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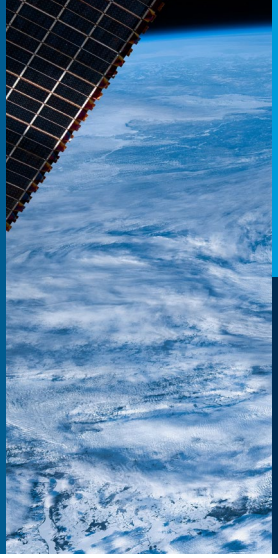
INVESTMENT MANAGEMENT

Mapping a Warming World: The Rise of Climate and Geospatial Intelligence



INSIGHT | 1 GT | September 2026

Key Takeaways

- Physical climate risk is growing in financial materiality, with extreme events increasingly translating into balance-sheet impacts
- A new geospatial intelligence layer is forming across satellites, sensors, and models - but as data and forecasts are increasingly commoditized, durable advantage anchors on collecting and maintaining hard-to-replicate proprietary datasets
- Data creates value where it drives decisions - embedded into customer workflows and tied to quantifiable ROI
- Demand is broadening well beyond insurers and utilities - widening the addressable market across financial services, corporates, real estate, agriculture, and the public sector

Why this matters now

The summer of 2026 has again put physical climate risk in plain view. Western Europe recorded its hottest June and July on record, averaging roughly 2.8°C above normal and passing the previous 2022 benchmark.[1] The heat set the conditions for the continent's largest wildfires, with more than 1.23 million acres burned across primarily Spain, France, and Italy by early August.[1] That followed 2025, already the European Union's most destructive wildfire season on record, when about 1.08 million hectares - an area approximately the size of Cyprus - burned.[2]

Behind the headlines sits a quieter shift in how the physical environment is measured. Climate and geospatial intelligence refers to the capture and interpretation of physical-world data - imagery from satellites and drones, readings from ground sensors, and outputs from weather and climate models - to identify where risk is building and to enable action before it materializes.

[1] CNN - 10 Aug 2026, Western Europe breaks temperature record in summer plagued by heatwaves and wildfires (citing Copernicus; EU report of 6 Aug 2026), https://www.cnn.com/2026/08/10/climate/europe-heatwave-wildfire-intl-hnk

[2] EU Joint Research Centre (EFFIS) - 31 Mar 2026, 2025 was the EU's most destructive wildfire season on record, https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/2025-was-eus-most-destructive-wildfire-season-record-2026-03-31_en

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In practical terms, it turns imagery and environmental data into decisions about assets, operations, and capital allocation.

Much of today's risk assessment still relies on historical averages and periodic manual inspection, methods designed for a more stable climate. As volatility increases and losses accumulate, the value of continuous, forward-looking measurement rises with it.

Physical risk becomes financial risk

Global natural catastrophes caused roughly $220 billion in economic losses in 2025, less than half of which were insured - leaving a significant protection gap.[3] The uninsured remainder falls on companies, governments, and households, which is why physical risk is increasingly surfacing in operating costs, asset values, and resilience budgets rather than in insurance markets alone.

DISPLAY 1

Global natural-catastrophe losses, 2025

Source: Swiss Re Institute.[3]

An emerging intelligence layer

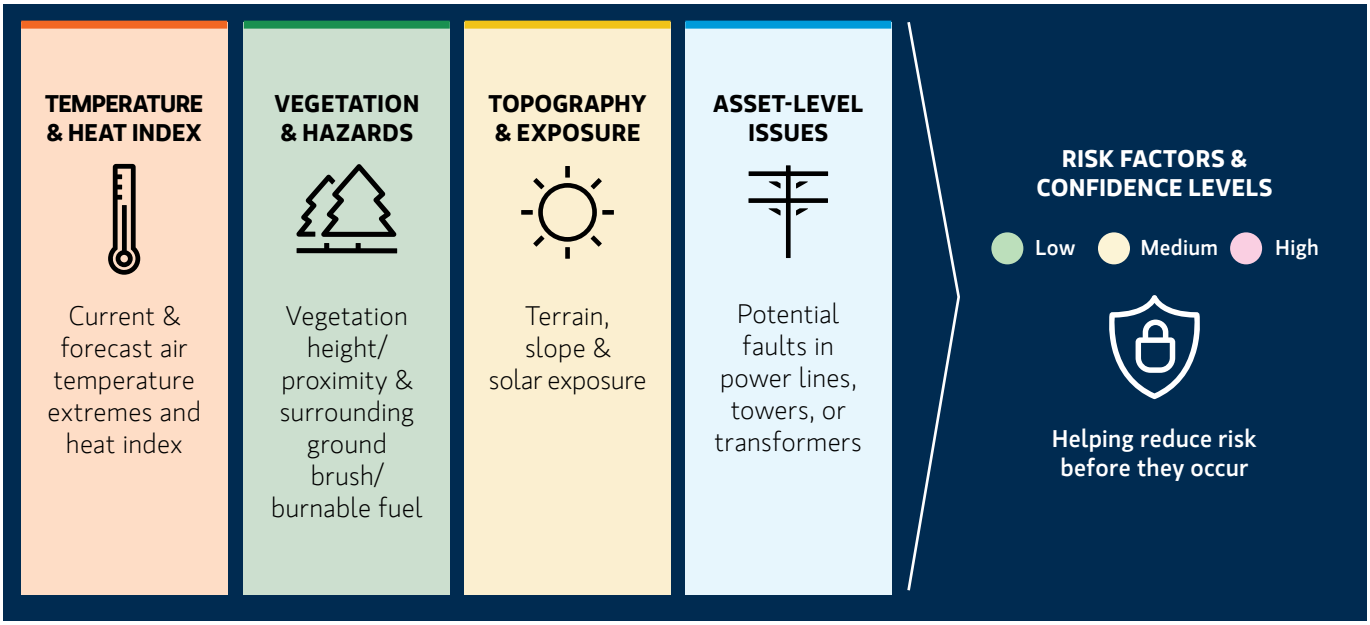
This growing risk is driving the emergence of a new intelligence layer across the market - from satellites and ground-based sensors to specialized data feeds, integrated platforms, and vertical applications. At the data layer, optical, radar and thermal satellites are complemented by aerial imagery, on-site sensor networks, and weather and climate models.

However, falling satellite and sensor costs, a proliferation of public and open-source datasets, and continued improvements in machine-learning models are lowering the barriers to generating climate intelligence. Advances in AI are reinforcing this trend by making imagery classification and dataset fusion faster and cheaper. The proliferation of public and open-source data, alongside increasingly accessible analytical capabilities, is accelerating the commoditisation of generic datasets and off-the-shelf forecasts. At the same time, experts in the field observe that once accuracy is adequate, further marginal gains - trimming a forecast error from, say, 5% to 3% - often matter little to buyers, which tends to compress pricing and encourage consolidation.

With that in mind, durable competitive advantage is likely to sit with companies that combine hard-to-replicate, highly differentiated and sector-specific proprietary datasets - for example, built through direct data capture or unique sensor integrations - with differentiated machine-learning models that deliver demonstrably superior performance, and then productise those capabilities for customers.

DISPLAY 2

Examples of differentiated, application-specific datasets supporting risk assessments for power lines



[3] Swiss Re Institute - Mar 2026, Global natural catastrophe losses in 2025, https://www.swissre.com/institute/research/sigma-research/sigma-2026-01-natcat-2025-wildfire-storm-risk/global-natcat-losses-2025.html

From data to decisions

The market pays for outcomes rather than observations. In 1GT's view, category leaders become trusted, mission-critical platforms embedded into customers' core systems. Buyers increasingly favour tools whose value is measured in tangible terms, such as fewer outages, lower inspection costs, and shorter compliance cycles. Clear, repeatable Return on Investment (ROI) supports expansion and renewal, shifting the commercial model from one-off pilots to multi-year deployments.

With that in mind, commercial differentiation increasingly sits higher in the stack, where Application Programming Interfaces (APIs), Cloud Geographic Information System (GIS), Artificial Intelligence/Machine Learning and digital twins turn raw inputs into actionable, workflow-embedded tools for asset monitoring, risk detection and operational decision-making. Defensibility comes less from producing the most precise individual forecast and more from translating information into decisions and outcomes that customers can rely on and that demonstrate measurable ROI.

An expanding addressable market

The geospatial analytics market was valued at about $103 billion in 2025 and is projected to grow around 10% a year through the early 2030s.[4] Within that, the climate risk analytics segment - roughly $1.8 billion in 2025 - is expected to expand at a high-teens annual rate to more than $7 billion by the mid-2030s.[5]

> "A decade ago, generating geospatial insights required specialized expertise, hard-to-access data, and months of custom coding. Today, AI can perform similar analyses in minutes using public data, open-source software, and cloud computing. As analytics become increasingly commoditized, the enduring value lies in trusted data, domain expertise, proprietary insights, and the ability to translate geospatial intelligence into real-world decisions."
>
> — Brianne Hendrickson-Smith, *Head of Geospatial Analytics, Global Sustainability Office*

Historically, the most dependable buyers of this intelligence have been high-credit, non-discretionary customers - utilities and insurers - for whom physical risk is a core operational concern. In 1GT's view, that set is widening as the impact of physical risk grows and geospatial intelligence companies expand their product sets to serve new emerging use cases.

Real estate investors are pricing physical risk into underwriting, farmers are managing weather-driven yield volatility, corporates are assessing exposure across supply chains, and public agencies are upgrading disaster preparedness. What was once a specialist market is becoming a core input into operating and capital-allocation decisions.

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[4] Grand View Research - 2025, Geospatial Analytics Market Size & Share Report, 2026-2033, https://www.grandviewresearch.com/industry-analysis/geospatial-analytics-market

[5] Fortune Business Insights - 2025, Climate Risk Analytics Market Size, Share & Growth Report, https://www.fortunebusinessinsights.com/climate-risk-analytics-market-116031

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