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Tracking the trends 2024

Navigating global challenges and opportunities in mining and metals

Introduction

Navigating global challenges and opportunities in mining and metals

As we enter 2024, the mining and metals industry finds itself at the center of a complex matrix of challenges and opportunities, expectations, and demands.

With supply shortages looming in metals that are critical, not just to the energy transition but to global urbanization and industrialization, stakeholders are acting strategically to secure their supply chains (copper, for instance, is expected to see a supply deficit of 9.9Mt by 2035[1]). With supply source alternatives such as urban mining still in their infancy, downstream companies and even governments are striking deals with miners and metals providers in a reshuffle that has seen some traditional value chains realign over the past 12 months.

Organizations also remain under pressure to improve the efficiency of existing assets and operations by embracing generative artificial intelligence (gen AI), leveraging third party delivery models with specialized back office capabilities and to unlock new value in assets. Additionally, the need for mining and metals companies to collaborate with industry peers, suppliers, and competitors to tackle productivity and environmental issues, all while upholding environmental, social, and governance (ESG) expectations in day-to-day operations remains a priority.

With strong business strategies in place and 2050 sustainability targets as its North Star, now is the time for the mining and metals industry to accelerate growth. However, with heightened uncertainty in the global geopolitical sphere and volatility in commodity markets, to do so may not be easy. Companies that navigate uncertainty, work with governments to address permitting issues for new projects, rethink the strategic value of exploration, work with regional players to address skills shortages, and drive toward becoming more purpose-led organizations are most likely to prevail.

In this, the 16th edition of Deloitte Global's *Tracking the trends*, a team of professionals from around the world provides insights and examples as well as practical ideas to help mining and metals companies rise to the challenges that lie ahead and capitalize on new opportunities. We're looking forward to discussing these trends with you in more depth and helping your organization to continue forging its own pathway to success. Thank you for your ongoing support.

Endnotes

1. Camellia Moors and Kip Keen, "Looming copper shortage shifts attention to alternative supply solutions," S&P Global Market Intelligence, 7 September 2022.

Trend 3

Dealmaking for future-focused growth: Rethinking minerals and metals investments

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As the energy transition continues to shift the bedrock of the mining and metals industry, companies are seeking new ways to maintain their competitive edges, increase access to resources that could prove critical to growth in a sustainability-conscious future, and accelerate new production capacities.

For some, capital allocation into mergers and acquisitions (M&A) is helping to shape a portfolio of assets that provide exposure to critical minerals and metals. For instance, BHP acquired OZ Minerals in May 2023 to gain greater exposure in nickel and copper.[1] While, for others, organic growth into new markets is the order of the day. For example, in May 2022, Rio Tinto began producing tellurium at its Kennecott copper operation in Utah, becoming one of only two miners operating in the United States producers of this critical mineral, which is used in photovoltaic solar panels.[2] Companies like these could garner greater interest from investors going forward, and many are looking to trade at premium multiples.

Alternatively, companies whose portfolios contain higher carbon commodities are exploring ways to create more attractive investment options. For example, in February 2023, Teck Resources announced the reorganization of its business. In creating Teck Metals Corp and Elk Valley Resources, the company said it would "provide investors with choice for allocating investment between two businesses with different commodity fundamentals and value propositions."[3] This paved the way for a full sale to Glencore to take a 77% interest in Elk Valley Resources in November 2023, and for two major steelmakers to take the remaining shares in the deal.[4]

Most, if not all, major energy, resources, and industrial (ER&I) players now have firm net-zero emissions targets in place for 2050 or sooner and, as such, greenhouse gas (GHG) emissions statements are fast becoming a key investment criterion. In this trend, we'll explore how strategic investments can fuel growth in fast-changing and sometimes fickle markets, while bringing important metals supplies online faster.

M&A for critical metals exposure heats up

The fourth quarter of 2022 heralded a run of M&A transactions in mining and metals the likes of which have not been seen in a decade. This resulted in a total of 288 deals worth US$88.2 billion for the year.[5] Recent rises in commodity prices have left big players with plenty of cash and opportunities to invest it, whether through purchasing mines that align with their core growth strategies or by diversifying into new metals. Companies are also increasingly open to innovative pathways, such as joint ventures, alliances, and partnerships, to secure long-term, ESG-friendly growth.[6]

> "There have been some big deals in mining and metals over the past year, and most of the activity has been critical minerals related. The US Critical Minerals list details 50 elements,[7] and there's a race on to gain access to those."

Nicki Ivory, partner, Mining & Metals leader, Deloitte Australia

Lithium and nickel have seen the greatest volume of activity, with companies both big and small looking to grow their competitiveness through economies of scale. For example, in May 2023, US-based Livent Corporation and Australian company Allkem Limited, agreed to combine their stock in a US$10.6 billion deal to create the world's third-largest producer of lithium.[8]

Alternative capital expedites projects

Mining and metals companies aren't the only ones with an agenda in critical metals. For a metal to be designated "critical" it must be both important to a specific purpose (i.e., the manufacture of green energy technologies) and carry a certain level of supply risk. With supply shortfalls predicted in many commodities, including lithium and copper by 2030,[9] there has been a notable increase in downstream consumers, including automotive manufacturers and defense companies, considering direct investments in mining, refining, and precursor materials in addition to offtake commitments.[10]

For example, Contemporary Amperex Technology Co., the world's largest battery cell maker, has made the acquisition of critical mineral assets a central element of its strategy. Other examples include General Motors' US$650 million investment in Lithium Americas Corp,[11] and Tesla breaking ground to build a new lithium refinery in the United States.[12]

Even governments are beginning to play a more prominent role; for instance, the US Department of Defense (DOD) signed an agreement with Alaska-based Graphite One in July 2023 to secure graphite for the production of large-capacity batteries. Access to this funding is expected to allow Graphite One to fast-track its feasibility study by a full year.[13]

While many large mining companies are able to self-fund project developments, the majority of junior project owners, and some mid-tier mining companies, are searching for investment to finance projects through construction and into operation.

"While there's clear demand for critical metals, traditional capital markets are cautious about investing in certain projects and jurisdictions. This is primarily due to their risk profiles, but also because of the need to build resilience, which requires diversity of supply."

Stacey Toder Feldman, partner, Mining & Metals leader, Deloitte UK

Current mining and processing of certain metals is highly concentrated in specific geographies. China, for instance, dominates the global supply chain for rare earth elements (REEs)—around 70% of global REE extraction and 90% of processing takes place in China.[14] Building supply chains exclusive of that capacity poses practical challenges and will likely take time and a significant injection of capital.

For example, Botswana's transparency, and regulation of taxation and policies have been highlighted as one success story where in-country beneficiation has been implemented. Downstream beneficiation could create jobs through increased labor requirements. However, beneficiation of high value-add products from unprocessed materials requires skilled labor, of which southern African countries have a shortage.[15]

“Many explorers get through the project study phases to the point where they need funding to move into construction and hit a dead end, because project financing is difficult to access. Companies are therefore looking to alternative sources of capital and to nontraditional models to bridge that gap.”

Mark Upton, partner, Tax, Deloitte Australia

Multi-user infrastructure models for metals processing that allow users to share their knowledge and pool their resources could help to bring supply online faster and more inexpensively, irrespective of competition. These “hub”-type business models are already proving successful in the hydrogen sector (many of which benefit from government funding), and there’s similar potential in critical metals.

Governments as a force for change

Governments around the world have an increasingly important role to play in expediting the commercialization of critical metals projects. Their funding not only supports development but helps to lower the risk associated with projects that could, in turn, encourage more cautious investors to get involved.

The US government has been the quickest off the mark, making vast sums available through its 2022 Inflation Reduction Act (IRA).[16] This provision extends to companies based outside of the United States, too, but with operations that are critical to US supply chains. For example, in August 2023, Australian REE miner Lynas Rare Earths, which is the world’s largest producer of REEs outside of China, signed a contract with the US DOD for the construction of a heavy REE processing facility in Texas.[17]

The European Union is also looking to secure supplies through its Critical Raw Materials Act,[18] and the European Raw Materials Fund, which will invest in critical minerals needed for a transition to zero carbon emissions, is due to launch in 2024 with around €2 billion (approximately US$2.1 billion).[19] In Australia, the federal government announced a AU$2 billion (approximately US$1.3 billion) expansion in critical minerals financing in October 2023, doubling the capacity of the critical minerals facility to finance Australian critical minerals mining and processing projects.[20]

Funds such as these have dramatically changed the investment landscape in certain countries. Australia, for example, thanks to its wealth of natural resources and attractive ESG profile, proved lucrative for dealmaking through 2022–2023.[21] Canada, and particularly Saskatchewan with 22 of the 30 Canadian-designated critical minerals, especially potash and uranium, is receiving global investment and interest from many players across the value chain, not just the large mining and agricultural companies.[22]

Investors and explorers are also considering Africa. Ghana, for instance, gave its first lithium mine (Barari DV Ghana’s Ewoyaa operation) the green light in October 2023.[23] With its vast mineral endowment (Africa is home to about 30% of the world’s mineral reserves[24]) but less mature risk profile, there are questions as to the reliability and transparency of supply chains based there. Nevertheless, it’s a promising destination for future deal activity.

From ideas to actions

- **Put an ESG lens over deals:** Due diligence with a view to environmental, social, and governance (ESG) issues is essential to help ensure that investments fit the organization's needs over time and work with its wider portfolio of assets and interests. Thorough due diligence will help ensure that any potential conflicts of interest are identified and resolved in good time.
- **Consider your own organization through an ESG lens:** Targets looking for capital may also want to demonstrate their ESG credentials for due diligence purposes, including how they will solve any potential issues—for example, which energy sources they will use to mine (renewable and/or sustainable sources will likely be front-of-mind).
- **Think outside the traditional investment box:** Joint ventures, alliances, and other collaborations can all be harnessed to gain exposure to critical metals. Ownership need not be outright.
- **Create attractive investments:** Companies looking for capital could prepare by considering their assets through a potential investor's eyes. Taking the time early on to highlight synergies with investment criteria, answer any potential questionnaires, and, where necessary, seek out alternative forms of capital to help ensure a smoother process.
- **Look for different investor types:** In addition to thinking creatively about investment structures, think more widely about where to look and who to approach for investment. Governments, OEMs, and others throughout the supply chain are now making minerals and metals part of their security agendas.

Endnotes

1. BHP, "Completion of OZ Minerals acquisition," press release, 2 May 2023.
2. Rio Tinto, "Rio Tinto starts tellurium production at Kennecott," press release, 11 May 2022.
3. Teck, "Teck to spin off steelmaking coal business to shareholders," press release, 21 February 2023.
4. Glencore, "Acquisition of a 77% interest in Teck's steelmaking coal business for US$6.93 bn", press release, 14 November 2023
5. Rebecca Campbell, David Lewis, and John Tivey, "Mining M&A just saw its strongest run in a decade," White & Case, 1 March 2023.
6. Deloitte Asia Pacific, *The deal in focus: Heads of M&A Survey 2023*, 2023.
7. US Department of Energy, "What are critical materials and critical minerals?" 2023.
8. Reuters, "Lithium producers Allkem, Livent to combine in $10.6 billion deal," 10 May 2023.
9. Jennifer Harris, "No country can solve critical mineral shortages alone," Financial Times, 7 July 2023.
10. International Energy Agency (IEA), *Critical Minerals Market Review 2023*, July 2023.
11. Ibid.
12. Tesla, "Tesla Lithium Refinery Groundbreaking," 8 May 2023.
13. US Department of Defense (DOD), "DOD enters agreement to expand capabilities for domestic graphite mining and processing for large-capacity batteries," press release, 17 July 2023.
14. Philip Andrews-Speed and Anders Hove, China's rare earths dominance and policy responses, Oxford Institute for Energy Studies (OIES paper: CE7), June 2023.
15. Patrick Richards and Stewart Nupen, "In country beneficiation for economic growth—a southern African Mining context," African Mining, 1 November 2023.
16. The White House, "Treasury releases guidance to drive investment in critical minerals & battery supply Chains in America," 31 March 2023.
17. Reuters, "Lynas Rare Earths signs updated contract with US government for Texas facility, shares rise," 1 August 2023.
18. European Commission (EC), "Critical raw materials: Ensuring secure and sustainable supply chains for EU's green and digital future," press release, 16 March 2023.
19. Eric Onstad, "European fund for critical minerals projects to launch next year," Reuters, 17 June 2023.
20. Madeleine King, "$2 billion critical minerals boost crucial to energy transition," press release, Australia Ministers for the Department of Industry, Science and Resources, 25 October 2023.
21. Deloitte Asia Pacific, *The deal in focus: Heads of M&A Survey 2023.*
22. Deloitte Canada, *Building tomorrow's skills-based province: An evolution from jobs to skills for the mining industry*, 2023.
23. Reuters, "Ghana greenlights first lithium mine with eye on electric vehicle boom," 19 October 2023.
24. Rebecca Campbell, Kamran Ahmad, and Gary Felthun, "Don't let a crisis go to waste: Financing mining & metals projects in Africa in 2023," White & Case, 12 July 2023.

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