



Carbon Compass



Groundbreaking software and sensors to decarbonise mines. Automated energy audits site by site, machine by machine, minute by minute.

We help miners reach NetZero by leveraging IoT sensors and an AI digital twin to precisely monitor, audit, forecast, optimise, energy usage and carbon emissions.

Scale

50,000+ global mining companies with \$10m revenue or assets

\$6B TAM (license fees)

93% of mines in Australia are not using renewable energy

853 petajoules of energy consumed per year

89 mmtco2e annual emissions

Partners :



The Problem

The mining sector is currently navigating the challenge of decarbonization, hindered by a critical lack of precise energy consumption and carbon emission data.

The Australian Government's Safeguard Mechanism requires large emitters to report their Carbon emissions in detail. Companies exceeding their allowable levels, are liable to pay a \$275 per ton CO2e penalty.

<https://www.dcceew.gov.au/sites/default/files/documents/safeguard-mechanism-reforms-factsheet-2023.pdf>

Carbon Compass responds to this need with robust measurement and analytical tools, streamlining the industry's shift to greener operations.

As mining companies aim for NetZero, the reality is stark: 90% operate without clear insights into their energy use and carbon emissions which is essential for proper governance and improving environmental performance.

Top 4 Points

- 1. Monitoring - Near Real-time Analytics:** Carbon Compass delivers instant analytics on energy and emissions, enabling mines to swiftly detect and address inefficiencies, ensuring operations stay lean and green.
- 2. Auditing - Consistent Adherence:** With automated sensors gathering data, the platform produces reliable reports that comply with regulatory standards, showcasing the mine's dedication to sustainable practices.
- 3. Forecasting - Actionable Data for Informed Decisions:** The Carbon Compass digital twin (in development) allows mines to assess the carbon and energy impact of future developments and strategies allowing mines to proactively shape their sustainability efforts.
- 4. Optimization - Lower Costs, Enhanced Efficiency:** The system identifies opportunities to cut energy costs and carbon output, delivering optimal environmental goals and economic benefits.





The Solution

Carbon Compass attaches IOT sensors to mining machines and electrical circuits to monitor energy and emissions in near real-time and with high granularity.

Our software platform uses the sensor network to build a map of a mine site's energy consumption while also autonomously completing emissions reporting compliance obligations.

V2 of the platform will features a proprietary deep machine-learning AI that builds a "digital twin" of the site to allow for accurate forecasting, what-if analysis and the optimisation of energy requirements.

This positions mines for a greener, more sustainable future and creates economic and logistical pathways for faster renewable energy implementation.

Market Size*

Global

Mining companies: 192,058
Target market: 51,270
Revenues: \$16.7 trillion
Assets: \$13.1 trillion

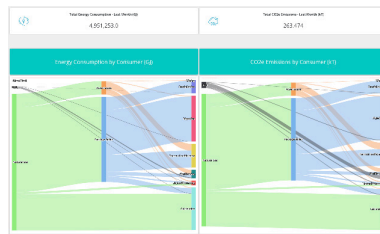
Australia

Total companies: 2,965
Target market: 1803
Revenues: \$605bn
Assets: \$650bn

*SOURCE - S&P Capital IQ

Commercialisation

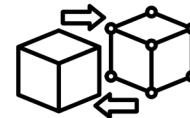
- MVP Deployment Ready
- Monitor & report functionality
- Audit features in development
- Sensor integration complete
- AI digital twin in development
- Paid trials in negotiation



Use of funds

1. Field trials and marketing
2. Completion of audit features
3. User experience enhancements.
4. Digital Twin development
5. Working Capital

Technology



AI Digital twin for scenario planning and forecast



iOT for sensing energy flow and GHG



Machine learning training the solution specifically to each site



Matt Lambert Co-Founder

matt@carboncompass.io +61 (0) 448 226 500

With over 25 years of experience in the global mobility, software, telecommunications, and IT sectors, there is a demonstrated expertise in tech product development, tech planning, tech project management, and mission-critical operations.



Mark Shaw Co-Founder

mark@carboncompass.io +61 (0) 417 442 872

25 years of experience in business, leading working across digital, media, advertising, marketing, technology and the sports, music and entertainment sectors, nationally and internationally.

Carbon Compass

QLD, Australia

<https://www.carboncompass.io>

ABN: 98 663 168 714

ACN: 663 168 714

Raise: \$750K +