

Capture, validation, review, remediation, reporting and learning in one platform.

04

Compounding data advantage

Every accepted inspection strengthens site history, models and risk intelligence.

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THE ASK

Advancing the intelligence layer for autonomous inspection

Model acceleration

Infrastructure vision & multi-modal reasoning; stronger anomaly detection; evaluation datasets & benchmarks.

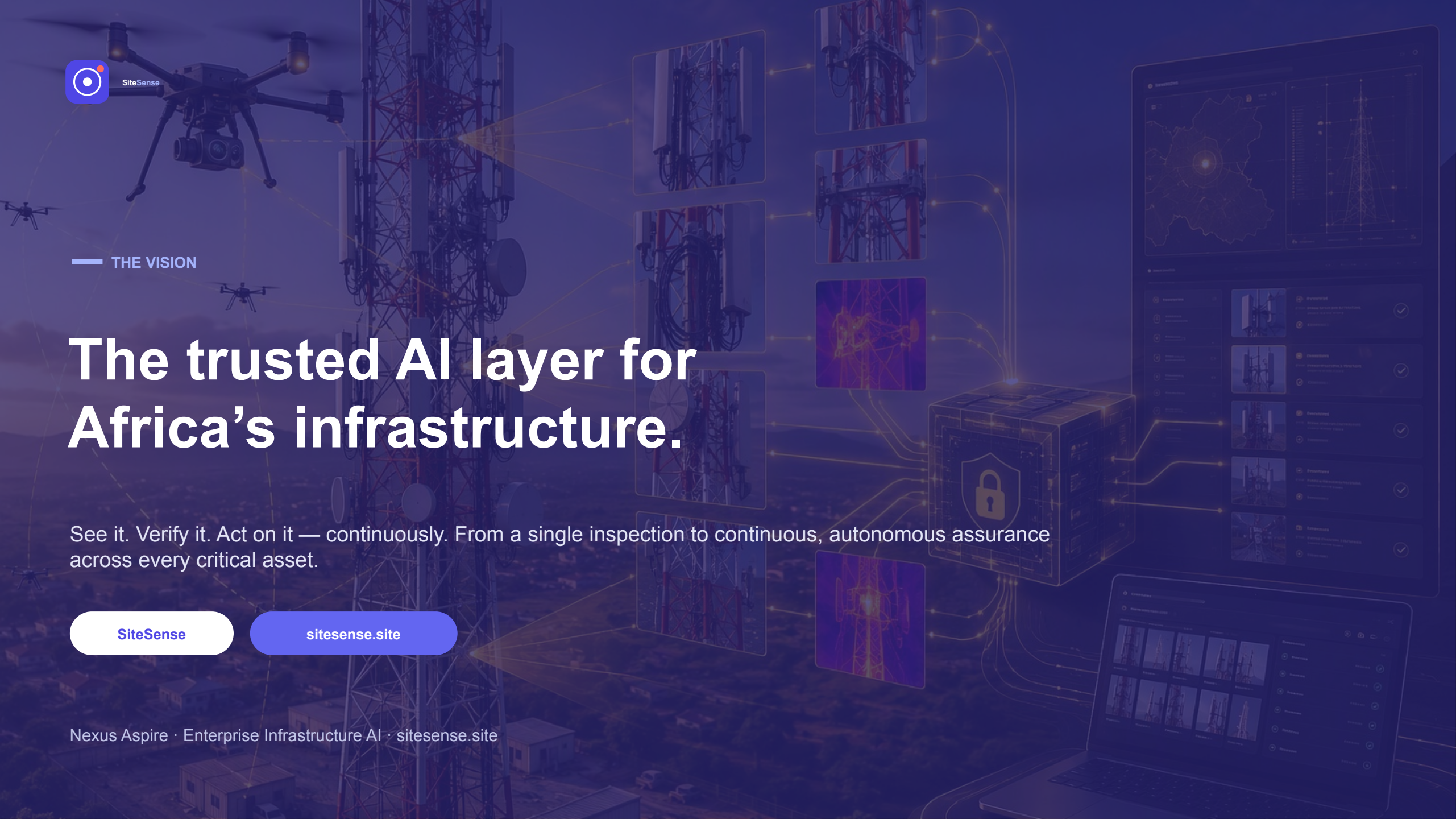
Product acceleration

Low-connectivity & edge intelligence; explainability & reviewer trust; predictive asset-risk.

Scale acceleration

Enterprise deployment; telecom → adjacent sectors; partnerships across operators & regulators.

SiteSense is moving infrastructure assurance from periodic human inspection to continuous, trusted and increasingly autonomous intelligence. Human-led AI-assisted audit is live; photo classification is in validation; drone, robot and predictive functions are on the roadmap.



THE VISION

The trusted AI layer for Africa’s infrastructure.

See it. Verify it. Act on it — continuously. From a single inspection to continuous, autonomous assurance across every critical asset.

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