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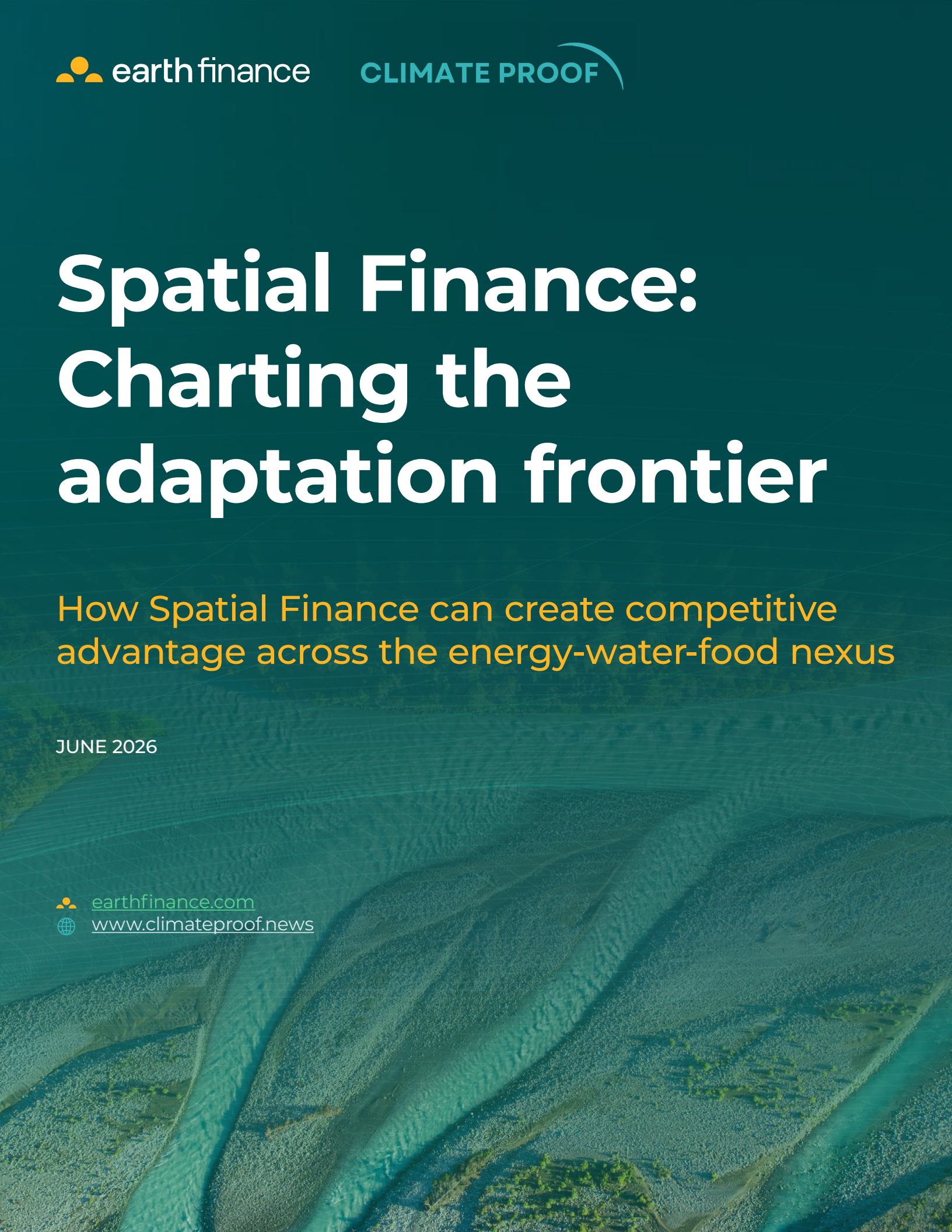
Spatial Finance: Charting the adaptation frontier

How Spatial Finance can create competitive advantage across the energy-water-food nexus

JUNE 2026



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01 Executive summary

Capital allocation decisions rely on assumptions about the physical world – that water will be available, infrastructure will hold, and the natural resources underpinning operations and supply chains will behave as they have in the past. Up until recently, top-down financial models built on historical patterns were largely sufficient to price risk and deploy capital with confidence.

However, those assumptions are breaking down. Natural systems, including water and nature, are increasingly stressed, weather extremes are exceeding infrastructure design tolerances, and supply chain vulnerabilities are being tested by environmental change.

And humanity's own acceleration is compounding the disruption, creating massive new demand signals. Hyperscale data centers and artificial intelligence (AI) consume energy, water, and critical minerals faster than legacy systems can supply them. Trade wars and geopolitics are forcing corporations to reconfigure operations and supply chains. Policy and regulatory change is repricing energy and rewriting industry economics.

Transition forces compound and amplify the financial impact of planetary change. A drought becomes an affordability crisis when a utility re-prices electricity by 40%. A hurricane knocks out the electricity grid and leads to extended blackouts because tariffs and Foreign Entity of Concern (FEOC) rules eliminated alternative sources for critical components for behind-the-meter solar generation and energy storage.

But disruption of this scale is also a **generational investment opportunity**. Trillions of dollars must be deployed in the coming decades to harden infrastructure, reconfigure supply chains, secure critical resources, and build resilient energy systems. The organizations that can see – with precision, at an asset level – where physical and transition risks intersect will be the ones positioned to allocate that capital with confidence, not just defensively but toward the highest-return opportunities the transition creates.

Awareness of these dynamics is becoming widespread. Most global organizations accept that physical hazards and transition pressures are financially material. The question is what to do about them. Top-down exposure estimates may be directionally useful but too coarse to drive high-confidence decisions. Corporations and investors need bottom-up, asset-level insights informed by the planetary, technological, economic, and policy conditions those assets face.

This is the need Spatial Finance is designed to fill.

Spatial Finance integrates geospatial data– information tied to specific locations onthe Earth's surface – with artificial intelligence (AI) and financial and policy analyses, enabling organizations to quantify both hazard impacts and transition exposures at the asset level. The result is detailed, location-specific knowledge of where and how risk concentrates, and where capital can be deployed with confidence.

The capacity of Earth Observation (EO) insights, driven by advancements in satellite constellations, machine learning, and cloud computing, now makes Spatial Finance operationally viable at scale. What sets it apart is that its insights are visual. Thematic maps, supply chain routings, and hyperspectral imagery convey facts on the ground with an immediacy and tangibility that spreadsheets lack.

When properly calibrated to a user's needs and modeled for possible future outcomes, these outputs can move decision-makers to act, increasing capital allocation for operations and supply chain infrastructure and ultimately hardening organizations against the compounding risks they face in the near- and long term.

Drawing on original case studies and interviews with resilience leaders across retail, consumer goods, technology, and utility sectors, this paper demonstrates how Spatial Finance methodologies can:

- **Help organizations quantify physical and transition risk and opportunity at the asset and portfolio level.**
- **Model exposure across the energy-water-food nexus.**
- **Transform geospatial data into inputs for financial decision-making.**
- **Identify where adaptation investment will generate the highest return.**
- **Create competitive advantages for early adopters.**

02 The problem: fragmented data in a volatile world

2.1 Outlining the risks: the energy–water–food nexus

Energy, water, and food are not separate systems. They are an interdependent nexus, and every node in it is tied to a physical location.

Agriculture consumes **roughly 70%** of all global freshwater withdrawals, and that demand is projected to rise another 19% by 2050 as population growth drives food production onto increasingly marginal and water-stressed land. Water-dependent thermal power plants, including coal, gas, and nuclear, generate **over 80%** of the world's electricity, while in the US, power plants consume **almost half** of all freshwater used nationwide. And the global food system **consumes 30%** of all available energy, from fertilizer production to cold chain logistics.

These three resources don't just coexist. They compete for the same finite inputs, in the same places, at the same time.

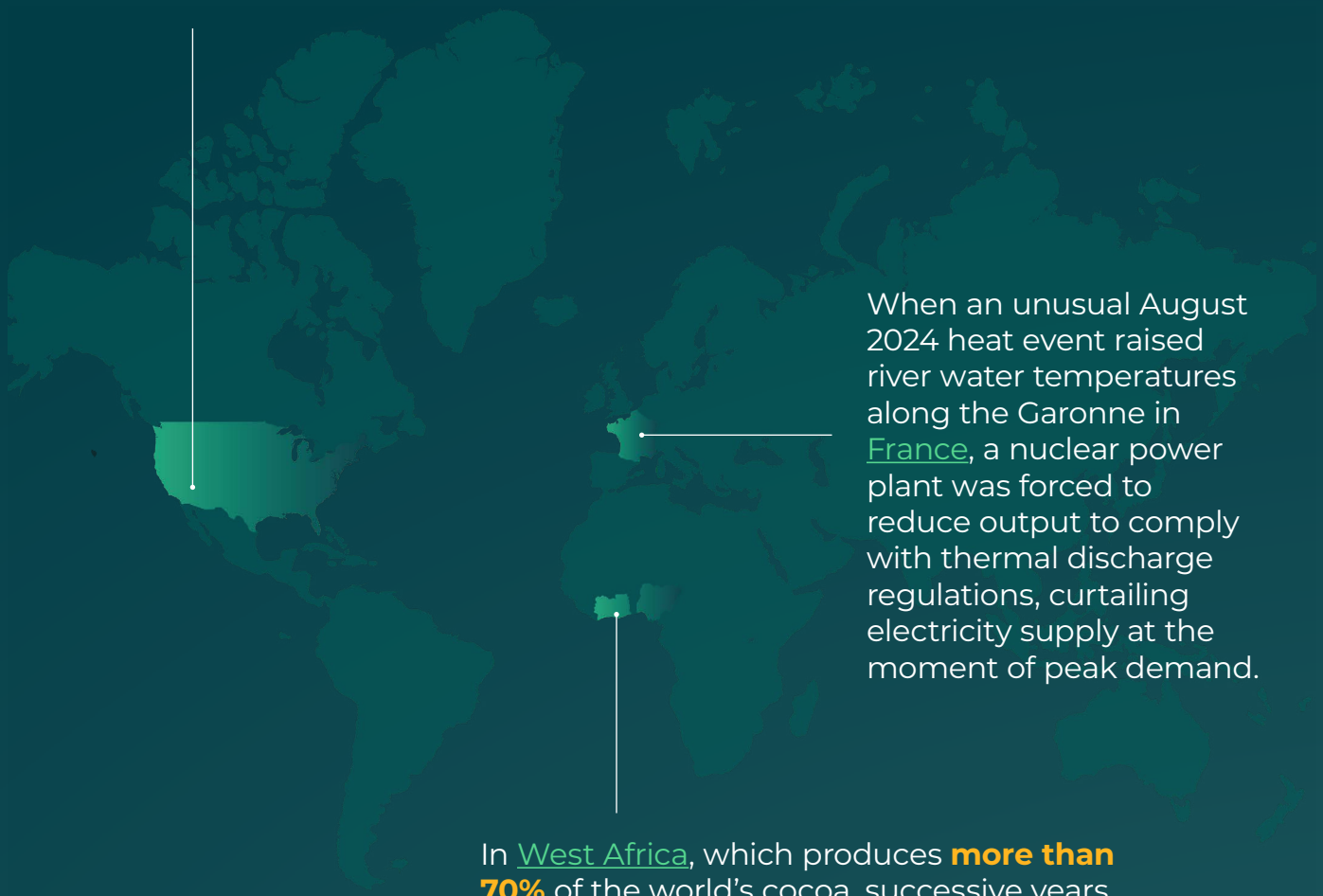
Strains on this nexus already pressure organizations across sectors. Food and beverage companies face volatile input costs driven by extreme weather, water scarcity, and geopolitical shocks. Transportation and logistics firms are scrambling to address flood and subsidence risks to roads, rail lines, and inland waterways. And technology companies, historically more accustomed to challenges in cyberspace than the physical world, are now constrained by water and energy availability as they race to scale data center portfolios.

These interdependencies are inherently place-based. Disruption in one system cascades through the others faster than siloed analysis can detect. Understanding where and how these risks converge – at the asset level, in specific geographies, under specific compounding conditions – is exactly the kind of problem Spatial Finance was designed to solve.

The energy–water–food nexus in action

The feedback loop between energy, water, and food is already producing economic consequences that are landing on corporate and government balance sheets.

In the US in April 2026, the federal government announced emergency plans for the Colorado River system in response to intensified drought conditions. The proposed measures would drain a key reservoir and lead to a **40% reduction** to the Hoover Dam's hydropower generating capacity.



When an unusual August 2024 heat event raised river water temperatures along the Garonne in France, a nuclear power plant was forced to reduce output to comply with thermal discharge regulations, curtailing electricity supply at the moment of peak demand.

In West Africa, which produces **more than 70%** of the world's cocoa, successive years of drought, heat stress, and crop disease pushed cocoa prices to a record $10,000 per metric ton in 2024, a **60% surge** from the previous year. Major brands including Hershey and Mondelez responded with double-digit hikes on retail prices.

2.2 Why legacy approaches fall short

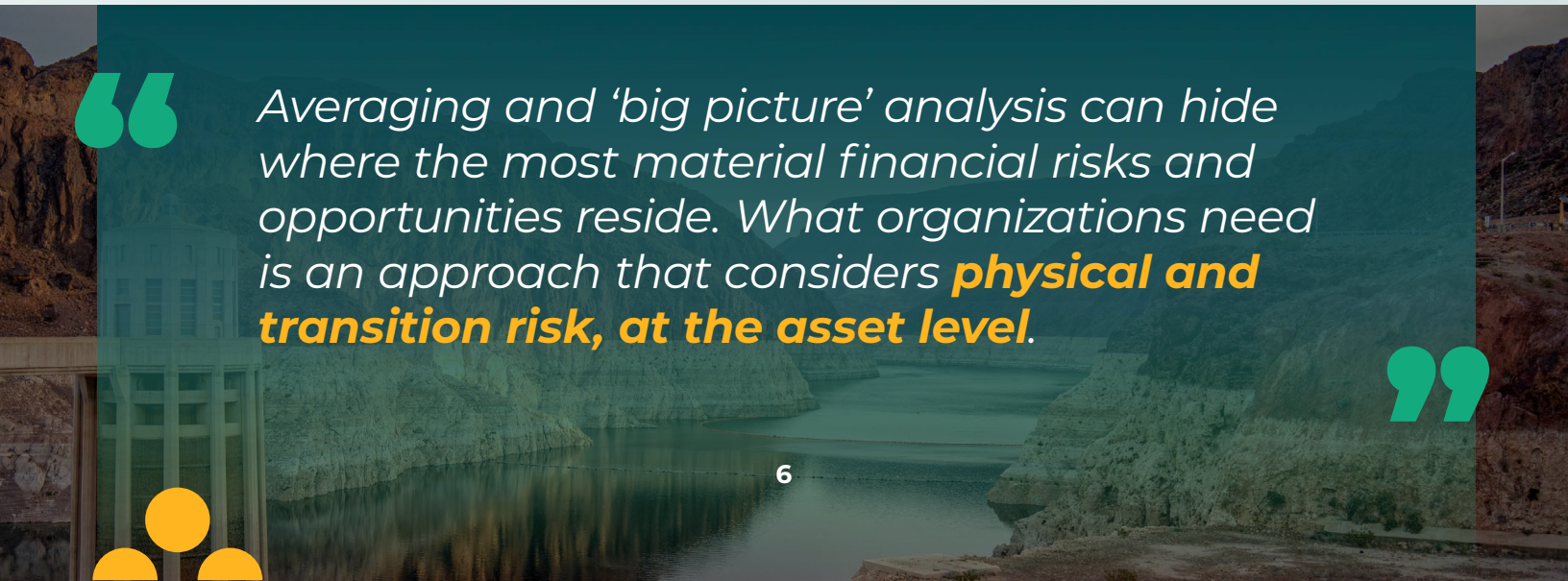
National and subnational disclosure requirements (e.g., European Union, Australia, California, etc.) and expectations set by voluntary sustainability standards (e.g., Greenhouse Gas Protocol, Science-Based Targets, International Standards Organization, etc.) have increased awareness of the financial materiality of physical and transition risk within corporate operations and value chains.

However, common approaches to assessing financial materiality, like scenario analysis and sector heatmapping, can be difficult to translate into actionable decisions. One reason for this is that high-level environmental risk assessment methodologies cannot produce the location-specific insights needed to meaningfully quantify financial risk and opportunity – or engage decision-makers who want to visually see how particular assets are affected.

For example, a company conducting scenario analysis models how their business may be disrupted under one or more 'what if' simulations. These qualitative narratives sketch out how a 2°C or 4°C world might look at the sector or regional level, and may flag which operating segments or geographies face particular challenges. But they cannot tell a manufacturing company which of its facilities faces the greatest water stress, or an industrial developer which of its planned sites face multi-year grid interconnection delays. Storytelling power and practical utility remain two different things.

Portfolio-level risk assessments offered by many "climate risk intelligence" vendors combine traditional earth science models with proprietary loss estimates. They can offer richer insights and sharp physical risk quantifications, but the aggregation they require can blur the picture of where exposure actually concentrates within a company's value chain.

These tools can also share a more fundamental limitation: they often quantify financial impacts of physical risk factors in isolation from the policy, financial, technological, and geopolitical pressures reshaping the human world. How does a manufacturing executive weigh a regional flood probability score in contrast to the potential impacts of a carbon border adjustment rule, or tariffs on critical inputs that can erode margins? While many climate risk solutions "check the box" for compliance, they fail to provide actionable insights that sway material capital allocation decisions.



> *Averaging and 'big picture' analysis can hide where the most material financial risks and opportunities reside. What organizations need is an approach that considers* ***physical and transition risk, at the asset level****.*

2.3 Location specific data is king

Physical risk and transition risk are inherently place-based. A corporation with hundreds of manufacturing facilities can face a multitude of location-distinct risks, each shaped by local terrain, weather patterns, water movements, physical infrastructure, energy markets, regulatory regimes, and more.

This location-specific resolution matters for ongoing monitoring as well as point-in-time risk and opportunity assessments. The energy-water-food nexus is not static, nor are the vulnerabilities of fixed assets captured within it. The physical environment surrounding an asset changes continuously, and these changes are likely to accelerate as the world warms.

Location-specific details also matter for valuations. Physical and transition risk is often quantified as impairment charges, revenue or business value at risk, business interruption costs, or increased capital expenditure. However, top-down risk quantification tools generally struggle to provide clear investment theses tied to physical assets, critical infrastructure, or supply chain vulnerabilities within a company's value chain.

Without asset-level granularity, the margin of uncertainty around risk quantification can make these data functionally useless, and all too easy for finance teams to discard. **But with location-specific data, risk and opportunity across the energy-water-food nexus can be conveyed to decision-makers at a level of detail that empowers decision making and efficient capital allocation.**

Furthermore, top-down approaches also often fail to answer the questions decision makers actually seek. Spatial Finance methodologies can increase executive confidence by answering three key questions, at an asset level:

Where?

1. Where are current and future assets most exposed?

How?

2. How does that exposure impact financial performance?

What?

3. What actions do we take in response, and **how do we pay for it?**

03 Spatial Finance: a new lens on planetary risk & opportunity

3.1 What is Spatial Finance?

Spatial Finance is the integration of geospatial data, AI, and prescriptive analytics into financial decision-making.

It is a necessary discipline to understand the hidden costs of doing business, including how changes in the physical world – together with the geopolitical, policy, and technological forces compounding them – influence the value of financial assets and cash flows.

> *The most decision-useful insights live where **physical and transition data meet**. Spatial Finance focused on physical risk alone misses what's often the hardest part: the unpredictable muddle of policy changes, supply chain shocks, and geopolitical disruptions that exacerbate the physical risk an asset already faces.*

Businesses, governments, and civil society have historically relied on public disclosures, like annual reports and/or sustainability reports, to understand how environmental and human externalities can generate risk and opportunity for their organization and for organizations they do business with. However, these disclosures often include incomplete or inconsistent data and high-level assumptions. Moreover, they are compliance-driven and rarely provide the clarity and immediacy to prompt quick action and capital allocation.

Spatial Finance offers a fundamentally different approach. Rather than asking a company or investor what it thinks its risk exposures are, Spatial Finance starts with first-hand data on where their assets actually sit in the physical environment: their precise locations (be it a specific facility, hectare of farmland, or watershed), the weather and environmental conditions they are subject to, and the surrounding public and private infrastructure they are dependent on. These data are obtained via an array of Earth Observation (EO) technologies, from satellite, drones, and low-flying aircraft, together with 'virtual' renderings of physical locations, like Digital Elevation Models (DEMs), and AI-powered weather models.

A robust Spatial Finance approach then also overlays the policy, market, and technological trends that influence transition risk at each location.

The layering of these datasets across a portfolio of assets produces insights that no amount of corporate self-reporting can replicate, and allows for a far more granular and comprehensive understanding of a company's physical and transition risk and opportunity.

The technology behind Spatial Finance

Three technology shifts are converging to drive the Earth Observation (EO) capacity that makes Spatial Finance operationally viable at scale:

Newer satellite constellations deliver high-resolution imagery with revisit rates measured in hours, not weeks, generating an unprecedented volume of location-specific data on physical assets and environmental conditions.

Advances in machine learning now allow that imagery to be processed and interpreted in near-real time, turning raw pixels into structured risk signals across entire portfolios.

Cloud computing provides the infrastructure to run these analyses at the speed and scale that financial decision-making demands.

The result is a fundamentally new analytical capability. Organizations can now assess hazard exposure, resource availability, and transition readiness at the level of individual assets and supply networks (bottom-up, not top-down) with a frequency and granularity that was technically impossible even just a few years ago.

The next stage is translating this observational and asset data into financial data. This is the 'alchemy' of Spatial Finance which makes it useful for real-world decision making. Intricate maps from satellite imagery and model projections may be of interest to geographers and climate scientists, but are not relevant to commercial operators and financial decision-makers without some intermediation. Spatial Finance practitioners convert this material into valuation projections, commodity price signals, and return of investment metrics for adaptation actions – outputs that corporate executives can actually use.

Equipped with Spatial Finance data, organizations can identify geographic concentrations of planetary and transition risk exposure and discover location-specific adaptation solutions for mitigating them. They are also able to produce more informative stress-tests of their infrastructure networks, supply chains, or investment portfolios against traditional 'what if?' environmental scenarios.

Beyond traditional scenario analysis: how a Fortune 100 retailer identified billions in commodity supply at risk

One multi-national retailer wanted to build a credible case for adaptation and resilience investments throughout their value chain. With a notable subset of agricultural commodities, the retailer conducted a geospatial scenario analysis covering hundreds of individual storefronts and sourcing regions across more than 10 countries.

The analysis projected location-specific risks and opportunities using planetary and economic data from an array of public and private sources, across multiple warming scenarios. It covered the following dimensions:

Asset-level physical risk

Indicated the exposure of individual storefronts to wildfire, hurricane, extreme cold, and other threats, translated into projected expense increases and self-insured losses.

Water stress

Identified the top 200 water-stressed sites and the anticipated changes to water utility spend and business interruption costs.

Commodity risk

Produced county-level mapping of drought risks to forecast future supply-at-risk information for numerous agricultural commodities.

Together, these outputs revealed that **more than 10%** of the company's facilities could be in high water risk areas by 2050, while some drought-sensitive commodities could see yield impacts **nearing 40%** of annual procurement spend.

Read the full case study **HERE**

3.2 Harnessing Spatial Finance for competitive advantage

The organizations that thrive in an increasingly uncertain world are those that make decisions informed by the rapidly evolving physical reality they operate in and the transition forces intersecting with it. Spatial Finance methodologies can provide organizations with the necessary data and insights to adapt and allocate capital efficiently and create competitive advantage.

However, deploying Spatial Finance requires more than onboarding a plug-and-play data solution. Even those organizations with sophisticated in-house geospatial data teams may find it hard translating troves of location-specific data into something that speaks the language of the C-suite. Beyond these analytical capabilities, organizations also need to understand what variables and metrics relevant to their specific sector can be drawn from geospatial data, and how these can be embedded into existing financial workflows.

In the following sections, we will explore ways in which Spatial Finance is being deployed across four industry sectors.

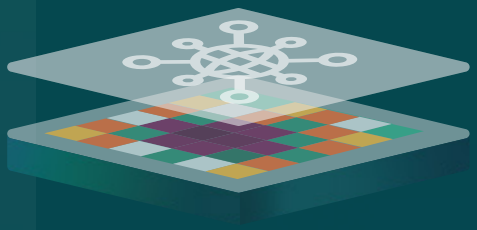
Geospatial solution highlight: SpatiaFi

Many of the raw inputs (satellite imagery, model projections, asset coordinates) behind Spatial Finance are now widely available, and a growing field of tools can render them as maps and risk scores. But the harder problem is turning location data into a financial answer a CFO can act on. *"How will water stress in key sourcing regions impact my margin forecasts?"* and *"Where will onsite generation deliver the strongest ROI relative to the grid?"*

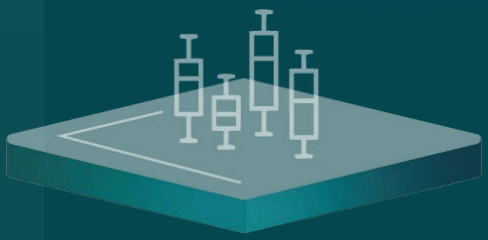
SpatiaFi is built to answer these questions, and it does so along two dimensions that set it apart. First, it integrates physical risk and transition risk in a single view. Second, it is prescriptive rather than descriptive. While most platforms tell companies where risk is, SpatiaFi tells them where to act, in what order, at what time, and with financial justification.

The platform delivers this through a connected workflow:

Ground the portfolio in place.
Provides asset-level information: geographic coordinates, zip or postal codes, GeoJSON files, or custom boundaries. Every downstream insight is anchored to the specific locations where the business operates.



Layer physical and transition data together.
SpatiaFi pulls from open, proprietary, and third-party commercial sources across three time horizons: a historical baseline of what was once normal, forward projections under a range of SSP warming scenarios, and dynamic daily and monthly signals (including Google's WeatherNext 2). These physical layers are then overlaid with location-specific transition forces that determine how exposure becomes financially material.



Quantify the implications in dollars.
Geospatial risk data is combined with stochastic financial modeling (i.e., Monte Carlo scenario analysis) to estimate the probability and magnitude of financial impact, such as business interruption costs, asset-level damage, increased utility spend, and yield or price shifts for key commodities.

Prescribe where to act.
With exposure quantified and concentrated, SpatiaFi surfaces the adaptation and resilience interventions that generate the highest return.

04 Spatial Finance in action

4.1 Technology

The technology sector is undergoing a profound transformation. Once populated by asset-light, software-oriented businesses, it is now dominated by hyperscalers building out physical infrastructure to support the vast and growing market for AI applications. This shift can be most readily observed in the scramble to build and equip massive new data centers. In 2020, there were around 450 MW of data center projects under construction in the United States. By 2025, that amount had surged to over **4,700 MW**.

The rapid acceleration of data center deployment creates material physical and transition risk exposures for technology companies. A single data center can consume millions of gallons of water per day for cooling. Altogether, US data center power consumption is expected to double to between

9 to 17%

of all domestic electricity generation

by the end of this decade. This makes the sector's exposure to the energy-water-food nexus acute, and has heightened the importance of Spatial Finance insights to its long-term resilience.

Spatial Finance methodologies can calculate water withdrawal and consumption risk against projected shifts in local hydrology under different warming scenarios. For energy risk, it can help technology companies assess grid reliability, generation capacity, and transmission vulnerability at the precise locations where their facilities are based.

A Chief Resilience Officer at a Fortune 100 technology company – interviewed for this report – points to a highly consequential use case for Spatial Finance: optimizing future data center site selection. The binding constraint on new facilities is access to power and water, and decisions made today will lock in those dependencies for decades to come. Securing reliable power and water at a given site depends on the interplay of transition forces (grid capacity, energy policy, and competing demand) and physical forces like the droughts, heatwaves, and storm patterns reshaping the surrounding environment. Spatial Finance methods can help site selection teams evaluate both dimensions together, mapping the long-term availability and reliability of water and power of each potential location to avoid long-term sunk costs at locations that may appear viable today but fail under tomorrow's conditions.

The Chief Resilience Officer noted that generic financial risk estimates modeled by some "climate risk intelligence" vendors fail to account for the specific operational characteristics of individual assets: how a particular facility is built, how it is cooled, what its actual replacement value is. As a result, when engineers and operations teams with on-the-ground knowledge of the site evaluate these reports, they often find them not fit for purpose.

4.2 Retail

Retailers often manage large real estate footprints and depend on reliable and affordable energy and water supplies to keep their lights on and doors open. For many retailers, electricity has become a top-five expense in recent years. This has made it challenging to optimize operational expenses within existing real estate portfolios and capital expenses for new buildings. Retail executives need place-based, decision-useful data to optimize energy and water consumption at existing buildings and to support site selection.

Such entities have to contend with fierce competition over the most attractive land parcels, along with an energy transmission infrastructure struggling to keep pace with accelerating demand. Determining where and how to grow in an energy-constrained world means interpreting a wide array of data: transmission capacity, grid reliability metrics, regional electricity prices, and data center-led energy demand forecasts.

To better understand how energy could affect long-term growth and capital allocation, one large global retailer leveraged Spatial Finance methodologies, including **500+** energy-related geospatial layers from SpatiaFi, to develop a scoring framework evaluating electricity price, electricity supply, and carbon risk across its corporate real estate portfolio.

By applying a forward-looking econometric model to existing and target sites, the company projected into the future the financial implications of energy disruptions, price volatility, and potential "greening of the grid" scenarios. The analysis found, for example, that utility costs may increase by

tens of millions of dollars
per year by 2030,

and **2 out of 3** planned sites face exposure to electricity price increases.

These findings have shaped the company's CapEx planning and focus on the deployment of multiple behind-the-meter energy investments within specific geographies where the Spatial Finance analysis flagged the most acute combination of exposure to electricity price volatility, electricity supply vulnerabilities, and higher carbon intensity.

Read the full case study HERE

4.3 Consumer Packaged Goods

Consumer packaged goods (CPG) companies face environmental exposure along two main vectors: the natural ecosystems that provide the raw materials for their products, and the warehousing and distribution infrastructure through which those products move to market. Each is highly dependent on the energy-water-food nexus.

This can be illustrated with the example of a Fortune 100 beauty company. Many of its products rely on ingredients sourced from fragile ecosystems – kelp, vanilla, and patchouli among them. These ecosystems are under increased threat from extreme weather and slowly unfolding environmental degradations. Understanding the extent of this threat, however, requires analysis focused on the actual locations where the ingredients originate.

The beauty company used Spatial Finance methods to conduct a quantitative scenario analysis targeted at particular sourcing regions and essential commodities within its supply chain. The company also commissioned an analysis of its manufacturing sites, distribution and logistics nodes, and sourcing regions. The idea was to produce a holistic view of its environmental risks under multiple future global warming scenarios.

The exercise revealed that under a high warming scenario, the prices of some raw ingredients could **surge 20%** relative to today, and that combined water and planetary risks could expose the company to between **$180 million** and **$420 million** in annual business interruption costs.

The company is using these findings to craft strategies to enhance business resilience and make long-term investments to secure future ingredient supplies.

Read the full case study **HERE**

4.4 Electric Utilities

Electric utilities are on the frontlines of planetary impacts. While technology companies worry about the water and power flowing into their data centers, utilities are responsible for the infrastructure from which that power is generated, transmitted, and distributed to businesses via an electricity grid. Adapting to environmental hazards and transition forces is critical if these organizations are to continue to supply the rest of the economy with power.

Company executives are highly sensitive to this challenge. In 2025 alone, leaders at 25 utilities in the S&P 500 spoke on earnings calls about adaptation measures they are implementing, from undergrounding power lines to installing early wildfire detection systems.

Spatial Finance has clear relevance to this sector. A large urban utility can operate across hundreds of square miles, managing thousands of miles of cable, transmission lines, substations, and gas infrastructure. The sheer sprawl of physical assets that require monitoring and hardening makes the use of geospatial data absolutely essential.

Given the size of their physical footprints, the practical challenge facing utility resilience teams is knowing where to direct adaptation investments where they will produce the greatest return. An interview for this report with a resilience-focused executive at a large utility revealed that their spending decisions must address multiple demands – strengthening reliability, expanding power access to vulnerable communities, and fulfilling regulatory requirements among them.

The frame that this practitioner applied is one of spatial triage: given scarce financial resources, which assets should be prioritized for investments, on what timeline, and with what type of intervention? A substation that has performed reliably for decades may sit in a flood zone that has become higher risk and requires physical protection. A transmission corridor hardened against storm damage may run through an area of dense vegetation, elevating ignition risk and challenging regulatory clearance standards. Spatial Finance methodologies can make these trade-offs visible and help utilities defend investment priorities to regulators and communities alike.

05 Operationalizing Spatial Finance

Activating Spatial Finance to produce meaningful insights involves a step-by-step approach:

1

Step 1: Conduct a Double Materiality Assessment

Every Spatial Finance engagement should begin by understanding the materiality of physical and transition risks and opportunities to an organization. This is best achieved through a Double Materiality Assessment (DMA), which examines both financial materiality (how planetary and human factors influence an organization's financial performance, cash flows, and long-term valuation) and impact materiality (how an organization's operations impact the environment, economy, and society).

2

Step 2: Locate assets

The material risks and opportunities identified should then be evaluated against a company's locations, regions, and physical assets of interest. However, this often begins with a more fundamental question: where are you? For many large organizations, the answer is more complicated than it should be. Before Spatial Finance analysis can be made useful, it is essential to gather accurate data on the location of physical assets, including areas being considered for operational growth. This could include owned and operated facilities, logistical routes or infrastructure (highways, rail, ports), supplier locations, or even supply sheds or growing regions for key commodities.

3

Step 3: Overlay risk data

Once an organization has located its assets, it must decide which physical hazards to screen for (e.g., heat, water scarcity, wildfire, growing suitability, energy supply, etc.) and under which forward-looking temperature rise scenarios. The same exercise applies to transition risk and opportunity data. Organizations need to overlay the policy, market, technological, and geopolitical dynamics specific to each asset's location, as transition risks compound and often determine how physical exposure translates to financial impact.

> ***The decision-ready insights executives need live where physical and transition layers converge. This is where Spatial Finance analysis produces its most distinctive value.***

4

Step 4: Quantify insights

Physical and transition risk exposure must be expressed in financial terms before it can inform decision making. The first step is evaluating the vulnerability of priority assets, such as the potential impact to crop yields in a warming scenario, or a facility's ability to offset renewable energy costs under shifting policy incentives.This can be calculated using schematic data from the organization itself alongside geospatial data from third parties. From there, stochastic uncertainty modeling generates thousands of possible scenarios across time horizons to determine probable financial ramifications. The output translates risk exposure into projected future asset valuations, business interruption costs, revenue shifts, and more.

5

Step 5: Analyze sensitivities

With baseline financial implications established, organizations can deepen their understanding of financial risk through sensitivity analysis, adjusting individual inputs to see how small shifts influence outcomes. One approach might test how potential losses at a facility change under a given level of flood protection. Another might examine whether sourcing critical inputs from a different jurisdiction reduces overall margin exposure to shifting tariff structures.

6

Step 6: Identify opportunities

Organizations with a holistic view of their exposure and vulnerability are well-placed to identify the adaptation and resilience opportunities that can generate the highest returns. Spatial Finance analysis may show that 80% of hazard exposure is tied to just 10% of assets, flagging those as priorities for protection. It can also reveal where competitive advantage is within reach: a commodity input less prone to disruption, a facility located where supportive policies unlock new economics, or onsite generation in regions where grid constraints make the investment case obvious.

Organizations that adhere to this approach can maximize the advantages of Spatial Finance engagements, ensure they produce outputs that are compelling to the C-suite, and drive a true, portfolio-wide strategy for managing physical and transition forces.

06 Thriving in an uncertain world

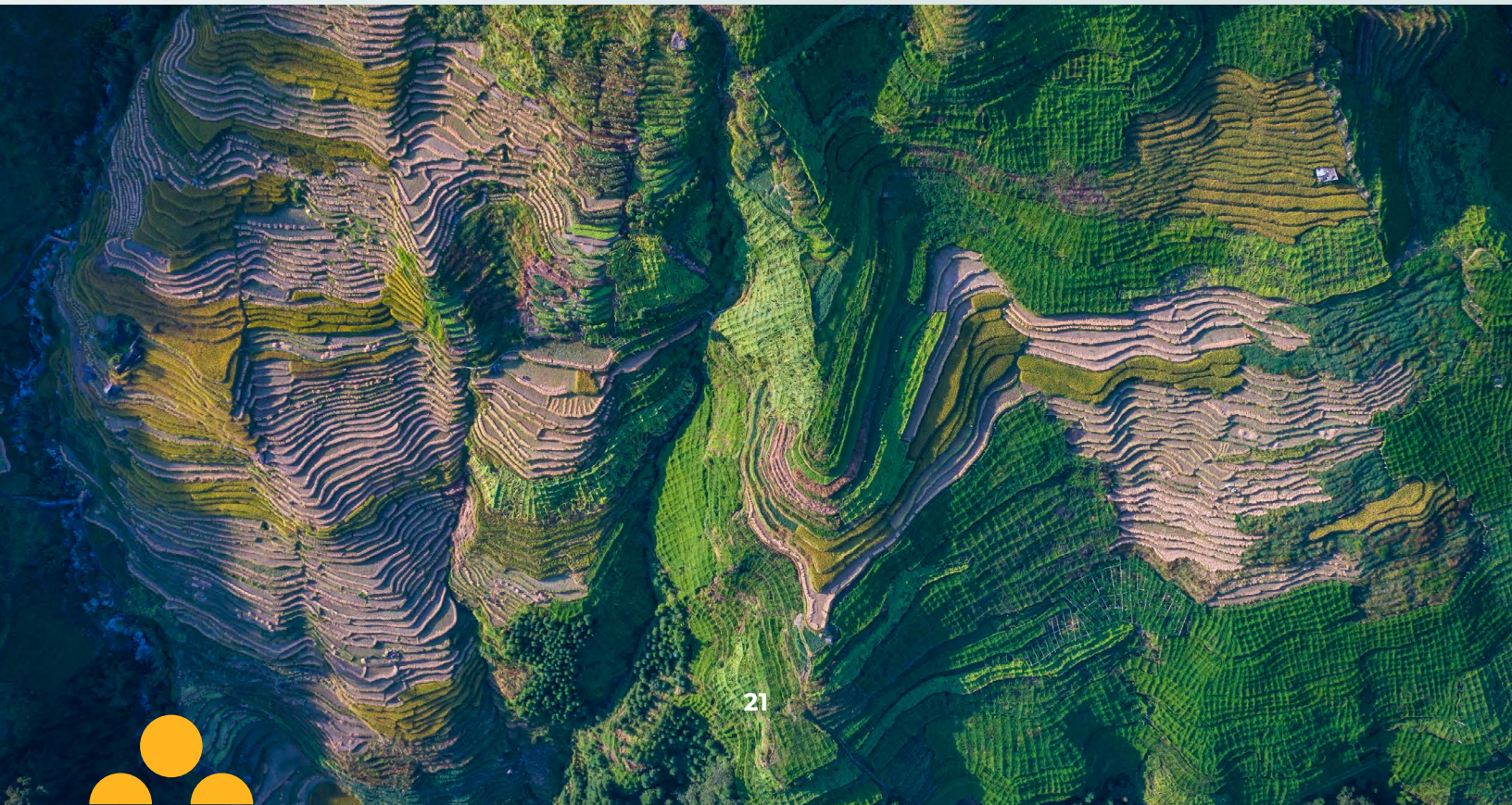
The operational and financial strain caused by hidden externalities (human and environmental) are increasingly visible in corporate earnings reports, growth strategies, insurance pricing, and investment decisions across sectors. These challenges are difficult to address because they are location dependent and highly sensitive to difficult-to-model transition risks.

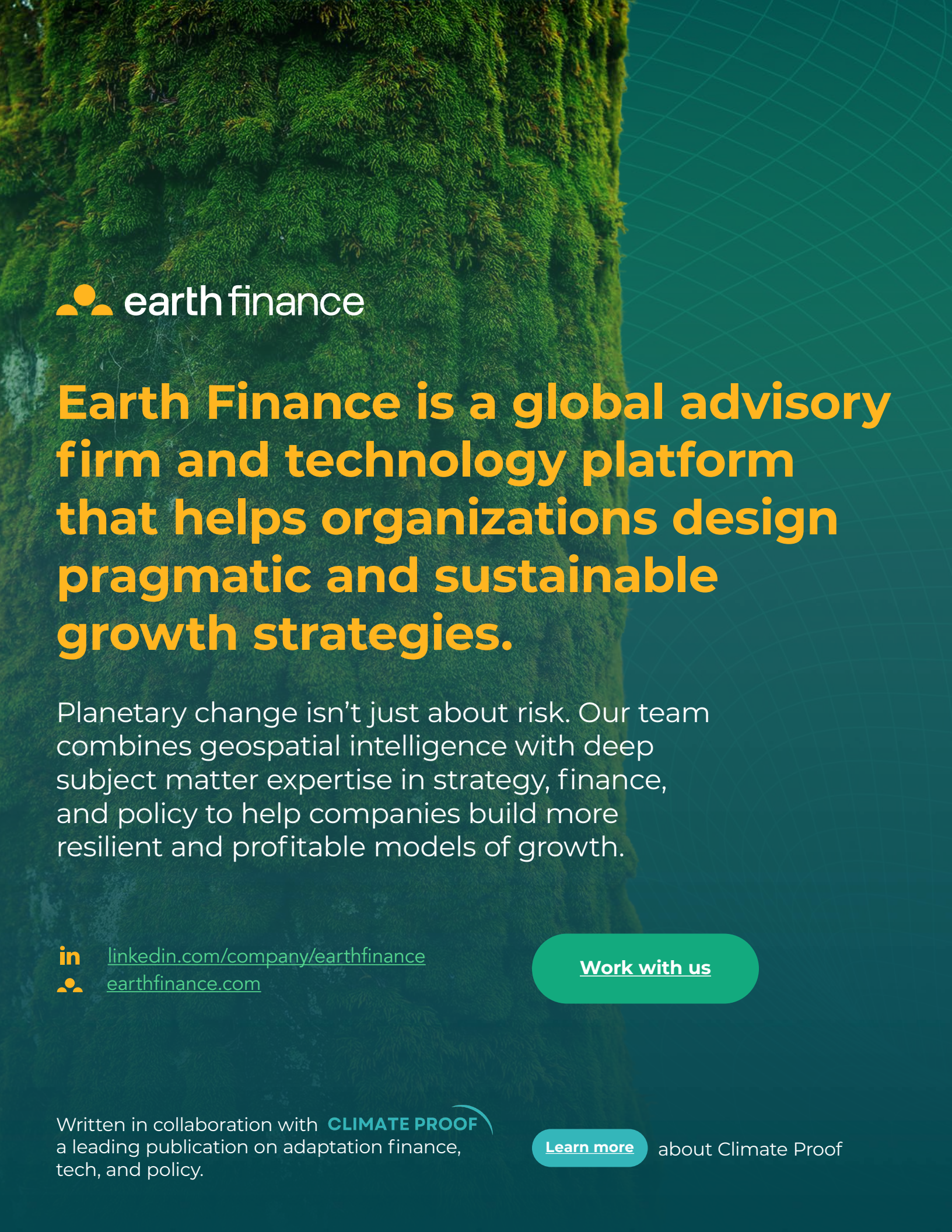
Leading organizations seek bottom-up geospatial analytics informed by Earth Observation data to help understand how their economic activities interact with the physical world and the policy, market, technological, and geopolitical dynamics that compound risk and create opportunity locally.

However, access to satellite imagery and geocoded asset data is not enough. Organizations need this information to be translated into the language of the C-suite – financial variables and profit and loss projections that can drive business decision-making.

Spatial Finance methods make this possible. It is the 'alchemy' that transforms physical and transition data into financial insights, giving organizations the intelligence they need to make effective capital allocation decisions.

The competitive advantage available to early movers is real. As the energy-water-food nexus becomes increasingly salient to business performance, those with useful spatial insights can adapt faster and make strategic shifts that account for a warmer, wilder, and more disruptive global operating environment.





earth finance

Earth Finance is a global advisory firm and technology platform that helps organizations design pragmatic and sustainable growth strategies.

Planetary change isn't just about risk. Our team combines geospatial intelligence with deep subject matter expertise in strategy, finance, and policy to help companies build more resilient and profitable models of growth.

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