

EVERLEDGER

Executive Summary

Clear Opportunity



Low-Cost
Product Identification

+



Permissioned
Distributed Stakeholder
Data Access



Symphony of Technologies &
Partnerships

=



Improved Conservation
& Economic Inclusion



Accurate Claims



Efficient Reporting

Opportunity for High Impact

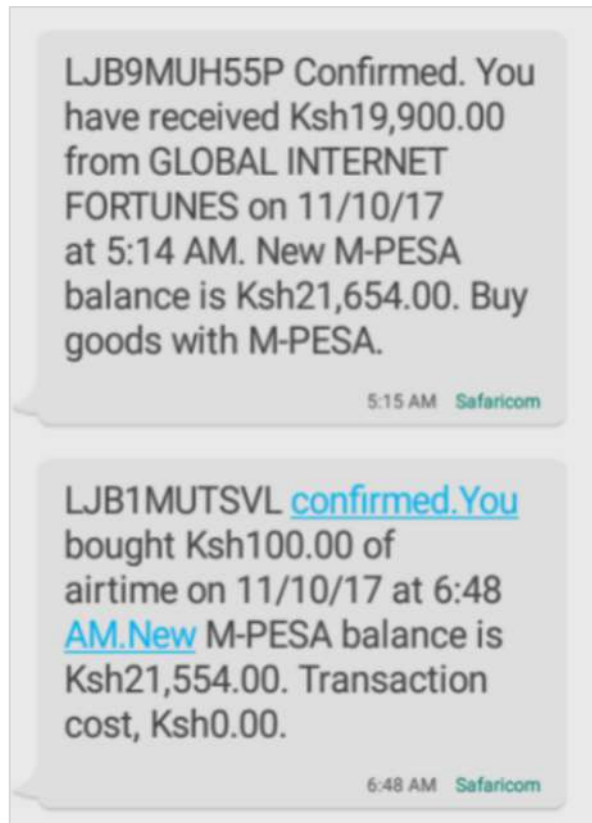
100+ M
Livelihoods

50%

of production value
received by miners
(1999 ILO report)

73/100
people with accounts

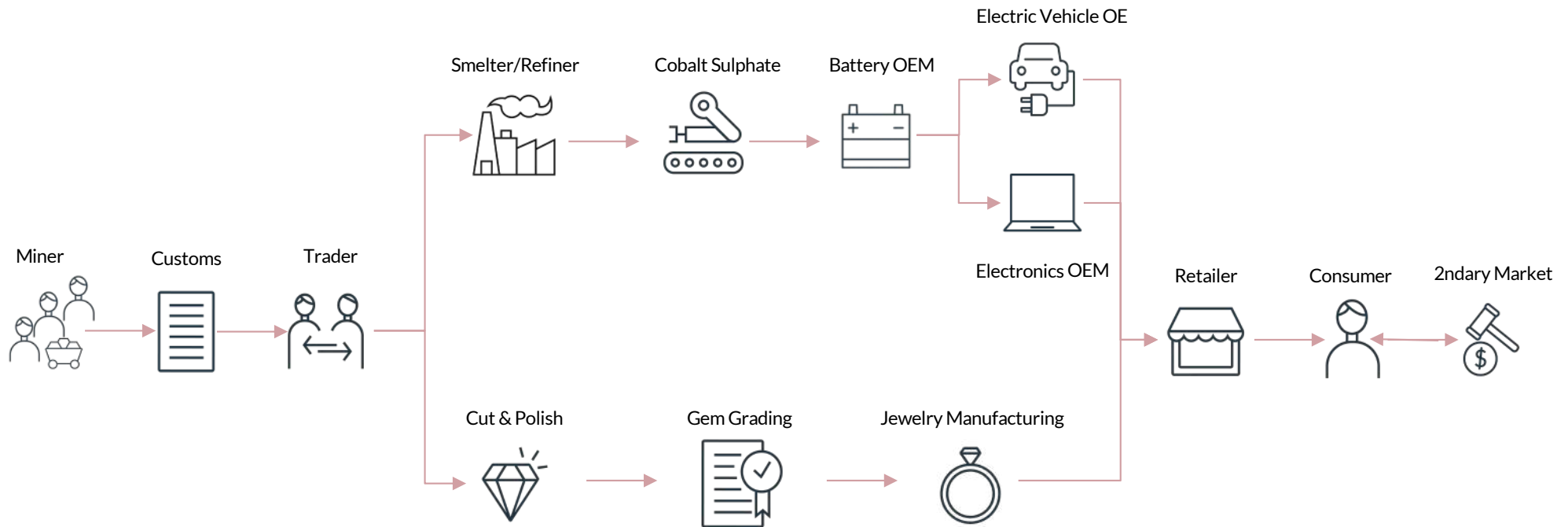
Digital Invoice Interoperability via Existing User Infrastructure



	Transaction Detail Requirements	SMS "Receipt"	Telekom Capability
1	Unique transaction ID	✓	✓
2	Sender/Receiver ID	✓	✓
3	Amount Transferred	✓	✓
4	Date and Time	✓	✓
5	Description	✗	✓
6	Location of transaction	✗	✓
7	Data Sharing Consent	✗	✓
8	SME Daily Limit Allowance	✗	✓

Everledger-Pact Field Review of Technology applications.

Digital Invoice can then support legitimate trade



Clear Impact



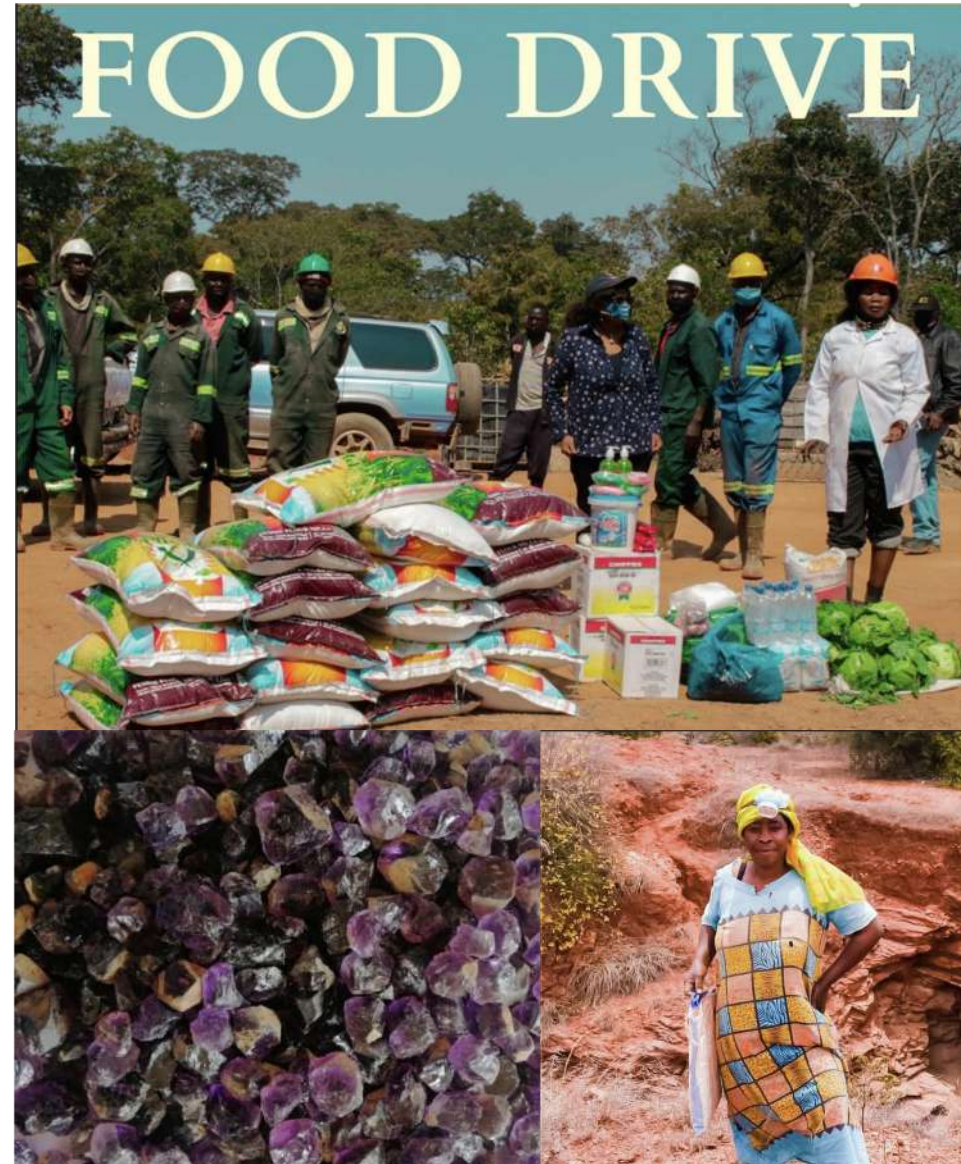
Increased Marketplace Access for ASM directly to Retailer

Tanzanian market day pilots achieved:

- 3,600+ gemstones/\$40K+ gemstone sales
- 100 stones in first blockchain pilot
- Average 5-10x price increase vs historical gemstone sale price
- 100% of transactions negotiated by ASM with 5% agreed share with “broker”
- Creating a marketplace for gems that have been verified by NGOs

VirtuGem

- Additional 20% paid for gems, to support Food Drive to communities affected by COVID 19



Our Company



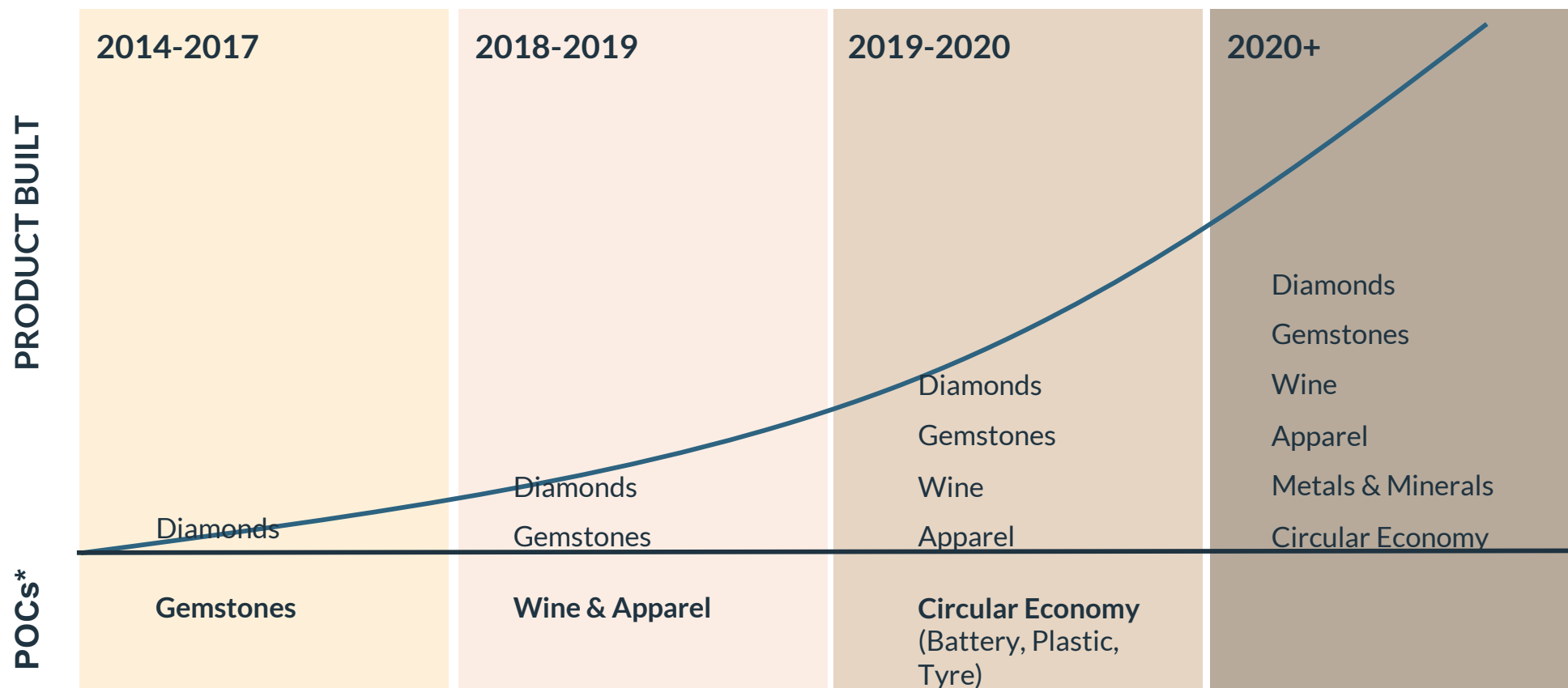
OUR VISION



“Our purpose is to contribute to greater transparency, trust, sustainability as well as amazing customer experiences in marketplaces where provenance matters most.”

— Leanne Kemp, Everledger Founder & CEO

INTEGRATED MULTI ASSET PLATFORM



*all POCs are fully funded by the related partners

OUR PLATFORM - TECHNOLOGY



Blockchain

Blockchain technology allows data to be recorded securely and unalterably as an asset moves along the supply chain. By converging this record with other technologies, we can create a unique digital identity for the asset.



Artificial Intelligence

Since 2017 our platform has been using AI to analyse data sets, helping our customers meet both documentation requirements (for example by the Kimberley Process) and associated smart contract obligations.



Internet of Things

By capturing production, transport and environmental data in real-time (for example temperature sensors, tamper detectors), IoT technology can help reveal the full story of an object. When coupled with blockchain, this information becomes immutable, private and transparent.



Intelligent Labelling

Our intelligent labels link the digital and real worlds using NFC, RFID, the physical structures of an object (such as fiber or pattern structures), and synthetic DNA.



Nanotech

Nano-sized particles are finding more and more applications in object identification. Our platform aggregates these technologies to surface secure data about an asset.

EVL Platform

Sustainability & Impact

Regulatory & Investor Alignment (Battery)

2010

2012

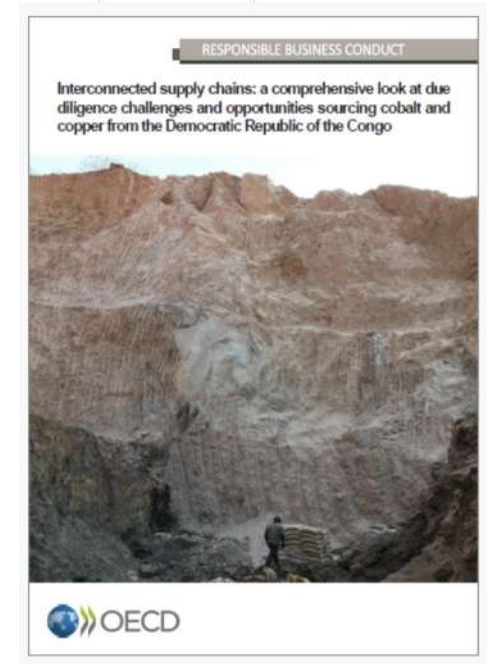
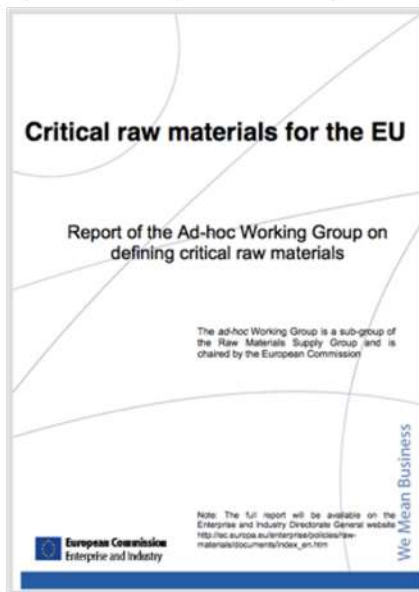
2014

2016

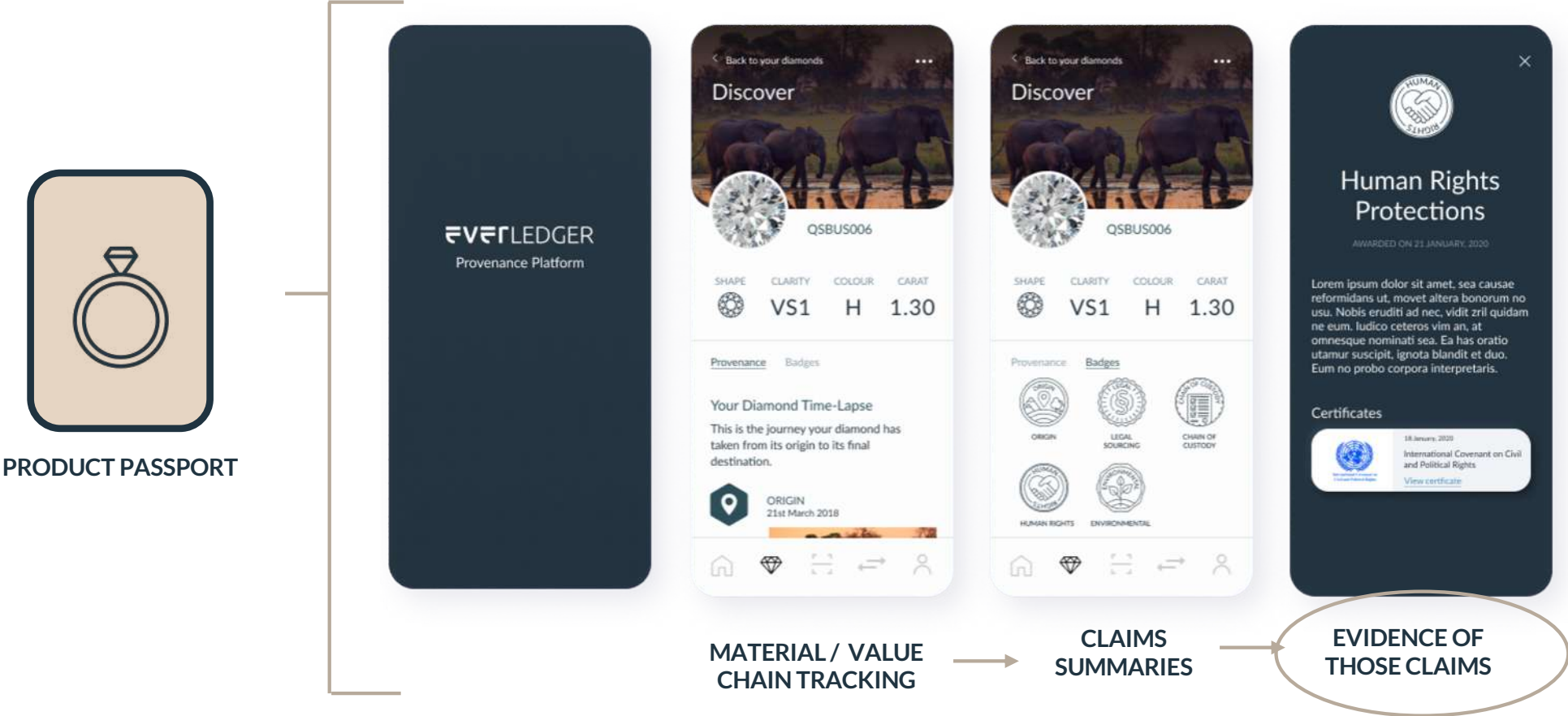
2018

2020

2024



SUSTAINABILITY PRODUCT @ EVERLEDGER



SUSTAINABILITY CAPABILITY

SUPPLY CHAIN TRACKING



EVERLEDGER

Battery Manufacturer

Pack ID: 12X345C678
Battery Type: 9 kWh Lithium Ion

Chemistry Safety - MSDS

Storage
Modules & Cells Parts

BOM

Select Data:

OEM Services - Safety - Warranty - Shipping - Recycling

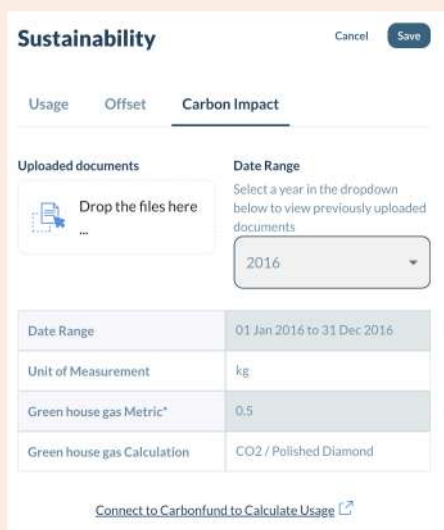
Repair

Repurpose

Recycle

Recycled content tracking

MEASUREMENTS



Sustainability Cancel Save

Usage Offset **Carbon Impact**

Uploaded documents
Drop the files here

Date Range
Select a year in the dropdown below to view previously uploaded documents
2016

Date Range	01 Jan 2016 to 31 Dec 2016
Unit of Measurement	kg
Green house gas Metric*	0.5
Green house gas Calculation	CO2 / Polished Diamond

[Connect to Carbonfund to Calculate Usage](#)

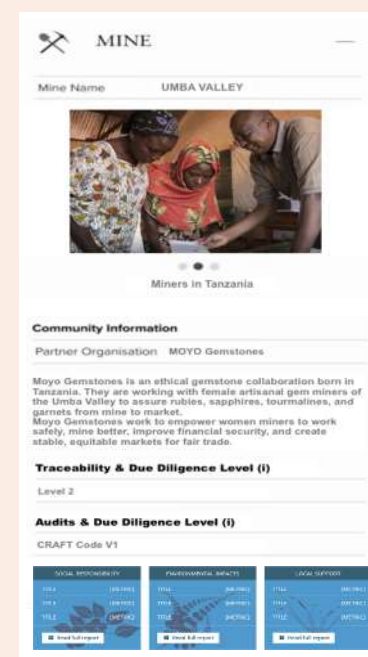
Enabling Scope 3 GHG reporting

VERIFICATION



Multi-source verification (showing % of recycled plastic)

IMPACT



MINE

Mine Name **UMBA VALLEY**

Miners in Tanzania

Community Information
Partner Organisation **MOYO Gemstones**

Moyo Gemstones is an ethical gemstone collaboration born in Tanzania. They are working with female artisanal gem miners of the Umba Valley to assure rubies, sapphires, tourmalines, and garnets from mine to market. Moyo Gemstones work to empower women miners to work safely, mine better, improve financial security, and create stable, equitable markets for fair trade.

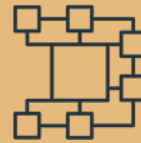
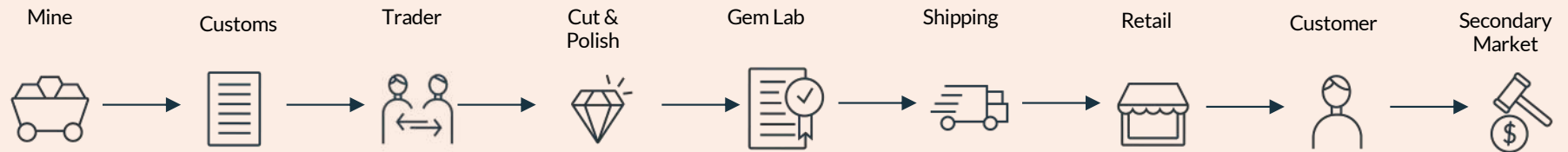
Traceability & Due Diligence Level (i)
Level 2


Audits & Due Diligence Level (i)
CRAFT Code V1

GLOBAL PRODUCTION PLANT PRODUCTION PLANT LOCAL SUPPORT

5-10x price increase vs historic price

Different Data and Document Sources to Ingest & Report




In-House Measurement or
Direct IOT capture


Third-Party Certification of
systems or reported figures
(e.g from auditors)


Plug-in Partnerships


Expert Estimates/
Public Reports

SUSTAINABILITY PRODUCT GOALS



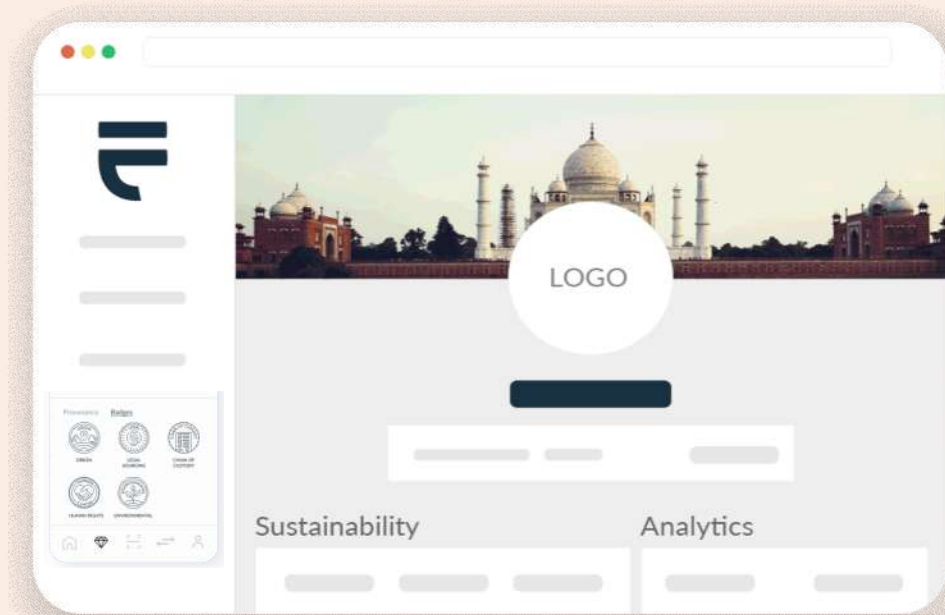
Accurate product
claims



Efficient reporting



Improved conservation
& economic inclusion



SUSTAINABILITY @EVERLEDGER

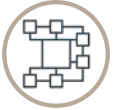
Confident Product-Level Claims

Manufacturers are overwhelmed with audits and requirements.

But often the requirements are too onerous and cumbersome to actually complete.

The Everledger Platform enables cross-checking of commercial claims:

- “Real time” reporting not annual summaries
- Product level reporting
- Site Specific reporting



>41,000
Documents Reviewed

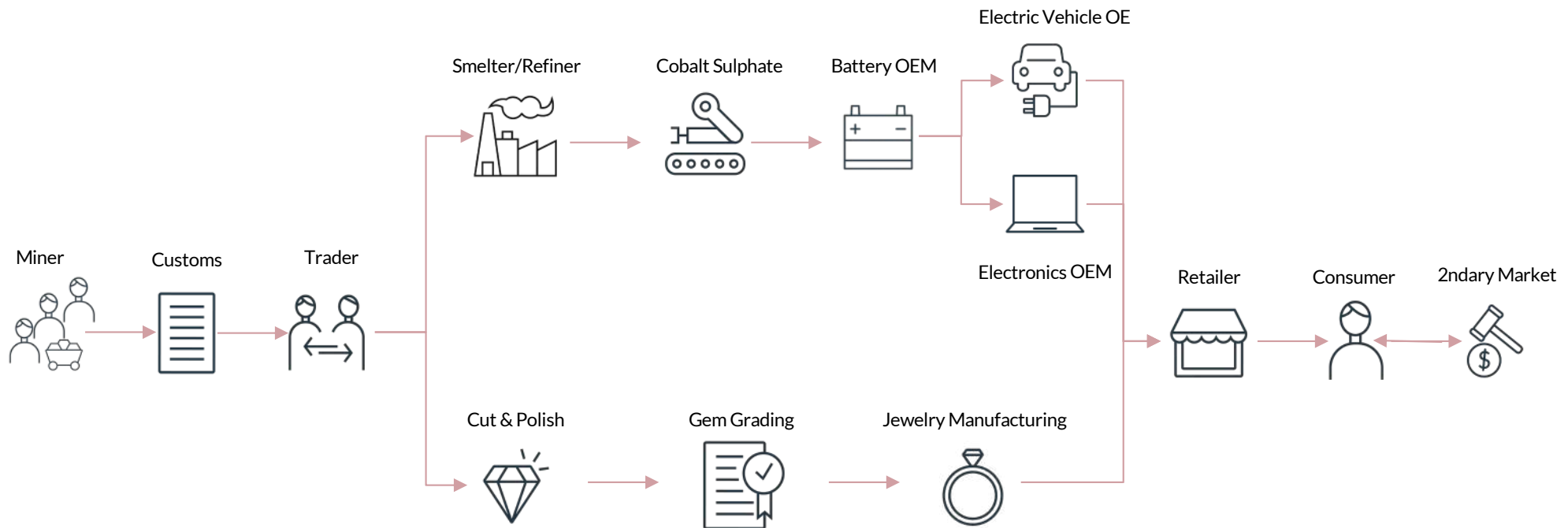


25
Documents Identified.

Our system is capable of identifying even
.000006%
of cases that would be otherwise undetectable.

Social and Digital Inclusion

Mines feed many markets but have many requirements



ASM : CRITICAL STAKEHOLDER TO IMPACT GOALS



Artisanal & Small Scale Mining

40.5 M
Men, Women, & Children

150-200 M
Livelihoods



Large Scale Mining

3.7 M
Men & Women

29-59 M
Livelihoods

ASM: CRITICAL STAKEHOLDER TO EVERLEDGER CLIENTS

80
Countries

90%
Global Mining Workforce

100+ M
Livelihoods



Gemstones



Jewelry &
Luxury Goods

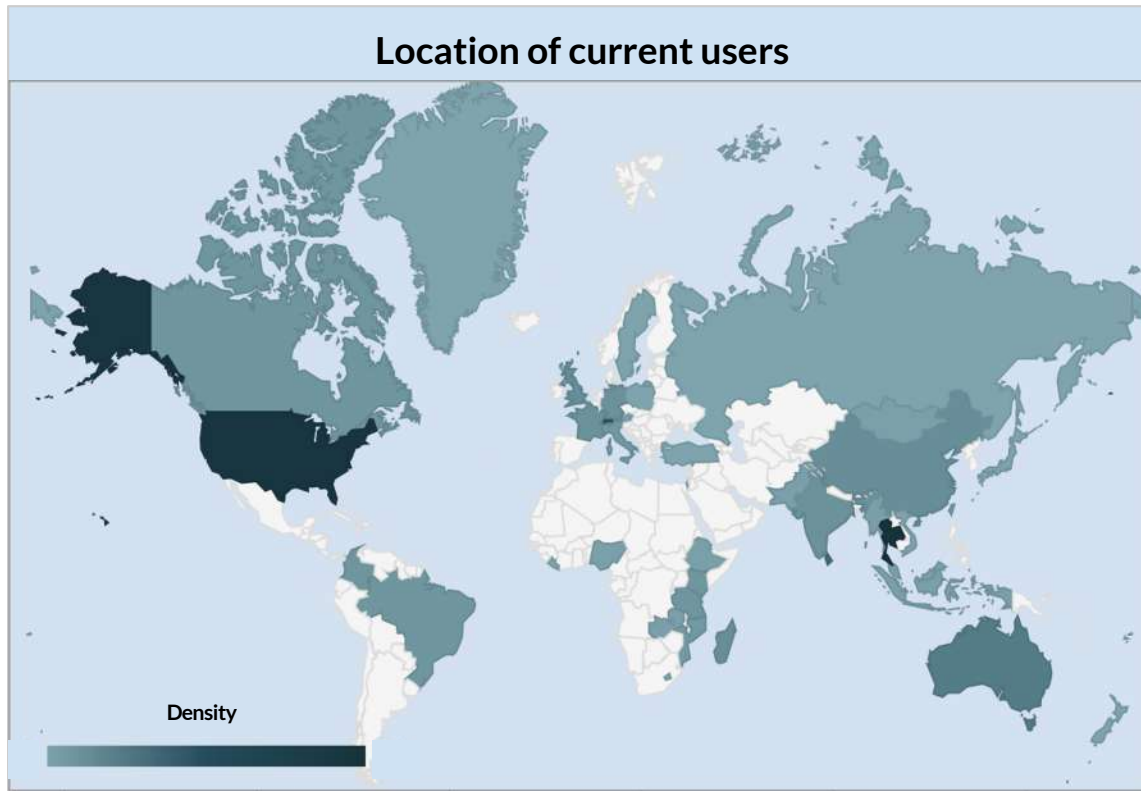


Electronics &
Batteries

Commodity Production by ASM

Cobalt	Gold	Mica	Tin	Coloured Gems
20%	20%	25%	25%	80%

GEMSTONE USERS

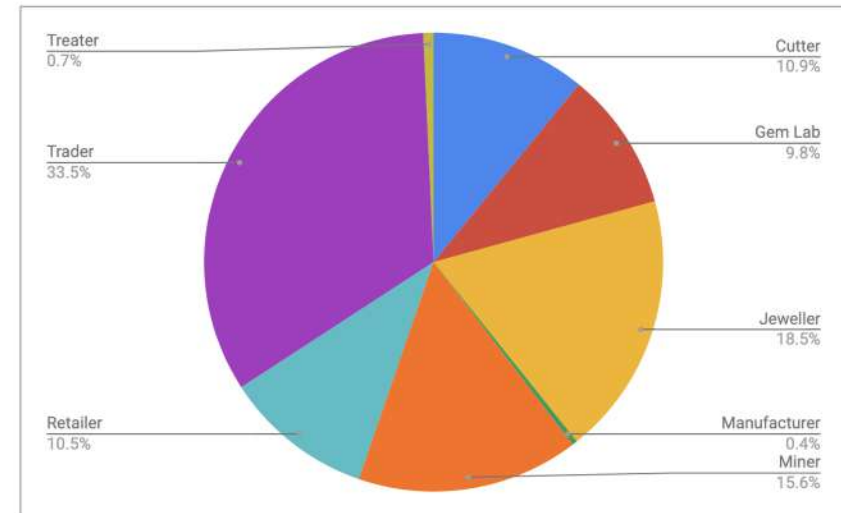


48

Number of Countries

33870

Number of Gemstones



Key Problems

Access to Livelihoods and Fair Payment

ASM : CRITICAL STAKEHOLDER TO EVERLEDGER CLIENTS & IMPACT GOALS

70-80%

Informal (and often illegal)

30%

women in ASM, but with
limited access

Critical Risks

ASM is considered riskier than Large Scale Mining

- Child Labor
- Health & Safety risks
- Pollution (e.g. mercury)

Critical Risks: Human Rights and Social

<u>Battery Supply Chain</u>	Child & Forced Labor	Community & Worker Health	Indigenous Rights	Safety Risks
Mining	Cobalt	Cobalt	Lithium	ASM- Cobalt
Refining	N/A	N/A	N/A	Underreported
Manufacturing	N/A	N/A	N/A	
Recycling	West Africa	Emerging Markets	N/A	Emerging Markets
End-of-Life	Emerging Markets	Overexposure to toxic metals	N/A	Prone to fires (toxic chemicals release)

Child Labor

Reasons children start mining (Example : Cobalt)

56% only work available
13.9% better than alternatives
12% had own children to support
8% influence from others
3% another household member mines

Source: CEGA UC Berkeley



Mitigation & Resolution

1. Monitoring and Reporting
2. Child Removal and Assignment with remediation group
3. Remediation & Resolution via NGOs or other group

Source: Bon Pastuer

Worker Safety and Community Health

Pollution Levels



- 4-fold (cadmium and uranium)
- 43-fold (cobalt)
- 5-fold (lead)
- significantly high (arsenic)

Source:SOMO Cobalt Blues

Reasons for unsafe practices/lack of PPE

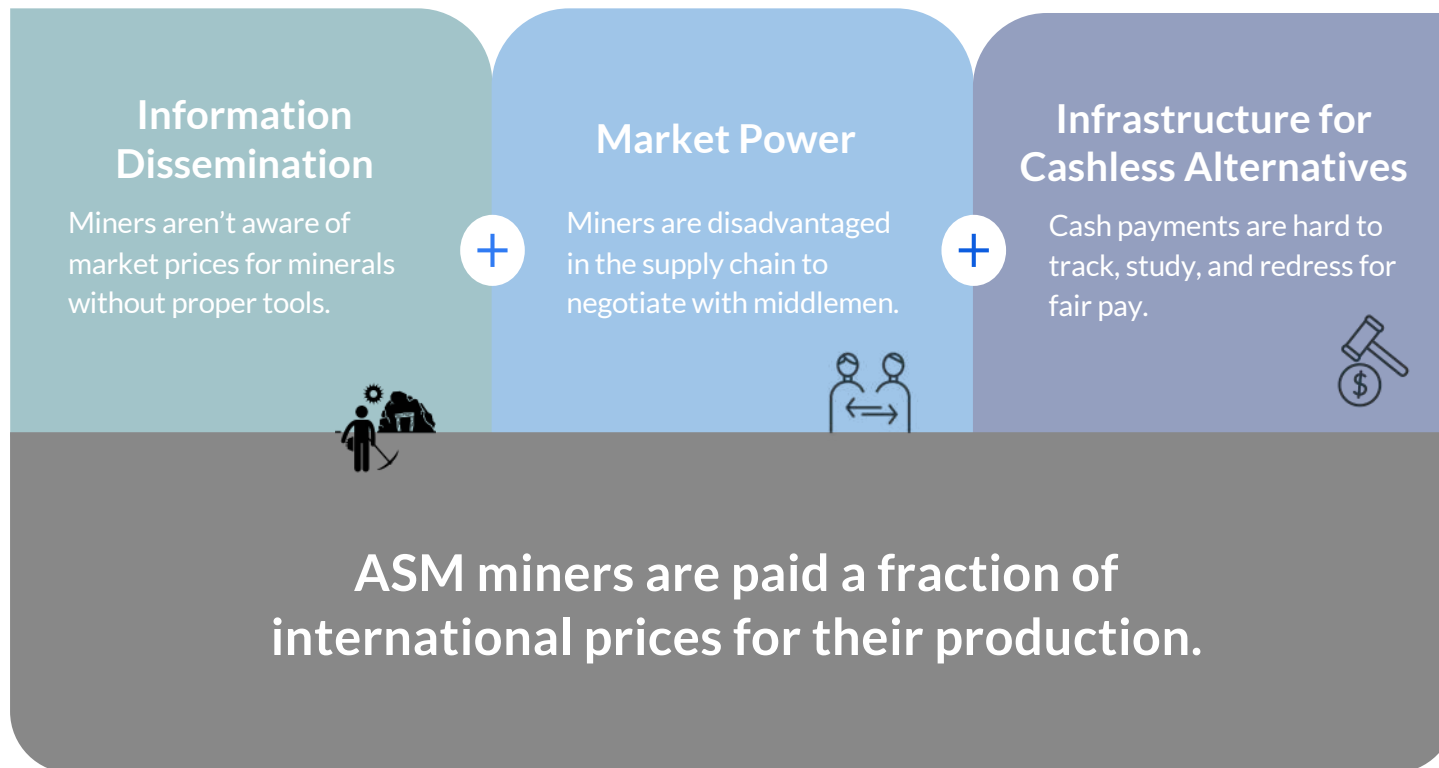
1. Equipment is too expensive
2. Simply not practical
3. Mining company, cooperative should pay [but hasn't]
4. PPE is voluntary
5. Distance to selling point

Table 8 Summary table of the types of accidents most frequently reported and the number of accidents occurring in the last 12 months. An accident represents one person.

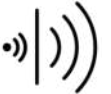
Cause of accident	Number of fatal accidents	Number of accidents resulting in injuries
Landslide / collapsing rock stability	50	59
Fall	1	9
Unspecified	12	33

Source: BGR

KEY BARRIERS TO CHANGE



GUIDELINES FOR FAIR PAY



Fairmined	Fair Price + Fairmined Premium Fair Price = at least 95% of LBMA prices Premium = \$4k/kg of gold; \$6k/kg of ecological gold
Fairtrade	Fairtrade Minimum Price (FMP) + Fairtrade Premium FMP = at least 95% of LBMA/LPPM prices Premium = \$2k/kg of gold; 10% silver premium; 15% ecological premium
Better Sourcing	No Defined Threshold for Fair Pay Risk management procedure aligned with the OECD Due Diligence Guidance

However, obstacles to success include...

Scale

1475 kg of Fairmined certified gold has been sold since 2014, compared to 2.5-3k tons of gold mined a year.

Cost









In 2019, SMB of Rwanda ended their ITSCi contract because of high traceability costs, which added about \$130-180 per ton of minerals.

Logistics

Often, certified gold does not get separated from other gold during the smelting process.

Potential Solutions

Tech Stack, Everledger Platform, EverMoor Partners for ASM

	 Mobile Money	 Local Stakeholders & NGOs	 Digital Identification of Physical Goods	 Air Pollution Sensors	 Satellite & Geo-location Data	 Government Authorities/ 3 rd party auditors	 Centralized/ Private Databases	 Distributed Ledger (Blockchains)
Mine Conditions & Incidents		✓		✓	✓	✓	✓	✓
Gemstone Identification	✓		✓		✓			✓
Mine level legal documentation		✓				✓	✓	✓
Legal trading	✓		✓			✓		✓
Geographic origin	✓				✓			✓
Chain of custody (beyond country export)						✓	✓	✓
Manufacturer practices						✓		✓

Why Mobile Money?

Mobile Money is the Adopted Method of Today

Africa turns to mobile payments as a tool to curb COVID-19

Jake Bright @JakeRBright / 8:35 am PDT • March 25, 2020

Comment



Image Credits: Paga

Financial Inclusion, Cryptocurrency and the Developing World

Regions of the world with fast-growing economic potential and young populations, such as India and Africa, will become leaders in crypto adoption.

4810 Total views

125 Total shares

Listen to article



5:50



OPINION

Supporting an Existing User Base

Sub-Saharan Mobile Money

397.5M

Subscribers

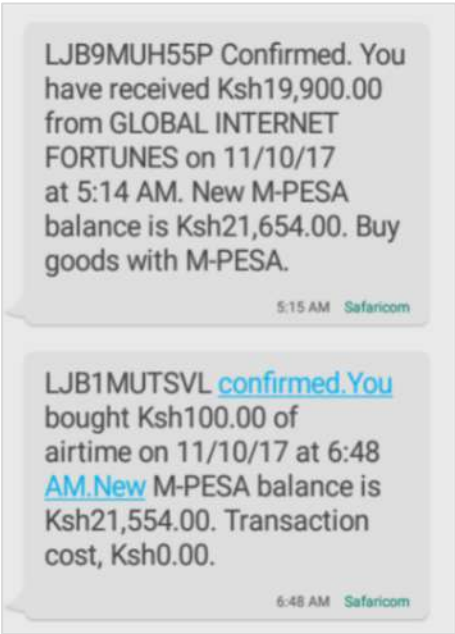
13.6%

Growth Rate

73/100

people with accounts

Source: [State of the Industry Report on Mobile Money](#)



	Transaction Detail Requirements	SMS "Receipt"	Telekom Capability
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3	Amount Transferred	✓	✓
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7	Data Sharing Consent	✗	✓
8	SME Daily Limit Allowance	✗	✓

Everledger-Pact Field Review of Technology applications.

Additional Benefits + Complimentary Applications

MOBILE MONEY PARTNERS & TECHNOLOGIES



Small-Scale Loans

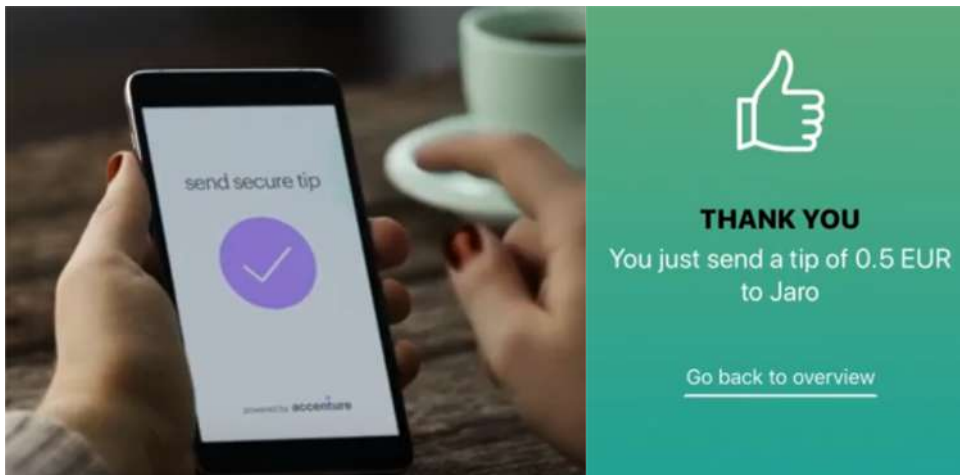
Credit History

available through
Mobile Money providers



Tigo - USAID agribusiness loan announcement

MOBILE MONEY PARTNERS & TECHNOLOGIES



Accenture-Everledger Tip-the-Farmer WEF Announcement

Scaling Impact Crediting: “Tip the Producer”

Reducing Costs

from wire fees, extra transfers, etc.

Amount: above \$10,000

Fees:

DOMESTIC

- Fee for sender = \$35
- Fee for receiver = \$15

INTERNATIONAL

- Fee for sender = \$45
- Fee for receiver = \$16

Santa Clara Intern research on utilizing Mobile Money to reduce fees.

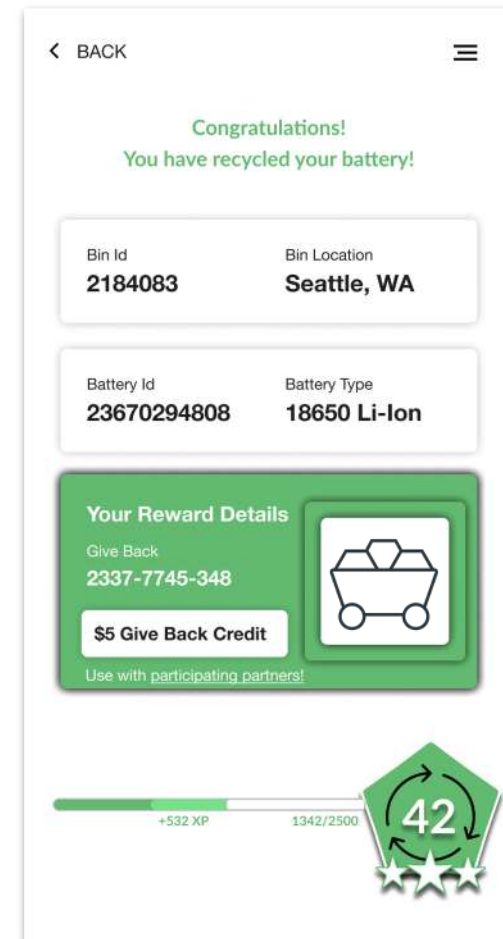
Example: Give Back to ASM

Givebacks are being explored with our Rewards to Recycle concept application. Users will be able to return batteries for points that can be redeemed for rewards such as a giveback or charitable donation in their name.

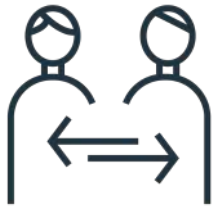
Working with partners our technology will be used to request and track fulfillment of these givebacks.

End users will have a transparent view into this process and can possibly see how their reward is being leveraged to do good elsewhere in the world.

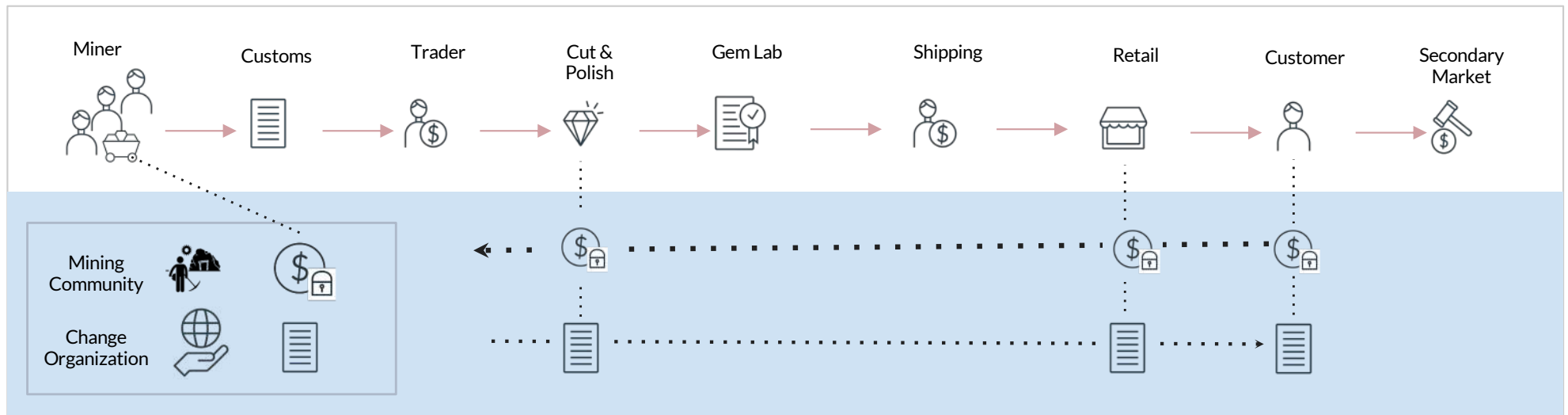
These rewards would be contributed by an ecosystem of platform members. In return, they will be able to promote products and draw from analytics regarding user activity on the platform. They'll also be able to match and contribute charity funds through this program.



Connecting the Supply Chain to the Producers & Changemakers



- Directly link supply chain to show demand for sustainable products
- Unlocking millions of dollars of incentives for change
- Connect “Change Organization” to resources and amplify their work



BASIC INCOME



What It Is

- Basic monthly income to impoverished communities (not means-tested)
- Adults are given basic phones and mobile money training

Desired Outcomes

- Increased access and development of public goods
- Ability to meet living needs
- Circumvent the power of village elites

Downstream brands

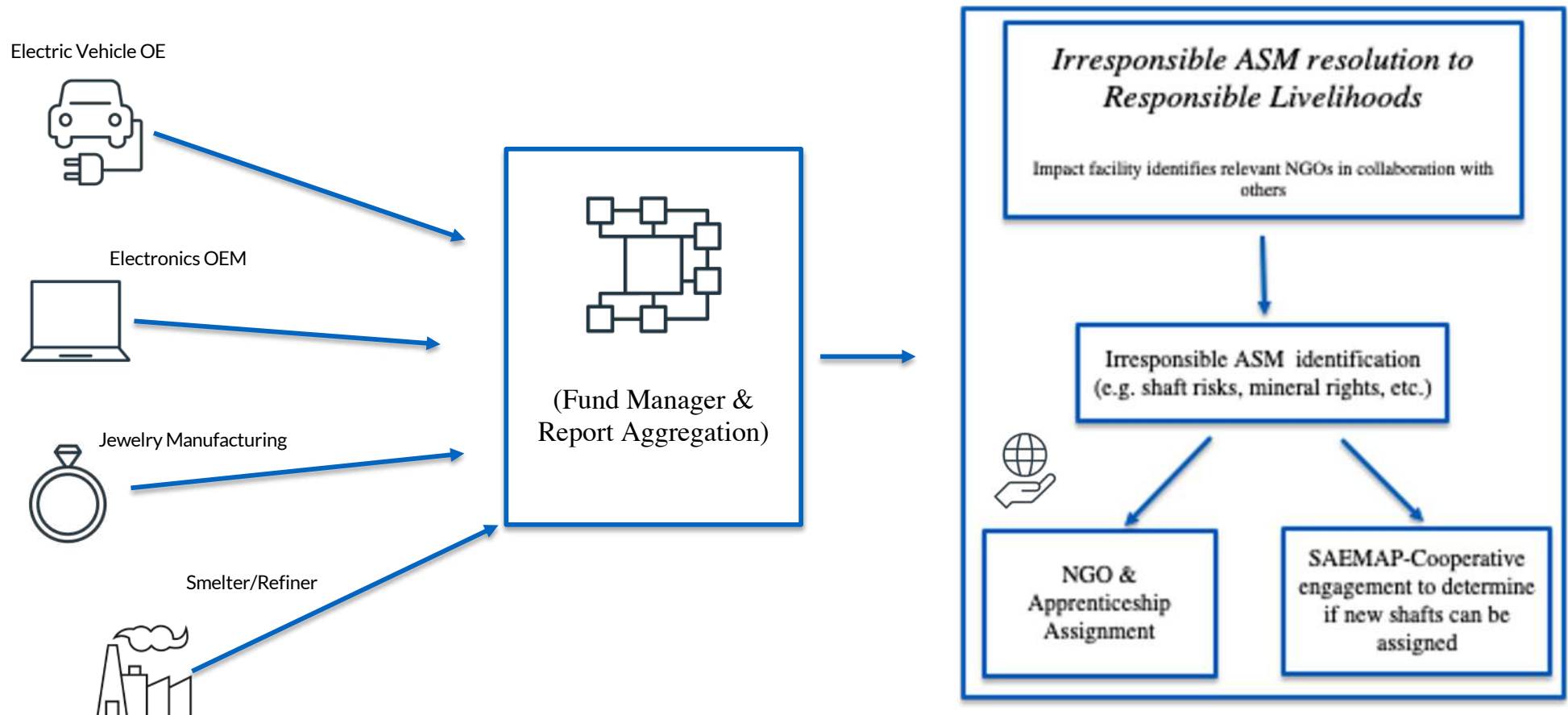


Mobile Money

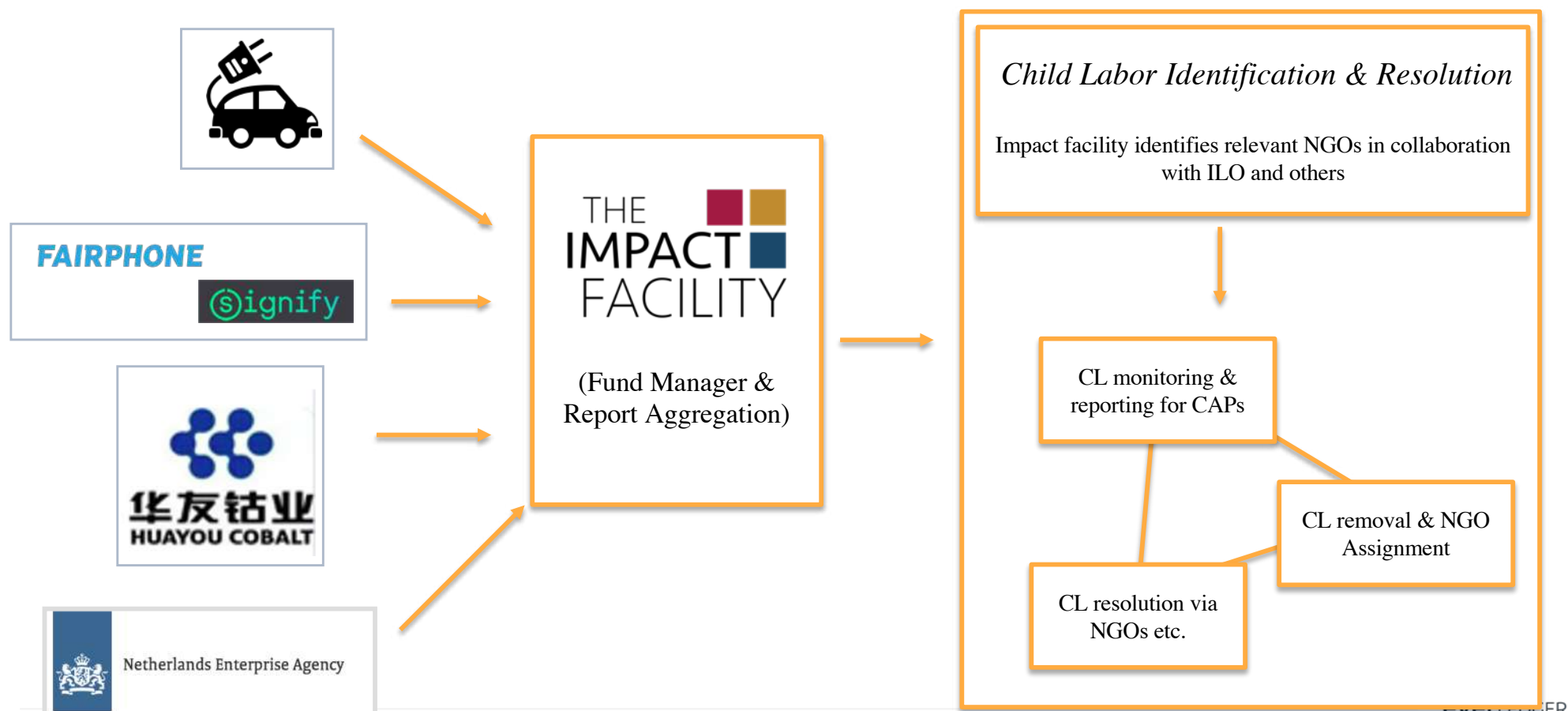
ASM communities



Combining Resources for Impact: Livelihood Transition

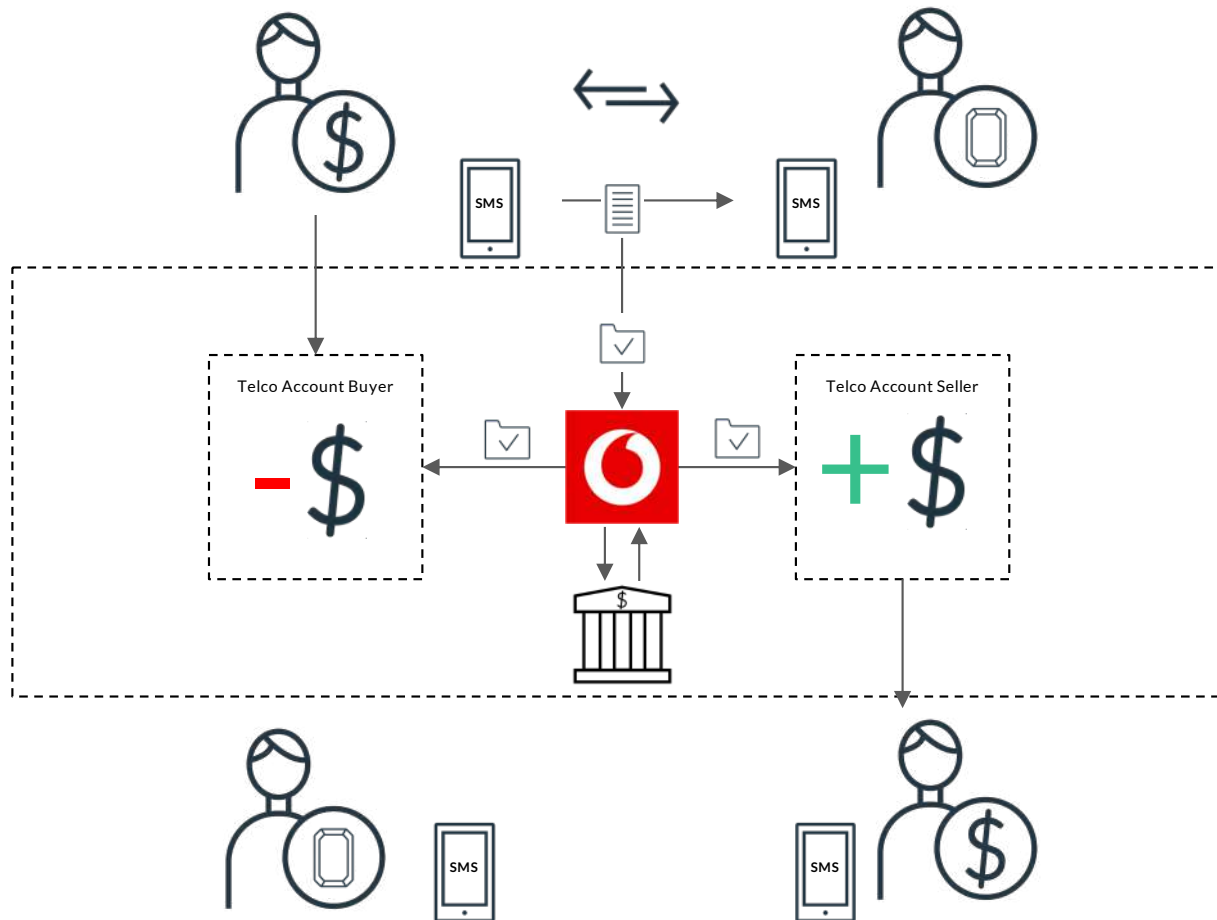


Combining Resources for Impact: Child Labor

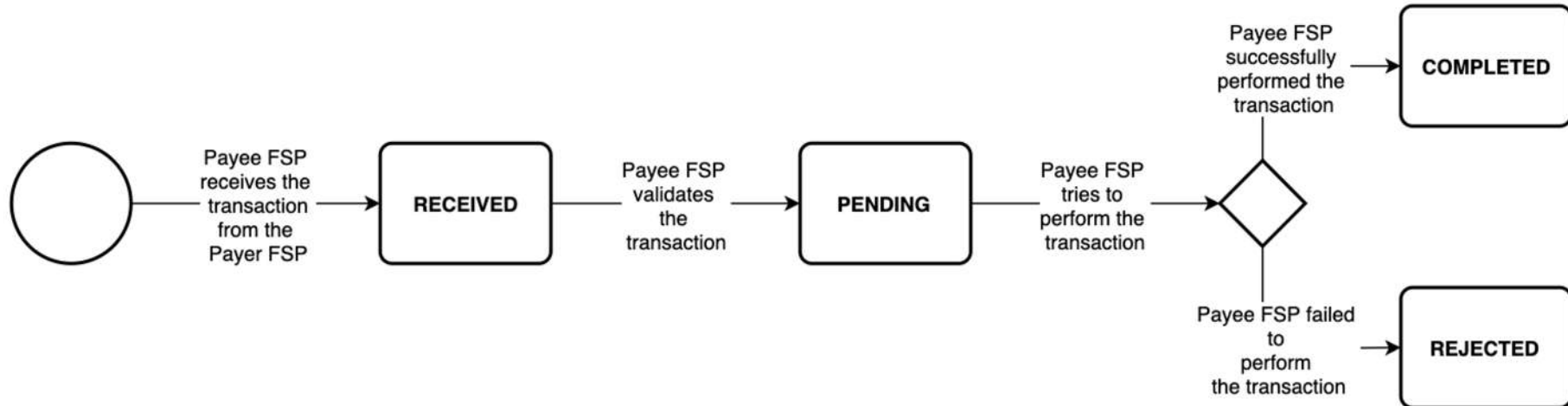


What we need from a Digital Invoice?

MOBILE MONEY - High Level Flow



Digital Invoice- High Level Flow



Defining What a Digital Invoice Means

Digital invoice constraints

- May be output via API
- References the two counterparties (and their IDs) involved in the financial transaction; This information is commonly available via API:
 - [GET /participants/{Type}/{ID}](#)
 - [GET /parties/{Type}/{ID}](#)
- References the complete digital transaction
 - [GET /transactions/{ID}](#)
 - Should include Amount Transferred, Date/Time, Description, Location of Transaction, Data Sharing Consent, SME Daily Limit Allowance
- Adheres to API security constraints, as above

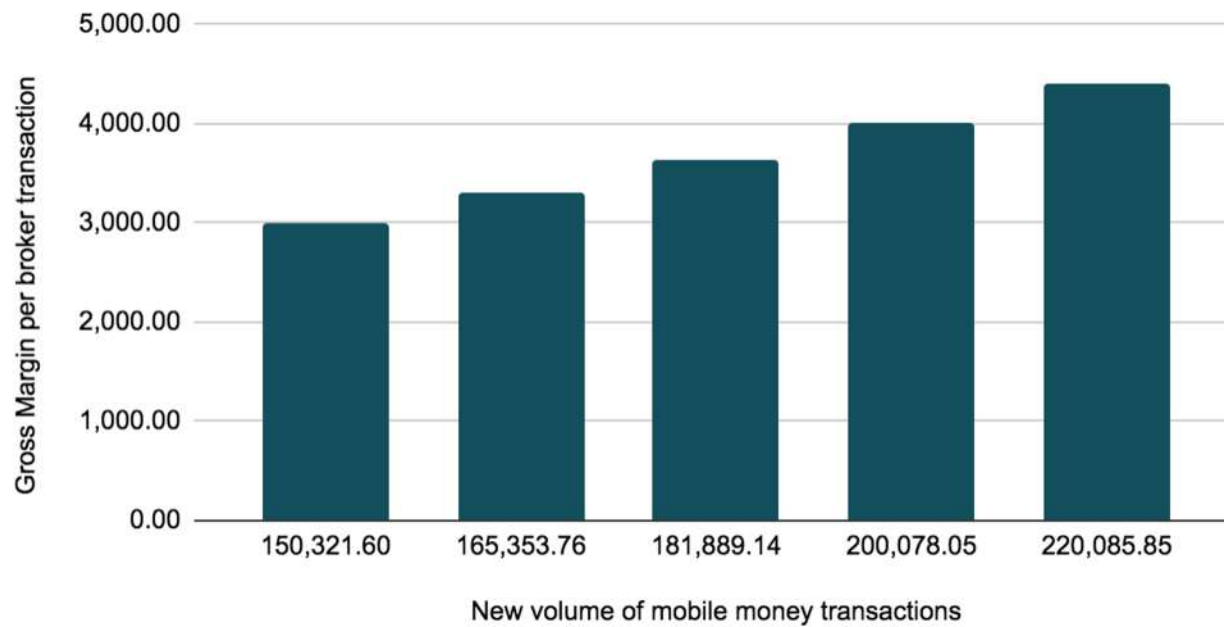
Telcos gain estimated annual gross margin of \$3K-\$4K per broker in Mobile Money transactions

Graph	Year 1	Year 2	Year 3	Year 4	Year 5
New volume of mobile money transactions	150,321.60	165,353.76	181,889.14	200,078.05	220,085.85
Gross Margin per broker transaction	3,006.43	3,307.08	3,637.78	4,001.56	4,401.72

Note:

- Volume of transaction represents volume after 10% conversion in Y1
- Gross margin is 2% fee imposed on each volume of transaction
- Due to limited data, it was challenging to gain an estimate for the # of brokers. Hence, the gross margin is per broker basis not for the entire industry

Telcos may gain an estimated annual gross margin of \$3K-\$4K per broker in Mobile Money transactions



Next Steps

- Invite Telcos to a conversation
- Determine which Telcos are interested
- Draft pilot proposal
- Solicit funding for a pilot

Technology *alone*

won't solve the problems of today.



But
TECHNOLOGY + PEOPLE
can address the most challenging
of problems of our time.

Carrie George

Vice President, Head of Sustainability Solutions

carrie@everledger.io

everledger.io

Contact

appendix

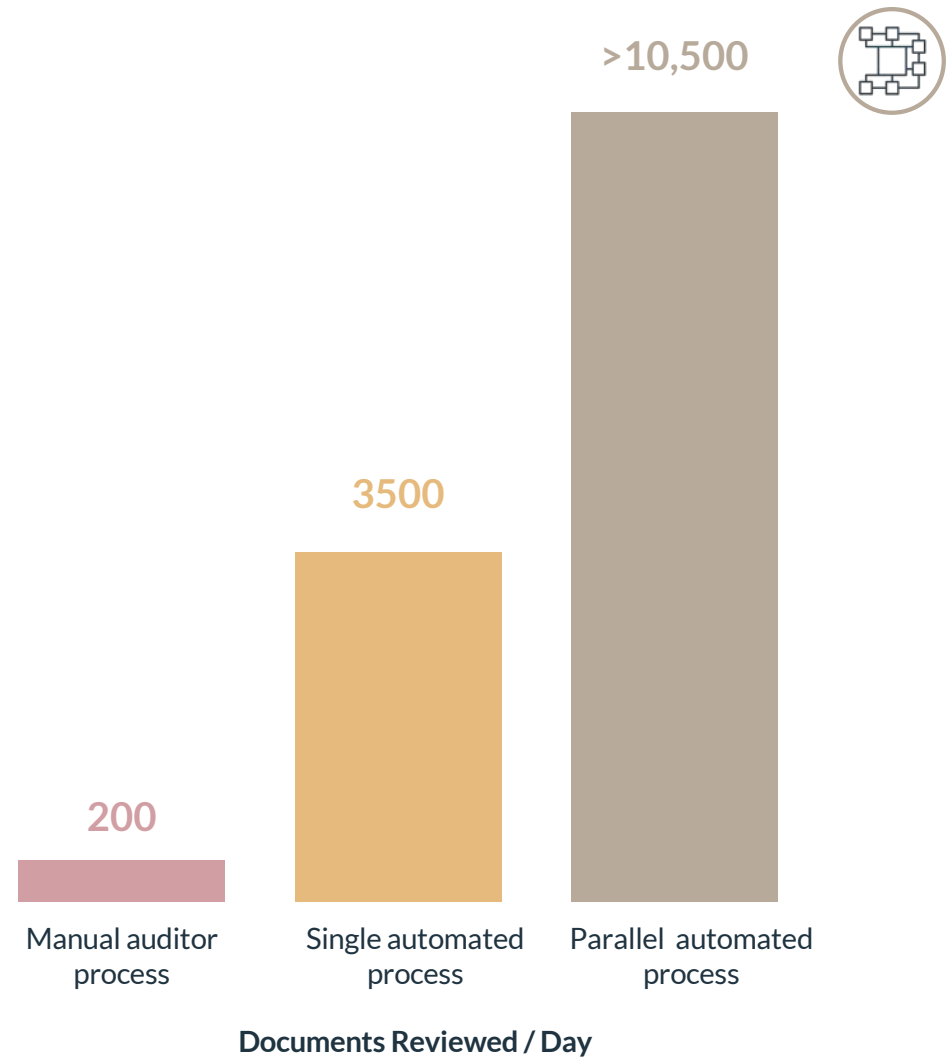
SUSTAINABILITY @EVERLEDGER

Efficient Reporting

Companies are busy.

Technology should help them focus on sustainability impact not paperwork.

We enable efficient reporting on what companies are doing and support cross-checking of commercial claims.



SUSTAINABILITY @EVERLEDGER

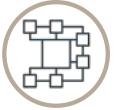
Multiple Data Sources Captured

Complex supply chains rely on many audits and initiatives to validate various sustainability claims.

Pulling all this data consistently and relating it to the product can be too overwhelming for a single company.

The Everledger Platform enables ensuring that it is still relevant to your the supply chain at the time of the product passes through the hands of the value chain partner.

- Time-Stamp compliance on website listings
- Scrape audit reports from public/private systems
- Connect to product relevance to actor/site



Certification
Authority



Third-party
Membership Initiative

Machine Learning and AI

- 900 actor reports captured in 20 minutes
- 1500 pdf reports read & data fields captured 2.5 hours

WORKSHOPS: WHAT WE ARE DOING

- Global network of verified participants to engage
- Integration with payment gateways (SMS) for immediate release of funds
- Supplier can select which inventory to be public, and which to remain private in vault creating control over own inventory.
- Enquire function – direct communication from supplier to customer
- Manage inventory within marketplace (ability to mark as sold, pending etc)
- Sustainability features and tracking
- Shared functionality

