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| Mackenzie Resource Team

Canada: from resource-rich to resource ready



Executive summary

Canada stands at a pivotal crossroads in the global race for critical minerals. We are endowed with an abundance of the very resources the world urgently demands, supported by deep expertise and international credibility. Yet too often, hesitation has allowed others to seize the advantage. Encouragingly, the federal government has only recently announced nation-building initiatives and the move toward a “one project, one process” framework — clear signals that Ottawa recognizes the urgency of this moment. These are positive steps in the right direction, but success will depend on translating commitments into accelerated execution.

This paper seeks to build on that momentum. We assess Canada’s most pressing challenges and opportunities and provide targeted recommendations to accelerate critical mineral development. Using a rigorous criteria-based framework, we screened nearly 10,000 mining projects across the country to identify those with the greatest potential impact. These were consolidated into seven strategic project clusters where coordinated investment and/or government action could unlock substantial economic activity: the BC copper highway, Labrador and Quebec green steel, Yukon polymetallic, Quebec lithium, Sudbury nickel, Saskatchewan uranium and Saskatchewan potash.

Our analysis makes clear that traditional market forces alone will not secure Canada’s leadership. Unlocking our full potential requires targeted government action, including strategic investment, regulatory efficiency and urgency. The path forward is not about chasing perfection — it is about doing what Canada has always done best: acting with pragmatism, fairness and purpose. Specifically, Canada must streamline permitting for proven economically viable projects, invest in infrastructure to remove development bottlenecks and provide market protections where unfair global practices undermine Canadian competitiveness.

This paper is intended to validate the importance of projects already recognized by government, while also creating support for others that deserve equal attention. If leaders in government, industry and finance act decisively, Canada can secure its place as a trusted global supplier of clean, secure and responsibly produced critical minerals — fortifying both our economy and our sovereignty. If we delay, the opportunity will be lost not for lack of resources, but for lack of resolve. Now is the time to lead.

The global race for critical minerals is underway, but Canada is lagging

Canada is resource-rich, yet its critical minerals sector has not realized its full potential. This gap represents not only a missed economic opportunity, but also a strategic vulnerability. With the right actions, Canada can leverage its geological endowment to become a leading global supplier of relatively clean, secure and responsibly produced critical minerals.

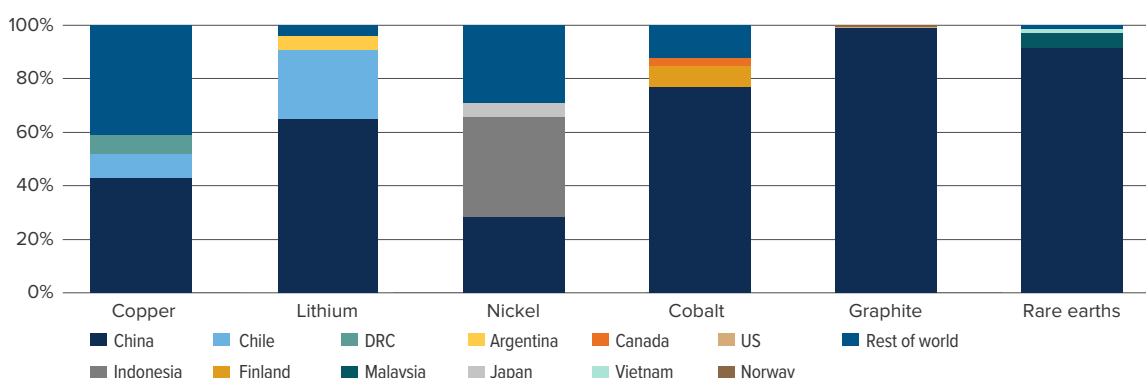
Critical minerals are essential resources that have become the foundation for Western world re-industrialization, defense, renewable energy and the AI sector. Each critical mineral plays a unique role in the economy. Copper and iron ore enable infrastructure and manufacturing; nickel and lithium power the electrification of transport; and tungsten and rare earth elements support aerospace and defense. Given their integral importance, we have seen an increased focus from both governments and companies, putting critical minerals at the center of industrial policy, investment decisions and geo-political considerations.

Everyone wants critical minerals — few control them

The urgency to secure critical minerals stems from their rapidly growing demand and their high geographical concentration. Select countries, most notably China, dominate production and, more drastically, the refining of critical minerals as showcased in **Figure 1**. The pathways through which some players achieved this market dominance remain questionable. Nevertheless, their market control now poses substantial barriers for nations seeking to domestically secure their industrial and technological future.

For Canada, this vulnerability requires immediate measures to ensure that it can access clean and reliable production and processing of critical minerals. This is vital to improving its economic competitiveness, protecting its strategic domestic industries and ultimately achieving its climate goals.

FIGURE 1 – Share of refined material production by country (%)



Source: IEA Global Critical Minerals Outlook 2024, data as at December 31, 2023

Current state of Canada

Global trade is evolving under a different set of rules. What were once considered the best economic strategies (such as offshoring and lowest-cost sourcing) are no longer delivering the benefits they once promised. Over time, these approaches have eroded Canada's domestic industrial capacity and weakened our national leverage in strategic sectors. Presently, leaders in key sectors, whether countries or companies, are increasingly relying on direct government intervention, through subsidies, tariffs, trade restrictions and reshoring incentives, to regain control over their supply chains.

In the critical minerals space, Canada's disadvantage is amplified by global competitors benefiting from lower regulatory standards and significant public subsidies. As a result, much of the foreign critical minerals sector emits significantly more CO₂ per tonne than Canada's. Left to market forces alone, cost will continue to outweigh considerations of national security, economic growth and sustainability.

The US is an example of using trade policy to relocate production, protect strategic industries and concentrate economic value within its borders. Canada, along with much of the Western world, has been slower to respond, leaving industries vulnerable to foreign decisions and competitive pressures.

Canada's strengths can outweigh its disadvantages if leveraged correctly

Despite Canada's underinvestment in mining, it holds a competitive edge in the critical minerals race that, if maximized, could solidify its position as a reliable and preferred trading partner for allied nations. The country's advantages are clear:

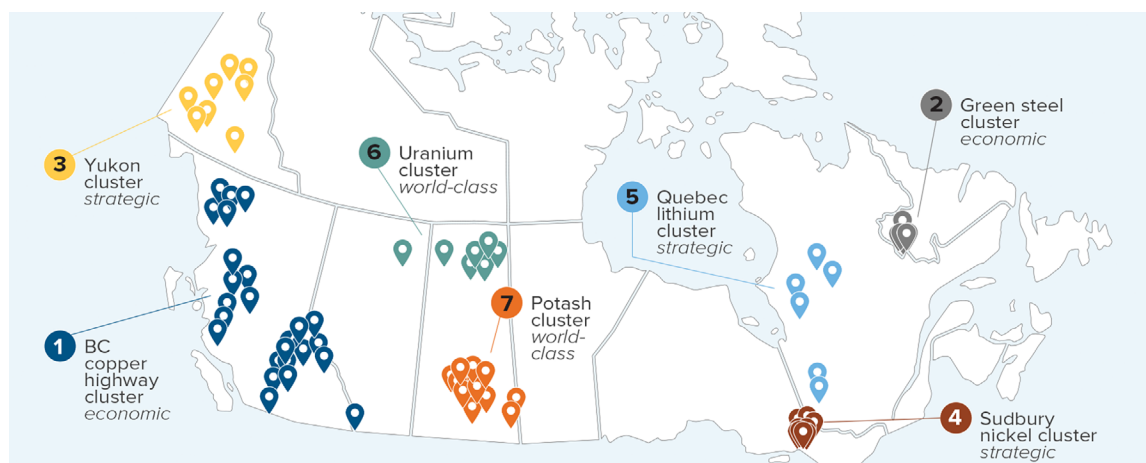
1. A diverse high-quality geological mineral endowment that is globally competitive.
2. A skilled mining workforce and existing infrastructure, providing a strong industry foundation.
3. A federal government committed to strengthening the sector while ensuring it operates within a framework of fair and transparent production practices.
4. A strategic geographic position with access to both Atlantic and Pacific ports, ensuring access to global shipping routes.

This is where the opportunity becomes clear. With the right government actions, Canada can become the preferred global supplier of relatively clean, secure and responsibly produced critical minerals that are economically competitive.

Path forward for Canada

To identify Canada's most impactful path forward, we applied a criteria-based approach to uncover the highest potential projects and aggregated them in synergistic clusters where coordinated investment and aligned policy could unlock meaningful economic activity. While we believe that there are projects of merit outside these clusters, we have focused on groups of projects with the most actionable and obvious opportunities available to government and industry today.

FIGURE 2 – Canadian mineral cluster mapping



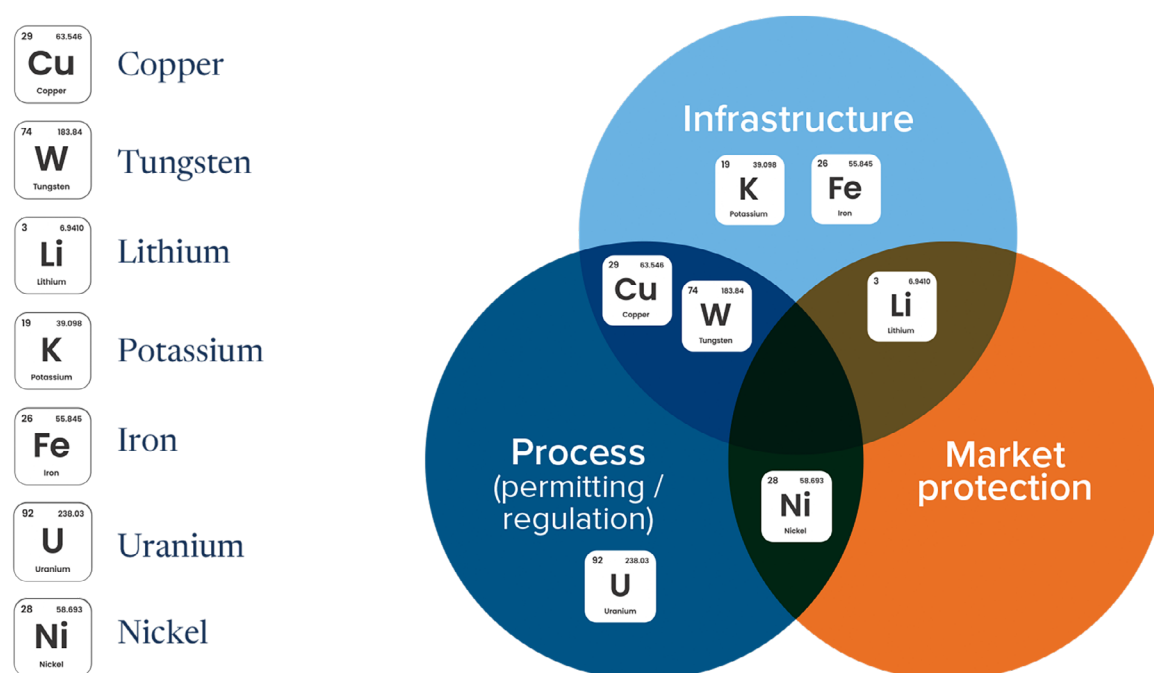
Source: Company reports, Mackenzie Investments, 2025

We have identified seven key clusters of critical mineral projects (**Figure 2**), prioritized based on their resource potential, economic contribution and project synergies. For each cluster, we outline the key challenges, opportunities and targeted recommendations that can serve as catalysts for growth. Figures 8 and 9 at the end of this paper summarize our methodology that derived these seven clusters from a project database of ~10,000 projects.

Recommendation framework

To guide action, we grouped these clusters into three categories: economic clusters, strategic clusters and world-class clusters. Economic clusters are those where infrastructure and market conditions already support near-term, commercially viable projects. Here, the government's role is primarily to remove process barriers to accelerate private investment. Strategic clusters contain resources vital to Canada's long-term security, supply chain resilience or geopolitical leverage, but market forces alone are insufficient to attract investment. These require more direct government support, through market protection, incentives and/or infrastructure investment to unlock their value. World-class clusters are those that, due to their high-quality deposits, existing infrastructure and current resource extraction, attract private investment with minimal bottlenecks.

FIGURE 3 – Cluster growth enablers



Source: Company reports, Mackenzie Investments, 2025

Figure 3 illustrates our recommendations for each cluster, where we propose government take one, or a combination of two, actions:

1. Remove process barriers to accelerate high-quality, economically viable projects.
2. Provide market protection for strategically important projects challenged by external market forces.
3. Invest in critical infrastructure, such as energy, transportation and refining capacity, to make projects accessible and financially viable.

Economic clusters: removing process barriers

Economic clusters are mineral zones with proven reserves, operational expertise and some existing infrastructure. They represent near-term, commercially viable opportunities where private capital is already prepared to invest. In these cases, the government's role is straightforward: streamline permitting, reduce duplication and ensure supporting infrastructure is in place.

We identified two economic clusters that hold the highest potential impact for Canada's critical minerals strategy.

Cluster 1: BC copper highway

British Columbia's "copper highway" cluster is a geologically rich copper belt supported by substantial infrastructure, mining activity and refining expertise. Our comparison of BC's copper projects against both national and global projects confirms that this cluster represents the strongest opportunity for focused copper investment, as highlighted in **Figure 4**.

Recommendations

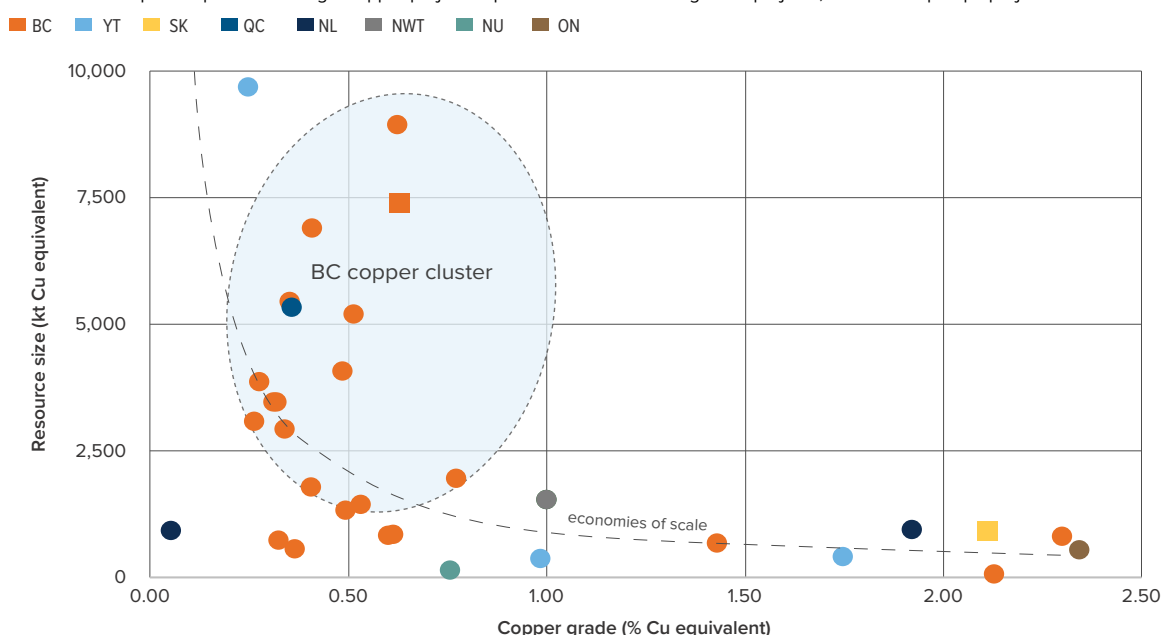
To date, British Columbia has focused on advancing brownfield projects, leaving greenfield deposits underprioritized. Fourteen greenfield projects of merit stand to unlock significant resources and employment opportunities, but will require targeted permitting support. Beyond permitting, three additional actions are needed to realize the full value of these projects:

1. Expand BC's energy capacity to overcome existing and future grid constraints.
2. Prioritize early First Nations engagement on economically and technically viable projects.
3. Incentivize domestic copper refining to capture greater value from Canadian resources and to reshore refined copper supplies.

These actions will reduce wasted effort on low-quality and early-stage projects, strengthen First Nations partnerships and ensure BC's copper potential creates meaningful economic multiplier effects.

FIGURE 4 – Canada's advanced copper projects by province (estimates)

Note: Each datapoint represents a single copper project. Square markers are underground projects; circles are open pit projects.



Source: Company reports, Mackenzie Investments, 2025

Cluster 2: Labrador and Quebec green steel

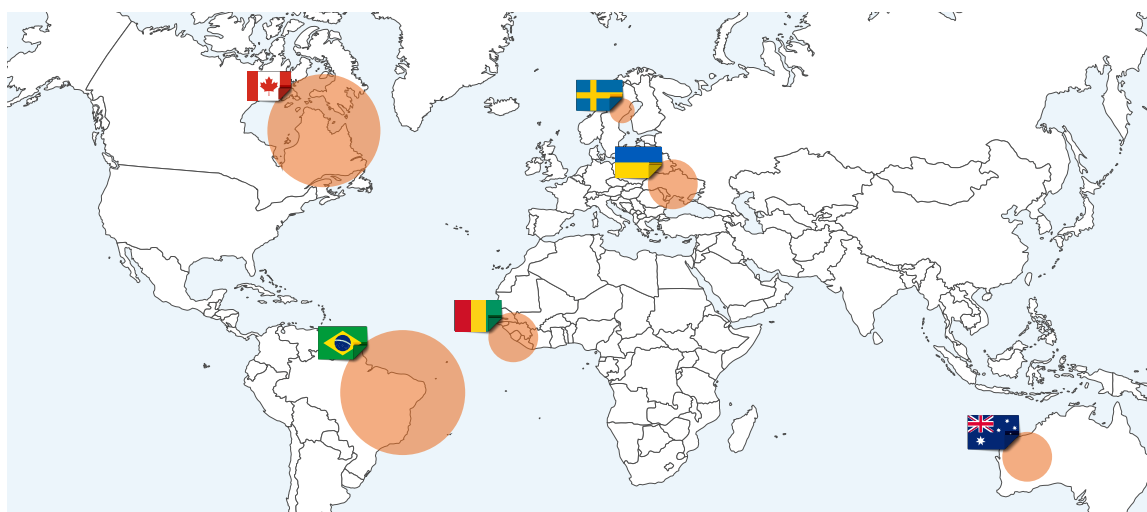
Canada's premium-grade iron ore concentrate is a critical input for the production of low-carbon green steel and is produced in only a handful of exporting regions worldwide. As demonstrated in **Figure 5**, Canada ranks among the highest in resource tonnage. However, despite this strong resource potential and existing production capacity, transportation and energy act as major bottlenecks to production growth.

Recommendations

To maximize resource capacity, we recommend expanding regional railway corridors and upgrading regional hydroelectric grids. In addition, extending energy infrastructure, including LNG-ready pipelines designed to meet federal decarbonization standards, would provide transitional support and unlock the opportunity to vertically integrate low-carbon steel production in Canada by producing the feed required by Ontario's new-build electric steel furnaces.

FIGURE 5 – Global distribution of iron ore resources suitable for production of green steel

Note: Only mines that are producing in 2025 are shown and must be available for both internal and export markets.



Source: Company reports, Mackenzie Investments, 2025

Strategic clusters: requiring market protection and infrastructure investment

Strategic clusters are projects where market forces alone cannot ensure project viability and therefore they require more direct government intervention. In many cases, foreign state subsidies, weaker environmental and social standards, and export controls have distorted global markets, leaving Canadian projects at a disadvantage. A laissez-faire approach is insufficient.

We define a cluster as strategic if it meets any of three criteria:

1. Canada is overdependent on external suppliers for a mineral.
2. External suppliers are unreliable or misaligned with Canada's interests and standards.
3. Canada is disadvantaged by foreign producers who are benefiting from subsidies and low regulatory standards.

For example, refined lithium is dominated by a handful of producers, primarily in China, making domestic investment essential.

Targeted interventions such as offtake agreements, floor price contracts, production-linked incentives and infrastructure investment are essential to attract private capital, grow domestic supply and safeguard national long-term interests.

Based on this framework, we identified three strategic clusters:

Cluster 3: Yukon polymetallic

The Yukon cluster hosts eight vetted projects, including one of the world’s largest underdeveloped tungsten deposits, polymetallic zinc deposits and a major copper opportunity, but all are stalled by permitting timelines of up to 15 years and limited energy infrastructure.

Recommendations

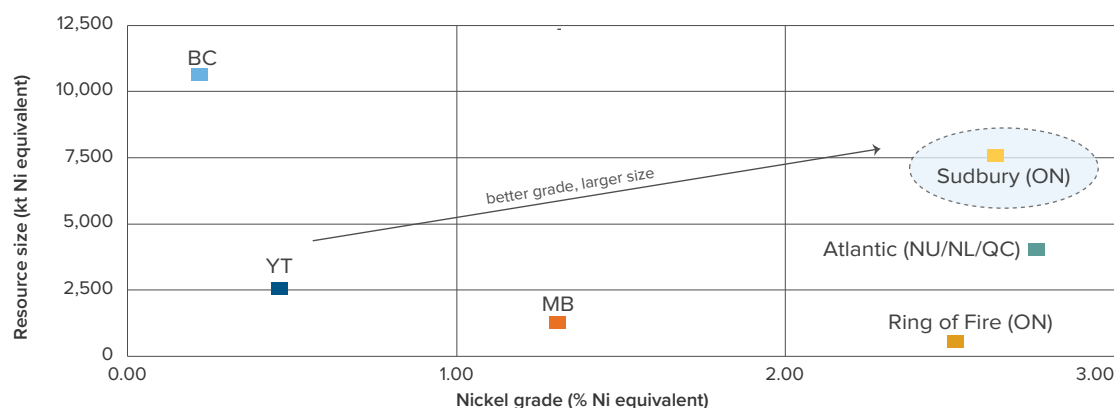
1. Implement a fast track “one project, one assessment” permitting framework to advance priority projects without compromising environmental, First Nation or social safeguards, while firming up land use planning.
2. Build energy capacity through the BC–Yukon Grid Connector to replace fossil fuel reliance, reduce emissions and improve economic project viability.

Cluster 4: Sudbury nickel

The Sudbury nickel cluster contains the largest regional concentration of high-quality nickel projects in Canada (**Figure 6**), supported by well-established infrastructure, operating mines, already permitted projects and existing world-class refining capacity.

FIGURE 6 - Canada’s nickel resources by region (estimates)

Note: Each datapoint represents the regional total resources of operating and advanced-stage projects



Source: Company reports, Mackenzie Investments, 2025

While there are other nickel deposits across Canada, our nationwide analysis confirms that they lack the combination of existing infrastructure, resource quality, and environmental and social license to operate, compared to what already exists in Sudbury. A reinvigorated Sudbury cluster would provide the nickel and cobalt needed to support high-quality battery clusters in Quebec and Ontario.

The primary challenge for nickel projects is the low nickel price driven by heavily subsidized competitors that operate with limited environmental and social safeguards, particularly in regions such as Indonesia, where nickel production is ravaging rain forests and coral reefs and emits more than three times the CO₂ per tonne of Canadian nickel operations. This high-pollution low-cost competition has left Canadian projects economically disadvantaged.

Recommendations

To reinvigorate Canada's historical nickel industry, we recommend:

1. Implementing market protection tools, like tariffs on unsustainably sourced nickel from non-aligned exporters. For this approach to be effective, Canada's protective policies would need alignment with major nickel importing jurisdictions, such as Europe and the US, which are also seeking to strengthen their supply chains. Other types of market protection can include offtake agreements or floor price contracts, that will de-risk quality projects.
2. Reforming Ontario's mineral rights rules by radically reforming "use it or lose it" policies to incentivize active exploration and discourage companies from stockpiling land without development.

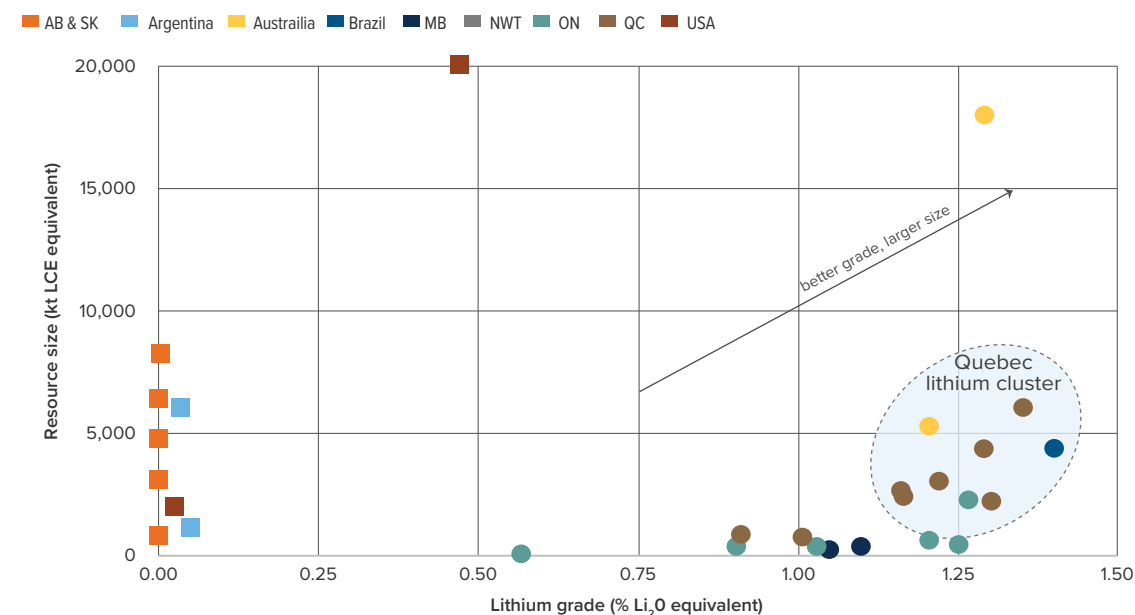
Together, these measures would attract private investment, unlock stalled projects and strengthen the country's position in the global nickel supply chain.

Cluster 5: Quebec lithium

Quebec's lithium cluster hosts world-class resources, with six high-grade, high-tonnage projects that could be competitive on a global scale (**Figure 7**), and provide locally sourced lithium to battery clusters in Bécancour and Southern Ontario. Other potential lithium clusters, such as Thunder Bay and Alberta, offer less scale potential or are insufficiently advanced for rapid development.

FIGURE 7 - Canada's lithium resources by region

Note: Each datapoint represents a single lithium project. Squares are Brine and Clay projects; Circles are hard-rock Spodumene projects



Source: Company reports, Mackenzie Investments, 2025

Recommendations

1. Government-enabled lithium floor prices, offtake contracts or contracts-for-difference could unlock a wave of investment. Currently, there is strong interest from private capital in developing the Quebec lithium cluster, but development has been stalled by sub-economic lithium pricing as world markets are oversupplied with lithium from China.
2. The economics and multiplier effects of lithium mining could be enabled by building multi-mine refining infrastructure, likely in Bécancour, rather than exporting mined concentrates to the world's current dominant refining hub in China.



3. Lastly, reviving the Plan Nord railway extension, which has been studied and championed by the Cree Development Corporation, could vastly improve the environmental footprint and economics of the Quebec lithium cluster.

Once Quebec's lithium hub develops and operating costs come down to economically attractive levels, temporary government market support mechanisms to support early project economics could be phased out.

World-class clusters : strengthening our position

Canada is home to two world-class clusters that play a central role in global markets: uranium and potash in Saskatchewan's basins. The exceptional quality of these deposits, combined with established operating expertise, ensures strong access to private capital and positions Canada as a reliable supplier of resources essential to global stability.

Cluster 6: Saskatchewan uranium

The Athabasca Basin hosts the richest uranium deposits on earth, supplying roughly 15% of the world's uranium. This resource is increasingly critical as countries accelerate the build-out of nuclear power to meet decarbonization and energy security goals. The main hurdle is not geology or capital, but permitting. Current federal timelines can extend project approvals by years, delaying production and weakening Canada's ability to respond to global demand. Streamlining these processes, while maintaining high standards of environmental protection and Indigenous engagement, is essential for Canada to capture its full advantage in the global nuclear fuel cycle.

Cluster 7: Saskatchewan potash

Canada is the world's largest potash producer, contributing to roughly one third of global supply. The essential nutrient is required for crop development, making Canada an indispensable player in global food security and resilience (while noting the country's total import dependency on another essential fertilizer, phosphate). With global supply chains destabilized by geopolitical disruptions, Canadian production has become indispensable to key agricultural economies. To solidify this position, Canada must invest in expanding rail and port capacity to ensure its potash reaches global markets efficiently. Doing so would further entrench Canada as the world's trusted and dominant exporter of potash, underpinning both economic resilience and international influence.

Canada must decide: will it lead or wait?

Canada stands at a pivotal moment in the global race for critical minerals. With abundant high-potential resource clusters and the necessary catalysts available, Canada has a clear opportunity to lead, but only if we act decisively.

The path forward is clear:

1. Streamline permitting for proven economically viable projects.
2. Invest in infrastructure to remove development bottlenecks.
3. Provide market protection where global practices undermine Canadian competitiveness.

Traditional market forces alone won't secure leadership. To harness the full potential of our resource endowment, Canada requires targeted government action, including strategic investment, regulatory efficiency and acting with a sense of urgency.



As global trade becomes increasingly shaped by state subsidies, protectionist tariffs, shifting alliances and fragmented regulations, Canada must move swiftly to secure its economic future. The choice is clear: leverage the country's critical minerals advantage through bold nation-building projects or continue to lose ground in a rapidly shifting geo-economic landscape.

This demands leadership and urgency because in this race, hesitation is not neutrality, it is decline.

Research methodology

FIGURE 8 – Critical mineral project selection

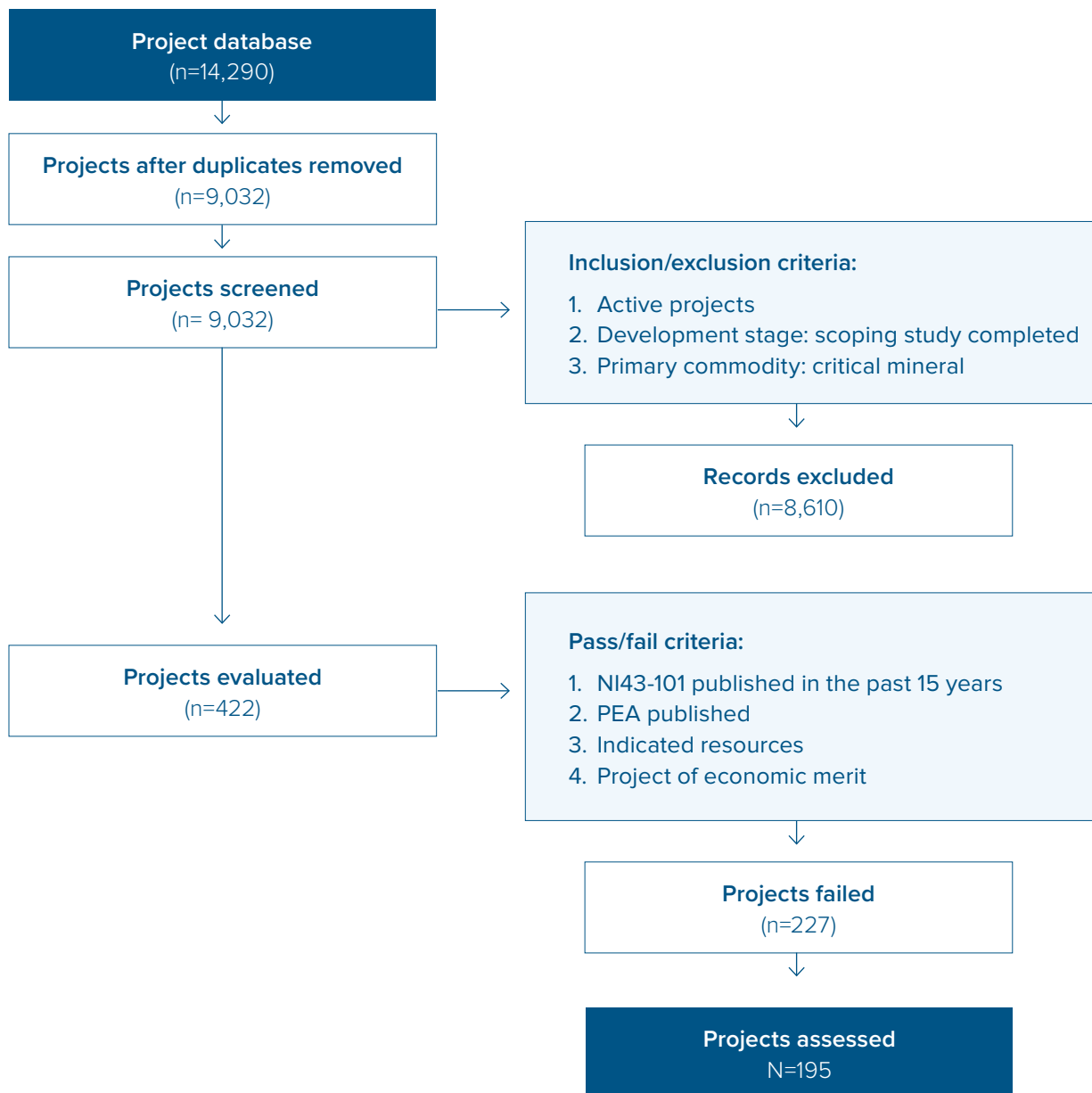
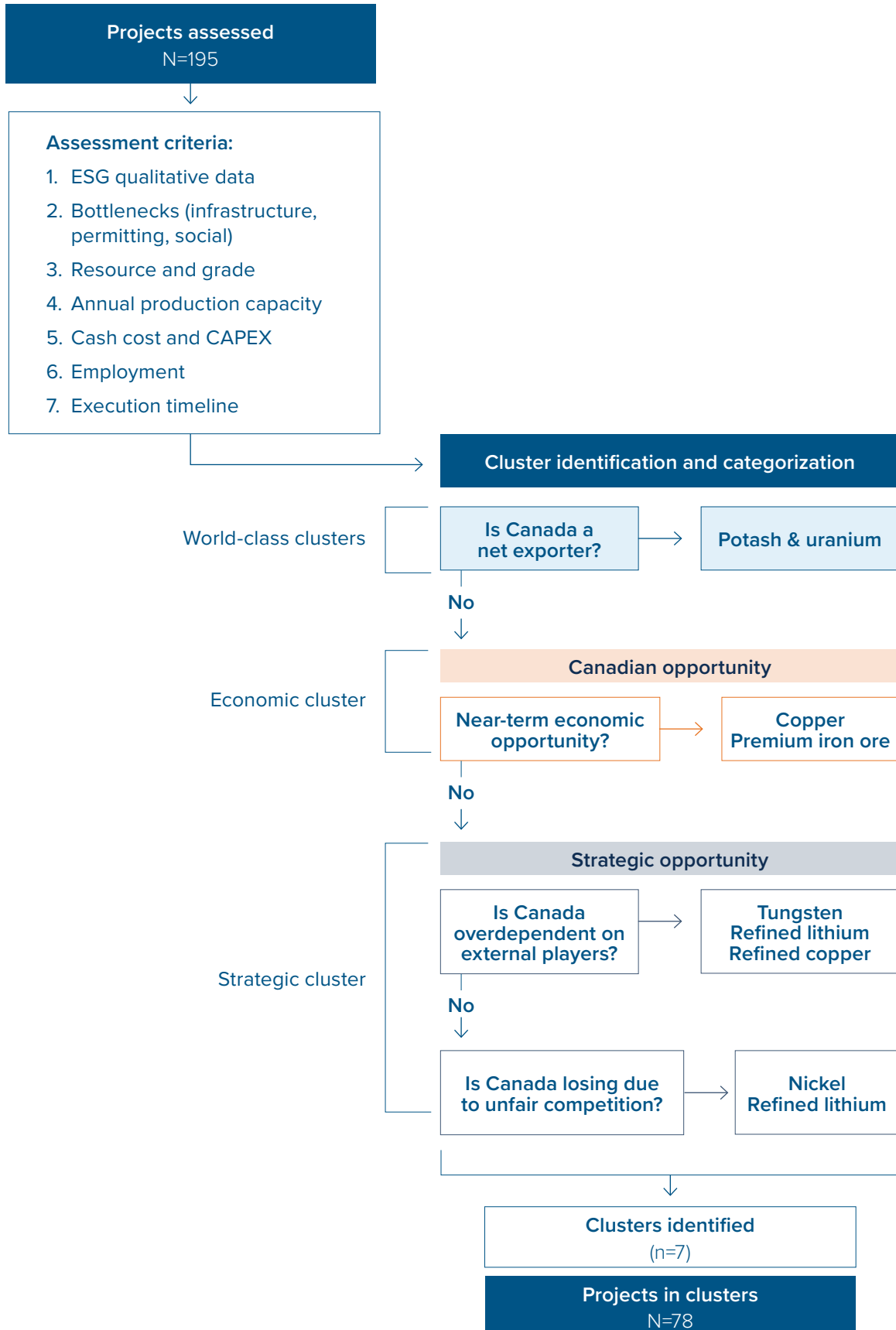


FIGURE 9 – Project assessment & cluster identification





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