

MINING INDABA 2023 COVER SLIDE

www.miningindaba.com



a Hyve event

6-9 February, 2023 CTICC, Cape Town





**The future consumer – responsible mining,
transparent sourcing and the blockchain**



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Introducing Circular

Founded in 2017, Circular is the leading supply chain traceability solution.

Our technology enables companies to gain visibility into their supply chains to demonstrate responsible sourcing, improve their ESG performance, reduce Greenhouse Gas (GHG) emissions and manage supply chain risks.

Fearghal Kearney – VP Sales



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Manufacturing is facing unprecedented challenges



Supply chain vulnerability is real

Every 3 years - the timeframe companies can now expect a month or longer supply chain disruption.



Investors & shareholders are backing sustainable companies with proven ESG

800 U.S. investment companies - with \$3T in AUM claiming ESG and needing to prove it.



Consumer demand is changing

7 times - the growth of consumer demand for sustainable products over the past 5 years compared to conventional counterparts



New regulations and legislation are requiring data

600 ESG global reporting requirements, many with different interpretations and requirements.

[(McKinsey, "Risk, resilience and rebalancing in global supply chains".)] [BMI, "Climate-risk Disclosures To Drive Esg Reporting In Lithium-Ion Supply Chain".] [WEF, "Net-Zero Challenge: The Supply Chain Opportunity".] [EY, "The future of sustainability reporting standards".]

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01. Legislation

The US Inflation Reduction Act will see more than \$360 billion in clean energy and climate provisions over the next decade. In addition to proving the provenance and production of electric vehicle batteries, the Act includes renewable energy tax credits, the 'Green Bank' investment fund, fines for emissions, grants for environmental health initiatives and \$250 billion for clean energy loans.

This landmark legislation will not only transform the US economy toward green energy and new vital climate goals but will reset the conditions for how business is done with the world's largest economy and put in place a new gold standard for the rest of the world.

02. Regulation

European Battery Regulation makes the automaker responsible for the entire value chain of its batteries and aims to ensure that batteries placed in the EU market are sustainable and safe throughout their entire life cycle. Collection, recycling and safe disposal

FSB Task Force on Climate-Related Financial Disclosures (TCFD) requests businesses disclose info regarding oversight of climate-related risks, measures taken to manage and mitigate and opportunities to improve.

Corporate Sustainability Due Diligence Directive (CS3D) seeks to introduce due diligence a for firms operating in Europe to foster sustainable and responsible corporate behaviour throughout global value chains

EU Carbon Border Adjustment Mechanism (CBAM) seeks to cut greenhouse gas emissions by 55% by 2030. Aim to avoid carbon leakage; targeting carbon-intensive imported products, encouraging carbon pricing policies.

Critical Minerals Strategy sets out the UK's plan to secure our supply chains, by boosting domestic capability in a way that generates new jobs and wealth, and attracts investment.

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03. Supply of materials

Manufacturers and their corporations face insecurity caused by supply and material shortages, commodity and energy inflation, freight, disruptions and labour constraints—all of which are exacerbated by the ongoing pandemic and war in Ukraine. They face a multitude of potential disruptions to their businesses, however, only 2% of companies have visibility into their supply chains beyond Tier 2.

Supply chain illumination helps identify risks, gaps, and vulnerabilities which, when addressed quickly and accurately, will allow manufacturers to withstand disruption and enable the resiliency that delivers growth.

Additionally, the need to prove re-use of critical minerals, metals, and plastics in products will be central to businesses achieving their ESG and market positioning goals and building a robust case when accessing capital that is conditional on these aims being met.

04. Consumer behaviours

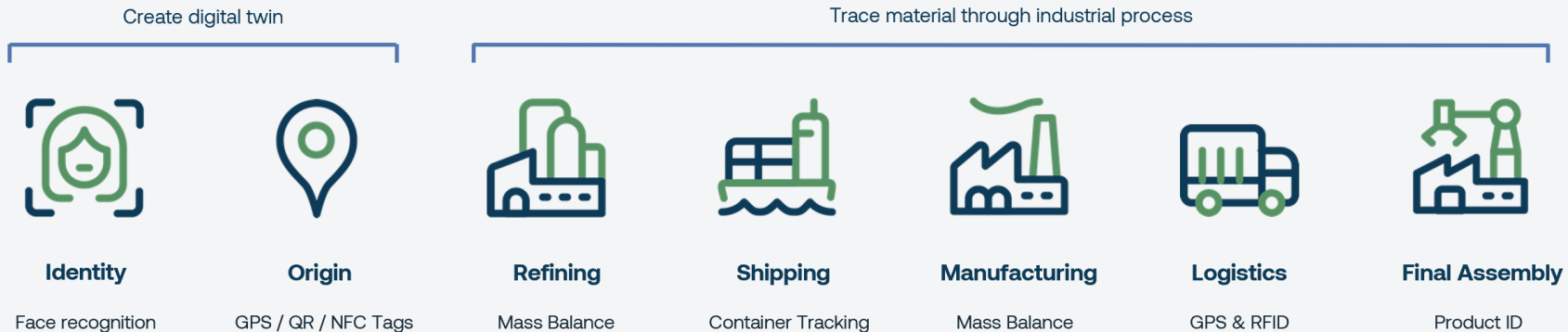
Consumer attitudes and behaviours towards more sustainable lifestyles continue to mature. There has been a sharp increase in the number of people who have adopted a more sustainable lifestyle in the last 12 months in the UK. Deloitte found consumers are tending more sharply toward buying just what they need, reducing meat consumption, opting for low-carbon modes of transport, and choosing brands that have ethical or environmentally sustainable practices and values. Similarly, they are moving away from brands because of concerns in these areas.

Producing sustainable packaging and products, reducing waste in manufacturing processes, committing to ethical working practices, reducing carbon footprints, and respect for human rights are the most important aspects for consumers when considering environmental and sustainable factors.

Increasingly, businesses that are able to prove their practices and credentials in these areas will enjoy certainty in their messaging, brand growth and stronger market position as a consequence.

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How to do it: End-to-end supply chain transparency



Circulor's solution tracks the actual, physical flow of critical materials, from source to manufacturer

- Create a digital twin of the material itself at source
- Connect all supply chain participants together, creating accountability and reliable proof
- Collect CO₂ across Scope 1, 2, and 3, as well as ESG metrics and attach this activity from every participant to the product itself

Circulor data is the backbone in creating full visibility of supply chains and proof of sustainable and responsible sourcing

- Thousands of data points, underpinning entire supply chains, end-to-end
- Full visibility of supply chain activity with actionable insights
- Empowering companies to prevent, mitigate, and improve performance

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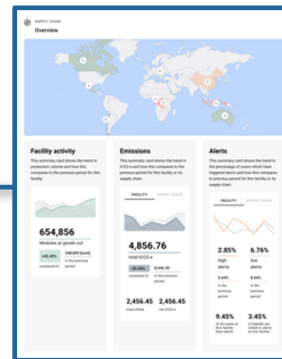
Proving sustainable and responsible sourcing

User-friendly mobile app, desktop app or automated API

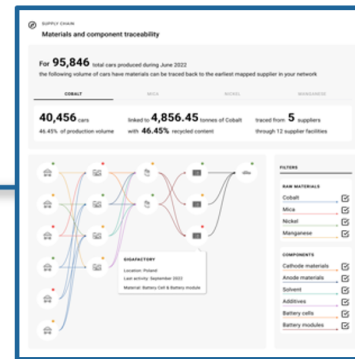


Data upload

Reports and dashboards for authorized stakeholders to monitor activity, identify anomalies and manage risks



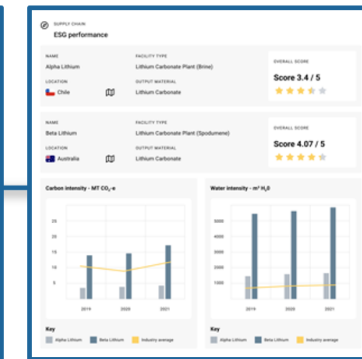
Activity, reporting & alerts



Material traceability



Attributed CO₂e footprint



ESG Disclosures & Reporting

Blockchain technology helps verify and establish provenance and track chain of custody, including CO₂e emissions and ESG performance

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An enterprise software solution that helps businesses analyze, track and manage their supply chains – driving responsible sourcing and GHG emissions reduction.

1. Full visibility of supply chain production
2. Data-driven evidence of responsible sourcing and compliance
3. Awareness of potential risks
4. Ability to benchmark and improve operations
5. A step ahead of growing regulations and global uncertainties
6. Regaining trust with consumers