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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 2035¹). 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

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Trend 5

Collaborating with governments to rethink regulation: Unlocking critical resources through permitting

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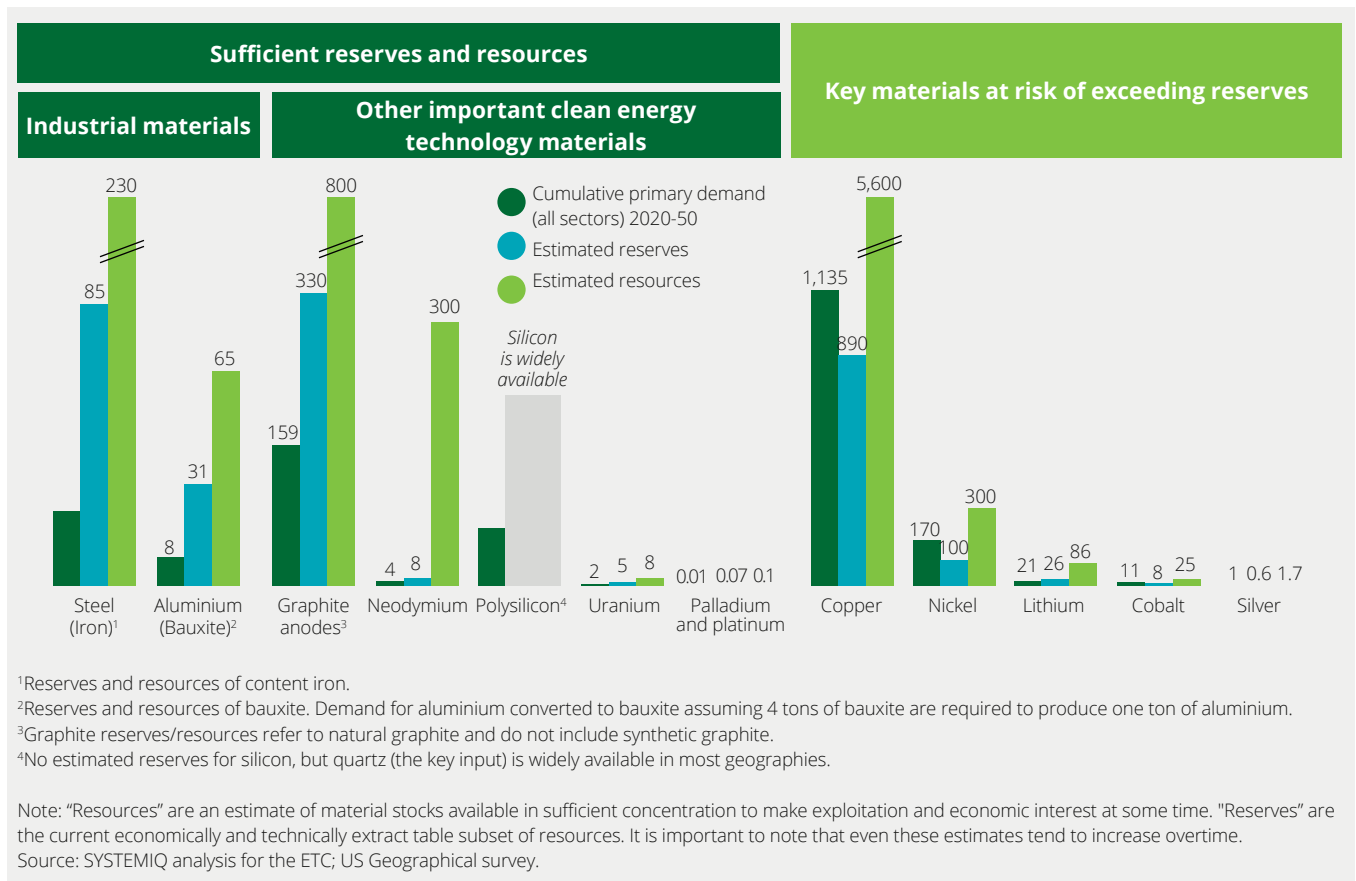
As the source industry for raw materials that underpins global socioeconomic growth and decarbonization, the prosperity and sustainability of this world depends heavily upon the regulatory environments that surround mining and metals projects.

According to the Energy Transitions Commission (ETC), there's no fundamental shortage of raw materials needed to support the global transition to a net-zero economy—geological resources exceed the total projected cumulative demand from 2022–2050 for key materials (figure 1). The key matters are, therefore, ramping up supply fast enough to decarbonize economies before crucial climate tipping points are exceeded, and ensuring that mining occurs in a sustainable and responsible way.¹ Project evaluation and development are central to both.

In many parts of the world, permitting processes for mines span years, even decades. While it's important that projects receive proper scrutiny and approval from relevant parties, there's consensus that a new approach is needed to enable the creation of local supply chains for critical minerals within a timeframe that reflects 2050 net-zero goals.

Going forward, regulatory reform undertaken in consultation with key industries and rightsholders could influence the flow of capital and talent to and from jurisdictions, enhancing their competitiveness. This provides the chance to turbocharge economies, drive investment into communities, and help countries around the world meet their decarbonization goals.² In this trend, we'll look at some steps that are ripe for improvement and how governments, industry, and communities can work together to improve permitting and approvals.

Figure 1: Cumulative primary demand 2022–2050 from energy transition and other sectors, compared to estimated reserves and resources



Note: Billion metric tons = industrial materials; million metric tons = all other materials.
 Source: Energy Transitions Commission

The risk of inaction

According to S&P Global, the average mine takes 15.7 years to reach commercial production.³ Although this number varies greatly by commodity and mine type, even in highly developed jurisdictions, such as the United States, Australia and Canada, permitting can be an expensive and lengthy process. For example, Northern Dynasty Minerals' Pebble project in Alaska—one of the world's largest undeveloped copper resources—has been making its way through permitting for several years, with no imminent resolution.⁴

Northern Ontario's Ring of Fire district is another example. There are concerns that projects like Eagle's Nest, which, together with its associated battery metals plant, could become an important source of nickel for electric vehicle production in North America, and could be at risk due to overly complex environmental assessments and extensive consultation requirements.⁵

In today's high-interest and high-inflation environment, the cost of financing for capital projects can be expensive and access to capital can be limited. While some governments are working to remove red tape and duplication—more could be done globally. Additionally, there may be more cautious decision making by regulatory bodies resulting in longer lead times. These problems are magnified for projects harnessing emerging technologies like small modular reactors, which have a long regulatory road ahead of them.

These challenges may intensify over the coming years as climate targets draw nearer and access to specialized skills becomes tougher. Rather than introducing new measures to resolve existing regulatory challenges created by complex systems, governments could consider a collaborative approach by consulting with the mining and metals industry and other stakeholders to revise regulations or policies for greater suitability and sustainability.

Sequencing: The right projects at the right time

Areas that might benefit from attention include sequencing (identifying which projects to build, where, and in which order, with a view to balancing risk and opportunity); the integration and amalgamation of review processes into a single, streamlined application; establishing clear leadership; and working collaboratively with local and Indigenous communities rather than in parallel to them.

Choosing an optimized pipeline of projects with the right technologies requires intentional prioritization. Mining and beneficiating material efficiently, effectively, and consistently is dependent on numerous external factors such as power supply, water availability, labor, rail and road networks as well as capital investment. Without systematic planning and prioritization, the development of a beneficiation sector would be inhibited.

“By coming together, government and industry can identify and prioritize critical projects for urgent acceleration. This is especially important given the economic and skills opportunities that capital projects can unlock.”

Louis Kruger, partner, Energy, Resources & Industrials leader, Deloitte Africa

If industry can align with governments, there is a chance to better understand which projects need to be built, where, and when to deliver on critical metals and decarbonization targets.

Process integration speeds reviews

Unlocking the investment needed to supply critical minerals involves continued efforts to streamline regulatory approvals, including shortening permitting timelines. Most major projects require authorizations from multiple regulators and jurisdictions, including federal, provincial/territorial, and/or Indigenous governments. When proposals are reviewed in an uncoordinated way, the result can be duplicated efforts, confusing and erratic processes, and delays. On the contrary, using a single, integrated process for collecting information allows regulators to hear from proponents, experts, and rightsholders, and to assess the impacts and mitigation strategies in a timely and coordinated fashion.⁶

In 2020, Australia's National Cabinet introduced a single-touch environmental approvals approach for mining projects to cut "excessive" wait times from the average 3.5 years to 21 months by eliminating duplicative processes and documentations. It estimated that such projects were worth more than AU\$72 billion (approximately US\$46.2 billion) in public and private investment and supported more than 66,000 direct and indirect jobs.⁷

More recently, in November 2021, the Canadian provincial government of Alberta introduced a strategy to reenergize its minerals sector. As part of this, changes were made to the Mineral Resource Development Act to give the Alberta Energy Regulator (AER) sole regulatory authority over mineral exploration and production in the province. This approach creates a more certain regulatory environment for investors and reduces compliance burden for industry, as they no longer need to submit multiple, duplicative applications to different regulatory authorities.⁸

Process integration may be needed across jurisdictions as well as among various organizations within a single jurisdiction, to the extent that each has its own discrete review powers.

"It's important to consider the interconnection between permitting issues at the federal, regional, and local levels to avoid challenges, for instance, where municipalities rezone land, such as farmland."

Michelle Leslie, senior manager, Financial Advisory, Deloitte Canada

The power of economic relationships with rightsholders

In many mining jurisdictions, a big challenge and opportunity in permitting lies in not just collaborating with Indigenous rightsholders through mandated consultation and accommodation procedures, but in establishing effective collaborations that provide communities with direct participation in the project and the fruits of its success.

Such relationships can take different forms and one strategy is having relevant Indigenous parties or local communities take equity stakes and integrate Indigenous traditional knowledge systems into project design, environmental monitoring, and decision-making. This approach means that concerns from both parties are heard and can be addressed or designed-out as soon as possible, lowering barriers to approvals.

Canadian miner Cameco has several such agreements with Indigenous communities to solidify the socioeconomic benefits they receive from its projects, as well as the miner's responsibilities. In 2012, Cameco and the northern village of Pinehouse Lake, Saskatchewan signed an agreement that provides the community with jobs, investment payments, and business through the village's economic development arm Pinehouse Business North (PBN).

In 2015, Cameco and PBN established a business development contract to develop and implement management procedures to increase PBN's capacity and to complete projects at various Cameco sites. The project provided support to PBN as it executed three contracts at the McArthur River site. Cameco also provided funding for PBN to hire trainees, as well as develop and implement internal procedures. This included equipment maintenance and project controls to ensure greater efficiency and safety, and Cameco made internal subject-matter specialists available to PBN to help them in the process. This part of PBN's business is seen as an area of future growth and one that can be a sustainable piece of business for them in the volatile resource sector.⁹

“Governments can also facilitate this approach through capacity-building and the initial capitalization of Indigenous investment funds. For example, the Alberta Indigenous Opportunities Corporation (AIOC) facilitates up to CA\$3 billion (approximately US\$2.2 billion) in investment by Indigenous groups and communities in natural resource, agriculture, transportation, and telecommunications projects.¹⁰ Additionally, the Government of Canada recently announced a national Indigenous loan guarantee program to support Indigenous equity ownership. Just how this program is administered will be vital for its ability to realize reconciliation.”¹¹

**Michelle Leslie, senior manager, Financial Advisory,
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Harnessing Indigenous leadership and knowledge

While many mining and metals projects take place on lands that are under Indigenous ownership or custodianship—around 54% of projects extracting clean energy minerals overlap with Indigenous lands¹²—involvement of Indigenous peoples as potential investment leaders and ecological knowledge-holders is often limited.

It's important that projects respect both the rights and responsibilities of Indigenous peoples in their landscapes. For example, following the framework of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP),¹³ including key components of the right to self-determination and free, prior and informed consent (FPIC), is fundamental, as is respect for Indigenous responsibilities.¹⁴

Integrating contemporary, non-Indigenous tools and technologies with traditional Indigenous knowledge systems can create opportunities for Indigenous peoples to play direct roles in the design, delivery and management of mining and metals projects, creating alignment between culture and employment, and generating jobs in regions where employment is limited.¹⁵

Indigenous leadership in mining and metals projects will also help ensure that operations are designed and implemented in ways that drive long-term, systemwide benefits and positive outcomes. This, in turn, can bring value to corporate action on nature which could help to smooth permitting processes and lead to a just transition.

“Engaging in new relationships with Indigenous peoples can be complex, rich and beneficial. However, as a precursor, mining and metals leaders should seek to understand the complexities that emerge from the legacies of settler-colonial movements, including power imbalances, trust building issues, knowledge transfer, gender roles and cultural load among others.”

Professor Deen Sanders OAM, partner, Integrity lead, Deloitte Australia

No time for project delays

These are just a few ways that governments, industry, and rightsholders can come together to improve project permitting for mutual benefit. Ensuring projects receive appropriate reviews, while delivering the required volume of metals supply, is a challenge that miners and regulators should tackle collaboratively.

From ideas to actions

- **Engage early and often:** Proper engagement with communities and rightsholders is not only the right thing to do but is also key to ensuring that capital projects are built. Nationally coordinated engagement, integration, collaboration, and coordination efforts are vital given the capital lift that lies ahead and the environmental, social, and governance (ESG) standards that are coming into effect. Mining and metals companies can play a pivotal role in creating and coordinating these efforts through industry associations, and in making them a non-negotiable part of industry status quo.
- **Ensure clear leadership:** Major projects are complex, and unexpected considerations in the assessment process are usually inevitable. Nominating a leader who's comfortable dealing with sporadic demands and concerns, adapting to shifting circumstances, and finding ways to keep multifaceted processes on track without sacrificing fairness and rigor is important. This leader should be capable of balancing project needs and building strong relationships with communities and rightsholders.
- **Build a road map and timeline:** Creating a road map and timeline for each project is beneficial for the review process. Such action could help focus everyone involved and provide greater clarity, certainty, and confidence about how a review will unfold and when it's expected to conclude.
- **Build in Indigenous knowledge:** Working with Indigenous communities who are affected by capital projects to develop environmental monitoring and project objectives with traditional knowledge woven into science-based targets will ensure that their views are properly integrated. This should also help with government approvals and processes.
- **Get ready for reporting:** As mining companies and governments are planning projects it's imperative that baselines across the entire value chain are established and climate and sustainability planning are factored in. In June 2023, the International Sustainability Standards Board (ISSB) issued its inaugural set of standards with reporting beginning January 2024 for most filers. These standards create a common language for understanding and disclosing the effect of climate-related risks and opportunities on a company's prospects.¹⁶ Gap and materiality assessments are the first steps.

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