Morgan Stanley
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

AUTHORS

GEORGIE BOURNE
Principal
1GT

LUCY BEAUVALLET
Principal
1GT

VICTORIA BORODINA
Investment Professional
1GT

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

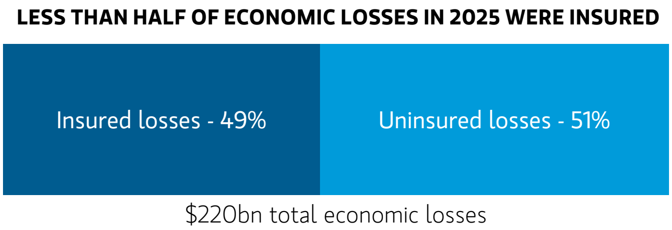
In practical terms, it turns imagery and environmental data into decisions about assets, operations, and capital allocation.

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]

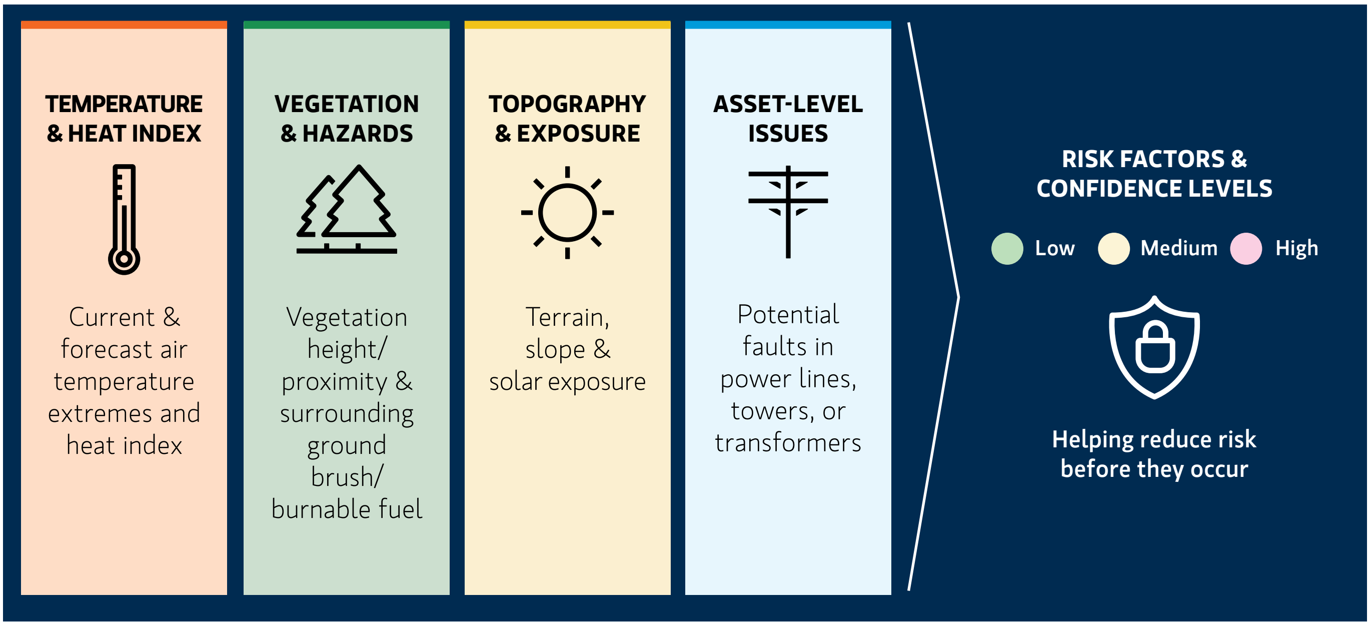
An emerging intelligence layer

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.

[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

or a recommendation to buy or sell any particular security or to adopt any specific investment strategy. The information herein has not been based on a consideration of any individual investor circumstances and is not investment advice, nor should it be construed in any way as tax, accounting, legal or regulatory advice. To that end, investors should seek independent legal and financial advice, including advice as to tax consequences, before making any investment decision. Any performance quoted represents past performance. Past performance does not guarantee future results. This material is not a product of Morgan Stanley's Research Department and should not be regarded as a research material or a recommendation.

The Firm has not authorised financial intermediaries to use and to distribute this material, unless such use and distribution is made in accordance with applicable law and regulation. Additionally, financial intermediaries are required to satisfy themselves that the information in this material is appropriate for any person to whom they provide this material in view of that person's circumstances and purpose. The Firm shall not be liable for, and accepts no liability for, the use or misuse of this material by any such financial intermediary. This material may be translated into other languages. Where such a translation is made this English version remains definitive. If there are any discrepancies between the English version and any version of this material in another language, the English version shall prevail.

The whole or any part of this material may not be directly or indirectly reproduced, copied, modified, used to create a derivative work, performed, displayed, published, posted, licensed, framed, distributed or transmitted or any of its contents disclosed to third parties without the Firm's express written consent. This material may not be linked to unless such hyperlink is for personal and non-commercial use. All information contained herein is proprietary and is protected under copyright and other applicable law.

Morgan Stanley Investment Management is the asset management division of Morgan Stanley.

DISTRIBUTION

This material is only intended for and will only be distributed to persons resident in jurisdictions where such distribution or availability would not be contrary to local laws or regulations. MSIM, the asset management division of Morgan Stanley (NYSE: MS), and its affiliates have arrangements in place to market each other's products and services. Each MSIM affiliate is regulated as appropriate in the jurisdiction it operates. MSIM's affiliates are: Eaton Vance Management (International) Limited, Eaton Vance Advisers International Ltd, Calvert Research and Management, Eaton Vance Management, Parametric Portfolio Associates LLC, and Atlanta Capital Management LLC. This material has been issued by any one or more of the following entities:

EMEA

This material is for Professional Clients/Accredited Investors only. In the EU, MSIM and Eaton Vance materials are issued by MSIM Fund Management (Ireland) Limited ("FMIL"). FMIL is regulated by the Central Bank of Ireland and is incorporated in Ireland as a private company limited by shares with company registration number 616661 and has its registered address at 24-26 City Quay, Dublin 2, DO2 NY19, Ireland. Outside the EU, MSIM materials are issued by Morgan Stanley Investment Management Limited (MSIM Ltd) is authorised and regulated by the Financial Conduct Authority. Registered in England. Registered No. 1981121. Registered Office: 25 Cabot Square, Canary Wharf, London E14 4QA.

In Switzerland, MSIM materials are issued by Morgan Stanley & Co. International plc, London (Zurich Branch) Authorised and regulated by the Eidgenössische Finanzmarktaufsicht ("FINMA"). Registered Office: Beethovenstrasse 33, 8002 Zurich, Switzerland. **Italy:** MSIM FMIL (Milan Branch), (Sede Secondaria di Milano) Palazzo Serbelloni Corso Venezia, 16 20121 Milano, Italy. The **Netherlands:** MSIM FMIL (Amsterdam Branch), Rembrandt Tower, 11th Floor Amstelplein 1 1096HA, Netherlands. **France:** MSIM FMIL (Paris Branch), 61 rue de Monceau 75008 Paris, France. **Spain:** MSIM FMIL (Madrid Branch), Calle Serrano 55, 28006, Madrid, Spain. **Germany:** MSIM FMIL Frankfurt Branch, Große Gallusstraße 18, 60312 Frankfurt am Main, Germany (Gattung: Zweigniederlassung (FDI) gem. § 53b KWG). **Denmark:** MSIM FMIL (Copenhagen Branch), Gorrissen Federspiel, Axel Towers, Axeltorv2, 1609 Copenhagen V, Denmark.

MIDDLE EAST

Dubai International Financial Centre: This information does not constitute or form part of any offer to issue or sell, , any investment products in the UAE (including the Dubai International Financial Centre and the Abu Dhabi Global Market) and accordingly should not be construed as such. The content of this report has not been approved by or filed with the UAE Central Bank, the Dubai Financial Services Authority, the UAE Securities and Commodities Authority or the Financial Services Regulatory Authority.

Abu Dhabi Global Market ("ADGM"): This material is sent strictly within the context of, and constitutes, an Exempt Communication. This material relates to (strategy) which is not subject to any form of regulation or approval by the Financial Services Regulatory Authority of the Abu Dhabi Global Market (the "FSRA").

Saudi Arabia

This financial promotion was issued and approved for use in Saudi Arabia by Morgan Stanley Saudi Arabia, Al Rashid Tower, Kings Sand Street, Riyadh, Saudi Arabia, authorized and regulated by the Capital Market Authority license number 06044-37.

U.S. NOT FDIC INSURED. OFFER NO BANK GUARANTEE. MAY LOSE VALUE. NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY. NOT A DEPOSIT.

Latin America (Brazil, Chile Colombia, Mexico, Peru, and Uruguay)

This material is for use with an institutional investor or a qualified investor only. All information contained herein is confidential and is for the exclusive use and review of the intended addressee, and may not be passed on to any third party. This material is provided for informational purposes only and does not constitute a public offering, solicitation or recommendation to buy or sell for any product, service, security and/or strategy. A decision to invest should only be made after reading the strategy documentation and conducting in-depth and independent due diligence.

ASIA PACIFIC

Hong Kong: This material is disseminated by Morgan Stanley Asia Limited for use in Hong Kong and shall only be made available to "professional investors" as defined under the Securities and Futures Ordinance of Hong Kong (Cap 571). The contents of this material have not been reviewed nor approved by any regulatory authority including the Securities and Futures Commission in Hong Kong. Accordingly, save where an exemption is available under the relevant law, this material shall not be issued, circulated, distributed, directed at, or made available to, the public in Hong Kong. **Singapore:** This material is disseminated by Morgan Stanley Investment Management Company and may not be circulated or distributed, whether directly or indirectly, to persons in Singapore other than to (i) an accredited investor (ii) an expert investor or (iii) an institutional investor as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore ("SFA"); or (iv) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. This publication has not been reviewed by the Monetary Authority of Singapore. **Australia:** This material is provided by Morgan Stanley Investment Management (Australia) Pty Ltd ABN 22122040037, AFSL No. 314182 and its affiliates and does not constitute an offer of interests. Morgan Stanley Investment Management (Australia) Pty Limited arranges for MSIM affiliates to provide financial services to Australian wholesale clients. Interests will only be offered in circumstances under which no disclosure is required under the Corporations Act 2001 (Cth) (the "Corporations Act"). Any offer of interests will not purport to be an offer of interests in circumstances under which disclosure is required under the Corporations Act and will only be made to persons who qualify as a "wholesale client" (as defined in the Corporations Act). This material will not be lodged with the Australian Securities and Investments Commission.

RO 5886880 Exp. 30/09/2028 26Q30350 A4