



**worldly**

**GUIDE**

# **What Your Supply Chain Data Isn't Telling You About Risk**

**A guide for consumer goods leaders to uncover hidden supply chain risks, protect margins, and make confident decisions before disruption hits.**



## We'll reveal why

**82%**

of Cambodian factories exceed dangerous heat thresholds during peak production.

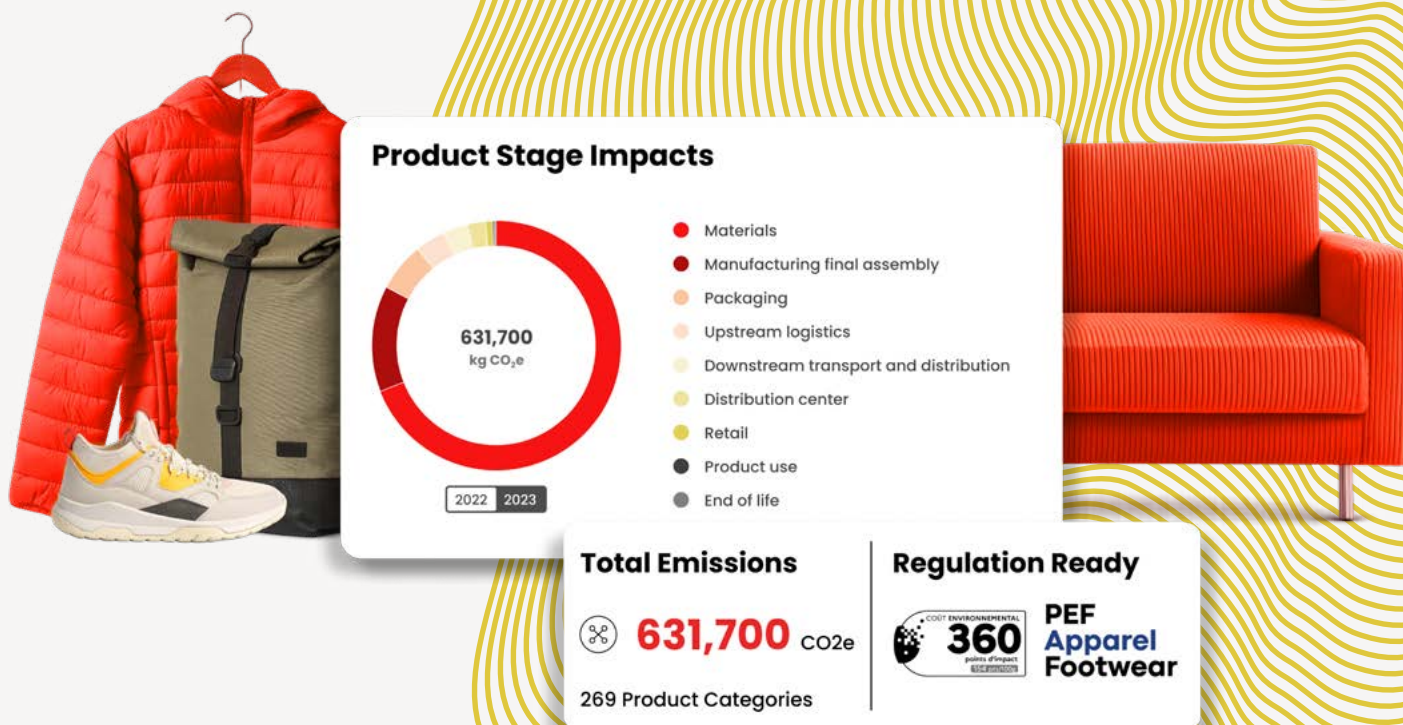
**~66%**

of factories in key sourcing regions face growing water stress.

**> \$65B**

in apparel earnings is at risk by 2030 from extreme heat and flooding.





## See what your supply chain data is missing

Most brands have visibility into costs and logistics—but not into the physical risks building across their supply chain. Worldly helps you uncover what's happening at the facility level, so you can act before disruption hits.

[Explore the platform](#)



## The case for seeing clearly

Most consumer goods leaders have strong visibility into costs, output, and logistics. But the physical risks building across their supply chain remain largely invisible.

The physical conditions inside factories, the resource pressures around them, and the operational risks building across the regions they depend on are still only partially understood.

This is a business intelligence gap, not a sustainability gap, even though sustainability teams often feel it first. [Extreme heat is already reducing factory capacity](#) in Southeast Asia during peak

production months. Water stress is tightening across the regions where consumer goods sourcing is most concentrated.

At the same time, regulatory disclosure requirements are accelerating in the EU, UK, and US—and the questions go far beyond what most brands can answer today.

The companies navigating this well haven't solved sustainability. They've built the data infrastructure to see what's coming, understand what it means for their business, and act before it turns into a crisis.



Primary data—verified, facility-level data collected consistently across suppliers—is the foundation of that capability.

This guide draws on data from Worldly's platform, which captures environmental and social performance data across a network of more than 45,000 brands, retailers, manufacturers, and suppliers in consumer goods.

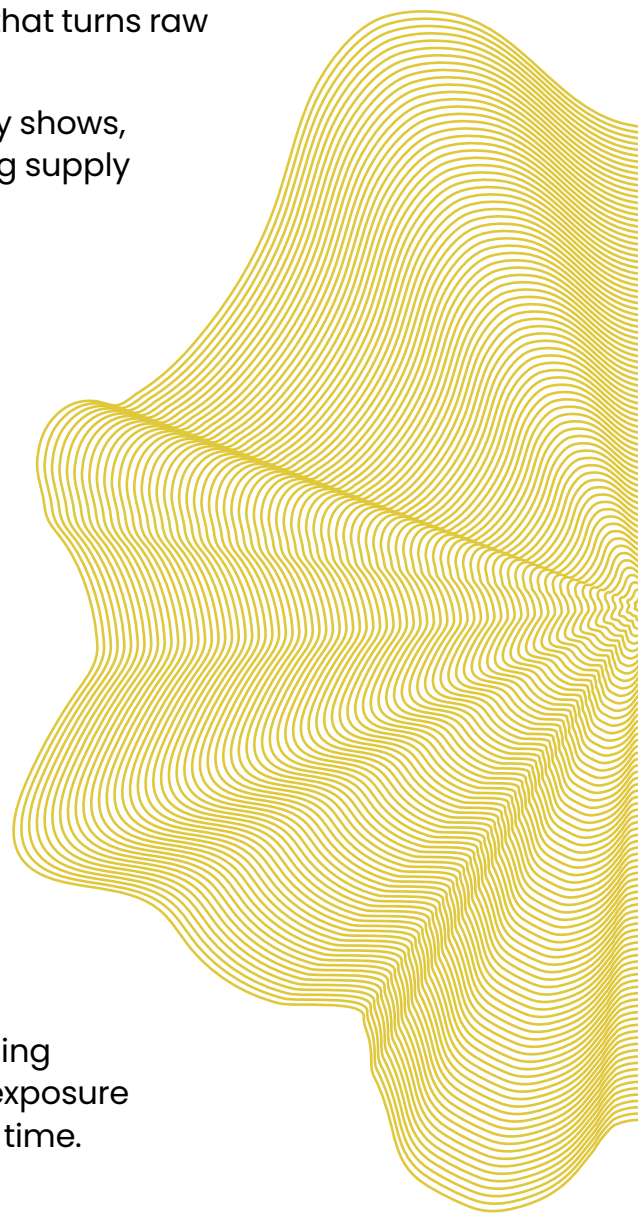
That network matters. The insights here aren't modeled or estimated. They come from what's actually happening at the facility level, benchmarked across an industry, and enriched with regional context that turns raw data into intelligence, decisions, and action.

What follows is a practical look at what the data already shows, where the gaps are, and how leading brands are turning supply chain visibility into operational confidence, competitive advantage, and credible sustainability progress.

## **The visibility gap: What brands can't see is what hurts them**

Consumer goods leaders can track a shipment across six time zones in real time. They can tell you their cost-per-unit to four decimal places. But ask what's happening inside a Tier 2 factory in Bangladesh, how much energy it consumes, whether it sits in a water-stressed watershed, how extreme heat is affecting worker output and facility reliability, and the answer is usually silence.

That's the supply chain visibility gap. And it isn't something the sustainability team can solve on its own. It creates exposure across operations, finance, and reputation at the same time.





## **The operational risk is immediate and growing**

Physical risks are accelerating faster than most brands' awareness of them. Extreme heat, water scarcity, and climate volatility are already disrupting production in the regions where consumer goods sourcing is heaviest: Southeast Asia, South Asia, China, Turkey.

These aren't future projections. They're current conditions showing up as capacity failures, supplier cost increases, and fill-rate problems that cascade to the retail shelf.

A heat-related slowdown at a Tier 2 supplier doesn't announce itself as a climate issue. It looks like a missed delivery window.

## **The regulatory and reputational cost of not knowing is rising**

Supply chain disclosure requirements are tightening in every major market. The EU's CSRD, revisions to the UK's Modern Slavery Act, and evolving US requirements, all demand evidence, not assertions.

Brands that can't demonstrate visibility into their upstream operations face compliance risk, obviously. But the bigger exposure is reputational: a public credibility failure when an investor, a journalist, or a regulator asks a question the brand can't answer.

## **Emissions targets don't hold up without primary data**

Scope 3 emissions, those generated in the supply chain outside a company's direct operations, typically represent 70–90 percent of a brand's total carbon footprint. Yet only 1.6 percent of facilities currently calculate their own Scope 3 emissions.

For brands that have made public commitments, this creates real exposure: targets that can't be substantiated, progress that can't be demonstrated, claims that are open to challenge.



**Scope 3 emissions typically represent 70–90% of a brand’s total carbon footprint—yet only 1.6% of facilities currently calculate their own Scope 3 emissions.**

For brands that haven’t yet made public commitments, it’s an expectation that’s coming. Building the data foundation now costs less and causes less disruption than doing it under pressure later.

### **The question is whether you build visibility on your own terms or on someone else’s**

The brands in the strongest position today aren’t necessarily the ones with the most ambitious targets. They’re the ones with the best data.

They can explain their supply chain clearly, identify risk, show evidence of progress, and respond when regulators, investors, or their own board asks hard questions. That’s a different kind of confidence than having a bold goal on your website.

Building that capability starts with primary data, enriched with regional intelligence that turns numbers into decisions.

## **A structural problem, not lack of commitment**

If the visibility gap matters this much, why haven’t more brands closed it?

It isn’t for lack of intent. The issue is that supply chain transparency has been built as a compliance function, not a strategic capability, and the organizational architecture reflects that.

Most brands have reasonable visibility into their Tier 1 suppliers, the factories they buy from directly. Some have partial visibility into Tier 2. Beyond that, the picture fades quickly. Yet the most significant operational, environmental, and social risks tend to sit in Tier 2, Tier 3, and the raw material base — exactly the places where data has been thinnest.

### **The problem isn't just lack of data: It's fragmentation**

Sustainability teams run supplier surveys. Procurement manages audits. Operations tracks output. These streams rarely connect into a picture that any single leader can act on. Everyone has a partial view. Nobody has the full one.

As Cerian Atwell, Sustainability Lead at Marks & Spencer, puts it, the real impact, and the real work, starts deeper in the supply chain.

### **Even when data exists, it often lacks context**

Knowing the number of kilowatt-hours of energy a factory uses only helps if you also know the grid mix it runs on, how stressed the local watershed is, and what climate risks are bearing down on the region.

Without that layer of regional intelligence, good data still produces generic recommendations instead of targeted decisions. That context layer is what most brands are still missing, and it's what separates reactive risk management from proactive supply chain strategy.

“ We couldn't meet our climate goals by looking only at Tier 1 suppliers. The real impact — and the real work — starts deeper in the supply chain. Worldly gives us the intelligence to turn Scope 3 data into progress.

**Cerian Atwell**

Sustainability Lead, Marks & Spencer

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SPENCER





“ We have identified that regenerative agriculture practices are one of our best pathways to meeting our science-based targets. We’ve modeled this out, thanks to a lot of the data that we collect from the Worldly platform. Data is critical to understanding the science behind these benefits.

**Jeannie Renné Malone**

Vice President, Global Sustainability, VF Corporation



## The shift: from compliance data to operational intelligence

The brands making the most progress share something in common: they’ve stopped treating supply chain data as a reporting obligation and started treating it as a tool for making better decisions.

**Before the shift**, data flows in one direction: from supplier to brand to report. It’s reactive, backward-looking, and built to satisfy external stakeholders. Teams spend more time defending the numbers than doing anything with them.

**After the shift**, data becomes the operating system for supply chain decisions. Sourcing, sustainability, and operations teams can see performance trends across the supplier base, identify which facilities are improving and which are falling behind, and focus capital and effort where it matters. The nature of supplier conversations changes, from “please complete this survey” to “here’s what the data shows, let’s figure out what to do about it.”

# The teams furthest ahead tend to think differently about three things



**Primary data as the baseline for every decision.** Verified, facility-level data, not estimates, not industry averages. Without it, targets are aspirational at best and claims are hard to defend.



**Regional context is what makes facility data useful.** A factory's energy consumption means something different depending on whether it runs on a coal-heavy grid or sits in a region with strong renewable options. Overlaying grid mix, water stress, heat exposure, and available interventions is what turns data into something you can act on.



**Visibility is tied to business outcomes.** The strongest teams frame data investment in terms of efficiency gains, risk reduction, regulatory readiness, and brand credibility, not just sustainability goals. That framing is what earns budget and board-level attention. This isn't a technology upgrade. It's a reframing of what supply chain visibility is for.

The brands in the strongest position didn't get there by claiming perfection. They got there by measuring consistently, acting on what they found, and building a track record that holds up when someone checks. A lot of consumer goods brands are already on this path. Primary data makes that progress visible, repeatable, and defensible.

# The framework: Measure, analyze, act

The path from supply chain opacity to operational clarity follows a consistent pattern across the brands doing it well. It isn't a one-time project. It's a capability that compounds with each cycle.

## Stage 1: Measure — Establish a primary data baseline

Visibility starts at the facility level. This means going beyond survey responses and audit snapshots to collect verified primary data: energy consumption, water use, emissions, and social performance metrics, gathered consistently across a supplier base.

The initial goal is coverage and comparability. Enough facilities reporting enough of the same metrics that meaningful patterns start to emerge.

Worldly captures this across tens of thousands of facilities—allowing brands to benchmark not just internally, but across the industry.

That cross-network view is what turns scattered data into something strategically useful.

## Stage 2: Analyze — Layer in regional intelligence

Facility data tells you what's happening inside the fence. Regional intelligence tells you what's happening around it, and what's likely to happen next.







This means overlaying facility performance with:

- Grid mix data (to put energy and emissions in context).
- Water stress data (to flag supply continuity risk).
- Heat exposure mapping (to anticipate productivity and capacity impacts).
- Available interventions (to know renewable energy options, efficiency programs, adaptation measures).

The difference is meaningful: It's the gap between knowing a factory's energy consumption and knowing what to actually do about it given the specific conditions of the region it operates in.

Worldly Axion brings this together, combining verified facility-level data with regional intelligence to surface insights that facility data alone can't provide.

### **Stage 3: Act — Prioritize for impact**

Data that doesn't lead to action is just overhead. This stage turns insight into investment by:

- Identifying the highest-impact interventions for each facility or supplier segment.
- Modeling outcomes of different approaches.
- Directing capital and effort where it matters most.

This requires sequencing. Not every supplier should be a priority at once. And it requires a clear picture of what success looks like for each focus area.

The brands moving fastest here are the ones who did Stages 1 and 2 most thoroughly, because their decisions are grounded in evidence rather than assumptions.



When we're looking at our climate commitments, including emissions and waste reduction targets, we're also reducing our risk of losing access to potential manufacturing resources that we need to grow and build our business.

**Amelia Burns**

Senior Manager of ESG, Lovesac

**LOVESAC**

## Where the work gets done: five areas of highest leverage

### Step 1: Map heat exposure before it shows up as disruption

Extreme heat is one of the most underestimated operational risks in global supply chains. It rarely shows up on a traditional risk dashboard until it's already caused damage.

Better Work assessments found that [82 percent of Cambodian factories exceed high heat stress thresholds during peak production months](#), which also happen to be peak shipping months. The losses cascade: a capacity problem at a Tier 2 supplier becomes a fill-rate problem for a retailer several steps removed.

The communities surrounding these factories bear the most direct cost, including health risks, lost wages, and economic instability.

The business case for action is clear. McKinsey found that the benefits of heat adaptation outweigh costs by seven to one. Simple interventions like improved

ventilation and scheduling adjustments can deliver productivity gains of up to 16 percent.

Companies that haven't mapped heat exposure across their supply base are carrying risks they can't quantify. It stays invisible right up until it causes a disruption they have to explain.

### Actions your team can take:

- Map heat exposure scores across your top 50 supplier facilities by volume.
- Identify facilities in high-stress zones that also represent your highest revenue concentration.
- Prioritize quick-win interventions (ventilation, scheduling, cooling) at the highest-risk sites.
- Incorporate heat risk into supplier performance scorecards and annual reviews.

## Step 2: Act on water stress before scarcity creates disruption

Water stress doesn't arrive suddenly. It builds through drought, tightening allocations, and rising costs, then reaches a tipping point that catches brands off guard.

[Planet Tracker mapped over 100,000 apparel factories against water stress data](#) and found that nearly two-thirds of factories in China, Turkey, Bangladesh, and India carry medium-to-high water stress scores. At the base of the supply chain, the picture is worse: nearly three-quarters of global cotton production takes place in high-stress regions where smallholder farmers compete with industry for dwindling freshwater.

The financial scale is hard to ignore. CDP estimates up to \$339 billion in total potential financial impact from water stress risk. And yet Planet Tracker found that water represented just one percent of investor mentions across major apparel brands. When an entire production cluster is affected at once, switching suppliers is not a viable response.

### Actions your team can take:

- Overlay your supplier base against water stress basin data to identify concentration risk.
- Engage high-risk suppliers on water recycling, wastewater treatment, and reclamation programs.
- Incorporate water stress scores into supplier selection and strategic sourcing decisions.
- Monitor water-related regulatory changes in key sourcing regions as an early warning system.





### Step 3: Build energy visibility across your supplier base

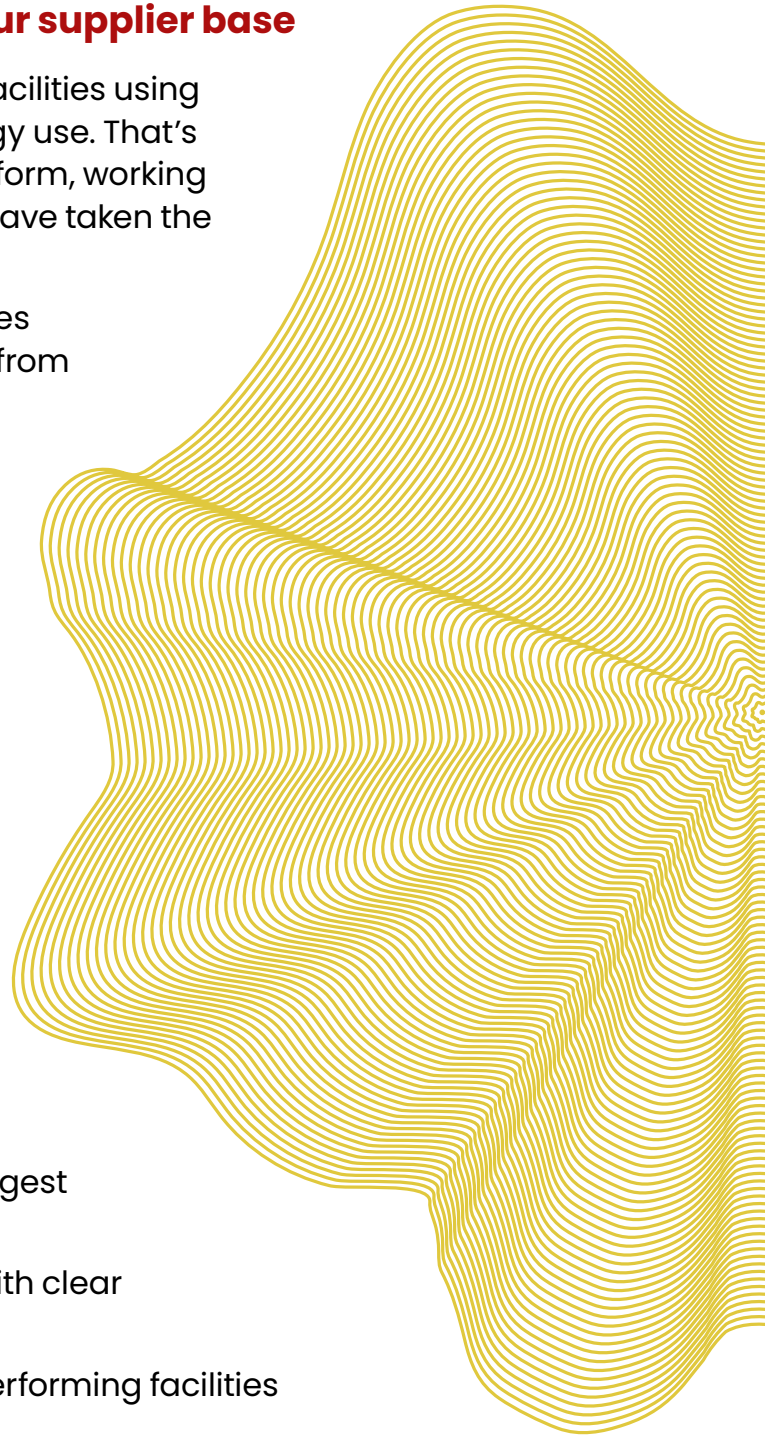
Across tens of thousands of consumer goods facilities using Worldly, nearly 92 percent report tracking energy use. That's meaningful progress. Most facilities on the platform, working alongside their brand and retailer customers, have taken the first step toward real operational visibility.

About 72 percent say they know which processes consume the most energy, which turns energy from a vague line item into something specific that teams can manage and improve. Roughly 67 percent have set targets to reduce energy use. And the results are showing: nearly 48 percent of facilities report improving energy consumption compared to their baseline.

Visibility alone doesn't guarantee improvement. But it's the precondition. You can't manage what you can't see, and you can't replicate what you can't measure.

#### Actions your team can take:

- Confirm which Tier 1 and Tier 2 facilities are actively tracking energy consumption.
- Identify which processes account for the largest share of energy use at your top 20 facilities.
- Set facility-level energy reduction targets with clear baselines and annual review points.
- Replicate efficiency measures from high-performing facilities across comparable sites.





With Worldly's platform, we can use the primary data from our supply chain that's already in Worldly, and we can see the actual reduction. Rather than playing around with numbers, we can do actual decarbonization activities in our supply chain and in our material strategy, because we now have the method to quantify the impact of those changes.

**Dr. Thiwanka De Fonseka**

Chief Sustainability Officer, Komar

KOMAR

#### **Step 4: Connect energy improvements to emissions progress**

Where visibility exists, action tends to follow. About 29 percent of facilities on Worldly report reducing Scope 1 and Scope 2 emissions. These aren't projections. They're measured outcomes at facilities where the data exists to guide improvement.

The Scope 3 picture, though, remains largely unmapped. Only 1.6 percent of facilities currently calculate Scope 3 emissions, a serious gap given that Scope 3 typically represents the vast majority of a brand's total carbon footprint. And fewer than 18 percent of facilities have conducted an energy audit in the past five years, which limits how deep decarbonization planning can go.

For brands with public climate commitments, this gap is an active liability. For those without commitments yet, it's an expectation that's building. Either way, the cost of getting the data foundation right goes up the longer it's deferred.

#### **Actions your team can take:**

- Map which facilities contribute most to your Scope 3 emissions profile.
- Work with key suppliers to initiate Scope 3 data collection as part of annual reporting.
- Use the Worldly platform to connect facility-level energy improvements to brand-level emissions reporting.
- Identify the 10 facilities where a targeted energy audit would have the highest impact.



## **Step 5: Pair facility data with regional intelligence to drive targeted action**

Facility data is the foundation, but sustaining progress requires pairing it with regional context. The right intervention for a factory in India, where the grid is coal-heavy, looks very different from the right step in a region with strong renewable options. Where electricity access is unstable, a power purchase agreement might deliver more value than trying to optimize grid-based consumption.

This is where the breadth of the Worldly network becomes a real advantage. With verified data from over 45,000 companies, Worldly doesn't just benchmark individual facilities. It builds an intelligence picture across regions, industries, and supplier tiers that no single brand could assemble alone.

### **Worldly Axion brings this picture together**

Combining verified facility-level data with regional intelligence — grid mix, available renewable energy credits, climate risk, and more — Worldly Axion surfaces insights that aren't available anywhere else. Its built-in AI helps teams spot carbon intensity hotspots across their supplier base, identify the highest-impact levers for each facility, and model what different interventions would actually deliver. The goal is straightforward: make sure investment goes where it'll do the most good.

This is the capability that moves supply chain visibility from a reporting function to a strategic one. Not just seeing what's happening, but knowing what to do about it, facility by facility, region by region.





## What success looks like

When this work is done well, the change shows up in how a team operates before it appears in any report.

### **Regulatory readiness becomes a byproduct of how the team already works, not a separate scramble**

Teams with primary data coverage across their supply chain aren't caught off guard when new disclosure requirements land. They already have the evidence base. They can answer questions before they're asked.

### **Supplier relationships get stronger**

When brands share what the data shows, as a shared performance picture rather than a compliance demand, the dynamic shifts. Suppliers see how they compare to peers. They can see where they stand and where investments would move the needle. That builds trust in a way that audit cycles don't.

“ We want to be able to share with our suppliers how their work feeds into product decisions that drive our shared sustainability goals. With the Product Impact Calculator, this is something we now have the ability to talk about.

**Shasta O'Loughlin**

Head of ESG, KMD Brands

**KMD**  
BRANDS



## **Teams stop chasing data and start doing something with it**

Instead of spending most of Q3 compiling supplier responses for an annual disclosure, teams run live dashboards, flag facilities that are slipping, and have focused conversations about specific interventions. The whole function becomes more proactive.

## **The outcomes show up across the business, not just in sustainability reporting**

Fewer supply disruptions. Less exposure to climate-driven capacity failures. Stronger supplier relationships. A narrative grounded in evidence that holds up under scrutiny. Those are the outcomes that get attention from the rest of the leadership team — and they all come back to the same thing: primary data, regional intelligence, and consistent follow-through.

## **The questions become sharper**

If you can answer these, you're ahead:

- Where is my supply chain most exposed to physical risk, and can I put a number on it?
- How do my facilities and suppliers compare to the rest of the industry?
- Where would targeted investment have the biggest measurable impact?
- If someone challenged our sustainability claims tomorrow, could we back them up with verified data?

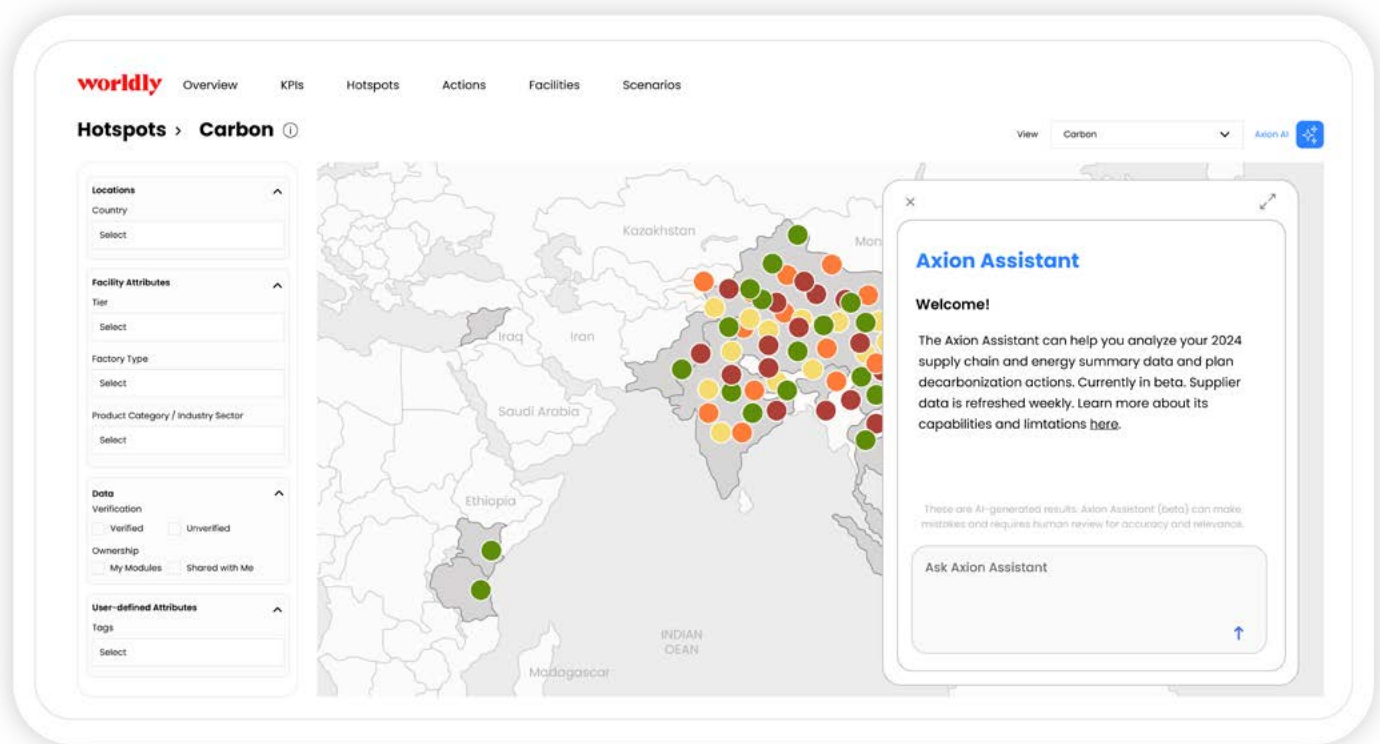
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# Understand where your supply chain is exposed

Worldly builds the primary data foundations that make real supply chain visibility possible, and turns that visibility into measurable progress across energy, emissions, water, heat, and operational resilience.

Contact Sales to assess your risk

**Explore Worldly Axion**







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## About Worldly

Worldly is the leading sustainability and supply chain intelligence platform for the consumer goods industry. The company empowers brands, retailers, and manufacturers to turn verified primary data into insight and action across complex global supply chains.

Trusted by a network of more than 45,000 companies across apparel, footwear, home furnishings, and sporting goods, Worldly provides visibility into environmental and social performance, including carbon, water, chemicals, and labor, at the product, facility, and value-chain levels.

Built on industry-recognized standards, including Cascale's Higg Index, Worldly translates raw data into actionable intelligence that helps organizations reduce risk, meet evolving regulatory requirements, and drive measurable progress over time.

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