Beyond the Surface

A (Very) Practical Guide to Making Progress Tracking Scope 1, 2, and 3 Emissions

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Tracking Emissions

Tracking emissions shows that your company is actually cutting emissions, not just talking about it. So, before we get into the what, the why, and the how of practically tracking emissions at every stage and size of business, let's cover WHO should be tracking carbon emissions.

Who Should Be Tracking Emissions?

- Large corporations with complex supply chains (e.g., multinational manufacturers, retailers, etc.)
- Publicly traded companies subject to ESG reporting requirements
- Companies seeking green financing or sustainability-linked loans
- Organizations with net-zero or science-based targets
- Suppliers to major brands, as many are now requiring emissions data from their partners
- Companies looking to become more energy efficient and save on energy costs

Key Sectors Where Emissions Tracking Is Most Important

- **Energy & Utilities** – Major contributors to Scope 1 and 2 emissions through fuel combustion and electricity generation.
- **Manufacturing & Heavy Industry** – High direct emissions from production processes and energy use.
- **Transportation & Logistics** – Significant Scope 1 emissions from fleets and Scope 3 from supply chain logistics.
- **Agriculture & Food Production** – Emissions from land use, livestock, and supply chains (Scope 3).
- **Retail & Consumer Goods** – Large Scope 3 footprints from product sourcing, use, and disposal.
- **Technology & Electronics** – Scope 3 emissions dominate due to complex global supply chains and product life cycles.
- **Financial Services** – Increasingly required to report on financed emissions (Scope 3) from their investment and lending portfolios.

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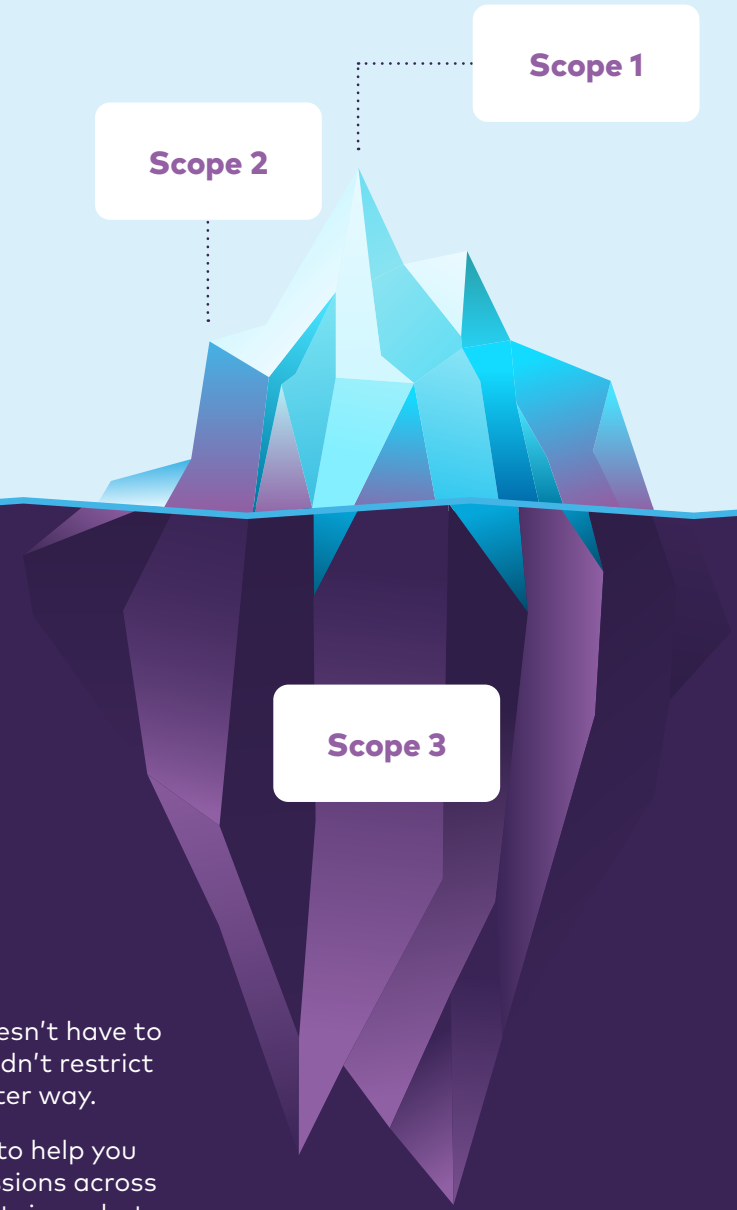
Introduction: Breaking down the iceberg

(metaphorically ONLY, of course)

Pressure is increasing around emissions tracking, and many companies are stuck with looming regulations and little knowledge of where to begin. Understanding and managing your company's carbon footprint starts with knowing where emissions come from—and how to address them. Unironically, for a company set on sustainability, we can look at icebergs to describe how emission scopes can be better understood.

Above the surface is the visible part of the iceberg, or Scope 1 and 2 emissions. **Scope 1 emissions**, the most direct, stem from sources your organization owns or controls, such as company vehicles and on-site fuel combustion. **Scope 2 emissions**, while indirect, are tied to the energy your company purchases and uses, offering a powerful opportunity to reduce emissions through smarter procurement and efficiency.



Now zip up your wet suit, we're going deep.

Lurking beneath the surface is the largest part of the iceberg, or **Scope 3 emissions**. This scope is the most complex spanning your entire value chain, from raw material sourcing to product disposal. Though often called the "invisible challenge," Scope 3 emissions can be tackled through collaboration, innovation, and influence.

Knowledge is power. Reducing carbon emissions doesn't have to be hard, and complexity of emissions tracking shouldn't restrict your progress towards sustainability. There is a better way.

This e-guide breaks down each of the three scopes to help you understand how to track, manage, and reduce emissions across your operations. You will learn what each scope contains, what data is required, where to begin with a strategy, what the ROI can look like, and you'll even walk away with a carbon reducing roadmap. Our goal is to empower your organization to meet its sustainability goals with clarity and confidence.

Let's get a closer look at the Scopes

Scope 1: Your Direct Emissions

What are Scope 1 Emissions?

You can think of Scope 1 emissions as being the highest peak of the iceberg, the most visible and distinguished part of the iceberg above water. Scope 1 emissions are direct Greenhouse Gas (GHG) emissions from owned or controlled sources. These typically include:

- Fuel combustion in boilers, furnaces, and generators
- Emissions from company-owned vehicles
- Fugitive emissions from refrigeration or industrial processes

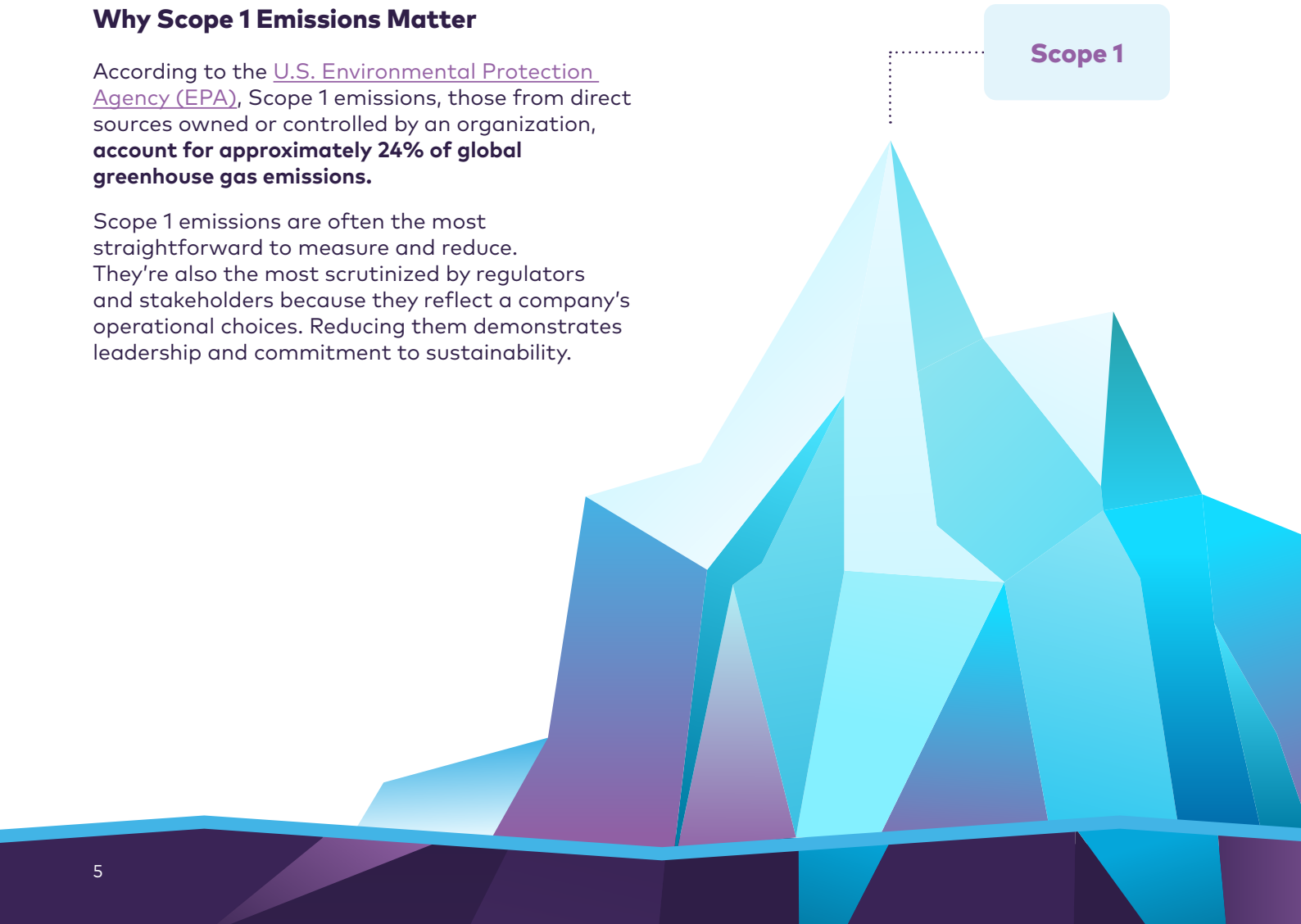
Why Scope 1 Emissions Matter

According to the U.S. Environmental Protection Agency (EPA), Scope 1 emissions, those from direct sources owned or controlled by an organization, **account for approximately 24% of global greenhouse gas emissions.**

Scope 1 emissions are often the most straightforward to measure and reduce. They're also the most scrutinized by regulators and stakeholders because they reflect a company's operational choices. Reducing them demonstrates leadership and commitment to sustainability.

Why Should They Matter to You?

Large corporations and small and medium-sized enterprises (SMEs) need to care about Scope 1 emissions because they represent direct emissions from sources you own or control. These emissions are not only a significant contributor to climate change but also a visible indicator of operational efficiency and environmental responsibility. Addressing Scope 1 emissions is often the most immediate and controllable way for organizations to begin their decarbonization journey. Moreover, reducing Scope 1 emissions can lead to cost savings, regulatory compliance, and improved stakeholder trust.



Scope 2: The Indirect Impact

What are Scope 2 Emissions?

Moving our way down the iceberg, Scope 2 emissions are still sitting within your company's control, like the top of the iceberg sitting on the ocean's surface, but the impact is growing. Now, energy generation (Scope 2) accounts for up to 40% of global greenhouse gas emissions. Scope 2 emissions are indirect emissions from the generation of purchased energy, meaning they become more challenging to track, but are still fully within your ability to manage. These emissions occur offsite but are a direct result of a company's energy use. They include:

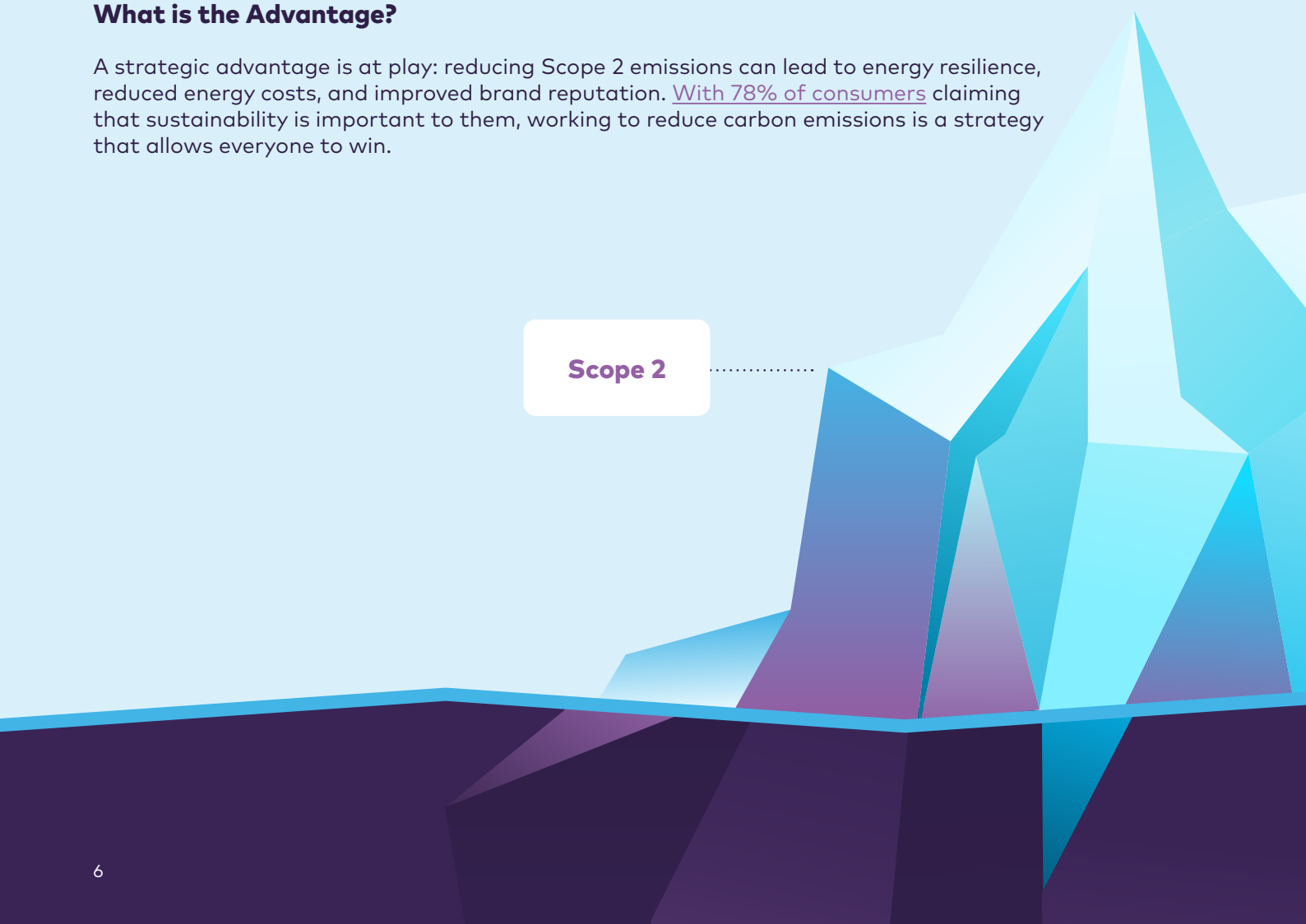
- Purchased electricity
- Purchased steam, heating, or cooling

Why They Matter

Scope 2 emissions are highly visible in sustainability reporting and are increasingly scrutinized by investors, regulators, and customers.

What is the Advantage?

A strategic advantage is at play: reducing Scope 2 emissions can lead to energy resilience, reduced energy costs, and improved brand reputation. With 78% of consumers claiming that sustainability is important to them, working to reduce carbon emissions is a strategy that allows everyone to win.



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Scope 3

Understanding Scope 3: The Unseen Majority

What are Scope 3 emissions?

It's time to look beneath the surface. We refer to Scope 3 emissions as the "unseen majority" because they account for all other emissions. Scope 3 are all indirect emissions that occur in a company's value chain—both upstream and downstream. Unlike Scope 1 (direct emissions) and Scope 2 (purchased electricity), the 15 upstream and downstream Scope 3 emissions include the following:

- Upstream: Purchased goods and services, capital goods, business travel, waste disposal, transportation, fuel/energy-related activities, employee commuting, and upstream leased assets.
- Downstream: Use of sold products, processing of sold products, end-of-life treatment, downstream leased assets, downstream transportation and distribution, franchises, and investments.

Why They Matter

According to the GHG Protocol, Scope 3 emissions often represent the largest source of emissions for companies, up to 70%. And, while this category is the most intimidating, it can no longer be ignored by companies who want to be resilient and responsible.

The Credibility Gap

Stakeholders, from investors to regulators, are increasingly scrutinizing Scope 3 disclosures. In 2022, only 53% of over 5,000 firms reported Scope 3 emissions, highlighting a growing credibility gap. Transparency is no longer optional—it's a competitive differentiator.

The Power of Scope Influence (with practical examples)

We know now what Scope emissions look like, and we know that they are important, but what power do you actually hold over the carbon reduction process?

There is good news: you have more control than you think.

The Power of Control

Move from Awareness to Action
Scope 1 is about ownership and accountability. Organizations have direct control over these emissions, making them a prime target for immediate action.

Example: From Carbon Chaos to Clean Commutes
A logistics company transitioned 60% of its fleet to electric vehicles and upgraded warehouse heating systems, reducing Scope 1 emissions by 25% in three years.

The Power of Procurement

Embrace the Ability to Choose

Scope 2 emissions are shaped by energy procurement decisions. Organizations can reduce their Scope 2 (and Scope 1) footprint by choosing cleaner energy sources and improving energy efficiency.

Example: From Power Bills to Power Plays

A regional manufacturer installed rooftop solar and enrolled in a community solar program, reducing electricity-related emissions and stabilizing energy costs.

What does the procurement process look like for small and mid-market companies? Access the "Pathways Toward Grid Decarbonization" recording to learn more about the policies, trends, and market capabilities that are at the forefront of the transition to sustainability.

From Ownership to Partnership

Get in a Partnership Mindset

You may not own your suppliers or customers, but you can influence them. This is the time to lean into partnerships as Scope 3 success hinges on shifting from control to collaboration.

Key Influence Levers:

- Procurement Policies: Embed sustainability into RFPs and contracts.
- Preferred Supplier Programs: Reward low-carbon suppliers.
- Design for Sustainability: Reduce emissions through product innovation.

Example: From Farm to Fashion

A boutique apparel brand partnered with local textile producers to switch to organic cotton, cutting upstream emissions by 30% while boosting brand loyalty.

Where the Waters are Murky: Reliable Data Collection

There is a huge data challenge, and you've likely experienced its barriers. As you move through each Scope, the reliance on others becomes imperative, making accessing and standardizing the data even more tiring. Knowing where the data should come from, and how to verify it is key. Fortunately, there is software that now assists credible report progress with automation and tools to identify reduction opportunities—no more excel spreadsheets. But, before we get to the software, let's identify what data should be collected.

Where should the data come from?

Data Collection of Scope 1

Scope 1 data is typically gathered from:

- Fuel purchase records
- Equipment logs
- Vehicle mileage and fuel consumption

Measuring and Managing Scope 2

Two Accounting Methods

- Location-based: Reflects the average emissions intensity of the local grid
- Market-based: Reflects emissions based on energy procurement choices (e.g., renewable energy certificates)

How to Capture the Invisible Scope 3

Scope 3 data is often estimated using:

- Spend-based data: Uses financial records and emission factors.
- Activity-based data: Uses actual quantities (e.g., kg of material, miles traveled).

Capturing Scope 3 emissions can be a challenge, so we've written an article on how to decarbonize your supply chain for additional information.

Prioritization Is Key

TIP: Focus on categories with the highest emissions and greatest influence. For example, purchased goods and services often dominate Scope 3 footprints. What does this mean for your company?

"**I would recommend Zeigo Activate to organisations that are starting their emissions tracking journey. Its ease of use and straightforward functionality make it ideal for businesses seeking a low-barrier entry point into carbon reporting.**"

Ian Nearhos,
General Manager, Truis

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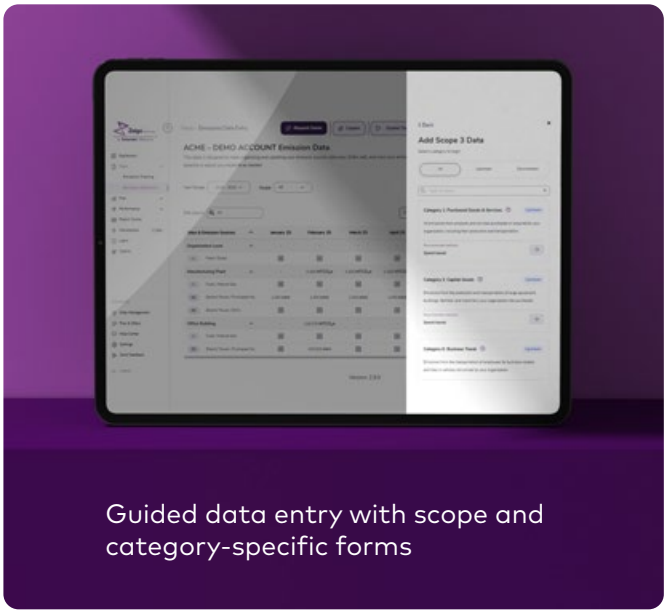
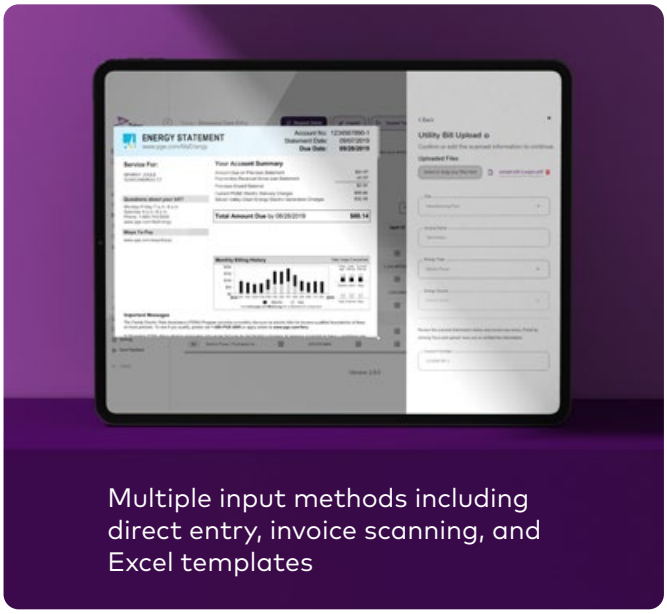
Zeigo Activate's Smart Data

There is a better way to collect data that doesn't require multiple spreadsheets and disjointed repositories. Managing data in one central location eliminates much risk and unwanted wasted time.

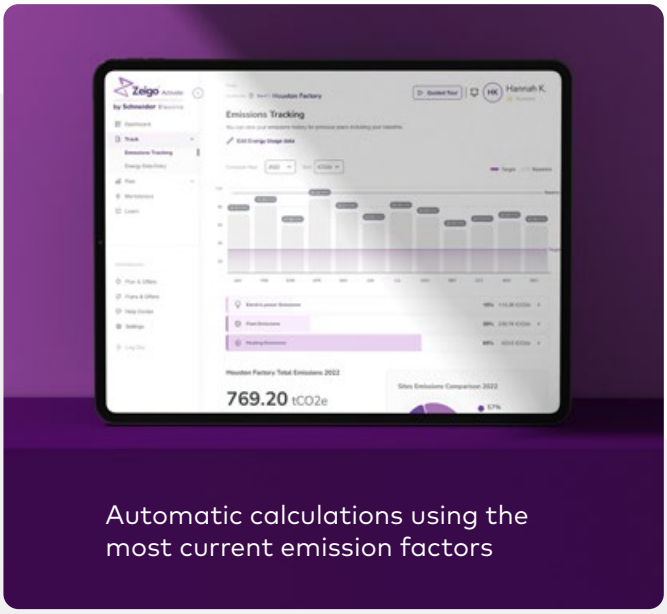
Our platform is designed to make data collection simple:



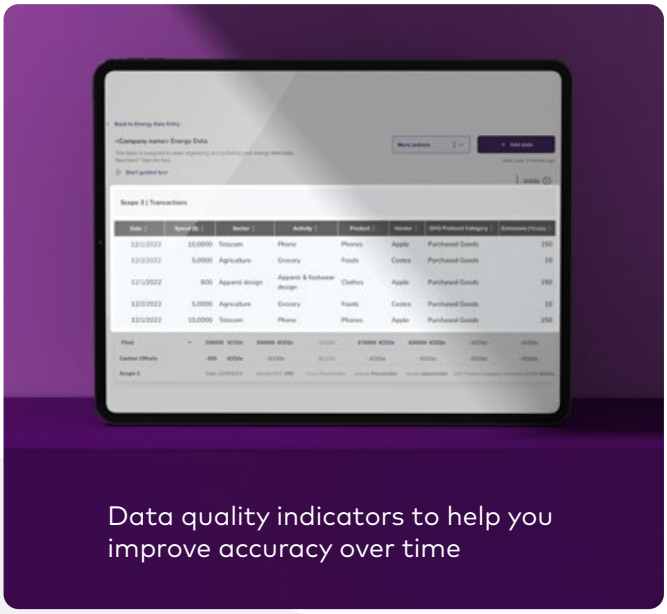
Guided data entry with scope and category-specific forms



Multiple input methods including direct entry, invoice scanning, and Excel templates



Automatic calculations using the most current emission factors



Data quality indicators to help you improve accuracy over time

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Don't Go Alone: Decarbonization Software

Tracking and managing emissions across each Scope is not a puzzle you have to solve, but a plug-and-play solution to implement. Through software, tracking has become a simplified and streamlined process.

Here's how software can work for you within each Scope:

1

Streamline Scope 1 tracking:

- Centralizing emissions data
- Identifying reduction opportunities
- Supporting compliance and reporting

Analyze Scope 2 tracking:

- Track Scope 2 emissions using both accounting methods
- Identify renewable energy procurement options
- Monitor progress toward decarbonization goals

2

3

Manage Scope 3 tracking:

- Mapping emissions across categories
- Integrating supplier data
- Providing actionable insights for reduction

Move From Plan to Progress

Strategies to Reduce Scope Emissions (and save icebergs!)

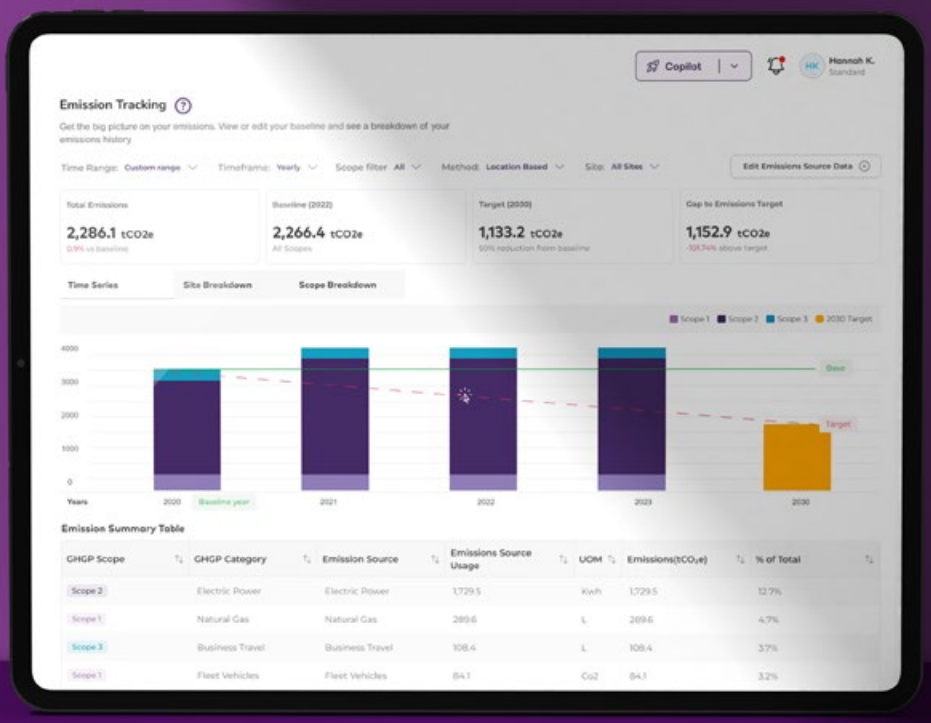
While Scope 1 and 2 can be easier to identify and implement, Scope 3 requires a different strategy. Collaboration is key. Let's get practical and look at the areas that can easily fit into your company strategy. Compare our list to your current emissions tracking strategy; what areas can you include in your plan?

On-site Operations

1. Energy Efficiency
   - Upgrade HVAC and industrial systems
   - Implement process automation
   - Conduct energy audits
2. Electrification
   - Replace fossil fuel equipment with electric alternatives
   - Transition to electric fleets
   - Use heat pumps for heating and cooling
3. Fuel Switching
   - Move from diesel or natural gas to biogas or renewable fuels
   - Explore hydrogen for high-heat processes
4. Environmental Credits
   - Use carbon offsets or renewable gas credits to neutralize residual emissions

Purchased Energy

1. Energy Efficiency
   - LED lighting upgrades
   - Smart building systems
   - HVAC optimization
2. Onsite Renewable Energy
   - Rooftop solar
   - Solar thermal
   - Wind turbines
3. Offsite Renewable Energy
   - Power Purchase Agreements (PPAs)
   - Green tariffs
   - Renewable Energy Certificates (RECs)



Track your decarbonization progress with a clear view of past and present emissions – all in one place with the **Zeigo Activate dashboard**

Think (and Reach) Outside of the Box

Scope 3 decarbonization is not a solo act. It requires ecosystem thinking that involves engaging suppliers, logistics partners, customers, and investors. Rather than creating a long list of to-dos, we recommend working on the following initiatives as you explore Scope 3 planning.

Collaboration Models:

- Supplier Training Programs
- Collective Procurement Initiatives
- Circular Business Models

These models not only reduce emissions but also build resilience and innovation capacity.

"Ecosystem thinking" that involves supplier training, procurement, and more can be streamlined and automated with the right software. Optimize your workload by using dashboards and storytelling to share progress. Zeigo Activate helps visualize and report Scope 1, 2, and 3 reductions with clarity and credibility. As you will read in the next section, Zeigo Activate uses our proprietary project list to develop a custom decarbonization roadmap based on your specific baseline and target, allowing you to implement and execute in your facilities right away.

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Your Roadmap to Successfully Tracking All Scope Emissions

It's time to put your knowledge to work. Because, without a solid plan in place, it's tough to keep emissions data consistent and reliable, especially for Scope 3, which involves partners outside your company. Having a clear roadmap helps everyone stay on the same page, set clear goals, and weave emissions tracking into everyday operations.

Phase 1: Map Your Value Chain

Identify all relevant upstream and downstream activities.

Phase 2: Measure Emissions

Use available data and proxies to estimate baseline emissions.

Phase 3: Engage Partners

Collaborate with suppliers and customers to co-create solutions, if applicable.

Phase 4: Reduce Emissions

Implement targeted actions—switch materials, redesign products, optimize logistics.

Phase 5: Report and Improve

Track progress, refine strategies, and share results.

Final Thoughts

Whether emissions are direct, indirect, or embedded deep within the value chain, every scope presents a unique opportunity for climate leadership. And, as you've learned, tracking emissions is possible for your company, you just need to have the knowledge and the right tools like Zeigo Activate software.

Here's what you can start doing today with Zeigo Activate:

1. **Accurately calculate** your emissions baseline and build a customized decarbonization roadmap tailored to your goals.
2. **Be empowered** to connect with regional solution providers for renewable energy and energy efficiency projects.
3. And, through intuitive dashboards and reporting tools, **have confidence to track progress,** engage stakeholders, and lead climate efforts across your value chain.

Ready to make Scope 1, 2, and 3 visible—and actionable?

Get started with Zeigo Activate

> **"Zeigo Activate helped by unifying and synergizing all the data, streamlining the emissions calculation process, and making it easier for us to track and reduce our carbon footprint across all sites"**

Amir Levy, EHS & ESG Director, MedOne