

From confrontation to collaboration: Working together on critical minerals supply chains

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A recent article in the *Australian Financial Review* on the urgent ‘parachuting’ of Chinese technicians to a troubled lithium processing plant in Western Australia has highlighted China’s significant advantages in the processing of critical minerals. However, the piece failed to emphasise China’s vital and, at least in the short term, almost irreplaceable role in the field of critical minerals processing – a factor that cannot be overlooked without incurring considerable costs.

Amid the global energy transition, critical minerals such as lithium, cobalt and rare earths have become essential in driving the development of new energy vehicles and renewable energy technologies, which are key components of the **urgently needed** transition towards a low carbon future. As countries accelerate their pace towards achieving carbon neutrality, the demand for these minerals has surged like never before. However, the **journey** from the discovery of mineral resources to achieving mass production typically spans an average of 16.5 years. Given this extended timeline, the prospect of rapidly increasing the output of critical mineral resources seems unrealistic.

China occupies a **dominant position** in the global supply chain for critical minerals. In the production of graphite and rare earth elements, China not only produces **70 percent** of the world’s supply but also dominates almost the entire supply chain. China also holds **substantial influence** in the processing and manufacturing of lithium batteries.

Meanwhile, amid escalating **geopolitical tensions**, China’s dominant position in critical minerals has raised widespread concerns about **supply chain security**. The United States and its allies have begun exploring strategies for **decoupling** from China.

China has developed significant **advantages** in the critical minerals sector through a strategy that combines innovation, specific industrial policies, financial incentives, and an original approach to environmental management. Substantial government policy support and subsidies have helped Chinese enterprises invest in research and development and have aided exploration and mining activities when futures remained unclear. By cushioning the financial risk and encouraging investment, the Chinese mining sector has been able to expand its capacity and technological expertise across the critical minerals supply chain. This multifaceted strategy not only secures China’s **supply chain** efficiency and resilience (two objectives that are not easy to accomplish simultaneously), but also positions the country as a pivotal player in the global transition to renewable energy.

China’s **approach** to managing environmental costs, however, has been a subject of international scrutiny. In the past, China’s pragmatic approach, often prioritising economic development, has allowed it to advance its

critical minerals sector more rapidly than countries with stricter environmental standards. It has since [taken steps](#) to mitigate the environmental impacts associated with mining and processing activities through regulations and the promotion of cleaner technologies, including waste management.

Decoupling, a term that has gained currency in geopolitical dialogues, suggests a severing of economic and technological ties in pursuit of national security and economic independence. However, this narrative overlooks the *interdependent* nature of modern economies, where the integration of supply chains and the free flow of knowledge and innovation are not just beneficial but essential for global progress on green energy transition. [China's role](#), therefore, should transcend national boundaries, influencing global markets and innovation ecosystems.

A blunt decoupling approach might not only fail to ensure the security of critical mineral supply chains but could also [jeopardise](#) the achievement of global energy transition and sustainable development goals.

The argument for cooperation over decoupling is not merely an idealistic plea for global harmony but a pragmatic strategy grounded in economic rationalism. Technological collaboration, the sharing of experiences, and the transfer of knowledge stand as pillars that can enhance the competitiveness and resilience of global supply chains. Such an approach not only fosters economic growth but also facilitates the collective pursuit of sustainability goals.

To achieve these goals, ensuring the transparency and sustainability of the critical mineral supply chain is not just a [matter](#) of environmental stewardship but a strategic imperative to secure economic stability and sustainability. Thus, the discourse should shift from a binary choice between decoupling and dependency to a nuanced strategy of engagement that recognises the mutual benefits of cooperation. Certainly, Australia could enhance its economic security and sustainability by leveraging China's technological, labour and industrial capabilities.

The drive towards more open and inclusive international cooperation also entails fostering talent mobility across borders, not only in response to urgent needs during emerging disruptions in critical supply chains, as highlighted in the [AFR report](#). In an interconnected world, the flow of human capital is vital for facilitating the exchange of tacit knowledge that is essential for innovation. Policies that support the mobility of skilled professionals can accelerate technological advancements and bolster economic growth, ensuring that Australia can benefit from the global talent pool.

Furthermore, the role of multilateral institutions in managing global supply chains must be amplified. These entities, with their unique position and mandate, are ideally suited to foster cooperation among nations, ensuring that supply chains are not only diversified but also resilient in the face of geopolitical tensions and economic uncertainties. By promoting policies that encourage the diversification of supply sources and the adoption of sustainable practices, multilateral institutions can mitigate risks associated with supply chain disruptions and contribute to global stability.

Facing the dual challenges of increasing demand for critical minerals and concerns over supply chain security, the international community must establish more open and inclusive international cooperation mechanisms. For Australia, attracting Chinese investment, technology and talent within this multilateral mechanism not only aids in diversifying the global supply chain but also helps its mining sector move upwards on the global value chain.

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