Environmental data tracking and reporting

6 steps to get you started

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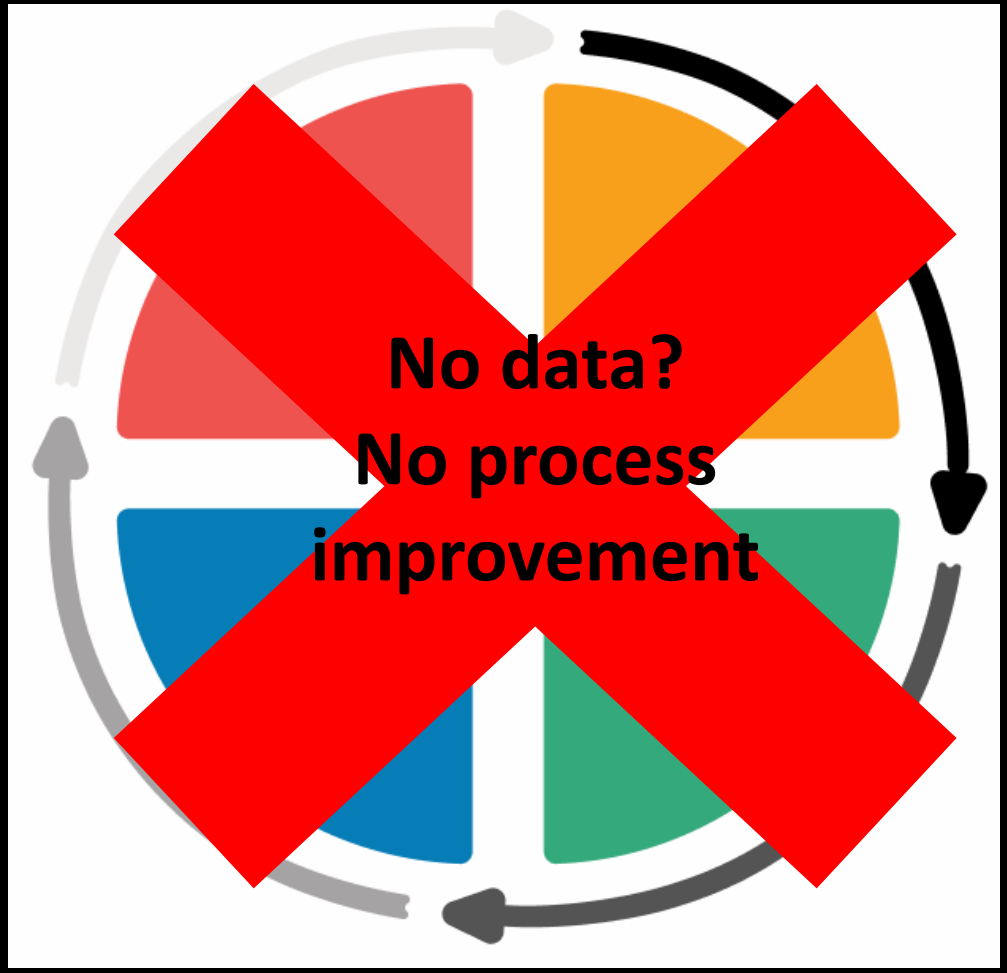
Agenda

- Data Tracking Overview
- Testimonial
- Methods & Tools
- Benchmarking Demonstration
- Tool Exploration
- Cohort Break-outs & Lunch

Many reasons to track data

- Enable process improvement
- Save money
- Develop goals & measure success
- Communicate to stakeholders
- Meet regulatory requirements
- Meet supply chain requirements
- Enable reporting


No data?
No process
improvement

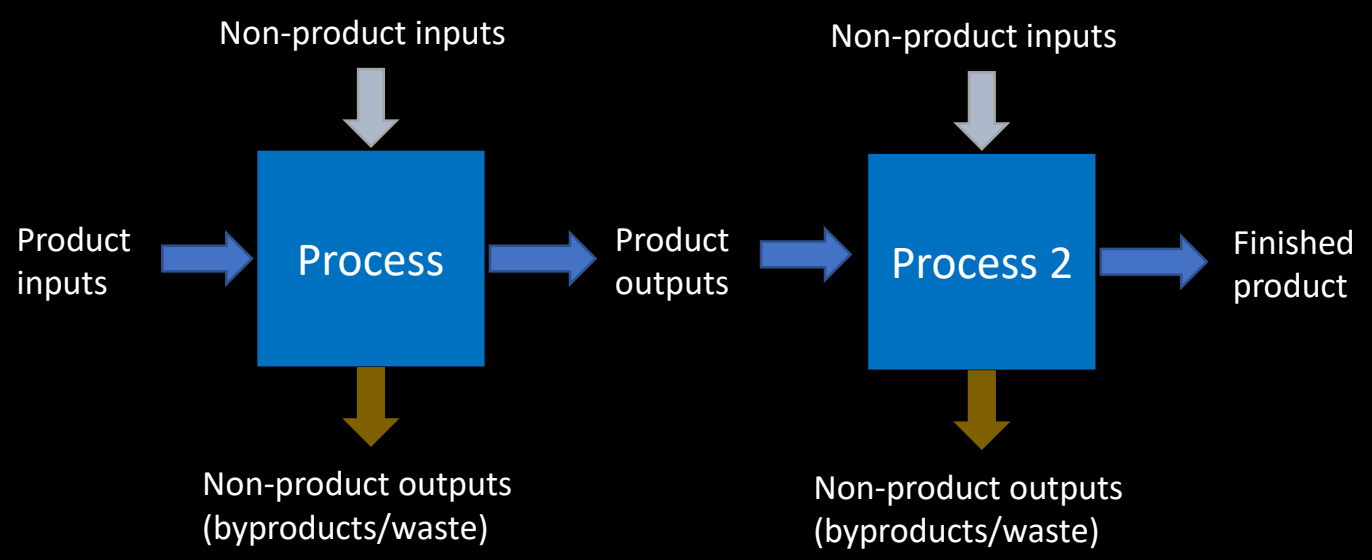
Potential sources of cost savings

Purchasing Energy Utilities Refrigerants Raw materials Worker protection	**Waste** Solid waste disposal Hazardous waste disposal Wastewater surcharges	**Regulatory** Permitting Filing fees Workman's comp
Legal Liability Insurance	**Brand image** Increase customer base Satisfy shareholders	

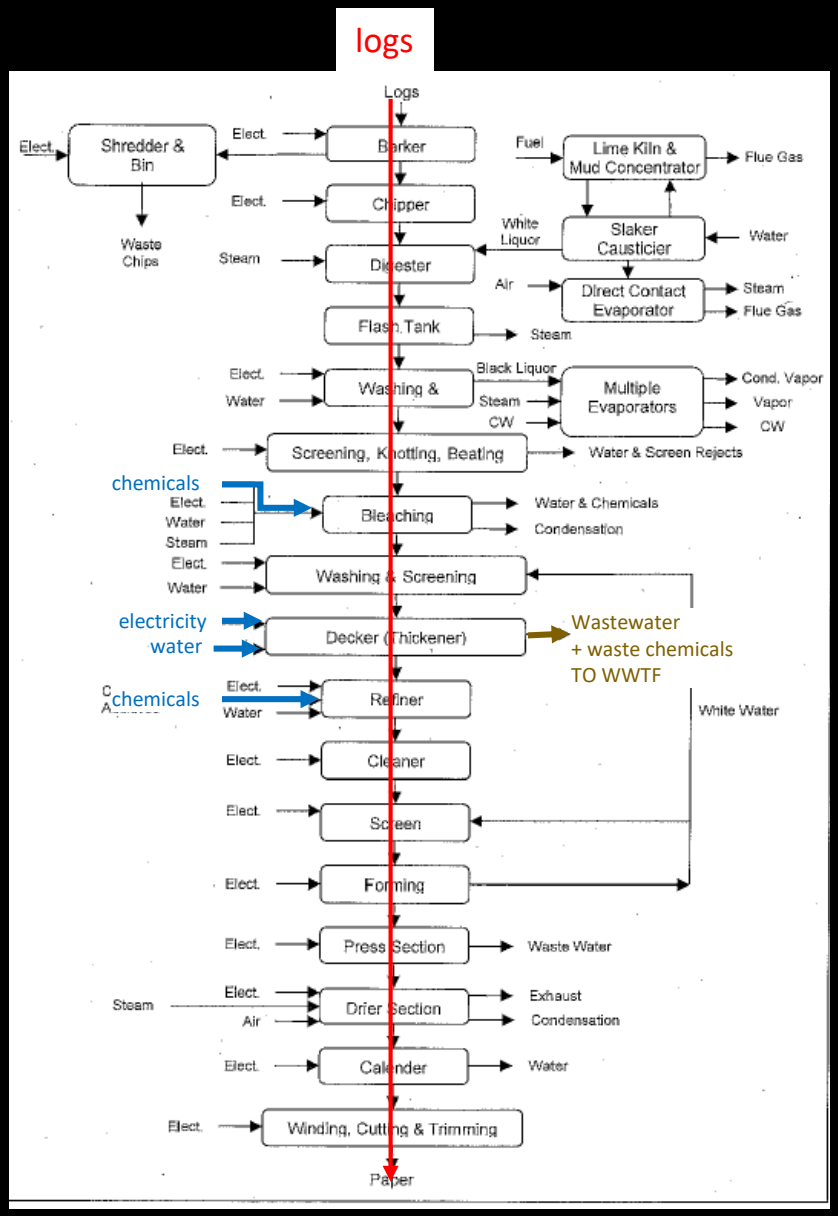
Overview of implementing a tracking program

Step 1:
Know your process

Process mapping: What & where are inputs and outputs?



Process flow diagram for a pulp & paper production facility



Toxics Use Reduction Institute, UMass-Lowell

Step 2:
Choose metrics to track

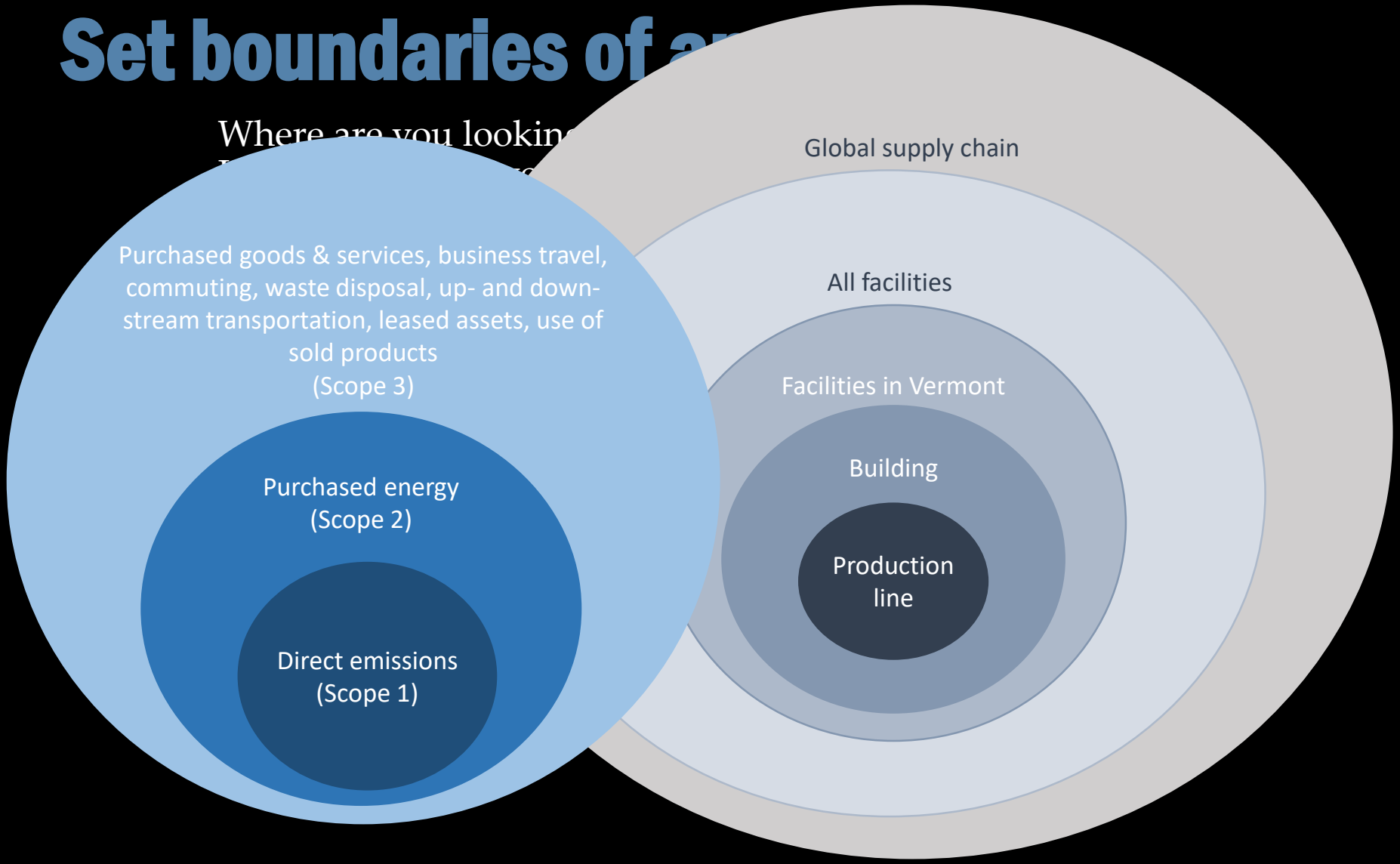
energy
water use
wastewater
solid waste
hazardous waste
chemicals use
land use impacts
expenses

Step 3:
Identify data sources

- Utility bills
- Inventories
- Direct measurement
- Purchase records
- Waste disposal invoices / manifests
- Operating manuals
- Operation logs
- Production line job sheets
- Engineering calculations
- Mass balance
- Permits
- Sewer discharge records

Step 4:
Set boundaries of a

Where are you lookin



Step 5:
Select a unit of product

A measure that normalizes for level of production

- Gallons of water used *Per* barrel of beer
- Pounds of hazardous chemical used *Per* pound of metal hinges manufactured
- kWh electricity used *Per* gallon of paint made

Units of product for?

Yogurt making
Computer peripheral cable manufacture
Laundering uniforms

Step 6:
Select a Tracking System

Excel spreadsheets

- DEC Sustainability Cohorts template
- Power BI

Free software

- Energy Star Portfolio Manager
- EPA Corporate Climate Leadership Calculator
- EPA P2 Calculator

Industry software

- Brewers' Association benchmarking tool

Purchased software

Internally-developed proprietary software

Reporting

Reporting

What's the difference between tracking and reporting?

- Tracking is internal, reporting is (usually) external
- Reporting is often a composite of multiple metrics

Track

Electricity use
Water use
Waste disposal
Chemicals use
Refrigerant use

→

Report

GHG emissions

Why report?

- Good marketing of how you run your business
- Earn sustainability certification
- Benchmark yourself against other companies
- Show progress and improvement to investors, employees and customers
- Meet supply chain requirements
- Meet corporate sustainability commitments
- Comply with regulatory requirements

Frameworks for reporting: Global Reporting Initiative

- Provides standards and detailed guidance for reporting
- Social, Environmental & Economic topic-specific standards

Environmental areas:

Materials
Energy
Water and Effluents
Emissions
Effluents and Waste
Environmental Compliance
Supplier Environmental Assessment

Frameworks for reporting: Greenhouse Gas Protocol

- Corporate standard
- Scope 3 corporate value chain

PepsiCo. 2016 Sustainability Report
GRI-G4 standard

FOCUS AREA	GOAL	2015 BASELINE	2016 STATUS	2025 TARGET	COMMENTARY
Water	Improve the water-use efficiency of our direct agricultural supply chain by 15% in high-water-risk sourcing areas	N/A	N/A	15%	Baseline validation in progress; high-water-risk locations defined by WRI's Aqueduct tool.
	Build on the 25% improvement in water-use efficiency achieved to date with an additional 25% improvement by 2025, with a focus on manufacturing operations in high-water-risk areas	0%	1%	25%	Execution in progress.
	Maximize water reuse in high-water-risk areas and strive to have 100% of wastewater from our operations meet PepsiCo's high standards for protection of the environment	N/A	90% (Baseline)	100%	2016 baseline year; where wastewater discharges not metered, 2016 baseline volume estimated based on production and process data.
	Work to provide appropriate access to safe water, sanitation and hygiene (WASH) for 100% of our own manufacturing employees	N/A	80% (Baseline)	100%	2016 performance reflects compliance with Tier 1 WASH criteria (see definition in Water section of A–Z Topics on pepsico.com).
	Replenish 100% of the water we consume in manufacturing operations located in high-water-risk areas, and ensure that such replenishment takes place in the same watershed where the extraction has occurred	Each year, progress will be measured vs. volume of consumed water in previous year.	26%	100%	Replenishment benefits claimed for local activities are capped at 100% to prevent overachieving projects from inflating global progress measurement. Have over-delivered replenishment targets in India and Jordan.
	Advocate for strong water governance in communities and watersheds where we operate, promoting water solutions that meet local needs	Qualitative Goal			Initiating and supporting collaborative efforts; establishing local partnerships.
	Initiate and support collaborative efforts with other stakeholders to address water risk and mitigate water insecurity	Qualitative Goal			Initiating and supporting collaborative efforts; establishing local partnerships.
	With the PepsiCo Foundation and its partners, work to	9 million	11 million	25 million	Execution in progress.

Setting goals

Setting goals

What are your biggest impacts? May depend on *who* – workers, local community, global

Who cares? What do internal and external stakeholders care about?

Where are your costs? Track your expenses

What's realistic? Benchmark yourself and your industry

Who can help? Are there resources that can help you?

Setting goals

Timeline: Set a baseline and target year

Metric: Absolute number, rate, etc.

Stringency & scope: Greater accuracy and scope can require greater investment of time and resources

Financials: Know what you have available and what ROI you need

Third party: Do you want certification through an outside party or organization?