THE DEFENCE DIVIDEND:

How Military Demand Is Reshaping The Future of Critical Minerals

Rising defence spending, NATO rearmament targets and growing geopolitical tensions are transforming critical minerals from cyclical commodities into national security assets. For mining companies, the shift is creating new demand signals, as well as government-backed financing and long-term procurement opportunities.

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For decades, critical minerals were largely treated as inputs to commercial industries – electronics, infrastructure, manufacturing, and more recently, energy transition technologies. Today, they are viewed as key to sovereignty.

“We live in an era of economic nationalism around the world,” notes Anton Sestritsyn, Principal at lobbying and communications firm Vosavis. “Therefore, we’re seeing a lot of the strategies that are being released by various governments in the US, Canada, the EU, that emphasize the need to treat critical minerals as national security issues.”

The shift has been driven by a convergence of factors, including rising geopolitical tensions and a growing recognition that global supply chains for key minerals are heavily concentrated in a handful of countries, particularly China.

According to Christopher Hernandez-Roy, Deputy Director and Senior Fellow at the Center for Strategic and International Studies, the strategic significance of minerals has moved to the center of Western defence thinking.

“National security is not just about how many guns, boats, planes, troops you have,” he said. “It’s about the resilience of your economy… and the ability to not be pinched off by foreign adversaries who may control your supply chains.”

China’s long-term strategy to dominate critical mineral supply chains has played a major role in accelerating that shift. Over the past two decades, Beijing has built a near-monopoly in processing and refining several key minerals, while also demonstrating its willingness to restrict exports of strategic materials during geopolitical disputes.

At the same time, Western militaries are rapidly expanding production of weapons systems and replenishing depleted stockpiles.

“The control of critical materials by China, along with the need to rearm, has created a sort of perfect storm,” Hernandez-Roy said. “Suddenly, the United States has to look around the world and find reliable sources of critical minerals.”

For resource-rich allies such as Canada, the implications are profound.

DEFENCE DEMAND BECOMES STRUCTURAL

For many in the mining industry, the key question is whether defence demand represents a short-term surge or a structural shift. For Bill Hawkins, Head of Trade and Investment at Sussex Strategy Group, the answer is increasingly clear. “Yes, defence demand is now a structural driver,” Hawkins said. “It’s embedded in long-term force structure, stockpiling mandates, and industrial capacity building, creating durable, government-backed offtake that endures market cycles rather than episodic spikes.”

NATO production targets and rearmament programs are turning mineral supply into a matter of military readiness. “Governments now ask not just whether supply is resilient, but whether it’s assured at scale, under stress, and from trusted allies,” Hawkins added. According to the team at Sussex Strategy, the strongest new signals emerge from aerospace modernization, precision munitions replenishment/surge capacity, advanced electronics/electronic warfare, and autonomous systems. And offtakers are willing to be flexible for allied supply.

“Defence primes and OEMs are responding by extending qualification timelines for allied (including Canadian) sources, locking in long-term supply agreements with price floors, favouring predictable allied-origin materials even at higher upfront costs, and embedding domestic content to meet evolving procurement rules – turning supply-chain security into a core board-level priority,” added David Timm, Partner and Energy Practice Lead.

WHICH MINERALS MATTER MOST FOR DEFENCE?

Modern defence systems rely on a wide range of critical minerals, from structural metals to specialised electronic materials.

Among the most important are tungsten for armour-piercing munitions and defence systems, gallium and germanium for semiconductors and electronic warfare systems, graphite and aluminum for aerospace and munitions, and titanium and rare earth elements for advanced defence technologies.

> *“It’s about the resilience of your economy*

These materials are often used deep within defence supply chains, particularly in tier-two and tier-three manufacturing, where vulnerabilities can remain hidden until crises emerge.

“Defence prioritizes materials where failure is not an option,” Hawkins said, noting that combat systems require materials capable of operating under extreme conditions.

Military systems require performance, reliability and supply assurance – even if that means paying more for allied-origin materials.

CANADA’S STRATEGIC ADVANTAGE

Canada holds a strong position in this emerging geopolitical landscape. The country produces many of the minerals considered critical to defence supply chains, including nickel, cobalt and copper.

That resource base is increasingly being recognized as a strategic asset. The federal government’s new Industrial Defence Strategy aims to position the country not simply as a supplier of raw materials, but as a partner in allied defence production.

For mining firms, the strategy could help de-risk projects thanks to long-term government-backed offtake agreements, and significantly reduce price volatility.

“By encouraging our Canadian companies, first and foremost, to use home-produced critical minerals, we are actually taking price volatility out of the equation. The prices are still guided by the market – there’s no doubt about that. But at the same time, I think there’s a lot more predictability with having a domestic supply chain. What we’ve seen in the Industrial Defence Strategy is a 70% Canadian content goal,” explains Sestritsyn. “So I think what we’re going to see increasingly in the next couple of years is a lot of B2B activity between defence companies and critical minerals.”

MARKET DEMAND STILL MATTERS

Despite the growing role of defence procurement, industry leaders caution that military demand should not be viewed in isolation. According to Jeff Gaulin, Vice President of Corporate Affairs at Vale Base Metals, defence is an important but secondary driver for many metals.

"Growth of defense spending will drive increased demand for some critical minerals – some more than others – but strategic economic growth will always be a larger driver of demand for these commodities," he notes.

In fact, a recent study by S&P Global found that while defence modernization will contribute to rising demand for minerals such as copper, growth in electrification, artificial intelligence infrastructure, and electricity grids will have an even larger impact.

Critical minerals that can be used in a range of applications beyond defence will most likely benefit the most from Canada and other countries' rearmament strategies: de-risking projects thanks to military demand, but selling to a diverse range of sectors to hedge against volatility.

Nickel, for example, plays a role across multiple strategic sectors. "Nickel… is a triple-use critical mineral," Gaulin said, noting its importance in advanced machinery, renewable energy and batteries.

GOVERNMENTS STEP INTO THE MARKET

Historically, Western countries have relied largely on market forces to secure mineral supply, but defence needs are changing that approach. "Market forces alone in the West are not going to necessarily be sufficient to get new projects off the ground," Hernandez-Roy said.

As a result, governments are increasingly stepping in with financing tools traditionally associated with strategic infrastructure.

These include long-term offtake agreements, loan guarantees, equity investments, stockpiling programs and procurement frameworks linked to defence production.

Hawkins says these instruments are already improving the financial outlook for projects: "Defence demand significantly improves bankability for Canadian critical minerals projects by reducing demand uncertainty and geopolitical risk."

Long-term procurement signals from defence ministries and allied governments provide revenue visibility that lenders and investors typically require.

And while it is still early days to notice the market impact of this government involvement, Sestritsyn believes "we're going to see a lot more interest and a lot more ink on paper with venture funds coming to Canada and investing in our mines here, understanding how crucial these supply chains are in today's world".

In addition, Gaulin notes that blended capital and new pricing mechanisms could emerge to support investment. "There is opportunity for new mine development – both brownfield and greenfield – potentially underpinned by new pricing mechanisms, such as long-term offtakes tied to defence procurement that could include price floors or minimum-volume commitments," he said. Such structures could help de-risk projects that produce relatively small volumes of specialised minerals but serve strategic applications.

PROCESSING: THE STRATEGIC CHOKE POINT

But mining is only part of the supply chain challenge. Much of the world's refining and processing capacity remains concentrated in China, creating vulnerabilities even for countries with abundant mineral resources. Hernandez-Roy describes refining as "one of the most important bottlenecks that needs to be addressed". "The US has belatedly realized that it needs to do more processing, and most of the money is not in the processing, unfortunately," he adds. One of the biggest issues with processing, in his view, is the environmental impacts associated with it, but new projects in Canada could help create a cleaner supply chain for critical minerals.

He cites Rio Tinto's scandium oxide plant in Quebec and the Saskatchewan Research Council's rare earths processing facility as examples of "clean, home-grown Canadian technology" that could be licensed to companies and allied governments to create a more integrated, cleaner critical minerals market.

For Gaulin at Vale Base Metals, there's an understanding in allied nations that processing and refining are "strategic choke points". "While Vale Base Metals has a vertically integrated operating model, with processing, refining, and smelting facilities here in Canada, we are the exception. With Canada prioritizing self-reliance, there is opportunity to expand mining, processing, refining, and other measures to enhance our industry's global competitiveness. This is a unique and consequential moment for mining. Canada has an unparalleled endowment of critical minerals, mining expertise and experience," he adds.

While Canada's Industrial Defence Strategy does mention processing as a priority, the sector will have to wait until the second quarter of 2026 for more detailed information as part of another strategy document specifically for defence critical minerals.

OPPORTUNITY – AND RESPONSIBILITY

For Canada's mining sector, the defence shift presents a rare alignment of geopolitical priorities, industrial policy and market demand. Yet the opportunity comes with new expectations.

Defence customers are increasingly demanding traceable supply chains, reliable delivery and processing capacity within allied jurisdictions. Meeting those requirements will require collaboration across the mining ecosystem – from exploration and extraction to refining and manufacturing.

Governments, meanwhile, appear prepared to play a larger role in shaping the sector's future.

For an industry accustomed to operating largely within market cycles, that represents a fundamental change. As defence spending rises and geopolitical competition intensifies, critical minerals are no longer global commodities.