

— **ASM GLOBAL**

Digitalization and Innovation

DATA-DRIVEN DECISION MAKING FOR CIRCULAR ECONOMY STRATEGIES
CIRCULAR ECONOMY FORUM 2025, ADB MANILA

www.asm-recyclx.com



Introduction

- In an increasingly interconnected world, supply chain transparency has moved from being a “nice-to-have” to an absolute imperative.
- Whether we’re dealing with plastics, automobiles, textiles, or batteries, knowing where materials come from, how they move, and where they end up is essential for closing the loop.



Material traceability

Consumers and regulators seek more than just claims—they demand assurance that sustainable supply chains uphold the highest standards of transparency, social inclusion, and ethical business practices.

Social inclusion

Evidence of equitable distribution
of economic value is available

Economic empowerment

Workers are paid fair wages and
there is no marginalisation

Environmental compliance

Supply chain facilities are
compliant with regulations

Claim provenance

Verification mechanism exists to
trace the content claims

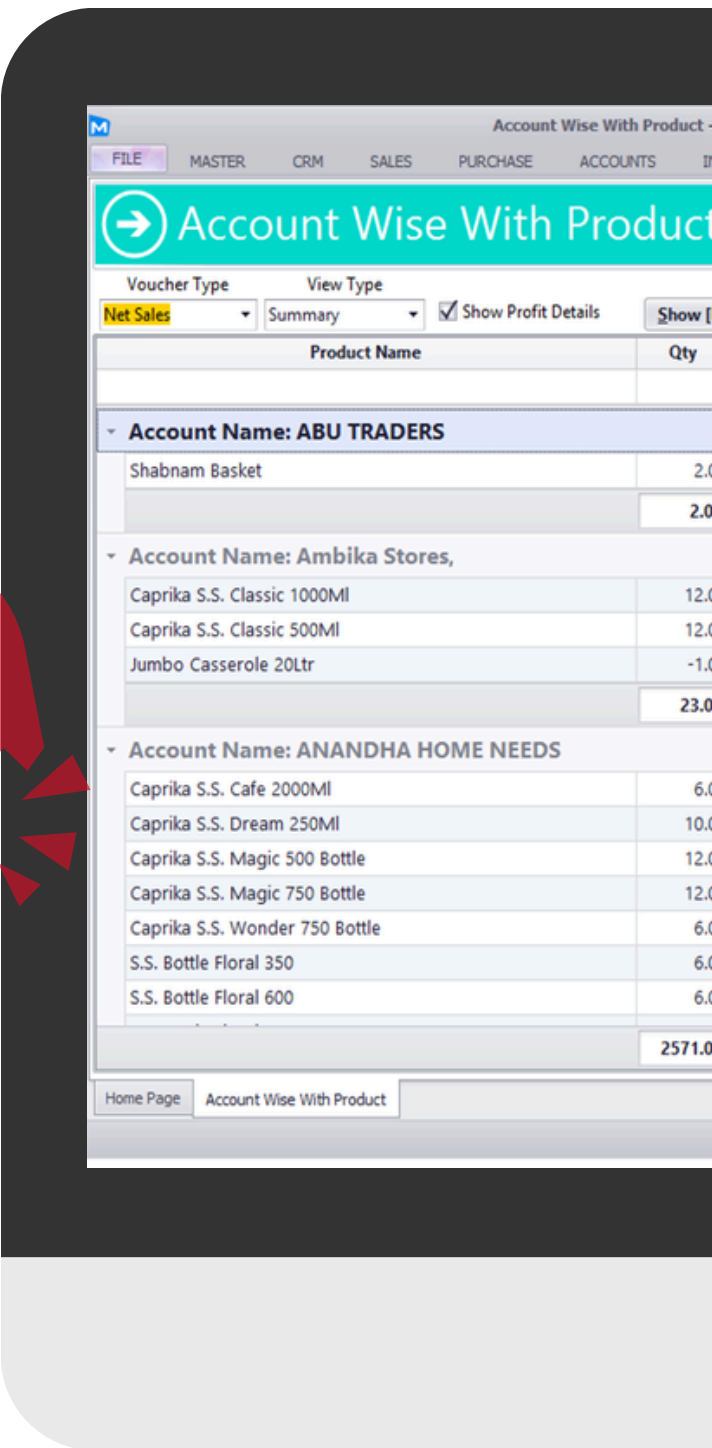
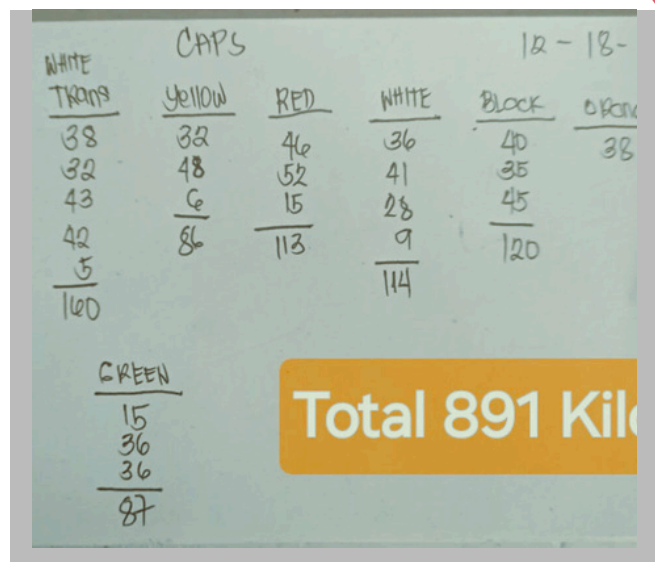
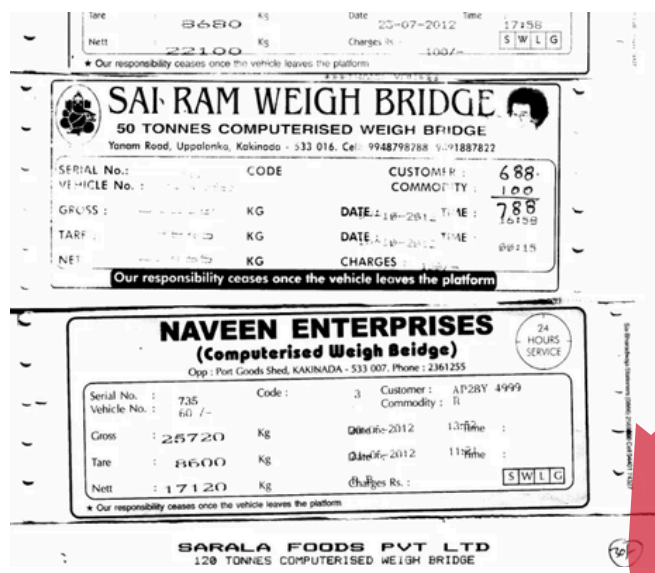
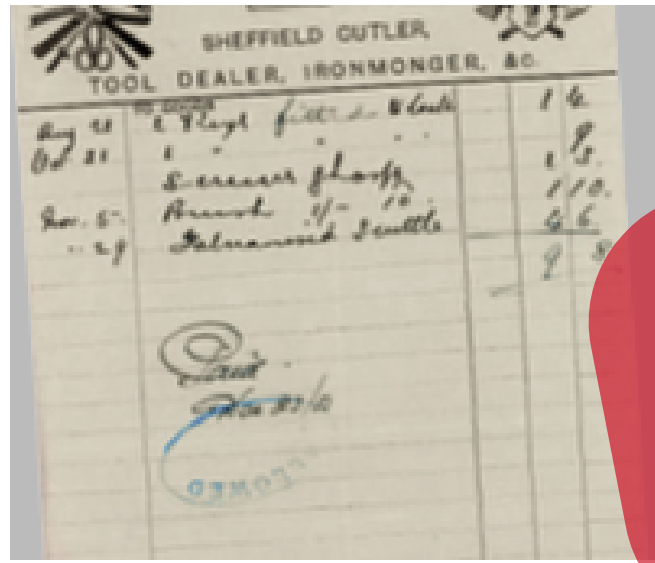


Current traceability systems

Manual documents uploaded in digital systems

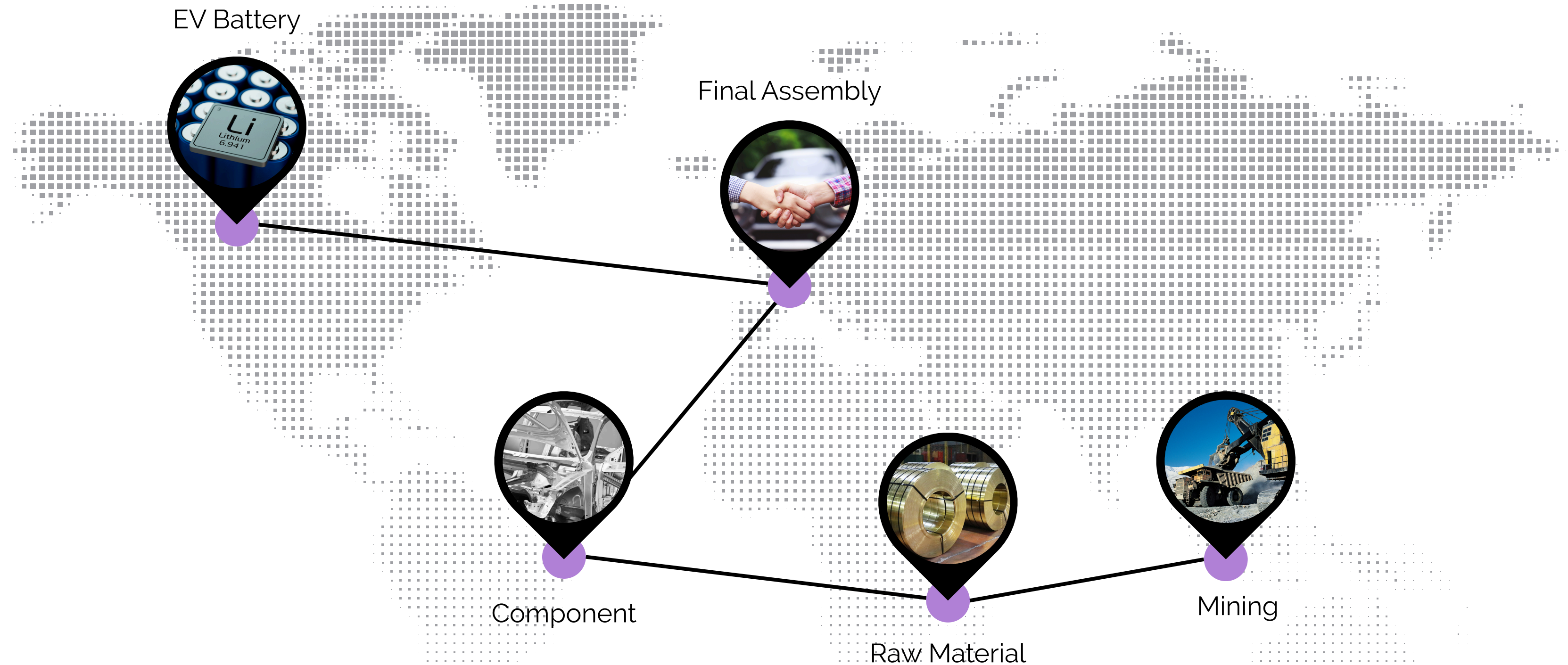
Participation is limited to Tier 1 suppliers

Auditing and verification is cumbersome & expensive



Global supply chains

Conventional traceability systems fails to deliver the required data driven evidence of chain of custody and provenance





52% of people say a brand's sustainability claims have misled them



14

Economy & Companies

CONSUMER AFFAIRS DEPT'S DRAFT GUIDELINES ON 'GREENWASHING'

Green Claims by Cos Need to Be Backed by Verifiable Evidence

Should disclose all material information related to claims in relevant advertisement or communication

Shambhavi Anand

New Delhi: Companies making environmental claims such as green, eco-friendly, non-toxic, non-harmful, good for the planet and cruelty-free will have to back their assertion with verifiable evidence according to the Department of Consumer Affairs' draft guidelines on greenwashing.

Greenwashing is a form of advertising or marketing used to make consumers believe that a product or service is environmentally friendly.

"All environmental claims shall be clear and disclose all material information either in the relevant advertisement or communication or by inserting a QR code or any such technology including a link, which will be linked to relevant information," the department said in a statement.

The guidelines will be applicable to all service providers, product sellers, advertising agencies and people who endorse such goods or services, the department said.

Greenwashing is defined as an unfair trade practice and any false claims will be penalised for misleading advertisement as per the Consumer Protection Act, 2019, it said.

"Consumer's interest is of paramount importance," said Rohit Kumar Singh, secretary at the consumer affairs department, Singh.

who is the chief commissioner of the Central Consumer Protection Authority, said there was a need for clarity, specifically in addressing certain aspects related to advertisements of environmental claims.

Consumers are increasingly demanding products and services which minimise harm to, or have a positive effect on, the environment, said Manish Kumar, executive and secretary of the Advertising Standards Council of India (ASCI).

"As a result, there is a demand for product businesses which are sustainable and verifiable, consumers leverage their purchasing power to reward better performance," she said.

They may be misled by false claims.

The ASCI has been conducting a small pilot exercise in greenwashing in recent years, she said.

The control was a requirement for Central Consumer Protection Authority for preparation of guidelines.

chambhavi.com

Crackdown on Greenwashing

Conditions applicable to Service Provider, Product Seller, Advertiser/Advertising Agency/Endorser

Who must be disclosed and who will be penalized

FOR MIS-LEADING CLAIMS, the companies will be penalized

Technology that includes with link

COS MUST SPECIFY IF THE claim refers to the product, its process, packaging, disposal process or packaging or the process of rendering the service



Inclusiv platform



01

Omni channel

Works on all kinds of hardware and operating system configurations

02

Modular & scalable

Allows supply chain integration from OEM to Tier 5 suppliers

03

Multi lingual

Available in top 10 most spoken languages in the world

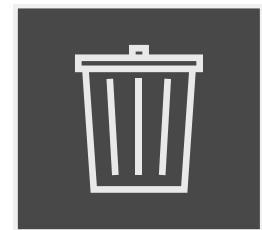
04

Highly affordable

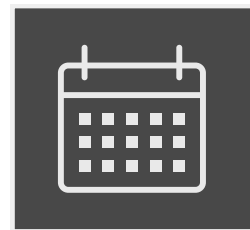
Pay per use model enables a highly cost effective adoption by the developers

How it works

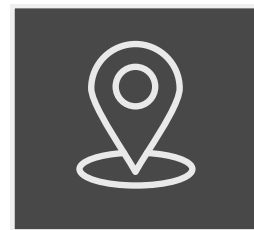
We capture critical data at each stage viz. origin, processing, manufacturing etc and store it in a progressive ledger and updated using SMART Ledger system



What
activity
happen



When
did it
happen



Where
did it
happen



Who did
the
activity



How
was it
done

- Material tagged at origin
- Mobile app captures transactions
- AI models flag anomalies + compute impact
- Dashboards for compliance, reporting, credit claims

Typical data block on automated ledger

Restoring trust in circular supply chains

Reinforcing credibility across every stage of the circular economy

1. End-to-end transparency

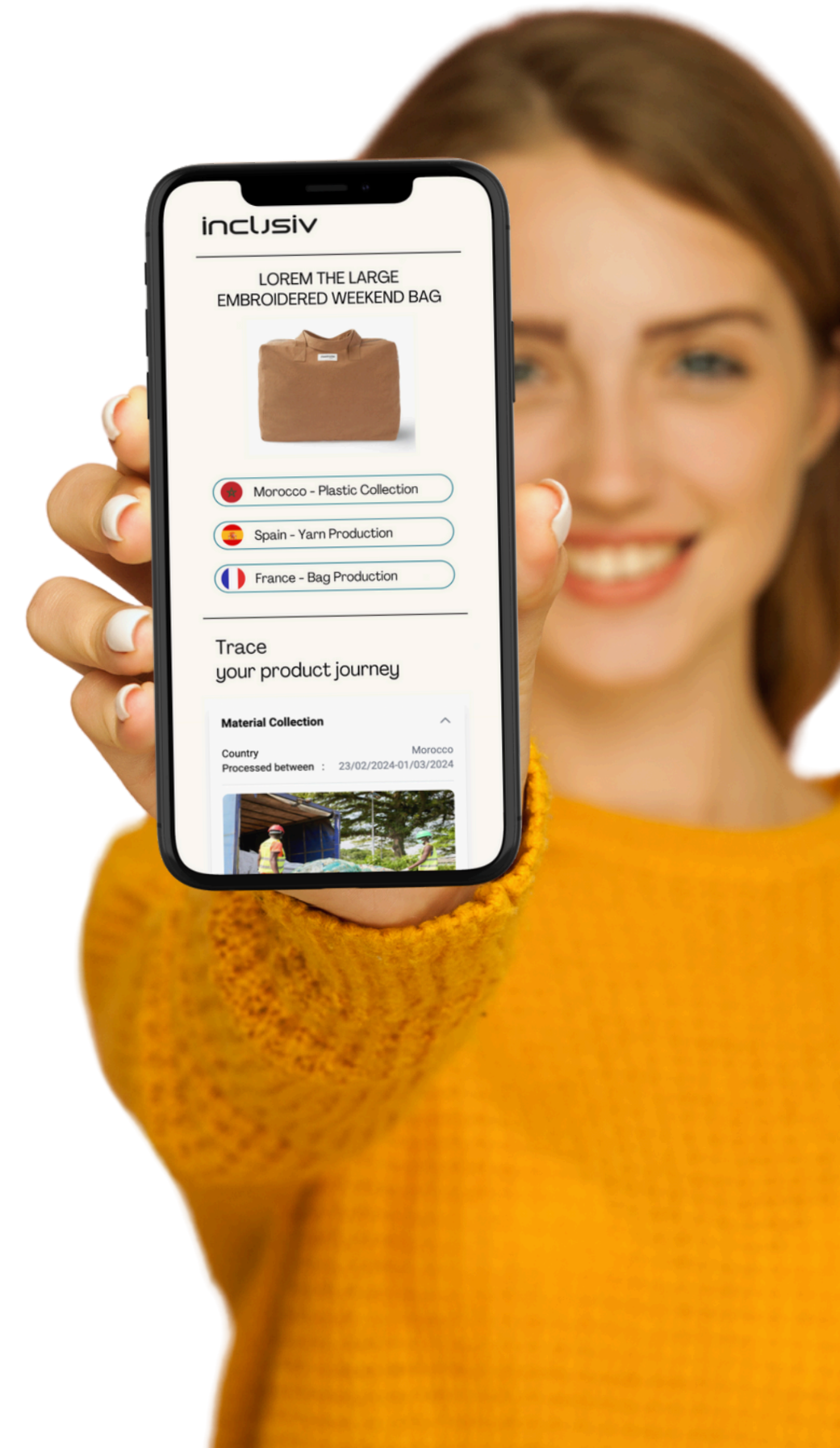
Inclusiv act as digital twins of physical supply chains. This end-to-end visibility enables true material and process transparency

2. Verifiable circularity

Inclusiv provide traceable proof of circular actions through digital records and time-stamped documentation

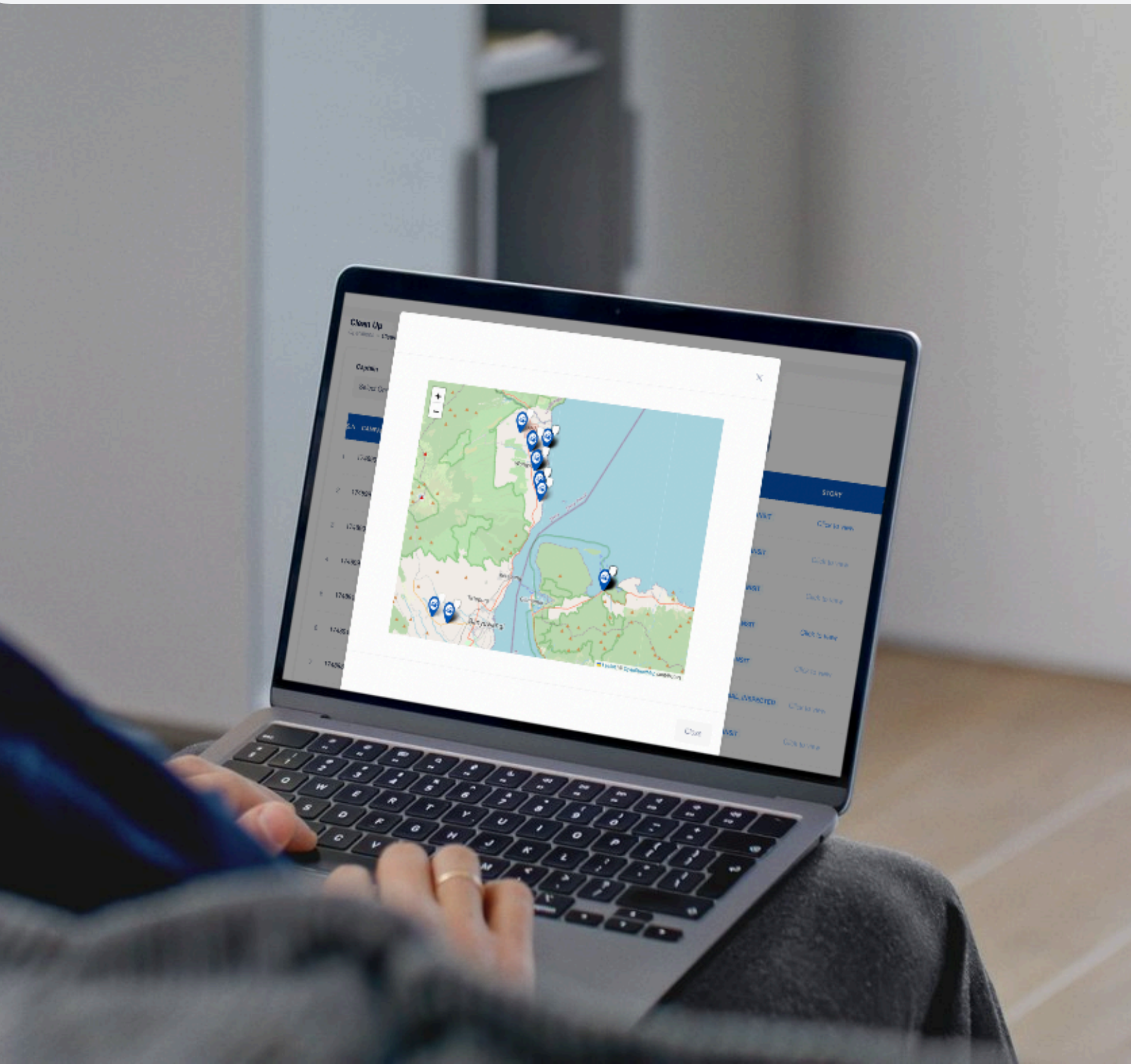
3. Enabling regulation & market trust

Support compliance with regulations such as Extended Producer Responsibility (EPR), product labeling, and circularity reporting.



Field data to smart decisions

inclusiv



Transformation stories

From data to impact: Success stories shaping sustainable waste recovery across the world



Use case

4ocean utilizes our digital platform to ensure traceable management of materials recovered from oceans and rivers, through to recycling.

Benefits

Achieved 20% higher monthly waste recovery, improved stakeholder trust, and enhanced impact monetization through digital traceability systems.



Use case

Prime Waste Solutions leverages our digital platform for end-to-end management of material recovery and recycling operations.

Benefits

Drives higher recovery rates and material value by digitally managing and verifying recyclable content across waste streams.

Digital guardrails

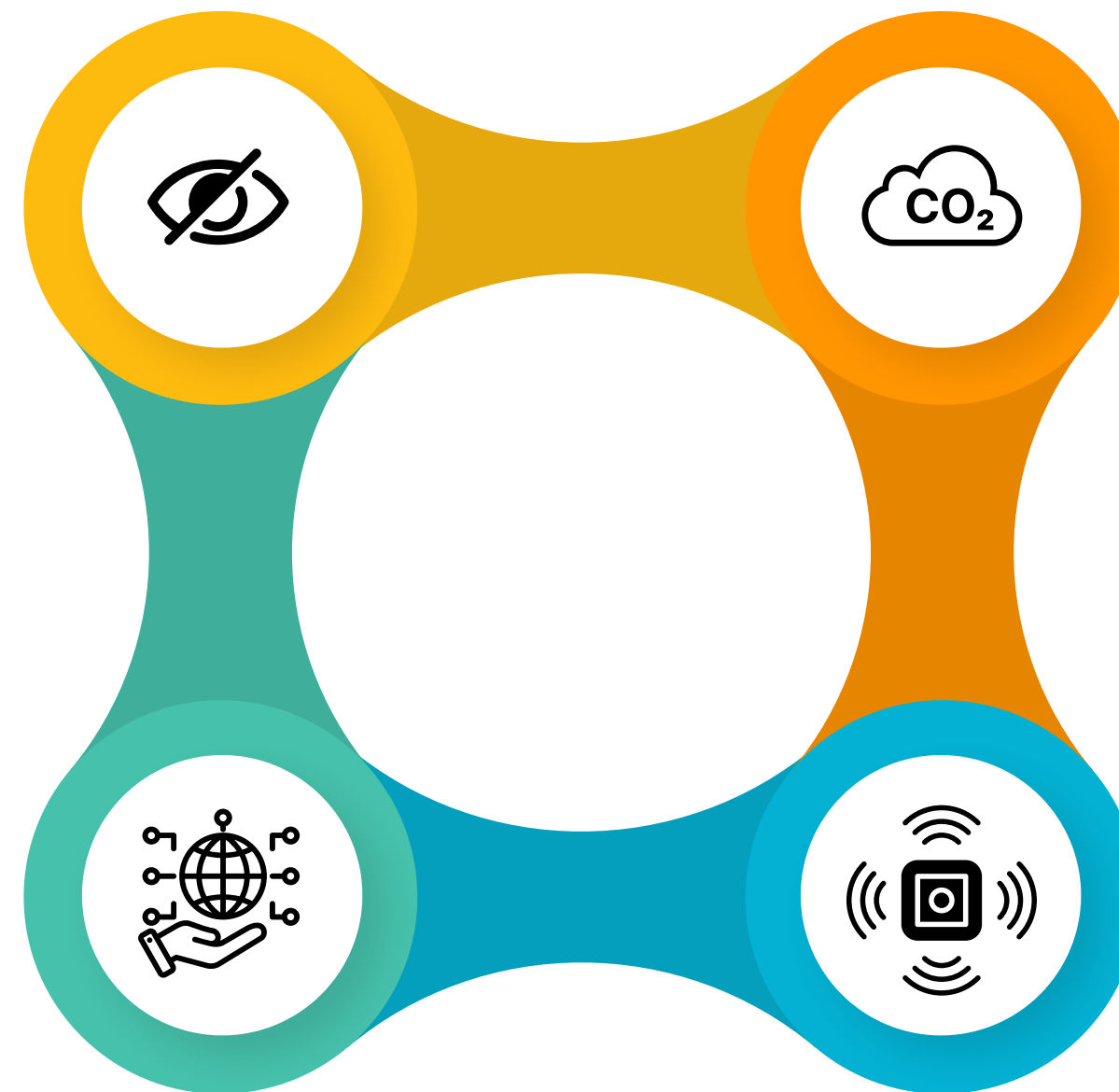
Ethical, operational, and technical boundaries to ensure responsible use of digital technologies

Data privacy

Ensures secure, confidential handling of sensitive data while enabling transparent, verifiable product and material tracking.

Adoption

Active participation from all stakeholders—waste collectors, aggregators, processors, and brands is key



Computational footprint

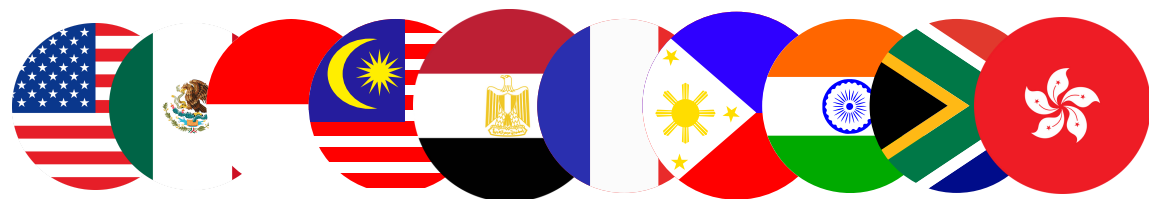
Efficient data storage, minimal processing redundancy, and smart ledger design, ensuring sustainability and scalability.

Interoperable

Interoperability ensures data flows smoothly across the value chain, and supports regional or even global expansion

Proven across the world

Product trusted across 35+ countries



Technology empaneled by UN



Featured by



Recognised at multiple forums



Adopted by 50+ clients worldwide



Thank You

Work with us

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