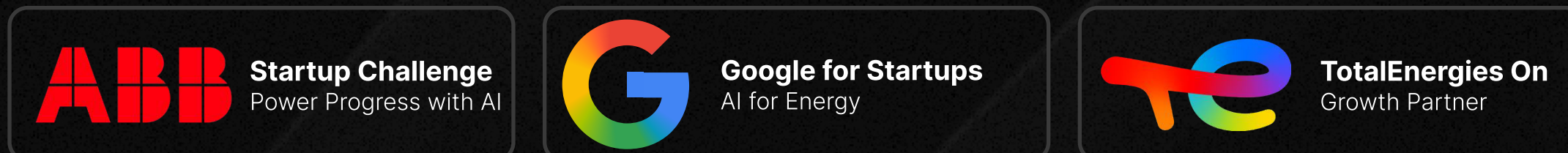




# Your Grid Is Growing Into A Crisis.

GridSight® VGM See It Before It Happens.



# Your Grid Has A Blind Spot.

Right Now, It's Growing.

## 2003

### Italy Blackout

Tree contact on a Swiss cross-border 380kV line triggers a cascading failure. 56 million people lose power across Italy for up to 18 hours.

**€1.8B+**

Estimated Economic Impact

## 2018

### Camp Fire — PG&E

Vegetation-related conductor ignition in Butte County, California. The deadliest US wildfire in a century.

**€10B+**

Total Liability

## 2021

### Continental Grid Split

A frequency deviation splits the synchronous area of Continental Europe into two isolated regions. ENTSO-E classifies it as a near-miss for a pan-European blackout.

**Systemic**

Near-Miss Cascading Failure

## 2024–26

### Regulatory Escalation

EU Clean Energy Package mandates proactive digital asset monitoring. ENTSO-E and ACER flag vegetation encroachment as a critical reliability threat.

**Mandatory**

Compliance Obligation

# 80% Of Your Risk Is Invisible.

Your Inspection Program Sees 20% of Your Risk. The Other 80% Is Growing Unchecked.

CURRENT METHOD	WHAT IT MISSES	FINANCIAL CONSEQUENCE
Ground Patrols	Canopy-level encroachment, growth rate projections	Reactive pruning at 3 to 5 times the cost of planned maintenance
Helicopter / Drone Flyovers	Subsurface root proximity, seasonal growth variation	800€–2,000€/km survey cost with zero predictive output
Calendar-Based Pruning	Species-specific growth, microclimate differentials	30/40% of pruning budget allocated to low-risk zones

The gap between inspection frequency and vegetation growth rate is your single largest unmanaged operational risk.

# The Regulatory Deadline.

The Regulator Has Set a Deadline. Your Legacy Program Fails the Audit Before It Begins.

## What compliance now requires:

- Continuous, documented corridor monitoring
- Predictive encroachment risk assessment
- Auditable work-order generation
- Evidence of proactive, not reactive, management

**EU 2024/1747**



**3%**

Annual Revenue / Incident

**NERC FAC-003**



**\$1M**

USD / Day In Violation

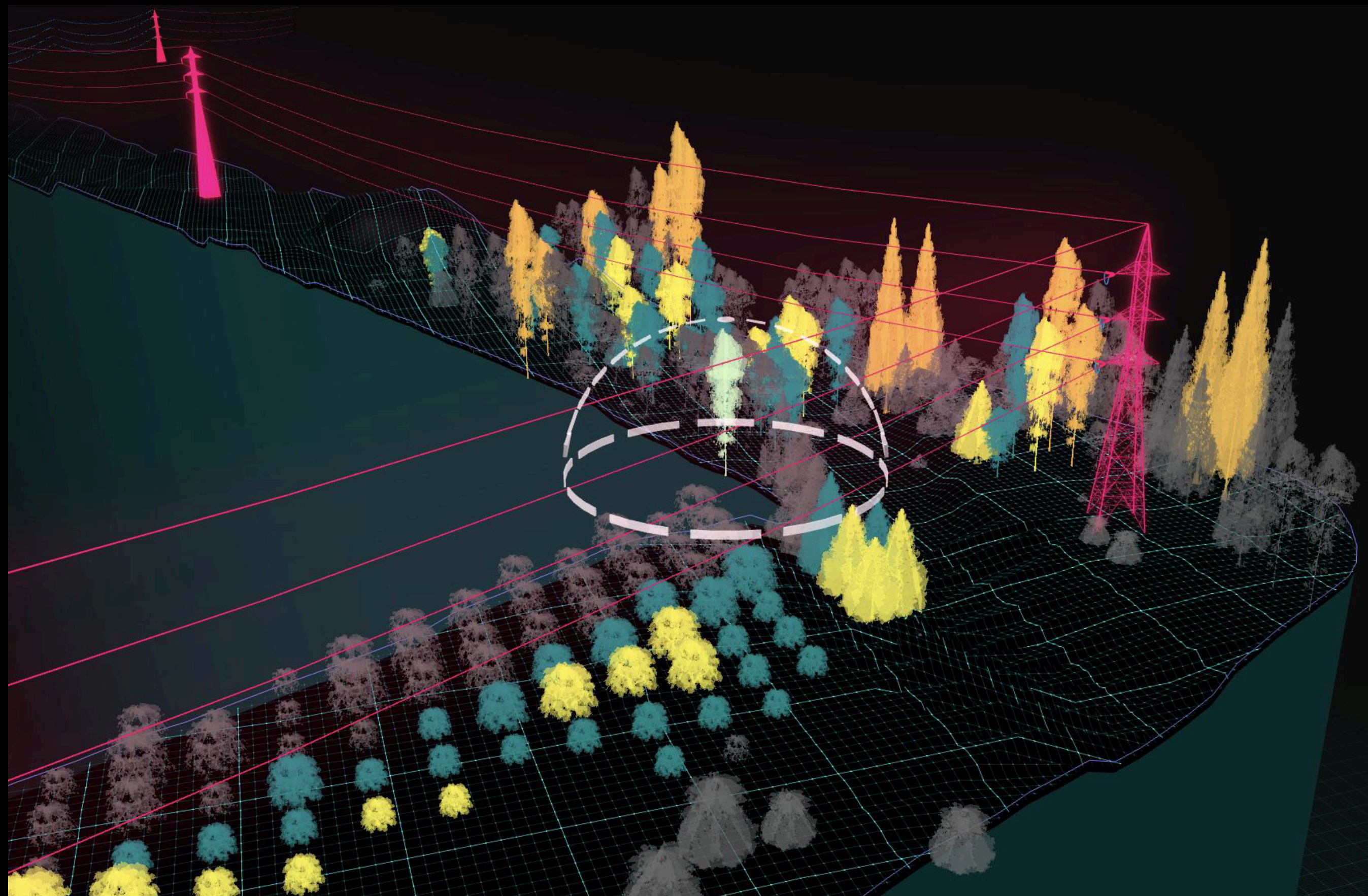
**ANEEL N°905**



**Fines +**

Operating Licence Risk





GridSight® VGM Interface

## GridSight® VGM

### Overview

GridSight® VGM is a proactive, data-driven platform designed to optimize pruning schedules for overhead transmission lines. By building a Digital Twin, the system creates a high-fidelity 3D representation of vegetation encroachment risks. This replaces traditional, reactive manual inspections with automated monitoring, covering extensive networks to prevent power outages, equipment damage, and safety hazards before they occur.

### Benefits

- **Data-First Decisions:** Schedules are dictated by growth data, not calendars.
- **Cost Efficiency:** Cut localized pruning costs by up to 20%.
- **Operational Ease:** Spend less on expensive flight surveys and manual field inspections.
- **Predictive Power:** 3D visualizations that show you not just where the risks are now, but where they will be.

## Inputs

- Line's Geographic Location
- Line's Design Parameters
- Satellite Or LiDAR Imagery

## Outputs

- Vegetation Growth Forecast
- Risk Level Evaluation Map
- 3D Risk Visualization

# From Periodic Inspection To Continuous Intelligence.

Today

## Periodic Snapshots

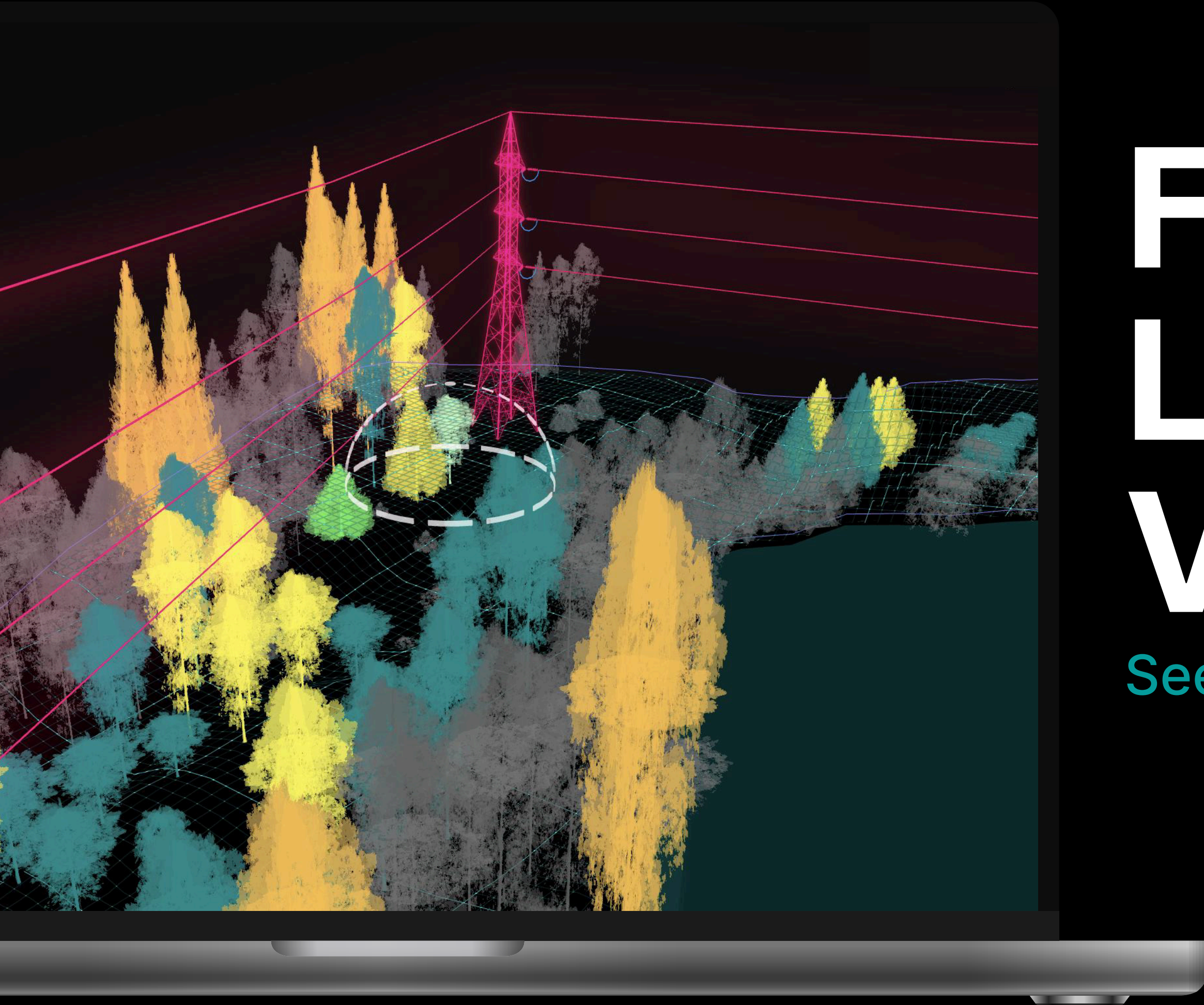
- X Static LiDAR/Drone data that becomes outdated instantly
- X Calendar-driven pruning cycles
- X Siloed data and subjective visual assessments
- X Risks discovered reactively
- X No audit trail



With GridSight® VGM

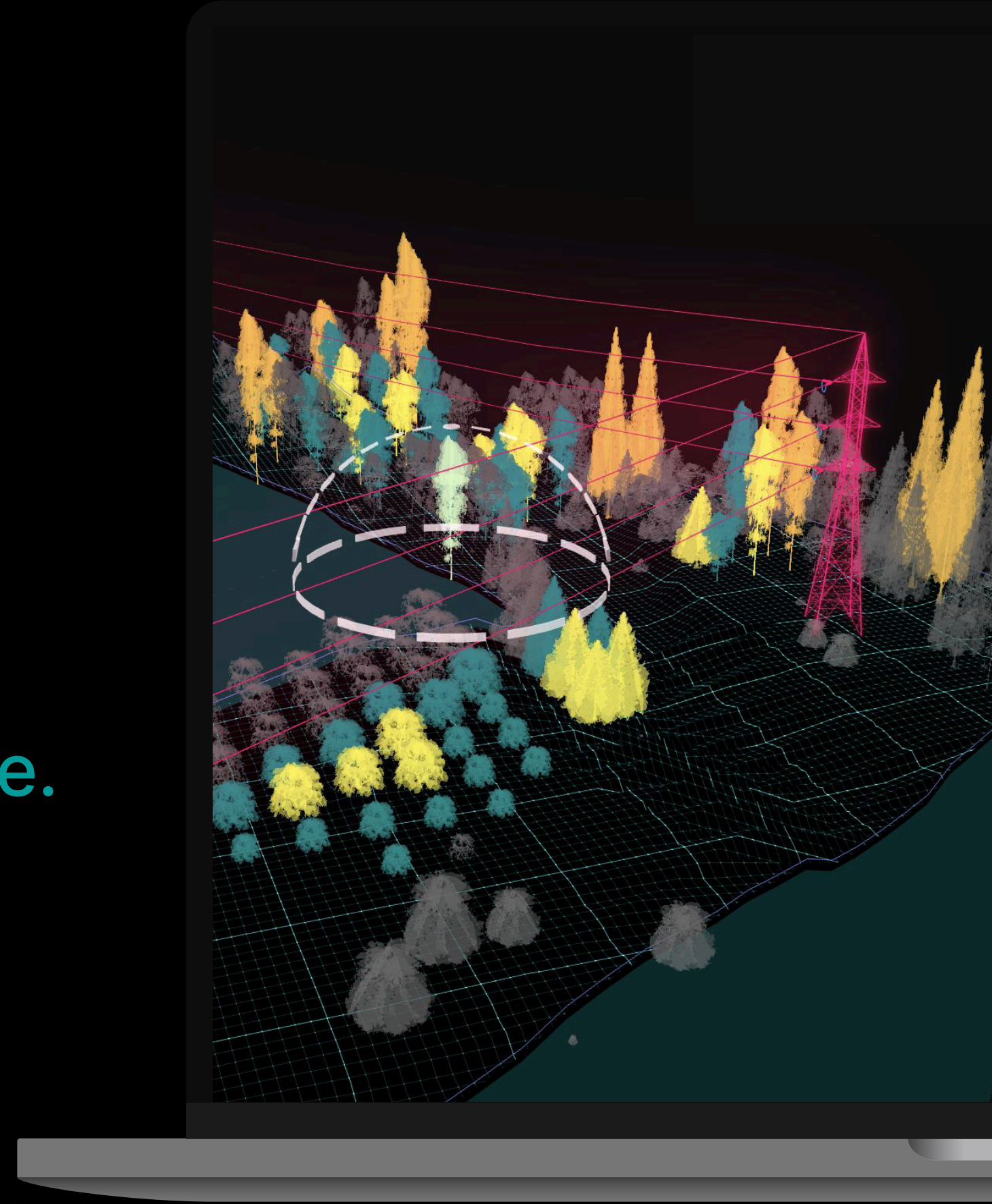
## Digital Twin

- ✓ **Ingests and brings your existing LiDAR/Drone data to life**
- ✓ **Growth-driven, risk-prioritized scheduling**
- ✓ **Physics-based sag + vegetation modeling**
- ✓ **Threats identified and scored before they escalate**



# Full Line/Grid Visibility.

See All Spans. All At The Once.



### Infrastructure Monitoring

Real-time tracking of line sag, mechanical stress on insulators, and thermal rating under variable load.

### Wildfire Risk Evaluation

Dielectric discharge probability modeled against weather conditions, vegetation proximity, and terrain slope.

### Vegetation Intelligence

Automated pruning schedules derived from species-level growth models and conductor clearance simulation.

#### Tower

Id:E-007

Type:2A30

Latitude:-10.733668°

Longitude:-75.270726°

Altitude:1543m

Obs:A-Inc. Ref., I-NRef.

Code:4ST00338

Alert:True



### Physics-Based Modeling

Thermodynamic and mechanical simulation applied to a georeferenced 3D digital twin of the line route.

### Real-Time Data Fusion

Integration of high-resolution numerical weather prediction (NWP) data, real-time SCADA electrical loading, and line design parameters.

# Vegetation Management, Quantified.

Real-World Performance In A ~1,000 Km Transmission Line Project In Latin America

**~70 %**

Inspection Time Reduction

**20–30 %**

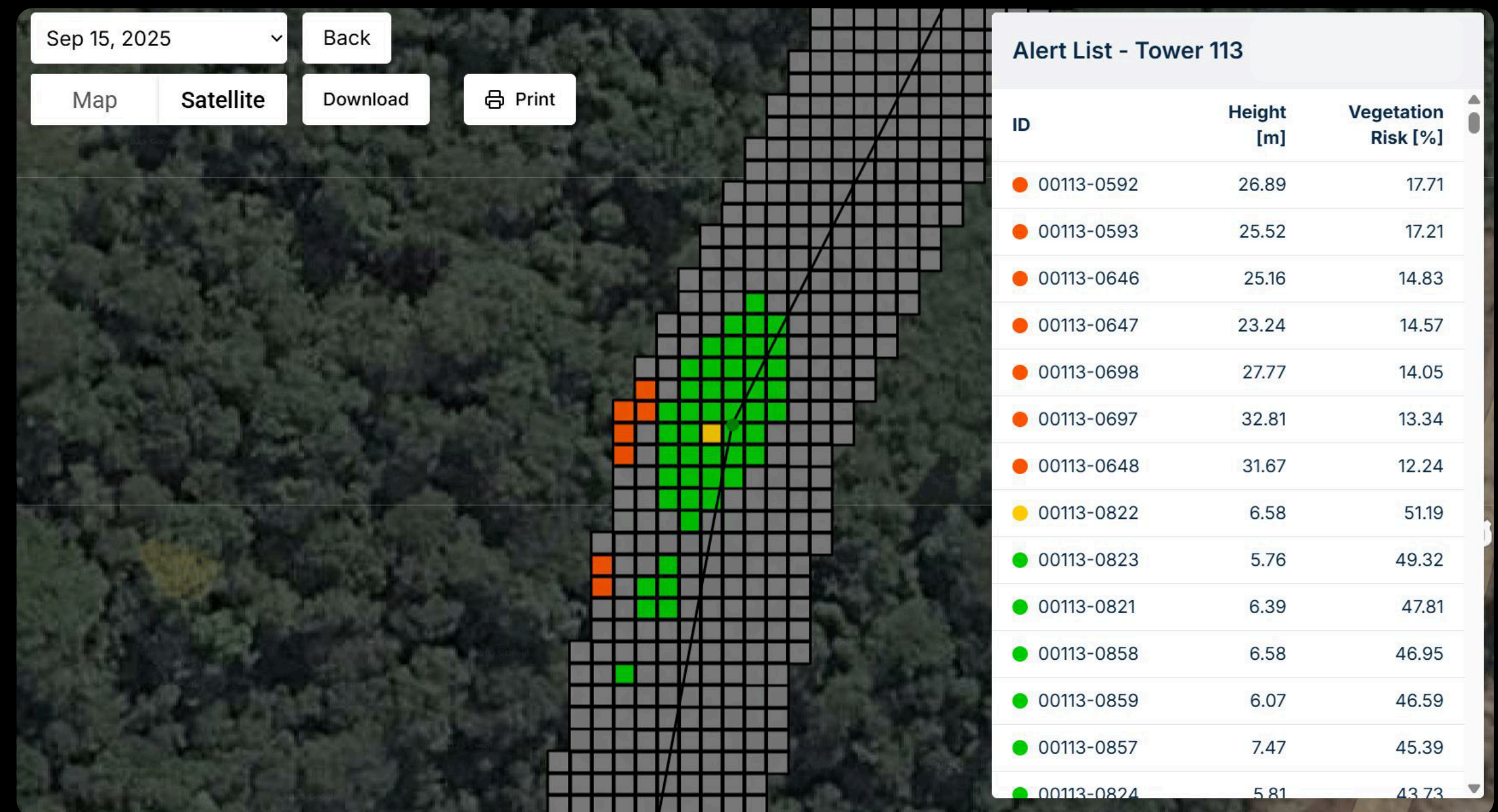
Operational Cost Savings (OPEX)

**~25 %**

Carbon Footprint Reduction

**35–45 %**

Outage Risk Reduction



GridSight® VGM alert map, showing vegetation height and risk levels



Read the Full Case Study Here.

# Trusted By The World's Leading Grid Operators.



# Industry Veterans. Deep Power Systems Expertise.



**Manuel Lemos**

CEO & Co-founder

Former Director, Voith Siemens Hydro. 20+ years leading power infrastructure projects across Europe and the Americas.



**Gabriel Pino**

CTO & Co-founder

Former Technical Manager, Voith Siemens. Architect of real-time grid monitoring and control systems deployed across five continents.



**Martin Andrae**

CSO

Former Global CMO and CEO, Voith Siemens. 30 years+ of executive leadership in international power markets and large-scale industrial operations.



**Duarte Fleming**

CGO

Former Head of AI Product, Siemens Energy. Led commercialisation of AI-based grid analytics products across European energy markets.



**João Galamba**

Head of Regulatory Affairs

Former Minister of Infrastructure, Portugal. Extensive regulatory and energy policy expertise across EU frameworks.



# See GridSight® VGM in Action.

Book a technical demonstration with our engineering team.

→ **Book Your Demo**



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