

Unlocking Sustainable Success Through Innovation

ASCEND, March 11, 2026

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Plan for the Day

- What is Sustainability?
 - Lifecycle Thinking
 - Innovation
- Scope 1, 2, 3 Emissions
 - GHG Framework
 - Calculation Methodology
- Certifications and Proofs
 - ISO 14001, ECOVADIS, SBTi
- 90-Day Action Plan



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Sustainability Requirements

Which of the following has a buyer asked your company to provide?

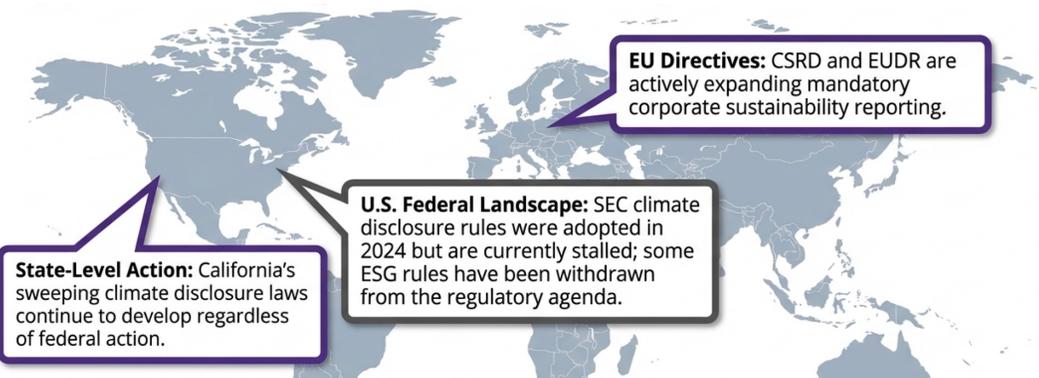
 Carbon emissions data (Scope 1, 2, or 3)	 EcoVadis assessment rating
 Custom sustainability or ESG questionnaires	 ISO 14001 certification

If you haven't seen these asks yet — you probably will soon.

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Still Relevant!



EU Directives: CSRD and EUDR are actively expanding mandatory corporate sustainability reporting.

U.S. Federal Landscape: SEC climate disclosure rules were adopted in 2024 but are currently stalled; some ESG rules have been withdrawn from the regulatory agenda.

State-Level Action: California's sweeping climate disclosure laws continue to develop regardless of federal action.

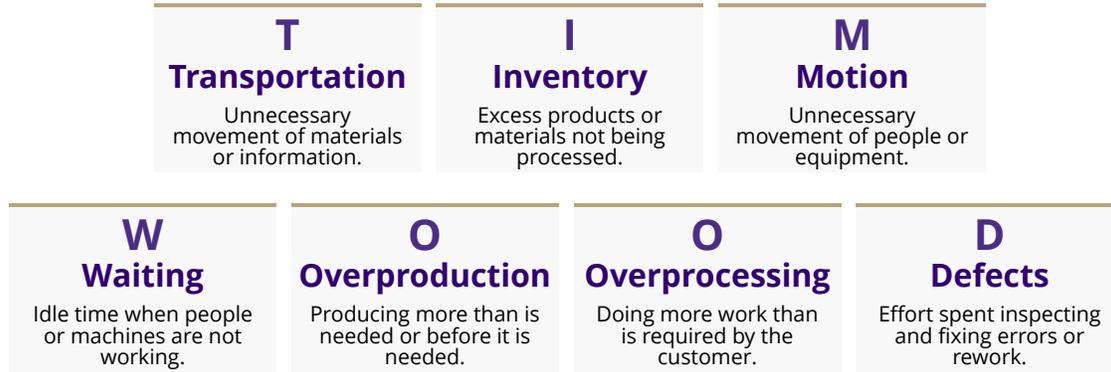
Key Insight: Even when regulatory timelines shift, large buyers still require your data to satisfy global markets and investor pressure.

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Sustainability Benefits go Beyond Requirements

Toyota Production System (TPS) - Waste elimination



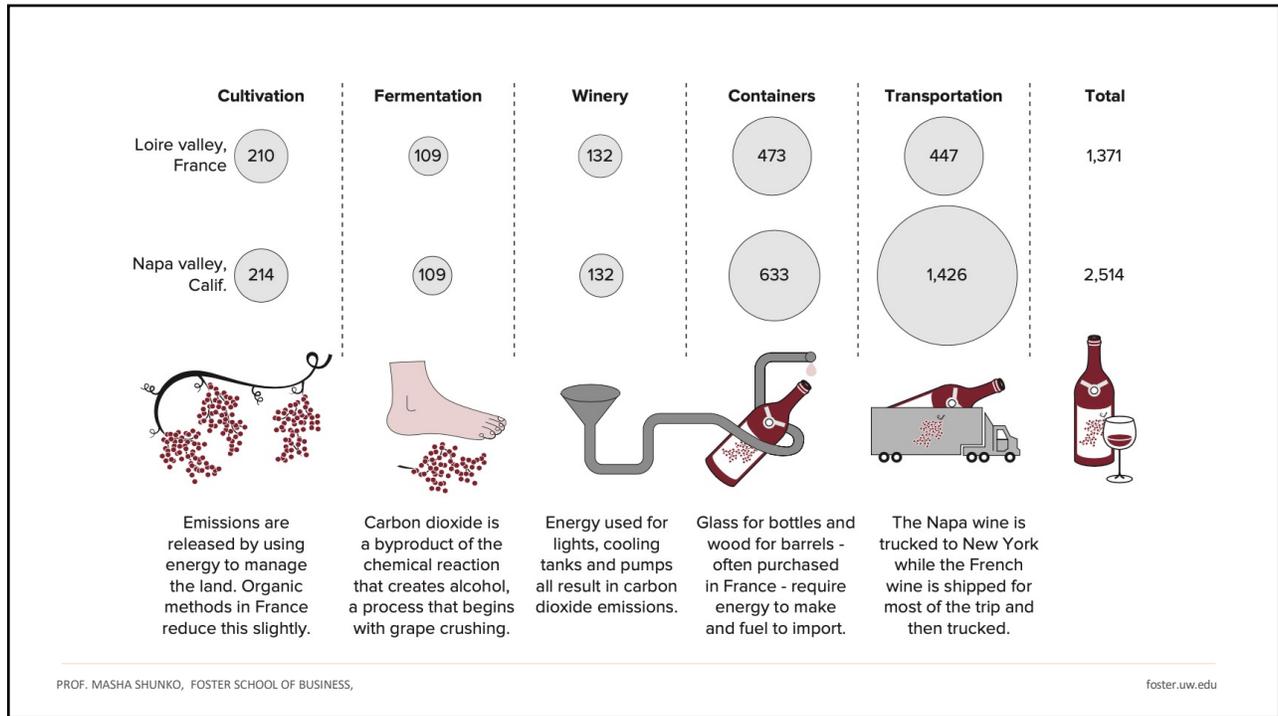
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What will have a higher carbon footprint in a New York restaurant?

a bottle of wine from
 – Napa Valley, Ca, or
 – Loire Valley, France?

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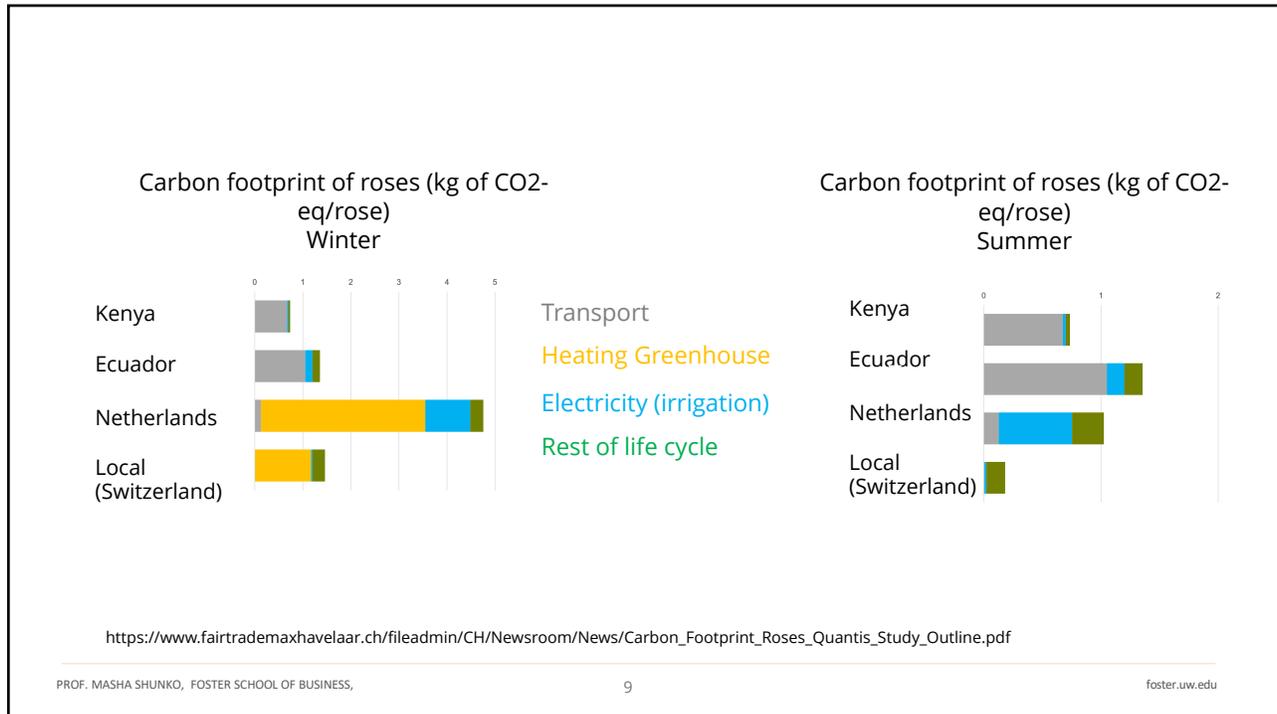
What rose purchased in Switzerland will have a higher carbon footprint?

a rose grown in

- the Netherlands,
- Kenya,
- or Ecuador.

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The Power of Systems Thinking

Shift the focus from "Where is it from?" to "How was it produced and moved?"

- EVALUATE THE METHOD, NOT JUST THE MILES**
Transportation mode often drives emissions more than raw distance.
- SCRUTINIZE PRODUCTION**
Manufacturing processes frequently outweigh logistics in the overall footprint.
- LOOK BEYOND THE PRODUCT**
Energy grids, packaging, and container choices can dominate the lifecycle impact.
- EMBRACE DYNAMIC MODELS**
Recognize that sustainability metrics shift as supply chains evolve.
- RELY ON LIFECYCLE ANALYSIS**
Base sustainable innovation on comprehensive data, rather than intuition.

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Beyond the Environment: The Human Cost

Sustainability is incomplete without Social Responsibility.

28 Million
People trapped in forced labor globally (ILO, 2022).

160 Million
Children engaged in child labor worldwide.

70% Hidden Risks: 70% of supply chain human rights violations occur in the lower tiers (Tier 2 and beyond).

A low-carbon product made under unsafe labor conditions is not sustainable.

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Triple Bottom Line

- Planet – Environmental Responsibility
- People – Social Responsibility
- Profit – Economic Responsibility

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Reduce Cost and Emissions

Example: DiGiorno & California Pizza Kitchen — slimmer pizza cartons

 ENVIRONMENTAL BENEFIT

 ECONOMIC BENEFIT

Many “reduce” moves create hidden operational gains that carbon-only thinking misses.

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BREAKOUT DISCUSSION — 5 MINUTES

Pick one real product, service, or process from your company.

- 1 Where does the largest environmental impact occur in your value chain — and is it where you expected?
- 2 What would a lifecycle analysis of your core offering reveal that surprises you?
- 3 Which "reduce" move in your business could be both environmentally meaningful AND economically attractive?

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Timing of Impact

Invest in sustainability Break-even

Months? Years? Many years?

<p>1. EFFICIENCY IMPROVEMENTS</p> <p>Payback: Months</p> <p>LED lighting, Compressed air fixes, Right-sized packaging, Route/load factor improvements.</p> <p><i>Best when you need quick savings and proof points.</i></p>	<p>2. OPERATING MODEL REDESIGN</p> <p>Payback: Months to Years</p> <p>Refill packs, Reverse logistics, Supplier changes, Waste-to-value partnerships.</p> <p><i>Best when cost structure and service model both change.</i></p>	<p>3. BUSINESS MODEL INNOVATION</p> <p>Payback: Years</p> <p>Product-as-a-service, Subscription/refill systems, Performance contracts, Circular asset ownership.</p> <p><i>Best when you can redefine how value is delivered.</i></p>
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Capital and Risk are Typical Barriers

Replacing Bulbs with LED - ESCO Model

<p> SHARED SAVINGS MODEL</p> <ul style="list-style-type: none"> → Provider funds the upgrade → Savings are shared between provider and customer → Payback covered from savings <p><i>Useful when the customer wants limited upfront risk.</i></p>	<p> GUARANTEED SAVINGS MODEL</p> <ul style="list-style-type: none"> → Same structure — but the customer's share of savings is contractually guaranteed. <p><i>Stronger credibility, stronger measurement discipline.</i></p>
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What sustainability move in your business is economically attractive, but hard to fund?

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If you came home to find that your apartment was flooding, would you immediately start mopping up the water?

UPSTREAM INNOVATION

- Material selection
- Business model
- Packaging design
- Shipping method
- Intended use

DOWNSTREAM INNOVATION

- Collection
- Sorting
- Recycling technology

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Sustainable Innovation

Upstream Innovation	Downstream Innovation
Prevent waste from being generated	Figure out ways to deal with generated waste
<ul style="list-style-type: none"> • Material Selection • Packaging Design • Business Model • Manufacturing Methods • Shipping Methods 	<ul style="list-style-type: none"> • Collection • Sorting • Recycling technology • By-Product Synergy (BPS)

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Downstream Innovation: By-product synergy (BPS)

Collaborative effort where waste or by-product streams from one company's operation are used as resources in another company's processes, creating mutual benefits.

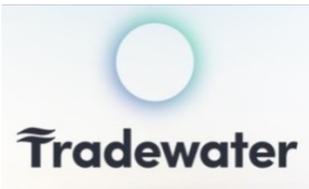
- Reduce Waste
- Create Economic Value
- Promote Collaborative Innovation
- Enhance Sustainability



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By-Product Synergy - Refrigerant



Destroying the world's most potent refrigerants — one cylinder at a time.

Source

Collect refrigerants from individuals, contractors & commercial partners across the US

Destroy

High-temperature incineration at licensed facilities eliminates gases permanently

Certify

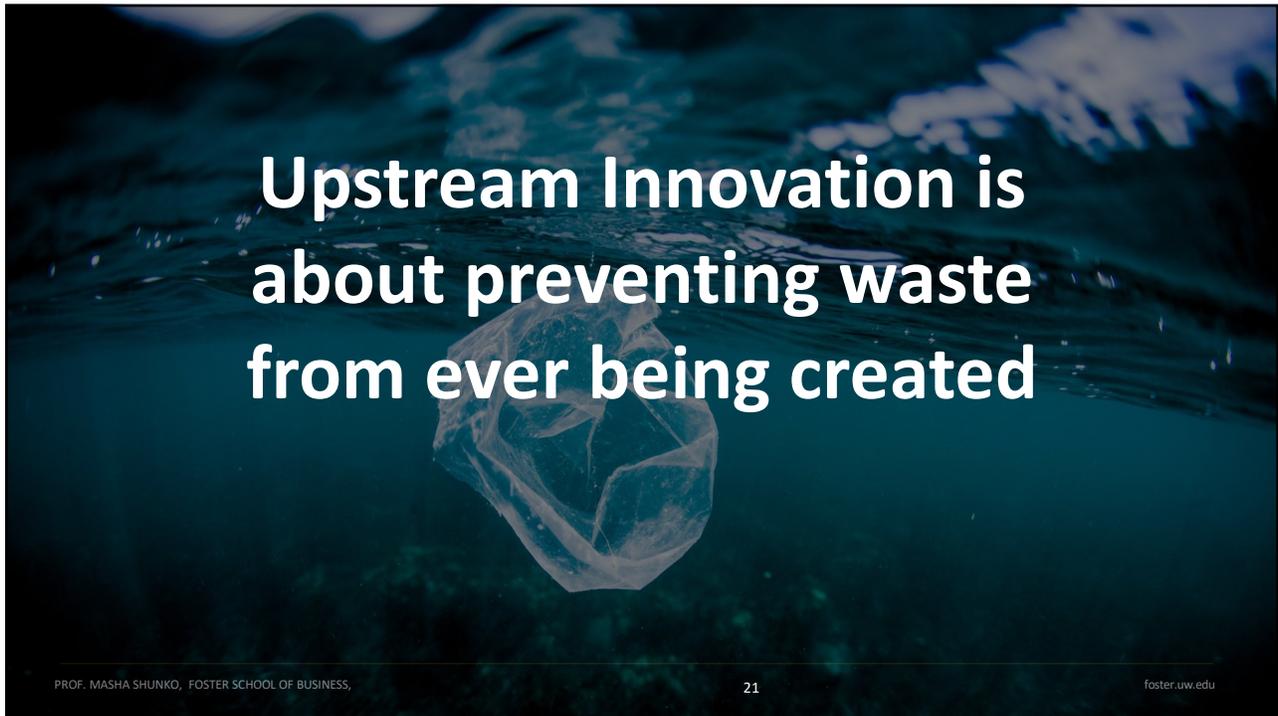
Destruction verified by third parties

Monetize

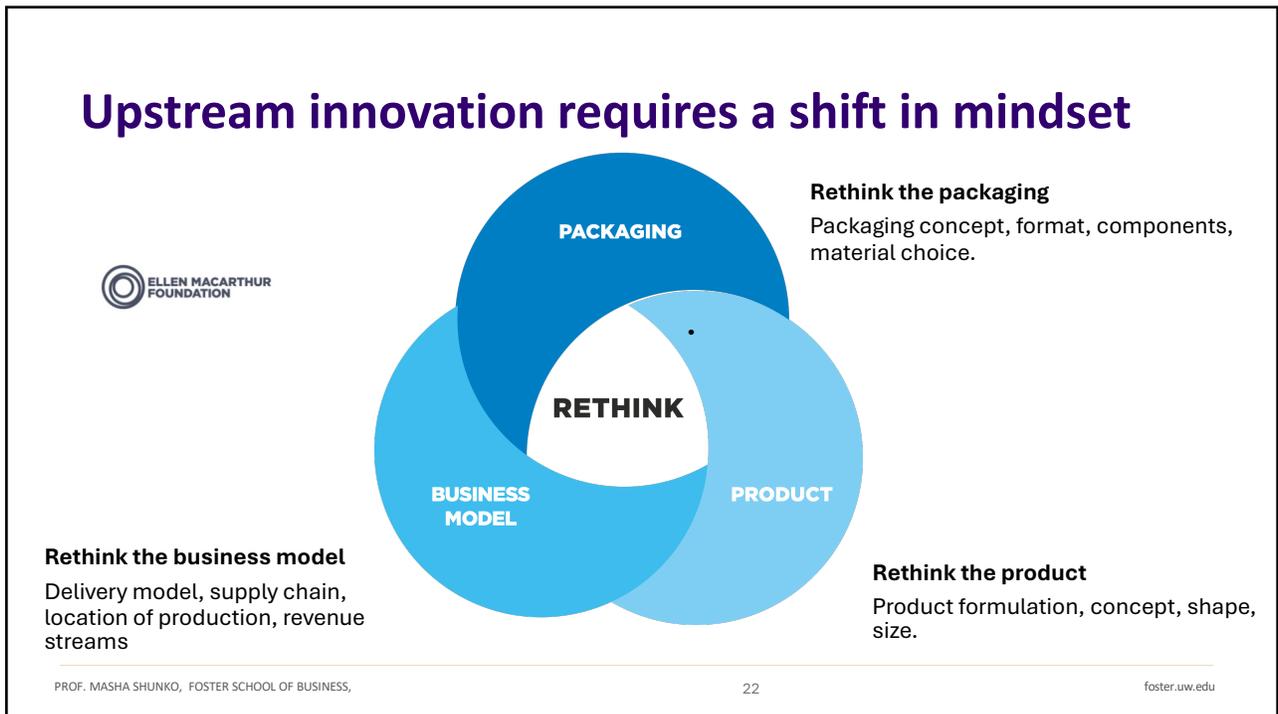
Carbon credits sold to corporations looking to offset emissions or meet net-zero goals

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Upstream Innovation – Eliminating Waste Before It Appears



Everdrop

- Ships tablets instead of water
- Uses reusable bottles
- Reduces logistics cost per use
- Cuts plastic packaging dramatically



Carlsberg

- Removes plastic rings through smart redesign
- Keeps recycling compatibility intact
- Delivers large-scale plastic reduction



WinCo Foods

- Uses bulk dispensing to reduce packaging
- Improves traceability and customer insight
- Turns refill into an operational advantage

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Upstream Innovation – Eliminating Waste Before It Appears



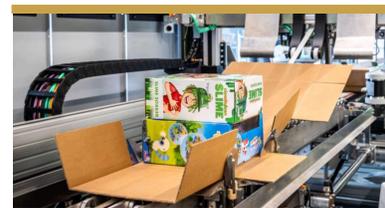
Reusable Shipping Containers

- Reusable shipping containers replace single-use cardboard
- Durable boxes ship full, then collapse for return logistics
- Designed for repeated shipping cycles



Palletless Logistics

- Replaces wooden pallets with thin slip sheets
- Frees more space in trucks and containers
- Eliminates pallet manufacturing and return logistics



Custom Box Sizes

- Automated machines create right-sized boxes for each order
- Reduces excess packaging and filler material
- Fits more shipments per truck

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Sustainable Innovation Across Sectors

IT / PROFESSIONAL SERVICES

- Cloud architecture optimization
- Travel policy redesign
- Device refresh cycle extension
- Managed print reduction
- E-waste programs

CONSTRUCTION / ENGINEERING

- Material substitution (low-carbon steel, concrete)
- Prefabrication
- Haul route optimization
- Reuse of site assets
- Low-waste structural design

AEROSPACE / MANUFACTURING

- Yield improvement
- Scrap reduction
- Energy intensity reduction
- Component life extension

HEALTHCARE / PHARMA SERVICES

- Refill or bulk dispensing
- Cold-chain design optimization
- Delivery format innovation
- Route and inventory discipline

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SMALL-GROUP EXERCISE — 5 MINUTES

Pick one real offering or process from your company

PRODUCT

What could you remove, shrink, redesign, or standardize?

PACKAGING

Where are you shipping water, air, or one-time material?

BUSINESS MODEL

Could value be delivered as a service, refill, or lease instead?

SUPPLY CHAIN

Where is the biggest waste, cost, or carbon hotspot in your chain?

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MEASURING IMPACT & CERTIFICATIONS

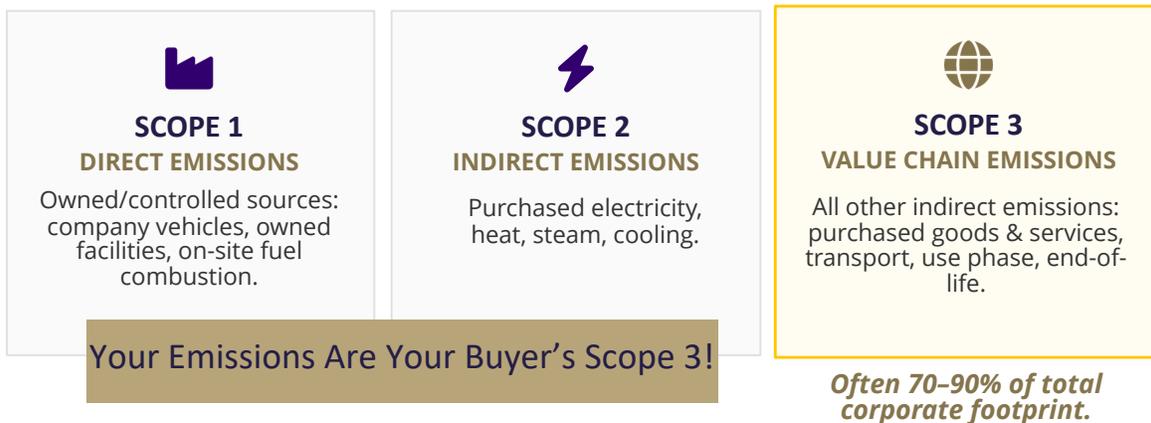
You can't manage what you don't measure — and you can't win what you can't prove.



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Three Scopes of Corporate Emissions (GHG Protocol)



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Scope 3 Has 15 Categories

GHG Protocol Upstream (Categories 1–8) and Downstream (Categories 9–15)

UPSTREAM

Before Your Operations

1. **Purchased goods & services**
2. Capital goods
3. Fuel & energy-related activities
4. **Upstream transportation**
5. Waste in operations
6. Business travel
7. **Employee commuting**
8. Upstream leased assets

DOWNSTREAM

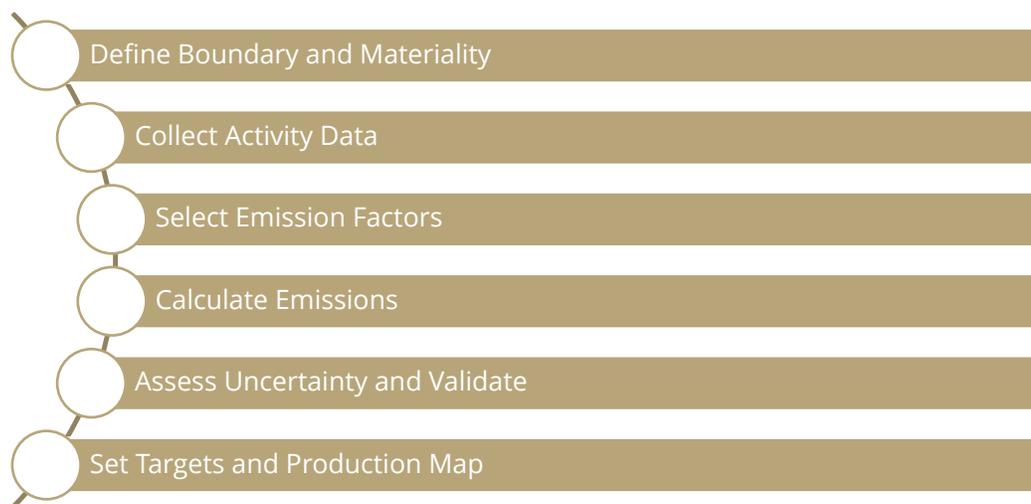
After Your Operations

9. Downstream transportation
10. Processing of sold products
11. **Use of sold products**
12. End-of-life treatment
13. Downstream leased assets
14. Franchises
15. Investments

For most SMBs, Categories 1, 4, 7, and 11 are the highest-priority starting points.

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6-Steps For Measuring Scope 3 Emissions



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SMALL-GROUP EXERCISE — 5 MINUTES

You are Head of Sustainability at NorthPeak Construction. The CEO has asked you to prepare the company's first Scope 3 report to respond to client and investor pressure.

Which 2-3 Scope 3 categories are most material for a construction project - and why?

Category 11 (building use phase over 50 years) can dominate lifecycle emissions. What does that imply for reduction priorities?

Key insight: use phase can dominate the lifecycle; low-carbon materials and operational energy performance are high-leverage strategies.

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Large Buyers Expect Sustainability from Suppliers

Fortune 500 companies are cascading their net-zero targets down the supply chain

TECH SECTOR

MICROSOFT

- Supplier emissions data increasingly matters in procurement
- Strategic suppliers are expected to report and improve
- Carbon performance is moving into scorecards

RETAIL SECTOR

WALMART

- Project Gigaton pushes suppliers to reduce value-chain emissions
- Suppliers report actions and progress
- Better sustainability performance improves buyer visibility

ELECTRONICS SECTOR

Apple

- Suppliers are pushed to measure and reduce emissions
- Clean energy adoption is a major expectation
- Environmental performance influences supplier standing

Evidence beats intent. Buyers reward suppliers who can show metrics, progress, and credible proof points.

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Three Dominant Sustainability Frameworks

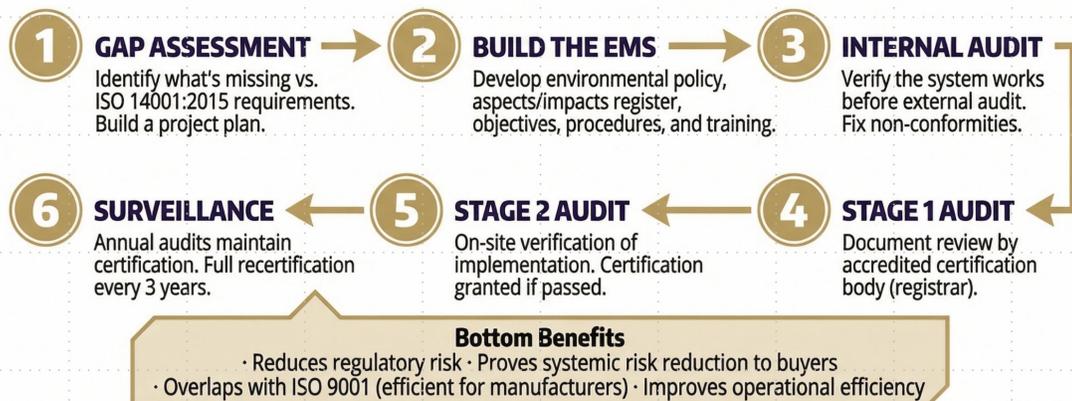
Different purposes, different audiences, different levels of effort

<p>ISO 14001</p> <p>International standard for Environmental Management Systems (EMS)</p> <p>Focuses on structured environmental processes, compliance, and continuous improvement</p> <p>Best for</p> <p>Manufacturing, construction, and other asset-heavy industries</p> <p>Often expected in government contracts and large industrial RFPs</p> <p>Effort level: High</p>	<p>ECOVADIS</p> <p>ESG rating platform covering Environment, Labor & Human Rights, Ethics, and Sustainable Procurement</p> <p>Provides a scorecard and medal rating</p> <p>Best for</p> <p>B2B suppliers across industries</p> <p>Commonly used by large buyers to assess supplier risk and performance</p> <p>Effort level: Medium to high</p>	<p>SBTI</p> <p>Science Based Targets initiative (SBTi) framework</p> <p>Validates company GHG reduction targets aligned with the Paris Agreement</p> <p>Best for</p> <p>Companies with significant carbon footprints</p> <p>Firms aiming to demonstrate credible climate commitments to investors and major clients</p> <p>Effort level: Very high</p>
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ISO 14001

Typical timeline: 6-12 months. The value is in the discipline it builds, not just the certificate on the wall.



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ECOVADIS

FOUR ASSESSMENT THEMES

	Environment: ~35% weight		Labor & Human Rights: ~30% weight
	Ethics: ~20% weight		Sustainable Procurement: ~15% weight

MEDAL HIERARCHY & RECOGNITION



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Process vs. Product Certifications

PROCESS CERTIFICATIONS

FOCUS
How the company operates, manages risk, and drives continuous improvement.

SCOPE
The entire organization or a specific facility.

BUYER VALUE
Predictability, supply chain resilience, and alignment with corporate ESG goals.
Examples: ISO 14001, EcoVadis, B Corp

PRODUCT CERTIFICATIONS

FOCUS
Specific environmental or social attributes of a single item.

SCOPE
An individual SKU or specific product line.

BUYER VALUE
Marketing claims, consumer labeling, and specific compliance requirements.
Examples: Energy Star, FSC, Fair Trade, USDA Organic

Process certifications prove your organization is built to manage risk and improve over time.

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SMALL-GROUP EXERCISE — 5 MINUTES

Where will you start?



Your SMB has a limited budget (\$15k) and bandwidth for sustainability this year. You are facing pressure from two major enterprise clients to demonstrate your sustainability commitment.

1

ISO 14001

Build a formal Environmental Management System. Good for heavy industry and government bids.

2

ECOVADIS

Complete a comprehensive ESG assessment. Highly requested by Fortune 500 procurement teams.

3

CARBON INVENTORY

Measure Scope 1, 2 & 3 emissions. Essential for setting targets and answering specific climate data requests.

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Where to go Next?

BUYER DEMAND

QUICK WINS

- Basic ESG policy & governance documentation
- Supplier / employee code of conduct updates
- Initial Scope 1 & 2 carbon inventory
- Responding to buyer ESG questionnaires

STRATEGIC IMPERATIVES

- EcoVadis assessment (Silver/Gold level)
- ISO 14001 certification
- Full Scope 3 emissions inventory
- Science-Based Targets (SBTi)

NICE TO HAVE

- Local community engagement initiatives
- Basic volunteering or philanthropy metrics
- Early sustainability marketing initiatives

DISTRACTIONS

- Niche product certifications not requested by buyers
- Highly customized reporting frameworks
- PR campaigns without supporting sustainability data

IMPLEMENTATION EFFORT & COST

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90-day Action Plan to Start Monday

1 MAP THE REQUESTS DAYS 1-15

Audit recent RFPs and major client contracts. What specific ESG data, certifications, or targets are your top 5 buyers asking for? Let customer demand guide your priorities.

2 BASELINE THE DATA DAYS 16-45

Start your Scope 1 & 2 carbon inventory. Gather utility bills and fuel records. You cannot improve what you haven't measured, and buyers will expect this baseline.

3 PICK ONE UPSTREAM WIN DAYS 46-60

Identify one product, packaging element, or process where you can eliminate waste before it's created. Look for the intersection of environmental benefit and cost savings.

4 CHOOSE YOUR PROOF POINT DAYS 61-90

Decide on your certification strategy. Based on your buyer mapping, commit to ISO 14001, EcoVadis, or a formal GHG report. Allocate budget and assign an internal owner.

Sustainability is a journey of continuous improvement.

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Thank you!

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