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How AI can earn its keep with manufacturers' sustainability data

Where AI is ready to trust across the sustainability value chain

Manufacturers Alliance | November 10, 2026

WHO WE ARE

A data platform built for manufacturers, starting from operations



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Co-Founder & CEO

Former Tracera CTO, previously CTO at Caroo and Rocketrip, Carnegie Mellon MBA



Poppy Hammond

Lead Product Manager

Previously at EnerSys, with a master's in climate from Columbia University

50+

Enterprise customers across North America and Europe

BAIN & COMPANY

Spun out of Bain & Company in 2022

~50 FTEs

Across our NYC HQ and global hubs

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LEARNING OBJECTIVES

What you will take away today

1

Identify where AI can reliably support each stage of the manufacturing sustainability value chain

2

Distinguish tasks that can be automated today from those that still require human judgment

3

Apply a structured framework to evaluate AI claims made by sustainability software vendors

4

Recognize the controls needed to keep AI-supported sustainability data audit-ready

THE CHALLENGE

The real question is where AI fits and who owns the result

Where to use it

Which tasks across the value chain are ready for AI

How to use it well

The data, setup and controls that make outputs reliable

Who owns the outcome

Where a person reviews, decides and signs off



The central trade-off is between speed and accuracy

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MANUFACTURERS ALLIANCE · NOVEMBER 10, 2026

Four stages of the sustainability value chain

1. **Data collection**
   Guide stages · Operational data, supplier and Scope 3 data
2. **Emissions calculations**
   Guide stages · Emissions calculation
3. **Reporting and compliance**
   Guide stages · Framework mapping and reporting, disclosure drafting
4. **Strategic decisions**
   Guide stages · Decision intelligence, targets, project implementation

THE CHALLENGE

AI that does everything risks errors going unnoticed at every step

NO CHECKPOINTS

⚠ Read documents
Misread invoice goes unnoticed

→

⚠ Match factors
Plausible but wrong factor applied

→

⚠ Convert units
Unit error carried forward

→

⚠ Calculate totals
Errors compound in the total

→

RESULT
A number nobody can trace

WITH CHECKPOINTS

✓ Read documents
Low-confidence reads flagged for review

→

✓ Match factors
Factor, source and version visible

→

✓ Convert units
Conversions logged and repeatable

→

✓ Calculate totals
Material lines reviewed by a person

→

RESULT
A number you can trust

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THE DECISION GUIDE LENS

Seven questions to decide whether a task is ready for AI

Is the task right for AI?

1 Task structure
Rules-based, or dependent on judgment

2 Cost of error
A minor fix, or regulatory exposure

Can you trust the output?

3 Traceability
Back to source, factor and method

4 Proven accuracy
Validated on data like yours

Can you stay in control?

5 Human checkpoints
Review built into the workflow

6 Data governance
Where data goes and what it trains

7 Currency
Keeps pace with rule and factor changes

VERDICT **Ready, with spot checks** AI does the work, you sample it · **Ready, with review** AI drafts, a person approves · **Human-led** People decide, AI supports

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POLL 1

Where is your team using AI in sustainability work today?

- A Not using it yet
- B Data collection
- C Emissions calculations
- D Reporting and compliance
- E Analysis and strategic decisions
- F Other (share in the chat)

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1 · DATA COLLECTION

Data collection is where AI is most ready today

Where AI helps

Document extraction
Reads bills and invoices into structured data

Normalization
Converts units and maps descriptions to categories

Gap and anomaly detection
Flags missing sites, outliers and mismatches

Supplier outreach and intake
Requests and structures supplier data with less burden on suppliers

What stays with people

Scoping
Which sites, entities and activities are in

Supplier relationships
Who to partner with, and building their capability

Anomaly resolution
Explaining why a flagged number looks wrong

Spot-check sampling
Checking extracted values against source

VERDICT **Ready, with spot checks** Extraction and normalization

Ready, with review Anomaly resolution and supplier outreach

Human-led Scoping and supplier relationships

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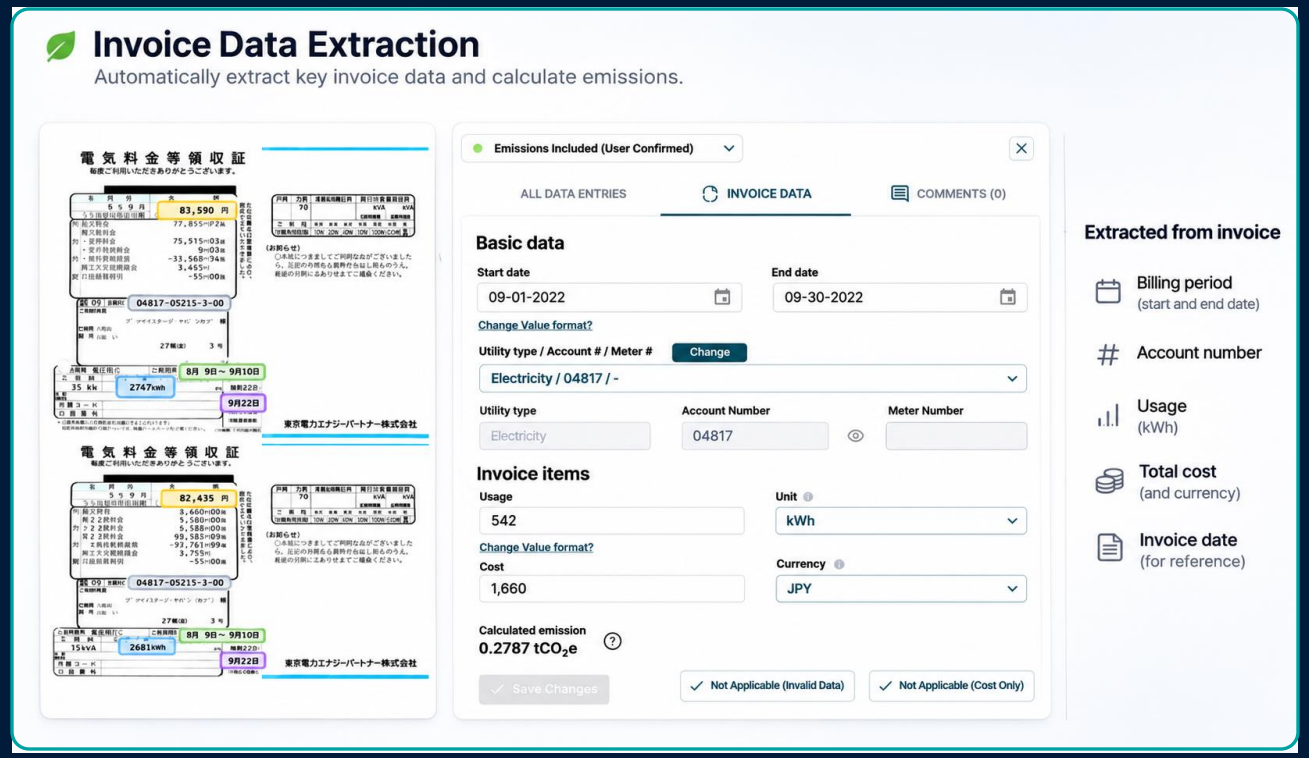
1 · DATA COLLECTION · CUSTOMER EXAMPLE

From three months to under a week

<1 week
Annual reporting, down from 3 months

66 buildings
Across 20 countries and many languages

2 people
Previously full time on invoice entry



"It used to take three months. Now it takes about a week."

Adam
ESG Lead, Global Professional Services Firm

ISO auditors cited the audit trail as best practice during certification

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2 · EMISSIONS CALCULATIONS

Calculations are where vendor claims deserve the most scrutiny

Where AI helps

Emission factor matching
Suggests, ranks and explains a factor for each line item

Spend classification and grouping
Sorts spend and groups near-identical items

Reusing past matches
Carries approved matches forward year to year

What stays with people

The calculation
Fixed formulas, same result every run

Factor library
Versioned, applied by period, logged on update

Method hierarchy and methodology
Which method applies when, base year, triggers

VERDICT **Ready, with spot checks** Spend classification and grouping

Ready, with review High materiality groups

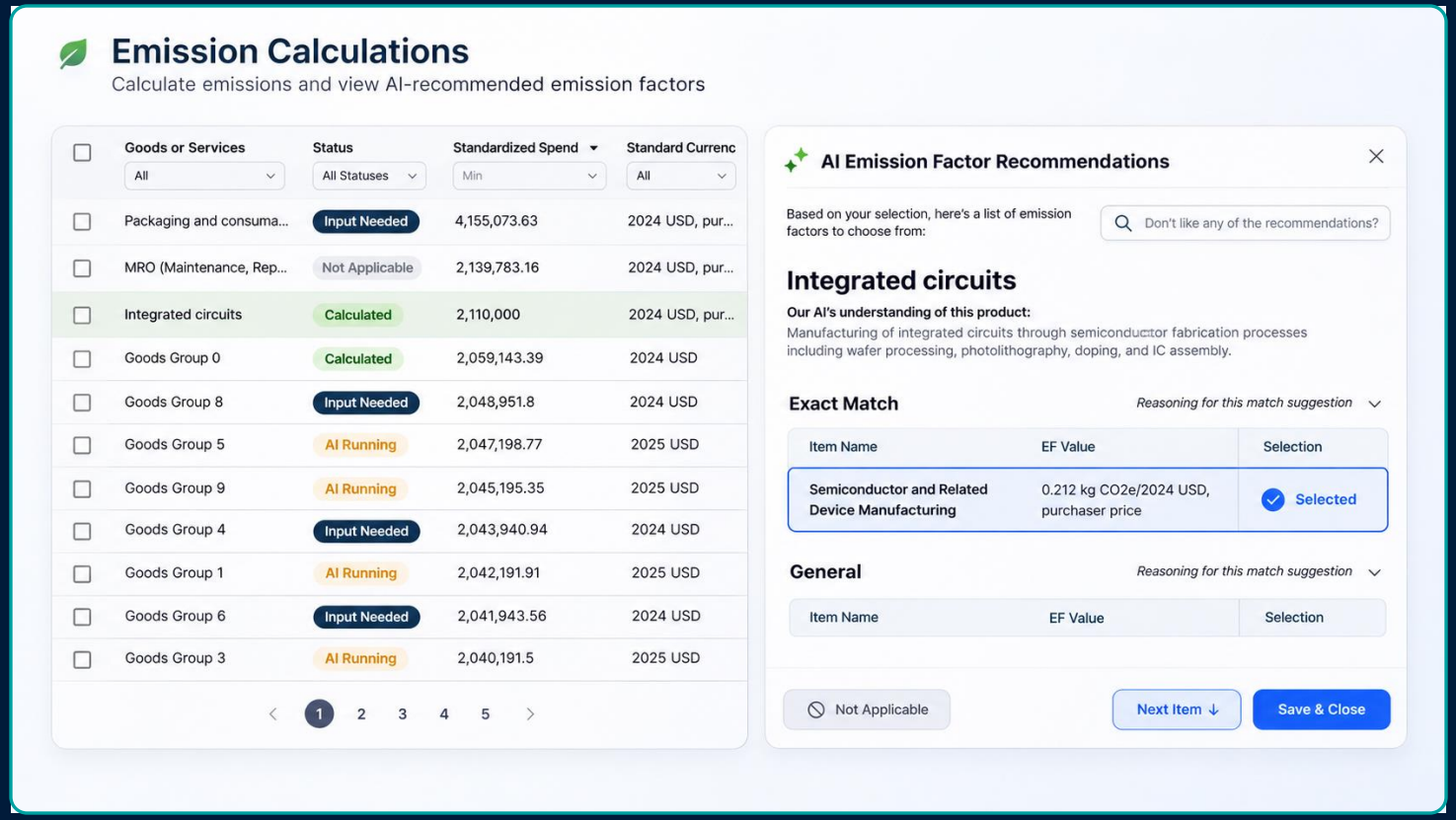
Human-led Methodology decisions

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2 · EMISSIONS CALCULATIONS · CUSTOMER EXAMPLE

A recorded reason behind every factor match

A global industrial manufacturer moved Scope 3 purchased and capital goods reporting from hand-matched Excel into Tracera



AI-suggested factors
A factor and its reasoning, in any language

Historical matching
Earlier years' decisions reused, no rework

Group matching
One factor for a whole group of similar items

Two methods side by side
Activity data for materials, spend for services

Externally audited
Every match carries its recorded reason

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POLL 2

What is your biggest barrier to trusting AI outputs in sustainability work?

- A Auditability and traceability
- B Quality of our underlying data
- C Regulatory or legal risk
- D Internal skills and capacity
- E Lack of vendor transparency
- F Other (share in the chat)

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3 · REPORTING AND COMPLIANCE

Reporting is where your data meets external scrutiny

Where AI helps

Requirement mapping and gap assessment
Maps one dataset across CSRD, CBAM and California's rules

Narrative drafting
First drafts from your data and prior reports

Evidence trails
Links every reported figure back to its source

Regulatory change monitoring
Flags when regulations and their requirements change

What stays with people

Materiality assessment
Including CSRD double materiality

Regulatory determinations
EPR producer status, CBAM values and public claims

Final sign-off
By an accountable person

Fact-checking narrative
Against the underlying data

VERDICT **Ready, with spot checks** Evidence trails

Ready, with review Mapping, gap assessment, drafting and change monitoring

Human-led Materiality, determinations, interpretation and sign-off

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3 · REPORTING AND COMPLIANCE · CUSTOMER EXAMPLE

A narrow flow with a clear evidence trail

A global industrial manufacturer runs its Scope 1 and 2, Scope 3 and CSRD reporting through Tracera

Uploaded documents and prior answers

→

AI drafts section summaries, citing document and page

→

Gaps flagged for a person to complete

→

An auditor traces any statement to its source

Where a generic LLM produces fluent text nobody can verify, every statement here links back to the document or earlier answer behind it

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4 · STRATEGIC DECISIONS

AI shows you where to focus, and people decide what to do

Where AI helps

Operational anomaly detection
Unusual consumption pointing to waste or data errors

Supplier and product benchmarking
Outliers on emissions intensity and carbon pricing exposure

Scenario modeling
Impact of fuel switching or electrification

Decision-ready reporting
Insights framed in cost, risk and return

What stays with people

The decisions themselves
Weighing emissions against cost, risk, timing and strategy

Assumption ownership
Someone owns and challenges every scenario

Operational context
People who know the facility explain the data

Targets and project execution
Human-led, with AI supporting analysis and tracking

VERDICT **Ready, with review** Anomaly detection, benchmarking and scenario modeling

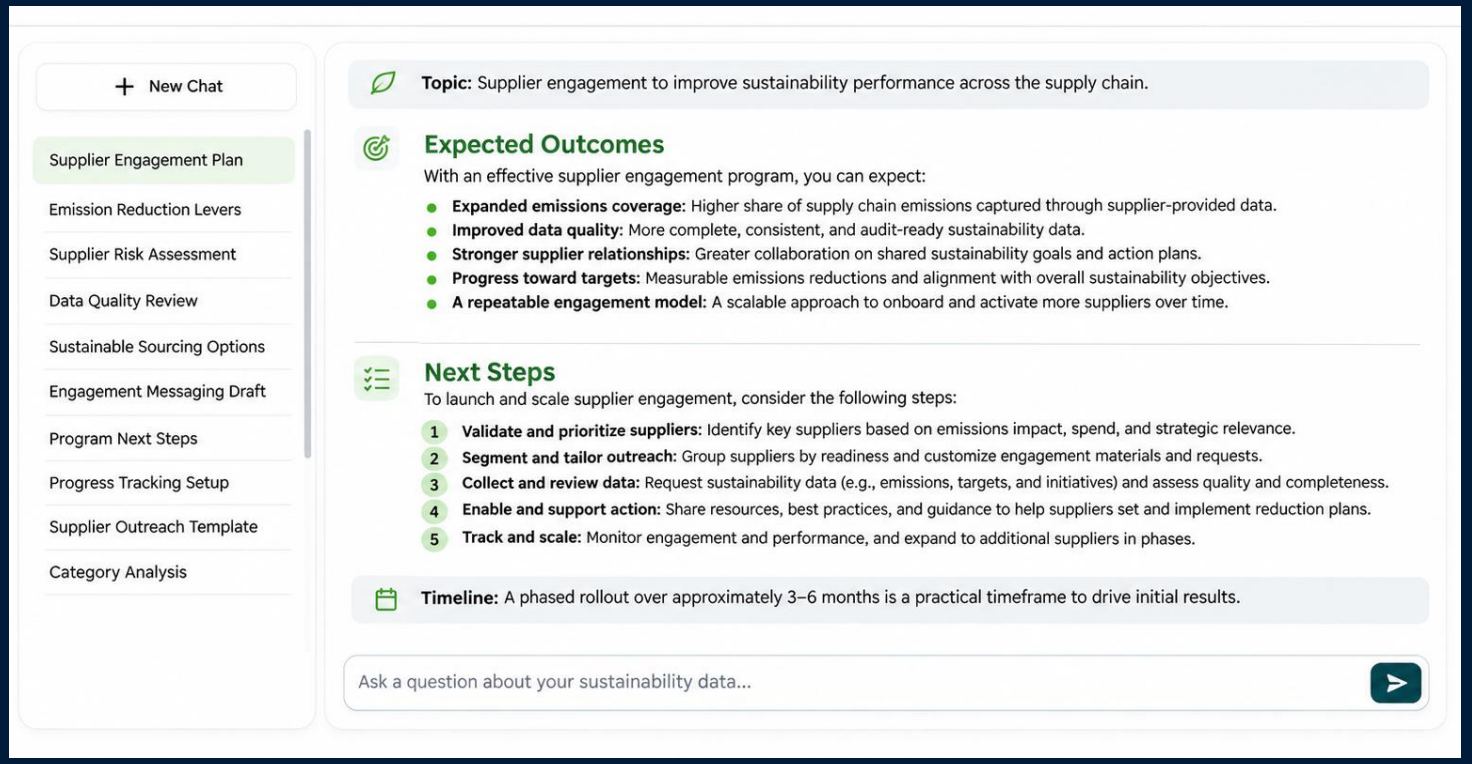
Human-led Investment, operational and target decisions

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4 · STRATEGIC DECISIONS · CUSTOMER EXAMPLE

From Scope 3 data to supplier action

A global beverage manufacturer moving toward supplier-specific data, using Traci, Tracera's AI agent, on its Scope 3 data



80%

of the supplier's emissions footprint concentrated across 50 priority suppliers

Ranked by emissions, reliance on custom factors and relationship stability, giving the team a prioritized case to take to procurement and leadership

The decisions stayed with people, from explaining the plant's numbers to choosing which suppliers to approach

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POLL 3

What decision would you most want your sustainability data to inform in the next year?

- A Energy and fuel efficiency
- B Supplier selection and engagement
- C Capital investments such as electrification
- D Product design and portfolio
- E Meeting customer requirements
- F Other (share in the chat)

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RECAP

AI is most ready at the start of the value chain

1

Data collection

- Ready, with spot checks
- Ready, with review

2

Emissions calculations

- Ready, with spot checks
- Ready, with review

3

Reporting and compliance

- Ready, with review
- Human-led

4

Strategic decisions

- Ready, with review
- Human-led

More ready for AI

More human judgment

The best results come from moving people from manual work to review, interpretation and decisions

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RECAP

Three questions to ask any provider

Once you have decided a task suits AI

1

What is the AI built on?

Specialized flows built and tested for one task, such as reading a utility bill or matching a spend line to a factor

2

How does it prevent hallucination?

Works only from your documents, cites the document and page, flags missing data and shows confidence levels

3

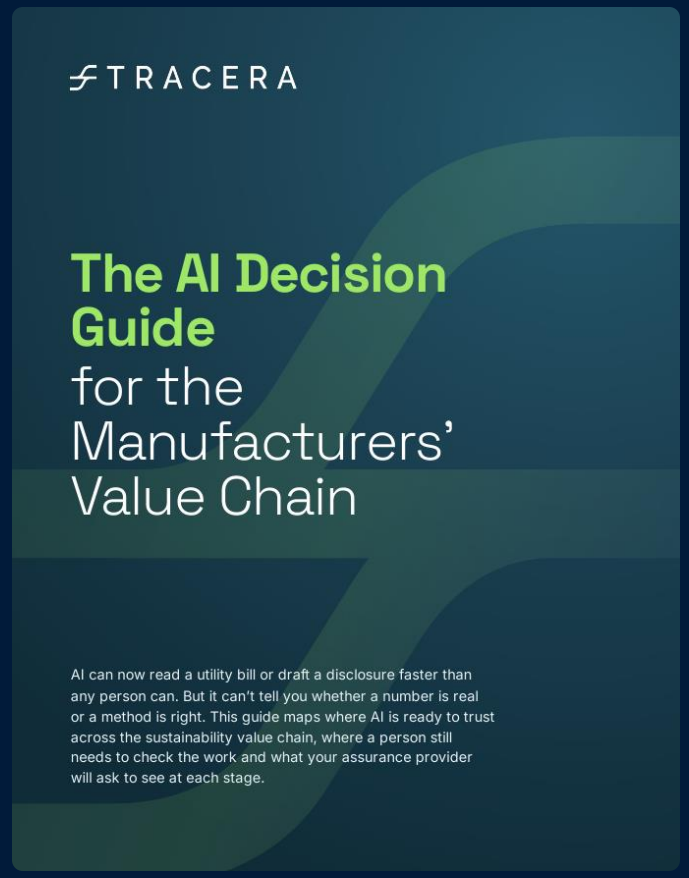
Where does a person review?

AI handles the volume work, while people own methodology, high-impact matches and final sign-off

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YOUR TAKEAWAY

Take the AI Decision Guide with you



- **Stage-by-stage map**
  Where AI is ready to trust across eight stages, and what your assurance provider will expect
- **Seven practices**
  For putting AI to work with output you can stand behind
- **Vendor claims test**
  How to test any vendor's AI claim with your own data

Arriving in your inbox after the session, or available here:

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Q&A

Questions and discussion

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Thank you for joining us!

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