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Blockchain evolution will revolutionise the Raw Materials Industry

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As companies across the global supply chain face increasing regulatory and environmental pressure to be transparent, sourcing and producing responsibly, blockchain will revolutionise the raw materials industry, driven by a broad-based push from individual consumers and corporate investors.

Nathan Williams founder and CEO of public blockchain-based traceability platform Minespider speaks to Climate Transformed about the key opportunities and challenges facing blockchain:

- **Carbon tracing and finance** – The world will need blockchain to track and report carbon emissions. The existential threat to humanity is a critical driver, but the financial world is moving in the same direction. To secure finance, companies will need to have some sort of traceability in carbon, with a growing number of trade finance organisations and banks making it a requirement to secure certain lending rates or even to get any investment.
- **Greenwashing** – Traceability breaks down into multiple different problems at different sections. If they're solved in sequence then we get to the goal, but greenwashing is a danger all along the way and the most important way to avoid it is to think what the next steps are. But the end of greenwashing is probably a decade away.
- **Not a level playing field** – Different scopes of calculation make it difficult for a company to establish how its emissions compare to its competitors. A steel firm producing its own oxygen on site on the face of it might look to have higher emissions than a competitor who buys in its oxygen. The goal is: how can a company take into account not just its own emissions but those of its supply chain to have a much clearer view of its total emissions.
- **Big use cases** – Currently only large companies can afford to make sure that supply chain transparency is normalised. Some of these firms may adopt high profile cases to get PR, but on the side, they also are likely to start "less flashy but more business-savvy" traceability initiatives, making sure they get quality, verifiable records, increasing the efficiency of document management. Using the 80:20 rule, if big companies lead the way this would cover the bulk of the supply chain. Larger firms can also scale up by helping to bring onboard their smaller suppliers.
- **Sustainability** – It's not just about the current operations, but also what a company does tomorrow. If there's a close relationship with the downstream then maybe companies deal with people more humanely. With more traceability,

corporate philanthropy turns into social responsibility. As humans we also need a more solid connection to where our materials come from, otherwise we are just outsourcing the problem, not only regarding human rights but also carbon emissions.

- **Identity preserving traceability** –It’s a fantasy though to think that the cobalt in our smart phone lithium-ion battery came from one person in the DRC, that we have their picture and name and that we can give them a tip and make the world feel a little more equal.
- **Key growth areas – Batteries** will be a key driver for blockchain growth due to the big risks in terms of access to critical materials, production and battery circularity. There is also a huge incentive to make traceability work for **gold** especially with the latest Gold Rush as inflation runs wild, with factors such as mercury use and laundering also to consider. Other growth areas range from **recyclable materials** to the **meat** industry with calls to track origins to jungle-and forest-friendly, responsible producers.
- **Consolidation** – A lot of competitors have sprung up in blockchain, especially with Covid-19-related logistics and pain points. Given that there is a lot of cross-over in the sector there will be some market consolidation in the next couple of years. We’re not there yet, but it’s normal in start-up fields.