



What can organizations do with climate intelligence?





In a world where [climate disruption is becoming the norm](#), building organizational resilience is key. In 2022 alone, [10 climate-fueled extreme weather events](#) caused more than USD3 billion in damages each.

When climate hazards such as floods, drought, extreme temperatures and wildfires strike, the cumulative effect on local businesses and economies can be disastrous. [Businesses close, sometimes never to reopen](#), supply chains are disrupted, once loyal consumers look elsewhere, and stakeholder value decreases.

At Cervest, we champion [how climate intelligence \(CI\) is the key to building resilience](#), but what does this really mean when it comes to practical implementation? To minimize the financial impacts of climate hazards on the physical assets they rely on, organizations need to become climate resilient. This can only be done with access to decision ready, asset-level climate intelligence, such as the insight provided by our product, EarthScan™.





This ebook takes you through seven real world examples of climate intelligence in action including:

- Pinpointing adaptation spending by allocating budget for informed and targeted interventions for an asset's specific risk
- Avoiding maladaptation - ensuring money is not invested in the wrong adaptation initiatives
- Putting a price on climate risk to weigh up the cost benefits of relocation, retrofitting or sale of an asset
- Avoiding stranded (uninsurable and unusable) assets
- Working with suppliers to create contingency plans
- Increasing stakeholder confidence and protecting share value using science-backed insights to provide your decision making audit trail
- Uncovering new opportunities for long term resilience, in areas prone to less climate risk

If you are looking for information for how climate intelligence can level-up your climate reporting, in line with the Taskforce on Climate-related Financial Disclosure (TCFD) recommendations, or other frameworks, [visit the dedicated section of our Climate Intelligence Academy.](#)





Pinpointing adaptation spending with targeted asset-level interventions

Climate resilience is created by the actions your organization takes now to prepare for the impacts of climate change over the short, medium and long term. This means putting measures in place to prevent or minimize damage to physical assets themselves, or to minimize impacts caused by disruptions to critical infrastructure, supply chains and operations of physical assets that your business relies upon.

Businesses cannot afford to guard their assets from every possible hazard, whether climate related or not. They must prioritize which threats are the most likely to have an impact on each of the assets they rely on, so that they can put the correct measures in place. Being prepared for climate hazards can reduce the extent of loss and damage if/when they occur. To do this, business leaders need granular, asset-level climate intelligence offering insight across multiple hazards, climate emissions scenarios and timeframes.



The overall rate of return on investments in improved resilience is very high, with benefit-cost ratios ranging from 2:1 to 10:1, and in some cases even higher.

Global Commission on Adaptation,
“Adapt Now: A Global Call for
Leadership on Climate Resilience”





With Cervest's on demand, asset-level climate intelligence, decision makers can analyze their risk from climate-driven natural hazards such as extreme heat, extreme wind, flooding, drought and wildfire. Drilling down into each asset, customers receive an individual **Cervest Rating™** from A (very low risk) to F (very high risk) for each of these hazards and from there make decisions and take actions based on this insight.

Using these standardized ratings, assets around the world can be compared, and be prioritized for investigation into the specific risk(s) facing them. From there, decisions on what actions to take can be made. For example:

- Installing flood protection measures around those assets most at risk from riverine or coastal flooding
- Improving irrigation to assets located in areas with a high drought risk, or taking action to reduce water usage
- Installing HVAC systems into assets operating exposed to high heat stress risk, reducing workforce productivity loss
- Factoring in the risk of extreme heat on projects involving outdoor labor and looking to limit working hours or increase staffing and shift rotations



Avoiding maladaptation

Knowing exactly what hazards are forecasted to impact particular assets avoids [maladaptation](#). In a climate change context, maladaptation refers to actions intended to reduce the impacts of climate change that actually create more risk and vulnerability – literally doing more harm than good.

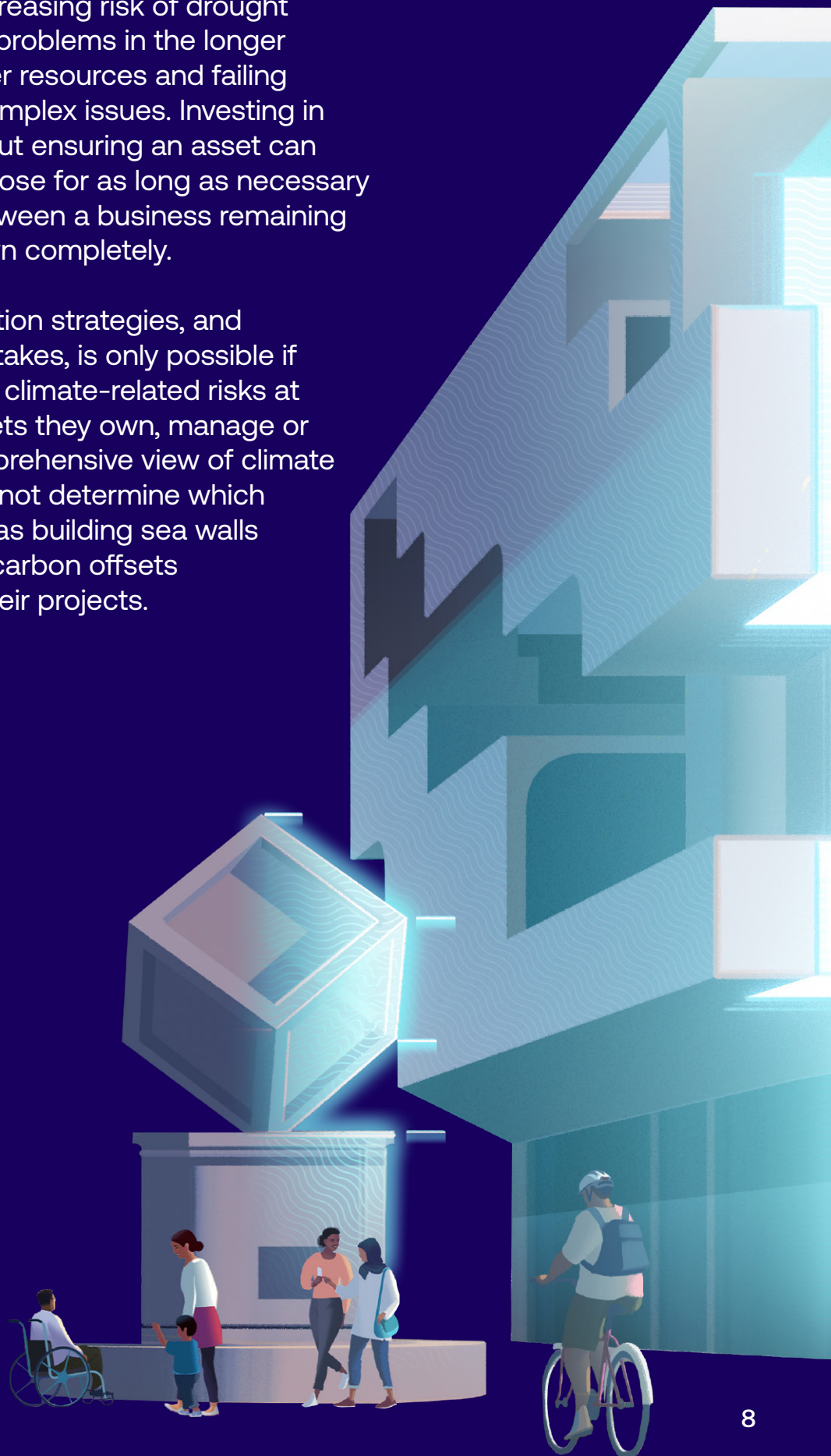
An example of this could be a company wishing to plant trees to sequester carbon, but doing so in a location prone to wildfire. Consequently, if wildfire burns down these trees, they release more carbon into the atmosphere than they have had a chance to absorb. A hotspot for carbon offsets, the [Californian wildfires in 2021](#) are a tragic example of what can happen when carbon strategies fail to account for climate risk.

Failure to anticipate future climate outcomes can result in asset managers making decisions now that prove incredibly costly down the line. [An engineering company](#) finding precipitation rates are too low to continue their business may look to use available, but non-renewable resources such as groundwater, to keep their business running in the short term.



However, in an area at increasing risk of drought this will only create more problems in the longer term, depleting local water resources and failing to plan for future more complex issues. Investing in irrigation may be costly, but ensuring an asset can continue to serve its purpose for as long as necessary can be the difference between a business remaining profitable or shutting down completely.

Creating effective adaptation strategies, and avoiding maladaptive mistakes, is only possible if organizations understand climate-related risks at the level of individual assets they own, manage or rely upon. Without a comprehensive view of climate risk, decision-makers cannot determine which countermeasures - such as building sea walls or planting forest-based carbon offsets - will effectively de-risk their projects.





Putting a price on climate risk

Retrofitting assets at risk from climate hazards does not come cheap. To understand whether or not the installation of climate protection is worth the investment, decision makers need to understand the monetary repercussions of the climate risk manifesting across each of their assets.

Cervest Ratings incorporate Climate-Value-at-Risk (CVaR) metrics into the flooding and extreme wind Ratings, to provide an estimate of impact for the hazards most likely to cause direct physical damage to assets. CVaR metrics allow asset managers to identify the level of physical damage forecasted for that particular asset, in time increments of five years up until the year 2100. They can also see how the hazard rating may change under [three different climate emission scenarios](#).

Asset managers can translate estimates of physical damage into a financial value determined by the asset's valuation. In combination with Cervest Ratings which describe the probability of a hazard such as a flood occurring, the asset manager has the information needed to make a business case for action. This may be adding flood defenses, or where this is not deemed cost effective due to the low worth of the asset, possibly diverging from or relocating the asset in question.



Avoiding stranded assets

If a decision maker knows that one asset in particular is very likely to be taken out of commission at some point due to a climate hazard, they know that they will need access to alternatives. This may mean moving processes to a different location, or making the case to line up an alternative supplier for whatever that asset would usually create/provide.

For example, as manufacturing processes typically rely on a huge amount of water, a business relying on an asset in California to manufacture goods can decide whether it is more cost effective to improve irrigation to that asset, or to switch production to an area without such a large risk of drought, should a particularly dry spell occur.

This risk is increased where insurance comes into play – assets at high climate-related risk can become incredibly costly to insure, or even completely uninsurable. To avoid stranded assets, businesses can use Cervest CI to prepare for a more certain future. Asset owners, investors, and managers can investigate multiple climate hazards (from heat stress to flooding), timescales, and scenarios to determine exactly where, and what their risks are. Equipped with these actionable insights, they can climate-align decisions, informed by the latest climate science, to avoid near- and longer-term losses.



Creating contingency plans to reduce climate-related supply chain disruptions

Cervest's climate intelligence can be accessed on 600m+ assets globally, meaning business leaders can see the risk not just facing their own assets, but also those in their supply chain. By doing so, they can challenge their suppliers if they see an asset with a particularly high risk, and ask what mitigation measures they are taking to prevent damage from climate hazards, as well as embed climate risk into new supplier procurement processes. Customers can easily share insight from EarthScan with their suppliers to notify them about risks they may not even be aware of themselves and work with them to decide the best course of action.

For example if a supplier makes a particular good in a location that is prone to extreme temperatures, they will need to make sure that not only is the factory itself resilient enough to withstand high temperatures, but also maintain a workable environment for their employees. This may mean installing air conditioning, limiting outdoor work to certain times during the day, shortening shifts, or even moving operations to a different location during the hottest months of the year.



Once the level of risk is known, and factoring in the potential costs of retrofitting and relocation, the supplier can take necessary action, allowing the business owner to be confident in their ability to continuously fulfill their contractual obligations. If certain suppliers fail to take necessary action, alternative suppliers can be found before the climate hazard can strike.

“ I think the changes that humans have caused to our systems will mean this uncontrollable disruption for all life on Earth and natural disasters will rise, causing tensions, increased social disorder, and inflicting immeasurable suffering and the displacement of billions. But the good news is that organizations can limit disruption by acting now.”

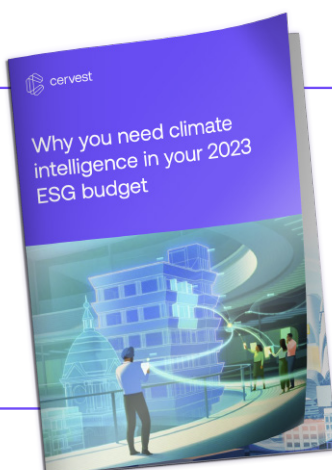
Courtney Holm, Vice President, Sustainability Solutions at [Capgemini](#), working with Cervest to empower companies to build sustainability.



Increasing stakeholder confidence with science-backed decision making

CI drives organizational alignment. It offers a single source of quantified, science-backed truth about climate risk that can be accessed and shared by all stakeholders such as investors. [However, less than 40% of investors trust “the information they get from ESG ratings and scores”](#), while just 33% would rate the quality of ESG reporting they receive from companies as “good”.

Cervest’s CI product, EarthScan combines up-to-date climate science with the latest machine learning techniques to deliver accurate, decision-useful and shareable climate risk insights. Enhancing sustainability practices and ESG reporting with science-backed climate intelligence can help rebuild trust amongst stakeholders. Once all involved parties share the same clear view of risk and consequences of inaction, the business case is clear for prioritizing action and allocating resources to mitigate it.



[Download our free ebook](#) to discover, compare and evaluate different sources of CI and how to make a business case that secures climate intelligence from the most credible source with the greatest ROI.



Uncovering new opportunities for long term resilience

Climate intelligence is not all about loss prevention. The insight provided by EarthScan can also be used to find new opportunities. For example, a real estate investment trust (REIT) conducting pre-transaction due diligence may be reluctant to trust climate-related information provided by the asset vendor in question. Finding a third party to conduct a comprehensive climate risk assessment in an incredibly tight timeframe can be very difficult, or come at an unsustainable cost.

EarthScan's on-demand climate intelligence enables REITs and similar companies to rapidly screen the potential acquisition for climate risk across multiple emission scenarios, time steps and climate hazards simultaneously. Access to EarthScan provides a repeatable and scalable process that enables a quick and accurate appraisal. Having such knowledge readily accessible during negotiations establishes climate intelligence as a powerful ally to any competitive business.



EarthScan at a glance

- Build a full picture of your climate risk with EarthScan: search our queryable asset catalog, or upload your own csv file of assets and apply custom fields such as lease length or property value
- Get on-demand climate intelligence at the asset and portfolio level: create multiple portfolios based on your use case, from pre-transaction to assets that you manage or rely upon through your supply chain
- Generate and share science-backed insights across multiple risk hazards, including Climate Value at Risk (CVaR) insights to quantify the cost of climate change at the asset-level





- Share portfolios and individual insights at any time with colleagues, investors, shareholders or partners, using permission-based setting
- Integrate scenario analysis of historic, current and future risks from 1970 to 2100 at any five-year interval under three possible emission scenarios
- Discover standardized Cervest Ratings for at-a-glance risk prioritization
- Inform voluntary and mandatory disclosures with EarthScan's on-demand climate risk analysis, with insights aligned to the TCFD and EU Taxonomy
- Be supported by climate science expertise and physical risk experts at every step of your climate intelligence journey





Acting now on climate-related risk and opportunities is a strategic opportunity. In times of uncertainty, organizations differentiate themselves with the decisions they make - and will see returns further down the line. Actions that we take today matter - CI enables them.



To discover how sustainability leaders are using Cervest climate intelligence to move from discussion to action on climate commitments, [download our free ebook.](#)





About Cervest

Cervest is the climate intelligence (CI) company putting climate at the core of every decision. Through its pioneering EarthScan product, the company provides personalized, dynamic, and science-backed climate intelligence on any asset, anywhere, anytime — giving enterprise and government decision-makers the most comprehensive view possible of climate risk at the asset level.

Learn more at cervest.earth



cervest

