

EVERLEDGER

Rakalene Condon
Head of Product

ESG & SUPPLY CHAINS: The transparency imperative

17 August 2022

Queensland Exploration Council

Tech Summit

Subject to Copyright

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HOW CAN YOU VALIDATE YOUR ESG PRODUCT CLAIMS AND CHARACTERISTICS?



Origin



Environmental Performance



Chain of Custody



Human rights



Legality



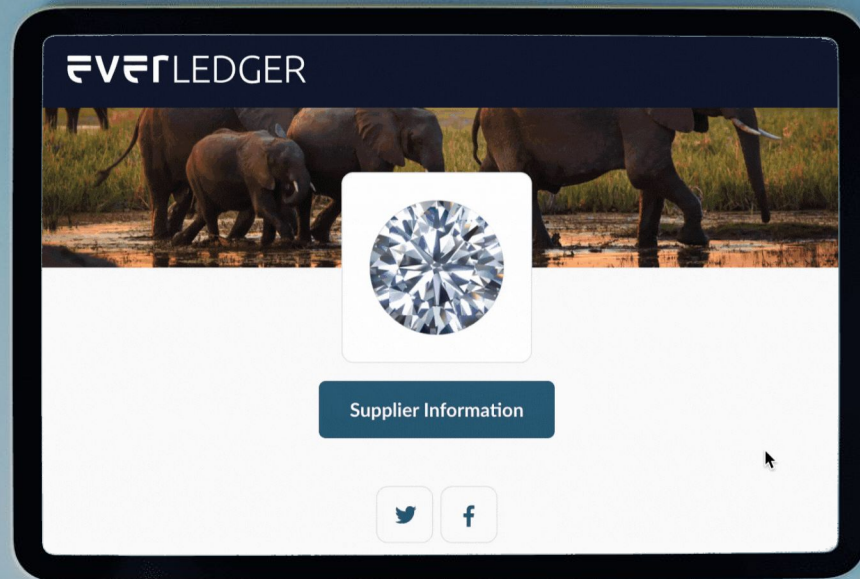
Circularity

EVERLEDGER PLATFORM: DIAMONDS

Case Study: We have made diamond origin discoverable

The Challenge:

Opaque chain of custody leading to questionable claims about origin, conflict free, worker rights and sustainability impact.



EVERLEDGER AWARDED PILOT - Digital Certification for Critical Minerals AUG 2021 - MAY 2022

Blockchain Pilot Grants to support industry transformation

12 July 2021

Demonstrating how blockchain technology can support supply chain solutions and help to ease regulatory burdens are the aims of two new pilot projects funded by the Morrison Government.

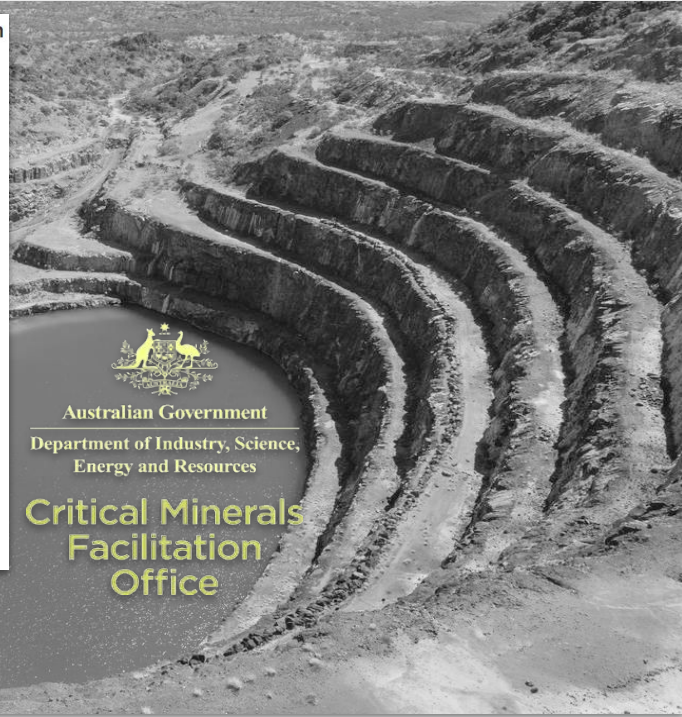
The Government is investing more than \$5.6 million through the Blockchain Pilot Grants program to investigate the capability of blockchain to enhance the productivity and competitiveness of Australia's Critical Minerals and Food and Beverage sectors.

Minister for Industry, Science and Technology Christian Porter said the projects would help to accelerate Australia's adoption of blockchain technology and assist businesses to solve real-world problems.

"The Blockchain Pilot Grants will demonstrate the potential for blockchain to help businesses to save money and cut red tape by improving processes such as tracking products throughout the supply chain and transferring customer information," Minister Porter said.

"These two successful projects will also highlight opportunities to improve the technical and regulatory environment for blockchain in Australia, bolster blockchain literacy and support collaboration between Australian governments, the private sector and blockchain companies.

"The Blockchain Pilot Grants builds on the National Blockchain Roadmap which ensures Australia is well-positioned to take advantage of the opportunities this technology can enable."



ECOSYSTEM CONSIDERATIONS

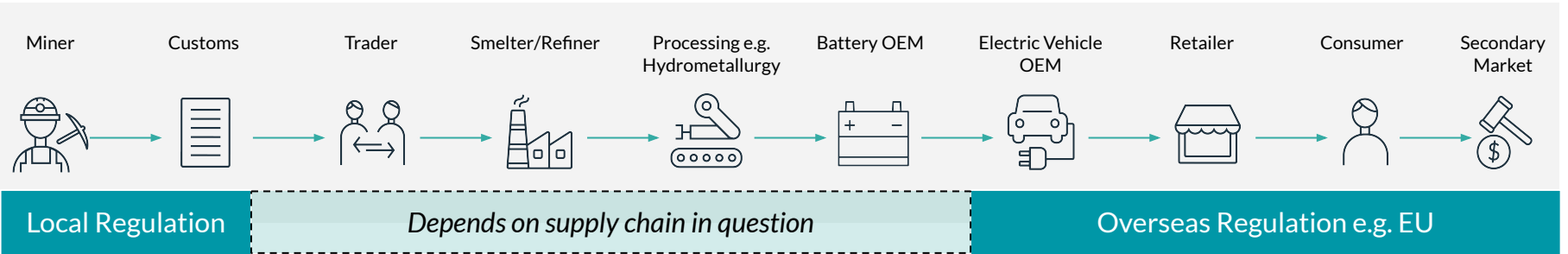
Multiple standards bodies and auditors



Peak industry bodies for every stage/actor



ASSOCIATION OF MINING AND EXPLORATION COMPANIES



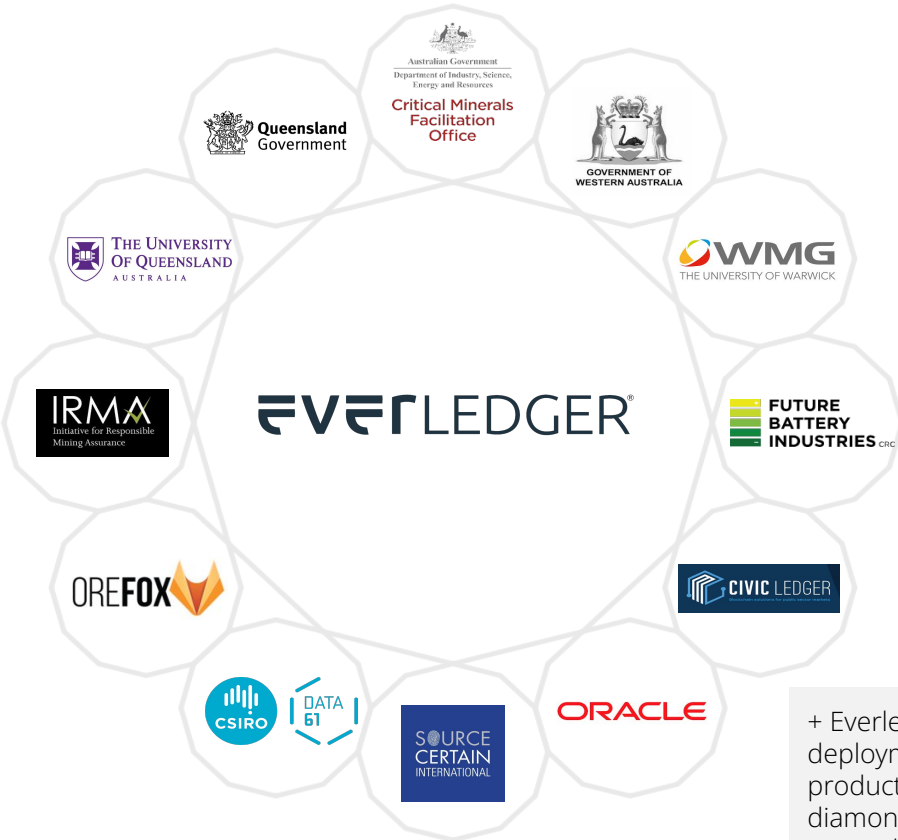
Department of Environment and Science

Local and overseas regulations currently siloed



EVERLEDGER HAS ESTABLISHED RELATIONSHIPS IN INDUSTRY

Critical Minerals Pilot ecosystem



+ Everledger has multiple deployments scaling in production across diamonds, gemstones, apparel, wine & spirits.

Battery traceability



Worked with Governments including UK, Canada, Japan, USA and NZ

THE OPPORTUNITY

Lack of trust and transparency in supply chains:

We can't show, tell
or sell our good
story



Transparency
(ESG+)
requirements are
increasing



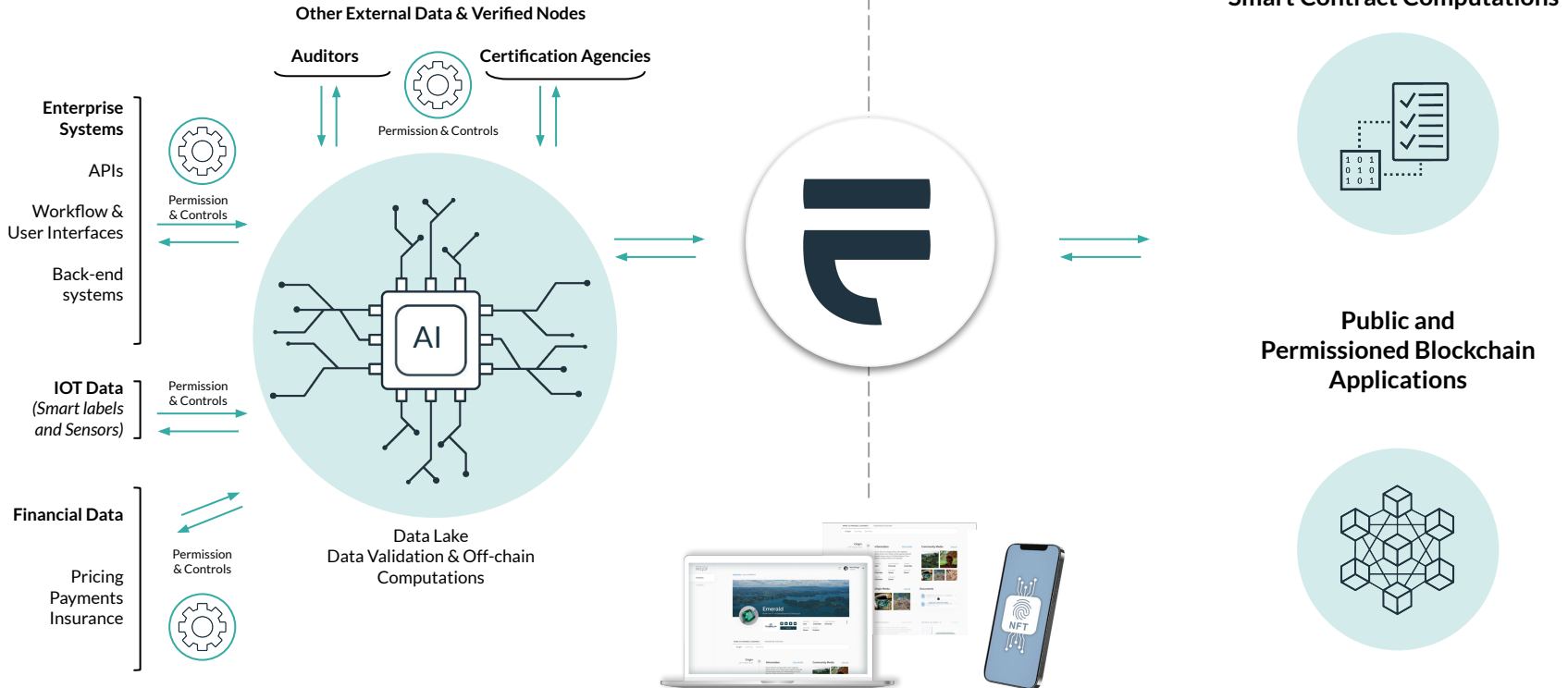
We could be more
efficient



EVERLEDGER PLATFORM

OFF-CHAIN DATA AND COMPUTATIONS

ON-CHAIN DATA AND COMPUTATIONS



BLOCKCHAIN: INDUSTRY ADOPTION

- “Why Blockchain?” / “Is it fit for purpose?” - **unequivocally yes**
- Adoption across industry has begun (publicly and privately)
- Incredible potential to provide a level playing field for all industry players (including juniors)

BHP About What we do Investors Sustainability Careers News Suppliers

Home > News > Prospects

Three big questions blockchain is helping us answer

12 December 2021

BHP produces resources the world needs including iron ore, copper, nickel and our steelmaking co

START RESPONSIBLE ALUMINIUM EN | FR | IN

About Platform Sustainability Industries Media Stories Events

START uses a blockchain solution to deliver production insights

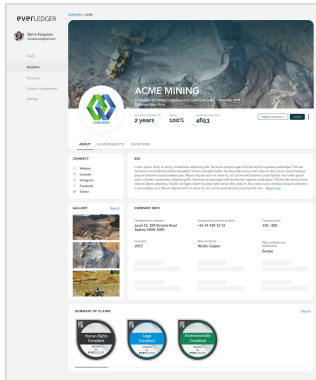
Blockchain is the new, efficient way to digitally collect and store data across the sustainable aluminium value chain.

By using blockchain technology, START delivers insights about your sustainable aluminium orders in an entirely transparent and traceable way. Event records and data from every phase of the aluminium lifespan is stored in digital “blocks” with timestamps, ensuring it can’t be modified.

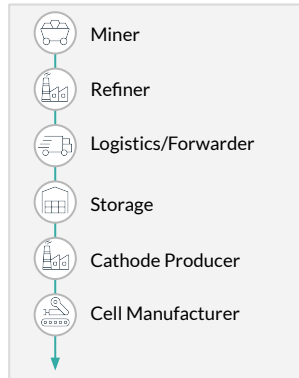
SOLUTION OUTLINE - KEY COMPONENTS



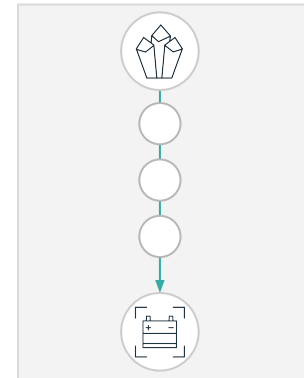
Entity Passport



Supply Chain Passport



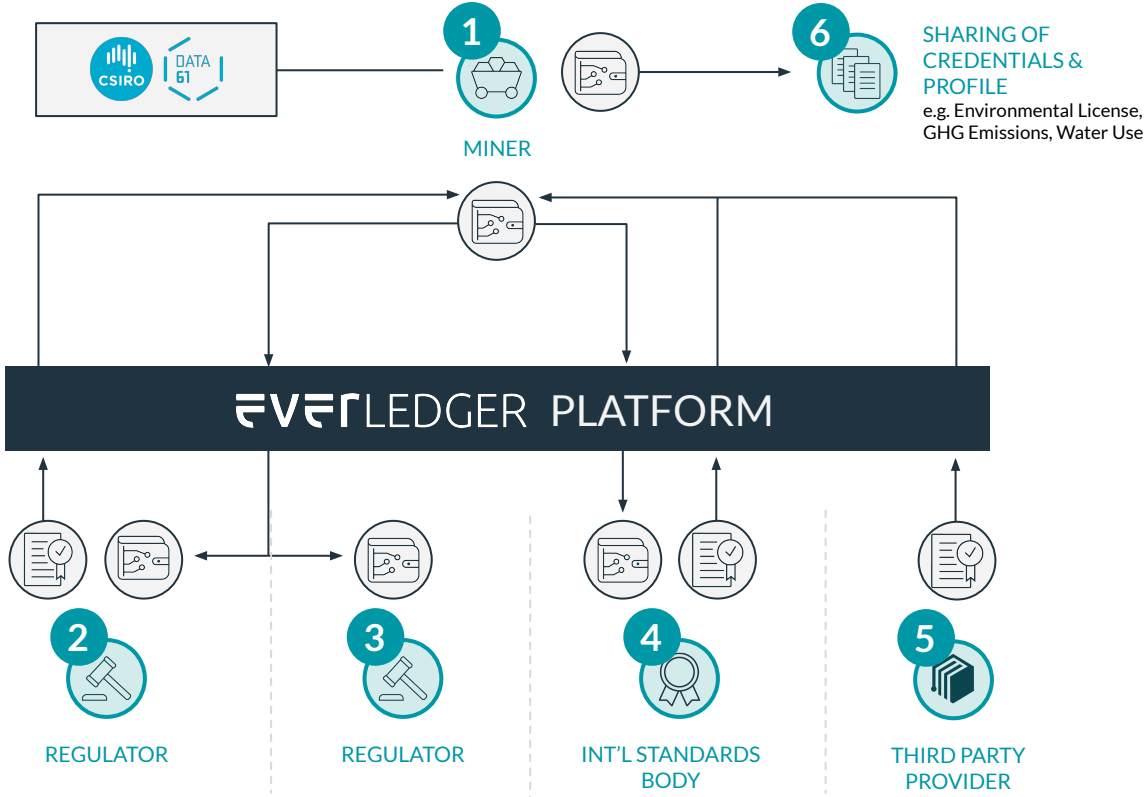
Material Passport



DATA CONNECTIVITY & PROVISION - data sovereignty, entity association from any operating system

BLOCKCHAIN PLATFORM - ensures data validation, integrity and privacy

ENTITY PASSPORT KEY FEATURE: CREDENTIAL MANAGEMENT



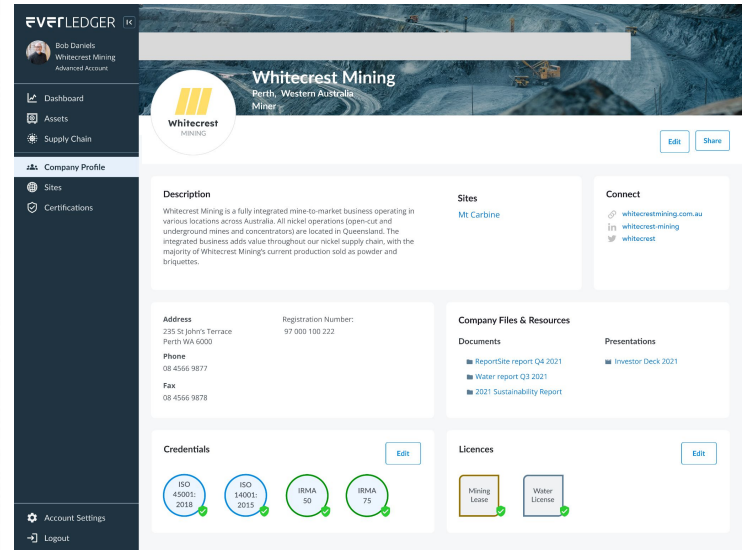
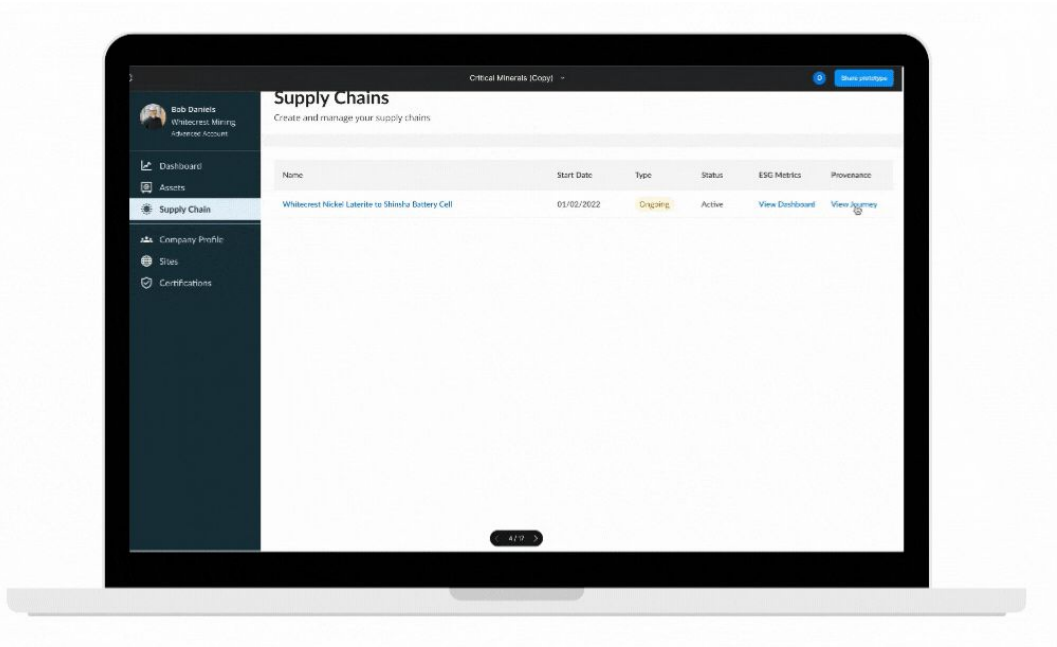
1. Supply Chain Participant shares data once with the Everledger Platform e.g. production output and requests credential from issuing party
2. Issuing regulator signs the data with their DID (digital identity) and issues credential(s) to the Supply Chain Participant
3. Data (and credentials) can be easily shared with other permissioned regulators
4. International Standards body verifies credentials in a similar manner and pulls data relevant to standard applications
5. Third party organisations also providing validated credentials e.g. water legislation compliance
6. Supply Chain Participant can enable its profile or single credentials with permissioned parties

Wallet and authentication supported by **macrokey**
your data, your terms

Credential


- ISO 14001
- ISO 45001
- IRMA Certifications
- ...


COMPANY STORY





SUPPLY CHAIN DIGITAL TWIN


EVERLEDGER 10


 **Bob Daniels**
Whitecrest Mining
Advanced Account


 Dashboard


 Assets


 **Supply Chain**

 Company Profile

 Sites

 Certifications

 Account Settings

 Logout










Whitecrest Nickel Laterite to Shinsha Battery Cell

View and manage your supply chain metrics, events and participants

01/02/2022 - 08/02/2022 Weekly Monthly Yearly Custom

Per Metric Tonne Of Nickel (Tracked Assets Only)

[ACTIVE VIEW](#) ESG METRICS

Status	Operation Type	Asset Type	Output	Participants
	Mining	Nickel Laterite Ore	5t	Whitecrest Mining ▾
	Logistics #1		1.2t	Interstate Logistics ▾
	Processing - Chemical Plant	Mixed Hydroxide Precipitate	3t	Genco Refining ▾
	Logistics #2		3t	Tasman National ▾
	Warehouse		5t	Storeit ▾
	Logistics #3		3t	Acacia Link Transport ▾
	Processing - Cathode Manufacturer	Cathode Slurry	1000L	Stirling Manufacturing ▾
	Logistics #4		1000L	DEVL Logistics ▾
	Manufacturing	Battery Cell	100 Battery Cells	Shinsha Batteries ▾

[Journey View](#)

TRACING MATERIAL FLOW



Miner

Logistics /
Forwarder

Refiner

Logistics /
Forwarder

Storage Agent

Logistics /
Forwarder

Cathode
Producer

Logistics /
Forwarder

Storage Agent

Logistics /
Forwarder

Cell
Manufacturer

Entity and Event Data e.g. Weights, Time/Date, Batch ID, Energy / Fuel Usage / Generation, Water Consumption

Data ingestion



EVERLEDGER PLATFORM

ESG REPORTING AND VISIBILITY - ACROSS THE SUPPLY CHAIN

Whitecrest Nickel Laterite to Shinsha Battery Cell

View and manage your supply chain metrics, events and participants

Journey View

01/02/2022 - 08/02/2022

Weekly Monthly Yearly Custom

Per Metric Tonne Of Nickel (Tracked Assets Only)

ACTIVE VIEW

ESG METRICS



82,000 Tonnes
Carbon Generated
12,000 Tonnes
Carbon Intensity

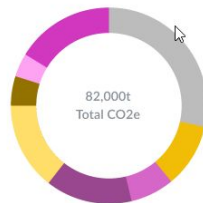


45,242.25 ML/Tonne
Total Water Used
1,242.25 ML/Tonne
Water Intensity



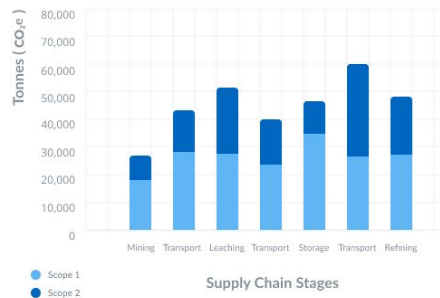
2,978,582.42 Gigajoules
Total Energy Used
1,583.22 Gigajoules
Energy Intensity

t CO₂e by Energy Source ⓘ



- Solar 18%
- Coal 75%
- Wind 19.4%
- Diesel 67%
- Natural Gas 24.3%
- Gasoline 44.2%
- LPG 56%

Scope 1 & 2 Emissions ⓘ



COMPARATIVE ADVANTAGE TO COMPETITIVE ADVANTAGE

Accessibility for all Australian miners to
'tell their story'

Enable efficient **verification** of claims
across the value chain

Support efficiencies in demonstrating
compliance at both local, state, federal and
international level





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