



An Australian Government Initiative



YORKE AND MID NORTH

Inquiry Secretary
House of Representatives Standing Committee on Primary Industries
Canberra ACT 2600

February 2026

Members of the Standing Committee,

New inquiry: Critical minerals in Australia

Regional Development Australia Yorke and Mid North (RDA Yorke and Mid North) appreciates the opportunity to make this submission to the Standing Committee on Primary Industries inquiry into factors shaping social licence and economic development outcomes in critical minerals projects across Australia.

RDA Yorke and Mid North is an incorporated not-for-profit association funded by the three levels of government to work with stakeholders and communities to grow prosperity and enhance liveability in the Yorke and Mid North region of South Australia. This submission has been informed through the various investment pipeline projects supported by the organisation, as well as our extensive network of relationships with proponents, operators, investors and government partners in the region.

Critical minerals context in the Yorke and Mid North region

The Yorke and Mid North region hosts several established and emerging projects within the critical minerals industry, including:

Nyrstar - multi-metals facility, Port Pirie

Nyrstar, a major smelting and refining operation with linked sites at Port Pirie and Hobart, currently produces lead, zinc, silver doré, copper matte and sulphuric acid, as well as a host of precious, semi-precious and industrial metals. In May 2025, Nyrstar commissioned a report (prepared by Mandala) to quantify the significance of existing lead and zinc refining capabilities in underpinning the Australian Government's critical minerals ambitions. This report discusses how existing industry capability can be used to assist in achieving these ambitions, which include securing a stable supply of critical minerals domestically, creating critical minerals exporting opportunities, and protecting Australia's mineral processing capability which leverages the existing mining industry. This report also outlines the constraints faced by the industry, which include, but are not limited to, industrial policy impacting operating margins and infrastructure upgrades to facilitate alternative refinement capabilities. The full report is provided in **Attachment A**.

In August 2025, the State and Commonwealth Governments jointly announced a financial support package for Nyrstar, designed to overcome constraints and protect base industry while enabling expansion and diversification into critical minerals refining at the Port Pirie site through the delivery of essential infrastructure upgrades. This package supported the establishment of a pilot plant for an antimony circuit at

the Port Pirie site, followed more recently by the construction of a demonstration facility, which produced its first shipment of Australian-produced commercial-grade Antimony metal from Port Pirie, as announced by Nyrstar on Tuesday 17 February 2026.

Rex Minerals - Hillside Mine, Pine Point

Rex Minerals' Hillside Mine, located approximately 12 kilometres south of Ardrossan and near Pine Point, is continuing with onsite investigations in anticipation of Stage 1 (construction) commencing later in 2026. The project targets copper concentrate production from ores hosted in an iron oxide copper gold formation, with plans currently involving a one-year construction phase followed by a mine life of 11 years (Stage 1). Subsequent stages are expected to extend the operational life of the mine to more than 20 years. It is anticipated that majority of the workforce for the Hillside Mine will be based on the Yorke Peninsula, creating local employment opportunities for residents outside the traditional sectors of major employment in agricultural and tourism.

While copper is currently listed as a strategic mineral rather than a critical mineral, it plays an increasingly pivotal role in the development of priority technologies set out in the Critical Minerals Strategy.

Magnetite Mines – Razorback Iron Ore Project, via Peterborough

Magnetite Mines' Razorback Iron Ore project (situated northeast east of Peterborough and south of Yunta), represents a significant future opportunity to contribute to Australia's critical minerals supply chain. The scale and quality of the iron ore resource suggests a 56-year mine life, with its Mineral Resource Estimate indicating a projected mine life approaching 90 years. The deposit is capable of producing high-purity iron ore concentrates and is located within the Braemar Province, which is identified as a priority region for investment in Outcome 1 (Paving the way to prosperity) of the South Australian 20-year *State Infrastructure Strategy 2025*.

The project, which has recently been granted Major Project Status by the Federal Government (the only iron ore project in Australia with this status), incorporates a progression toward providing inputs for green iron production, which uses low-cost renewable energy and green hydrogen to reduce emissions during the manufacturing process. This transition will require reliable access to critical minerals, which underpin renewable energy systems, hydrogen technologies and associated industrial processes.

Other

Major copper mining operations located just outside the Yorke and Mid North region include Olympic Dam, Carrapateena and Prominent Hill, and rely on significant portions of their respective workforce and supply chains coming from within the Yorke and Mid North region.

In parallel, several renewable energy projects are either underway or scheduled to commence within the Yorke and Mid North region, with these developments being heavily reliant on secure access to critical minerals. Projects include Carmody's Hill Wind Farm, Barn Hill Wind Farm, Goyder North Wind Farm and Battery, Whyte Yarcowie Wind Farm and Willogoleche 2 Wind Farm.

Simultaneously, these projects (and their corresponding battery energy storage systems) will deliver significant additional (firm) capacity to underpin critical minerals processing capacity in Australia, while also supporting wider transitions to renewable energy and decarbonised industrial supply chains.

Response to inquiry Terms of Reference

This submission addresses sections of the Terms of Reference in relation to the Yorke and Mid North economy:

- *How critical minerals projects contribute strategically to regional and national economic development.*
- *Opportunities to strengthen workforce participation, skills development, and employment pathways, particularly in remote and Indigenous communities.*
- *The role of state, territory, and local governments in supporting socially and economically sustainable development.*
- *Options for improved coordination between jurisdictions and the Commonwealth.*

How critical minerals projects contribute strategically to regional and national economic development

Value adding, supporting economic complexity and diversification

Nyrstar's proposed redevelopment and establishment of critical minerals recovery circuits (including for antimony and bismuth) will significantly enhance the site's capabilities and diversify revenue streams, at the same time as supporting the nation's critical minerals ambitions and the regional economy. Nyrstar Port Pirie currently employs over 820 people, contributing significantly to the 14.4% manufacturing share of employment within the Port Pirie LGA. The site also contributes significantly to the 27.6% in total manufacturing output across the Yorke and Mid North region – the largest sector of the regional economy (REMPPLAN: 2026).

Diversifying Nyrstar's operations enables expanded procurement opportunities, allowing surrounding local businesses to grow. In doing so, it deepens economic complexity, while also positioning the region to benefit from growth in renewable energy technologies, defence manufacturing, and advanced materials development.

This diversification also supports a stable operating environment for Nyrstar and its workforce. By reducing reliance on traditional operations, it becomes more resilient to global market volatility and external shocks. The resulting stability enhances employment security, local expenditure and procurement, and long-term economic predictability. At a national level, developing domestic capability in critical minerals strengthens sovereign resilience, reduces exposure to international supply chain risks, and reinforces Australia's role as a reliable supplier of strategic resources.

Local business growth (supply chain)

Critical minerals projects create additional employment opportunities, resulting in greater household income and expenditure within the community. This benefits local businesses through greater revenue (and profit) and allows businesses to grow and diversify, creating further economic benefits. Investment to expand the capabilities and capacity of critical minerals projects results in the need for new processes and equipment, creating opportunities for local businesses to provide support in various ways.

The growth and diversification of Nyrstar (and other producers of critical and industrial minerals) will create opportunities for new businesses to emerge, diversifying the local economy and enhancing its resilience. This enhances the region's capacity to attract further investment and sustain future growth.

Infrastructure investment

Direct investment in Nyrstar will deliver essential upgrades and new infrastructure to support both the pilot plant and demonstration facility, generating additional employment and expanding local procurement opportunities. These improvements strengthen the site's operational capacity while creating immediate economic benefits for the region.

Nyrstar's use of the port enables Flinders Port Holdings (as the port operator) to continue investing in infrastructure and maintenance that ensures access and safety. By maintaining the channel and moorings, the port stays open for other businesses (e.g. McMahon Services for scrap metal, ADM Trading Australia for grain) who can continue using sea freight, whereas if Nyrstar falters or closes, it may otherwise have resulted in the closure of the port to commercial shipping due to decreased demand.

To further enable critical minerals projects, complementary indirect investment will also be important, particularly in key transport corridors. Efficient road, rail and port infrastructure is fundamental to the movement of inputs and finished products, ensuring that critical minerals projects remain commercially viable and are not constrained by a lack of scale and resulting elevated costs. Improved transport networks can also unlock new commercial opportunities, increase connectivity for local businesses, and support long-term economic growth across multiple sectors. This investment is explicitly stated in recommendation 1 – Outcome 1 (Paving the way to prosperity) in the South Australian 20-year *State Infrastructure Strategy 2025*. It calls for the prioritisation of common-user infrastructure where possible to aggregate demand and provide more efficient infrastructure solutions to realise the value of natural resources. Several other recommendations relating to transport network investment and its benefits are also identified in Outcome 1 of the strategy. Infrastructure investment is discussed further in a below section of this submission.

Opportunities to strengthen workforce participation, skills development, and employment pathways, particularly in remote and Indigenous communities

Skills formation and employment opportunities

Investment in critical minerals projects will play a central role in strengthening skills formation and expanding employment opportunities across the region. These projects typically require a broader mix of technical, engineering, operational, and analytical capabilities, creating demand for apprentices, trainees, and graduates across the multiple disciplines. This diversification of roles not only deepens the local skills base but also provides clear career pathways, encouraging population retention whilst also attracting new workers to the region. As the workforce grows, noting the manufacturing industry is currently the Yorke and Mid North regions fifth largest employer (REMPAN: 2026), so too do the economic benefits associated with population growth and stability. These benefits typically include higher household expenditure within the community which benefits local businesses, and stronger demand for housing and other services contributing to additional employment and growth opportunities (e.g. for the construction industry).

An example of this is through the Razorback Iron Ore project, which will generate significant new employment and skills development at a local (Peterborough area – 120 FTE) and regional level (1,936 FTE) across both the construction and operational phases of the project. These jobs inject millions in additional wages (suggested as \$4.5 million annually in salaries being paid to the local workforce residing in the Peterborough local government area) and economic activity, increasing income and supporting local businesses. Over time, this uplift in employment and income is expected to drive population growth and strengthen the long-term social and economic resilience of towns like Peterborough.

Critical minerals projects can strengthen workforce outcomes by creating demand for specialised technical skills and establishing clear pathways for apprentices and graduates. Because these projects rely on skills in fields such as advanced processing, automation, and environmental management, early-career workers can gain exposure through careers in this industry. Collaboration with workforce providers, TAFEs, universities, and industry partners expands training options, supports secure employment, and accelerates professional development. This builds Australia's skilled labour pool, enabling growth in the critical minerals industry and contributing to broader economic benefits.

Larger businesses, such as Nyrstar, play an outsized role in hosting traineeships and apprenticeships, providing direct industry exposure and securing the workforce pipeline for other businesses (e.g. once a trainee finishes a placement they can move within the workforce). An example of an existing RDA Yorke and Mid North initiative aligned with workforce and skill development is the Heavy Industry Multi Skills (HIMS) program.

The program, established in 2019, aims to address skills shortages in key regional industries, reduce barriers to employment for individuals facing disadvantage, bridge the gap between jobseekers and employers, and support long-term workforce participation and social inclusion. Further detail is provided via a program summary contained in **Attachment B**. This program, which has been well supported by Nyrstar, is worth fostering and with demonstrated examples of how this program can serve as a template for similar programs (the model is being deployed for the aged-care and childcare industries), a critical minerals program could be explored, particularly with larger businesses as key delivery partners.

Similarly, RDA Yorke and Mid North is exploring an education pathway designed to introduce school-aged children to careers in the renewables industry. Discussions with the Department for Education and Australian Renewables Academy focus on options for embedding relevant subjects and courses into selected regional schools. This work reflects the growing number of renewable projects underway or planned in the Yorke and Mid North, alongside national net zero objectives. A similar model, adapted to highlight critical minerals career pathways, would further strengthen skill development and encourage participation in these emerging industries.

The role of state, territory, and local governments in supporting socially and economically sustainable development

The Targeted Lead Abatement Program (TLAP), a partnership between Nyrstar and the South Australian Government, demonstrates how coordinated action can support socially and economically sustainable development.

Recognising the health risks associated with the operation of Nyrstar, TLAP focuses on addressing historic risk factors for lead exposure in Port Pirie by supporting initiatives aimed at reducing blood lead levels for those living in or visiting Port Pirie, particularly children. The program reinforces a clear commitment to community health and safety, helping build trust and ensuring that future developments, including those linked to critical minerals, are more readily supported by the local community.

Local governments also play a key role in enabling sustainable development, with an example being through formalised partnerships such as a Memorandum of Understanding (MoU). Magnetite Mines has established MoUs with both District Council of Peterborough and the Port Pirie Regional Council regarding its Razorback Iron Ore Project. The Peterborough MoU outlines the parties' intention to collaborate on matters of mutual interest, establish structured engagement processes with stakeholders (including the community) explore opportunities for shared infrastructure, and consider additional forms of support as the project progresses.

Similarly, the MoU between Port Pirie Regional Council and Magnetite Mines signals a commitment to partnering on projects aligned with green iron. It provides a framework for coordinated engagement with State and Federal governments, supports further planning to understand capability and capacity potential in Port Pirie, and commits both parties to working together in providing infrastructure that enables mutual outcomes.

Collaborative efforts to plan and deliver shared infrastructure are essential for supporting the delivery of projects and in the creation of opportunities for the local workforce. Local governments influence key factors such as services, housing, transport, and community safety that enable population growth alongside a major project like the Razorback Iron Ore project. Without adequate access to these liveability components, workers are more likely to reside elsewhere, shifting potential local employment opportunities towards a fly-in fly-out model.

Options for improved coordination between jurisdictions and the Commonwealth

Improved coordination between all jurisdictions (including the Commonwealth) is essential to ensuring that Australia's critical minerals sector develops in a socially responsible and economically strategic manner. Alignment and collaboration on infrastructure corridor development and workforce planning are particularly important. Critical minerals projects often require shared access to transport, energy and water infrastructure, yet planning processes are currently fragmented across state boundaries.

Coordinated corridor development would reduce duplication, lower project costs and provide greater certainty for regional communities affected by multiple concurrent developments.

An example of where a coordinated approach could occur is the Braemar Province, which is a highly prospective iron region in the State and serviced by the Yorke and Mid North region. **Attachment C** is a concept paper for progressing *Braemar infrastructure corridor* investigations. Due to opportunities that exist across multiple projects within the province, coordinated planning and objectives, resulting in shared infrastructure outcomes, will result in efficiencies. As an example, the Peterborough aerodrome is identified as a key asset for accessing the province, which requires local and commonwealth support to optimise its functionality. This type of collaboration will increase access and the interest in the province leading to new and expanded projects and investment which require additional workforce and local procurement. The province is known for its high-purity iron ore, which is an input for green iron production and aligns with critical minerals projects. It is noted that high-purity iron ore is listed as a critical mineral under Canadian provincial and national listings.

Similarly, a more integrated approach to building a localised skills pipeline is needed to support long-term workforce requirements. Critical minerals operations and associated renewable energy projects all draw from the same regional labour pools. Without coordinated planning, communities experience labour shortages, wage escalation and insufficient skills training. Co-designed workforce strategies would ensure that training pathways are aligned with project timelines and that regional residents access stable, high-quality employment. Efforts to foster existing, and tailor new, workforce programs, such as those mentioned earlier, could be achieved through these coordinated efforts.

Finally, improved project coordination around construction phases and planned shutdowns (i.e. Nyrstar Port Pirie) would significantly strengthen social licence. When major projects overlap, regional services, housing/accommodation and supply chains become strained, creating community frustration and reducing industry efficiency. Sequencing construction and maintenance cycles would help manage cumulative impacts, stabilise local economies and support predictable workforce utilisation.

Together, these measures would deliver a more coherent, efficient and socially supported critical minerals industry capable of meeting national strategic objectives.

In concluding, the opportunities associated with the critical minerals industry represent an ability to further strengthen Australia's economy and support regional economic outcomes.

RDA Yorke and Mid North would be pleased to discuss this submission further to support the work of the Committee. Please contact Daniel Willson, CEO of RDA Yorke and Mid North at ceo@yorkeandmidnorth.com.au or 0488 557 656 with any questions or to arrange further discussions.

Kind regards,



Daniel Willson
CEO
RDA Yorke and Mid North



The economic and strategic importance of multi-metals processing

Commissioned by Nyrstar

MAY 2025





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MANDALA

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Australia’s existing zinc and lead capabilities are a gateway to critical minerals processing	5	<p>Mandala is an economics research and advisory firm. Mandala specialises in combining cutting-edge data and advanced analytical techniques to generate new insights and fresh perspectives on the challenges facing businesses and governments.</p>
Securing a stable supply of critical minerals is increasingly important for Australia	10	<p>Views and opinions expressed in this document are prepared in good faith and based on Mandala’s knowledge and understanding of its area of business, markets and technology. Opinions expressed herein are subject to change without notice. No part of this document may be reproduced in any manner without the written permission of Mandala.</p>
Fundamental shifts in global industrial policy have undermined the viability of domestic minerals processing	13	<p>© March 2025</p> <p>Note: All dollar figures are Australian dollars unless indicated otherwise.</p>
Appendix	19	<p>The data and information provided by Wood Mackenzie as referenced in this report should not be interpreted as advice and you should not rely on it for any purpose. You may not copy or use this data and information except as expressly permitted by Wood Mackenzie in writing. To the fullest extent permitted by law, Wood Mackenzie accepts no responsibility for your use of this data and information except as specified in a written agreement you have entered into with Wood Mackenzie for the provision of such of such data and information.</p>

Executive summary

Mandala was commissioned by Nyrstar to provide an independent summary of the significance of lead and zinc refining in Australia. This report finds that Australia's existing capabilities are a gateway to domestic critical minerals processing, but fundamental shifts in the global industrial policy landscape are undermining Australia's current and future processing capabilities.

Australia's existing lead and zinc capabilities are a gateway to critical minerals processing

Australia has the largest reserves of lead and zinc globally and an established refining capability, ranking as the third largest exporter of refined and intermediate lead and the second largest exporter of refined zinc in the world.

Nyrstar is Australia's major lead and zinc producer, with two multi-metals smelters: Nyrstar Port Pirie and Nyrstar Hobart. Both facilities are core pillars of the local industrial base and the Australian economy, contributing \$1.7 billion gross value added in 2024 and supporting 6,648 full time equivalent jobs across the country.

Lead and zinc refining is an essential precursor to capturing and processing five critical minerals: antimony, bismuth, tellurium, germanium, and indium. Nyrstar Port Pirie is Australia's only producer of refined lead with critical minerals extraction capacity.

Securing a stable supply of critical minerals is increasingly important

Lead, zinc and critical minerals processing is

concentrated in China. Australia has the opportunity to become a valuable trading partner in global supply chains as governments look to diversify critical mineral supplies and reduce vulnerabilities to market interventions, including China's recent ban on antimony and germanium exports to the US. For example, the European Union and other regions have introduced import guardrails for critical minerals to limit dependencies on single markets.

Fundamental shifts in global industrial policy have undermined domestic processing

Lead and zinc smelters around the world are operating in challenging economic conditions.

China's industrial policy interventions have established integrated supply chains across lead and zinc production and manufacturing, linking metals refining to the manufacture of finished goods. This downstream vertical integration allows for cross-subsidisation across the value chain, with additional government subsidies supporting loss-making activities. Overall, these policy interventions have supported China to capture a disproportionately high percentage of the minerals processing supply chain compared to their domestic mineral reserves.

Backed by strong government policy, Chinese smelters are refining more of the by-product metals available from feedstock and are driving competition for high quality feedstocks at higher payable rates. At the same time, declining treatment charges are further eroding

smelter operating margins around the world.

Maintaining lead and zinc refining capabilities outside of China will become increasingly challenging. If other countries exit lead and zinc smelting, China could achieve monopoly power in this market and maintain majority control of the global supply of associated critical minerals.

Protecting Australia's minerals processing capability is in the national interest

Australia's lead and zinc smelting capabilities are fundamental to Australia's ambition to leverage its high-quality mineral deposits and become a leading exporter of value-added critical minerals. Maintaining a robust domestic industry has economic, strategic, security, industrial, and societal benefits.

Should Australia's existing multi-metals smelting capabilities falter or shut down, rebuilding this infrastructure would require impractical levels of cost and delay. This includes the likely collapse of local skills pipelines, particularly for metals manufacturing workers.

Government support is required to protect Australia's natural advantages in minerals processing and ensure lead, zinc, and associated critical minerals are refined and processed domestically, long into the future.



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Australia's existing zinc and lead capabilities are a gateway to critical minerals processing

2

Securing a stable supply of critical minerals is increasingly important for Australia

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Fundamental shifts in global industrial policy have undermined the viability of domestic minerals processing

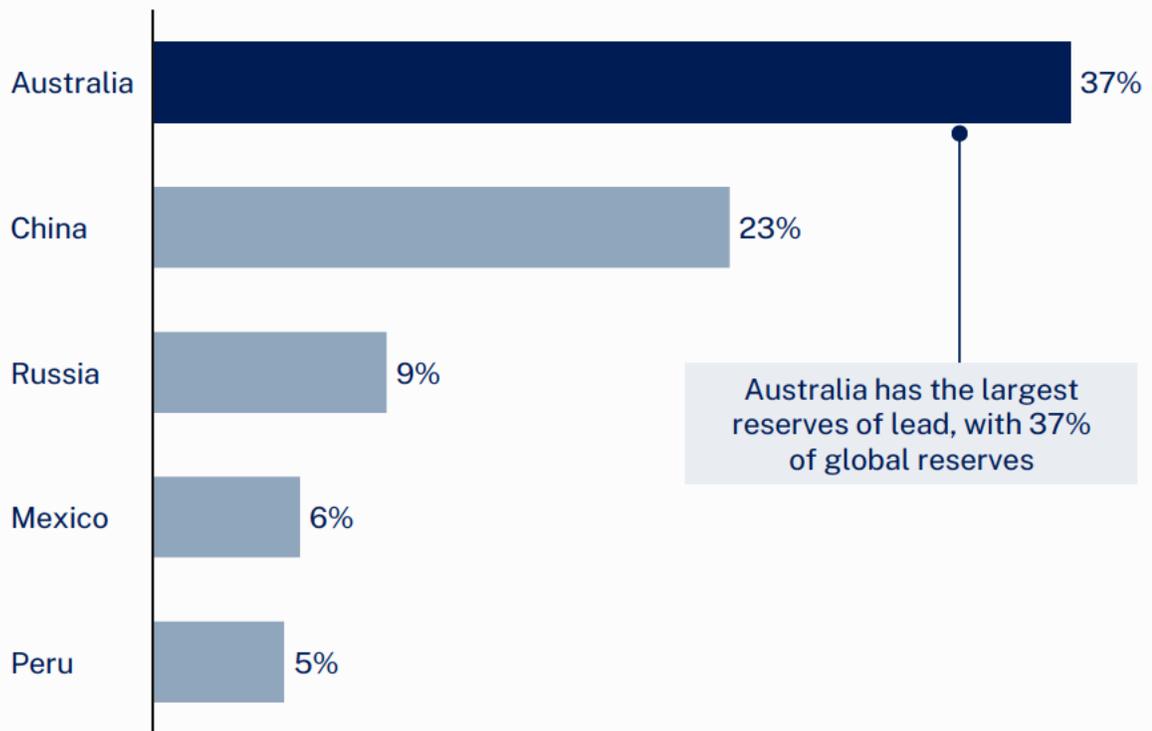
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Appendix

Australia has the largest reserves of lead and zinc globally, providing a significant long-term opportunity to move downstream in both supply chains

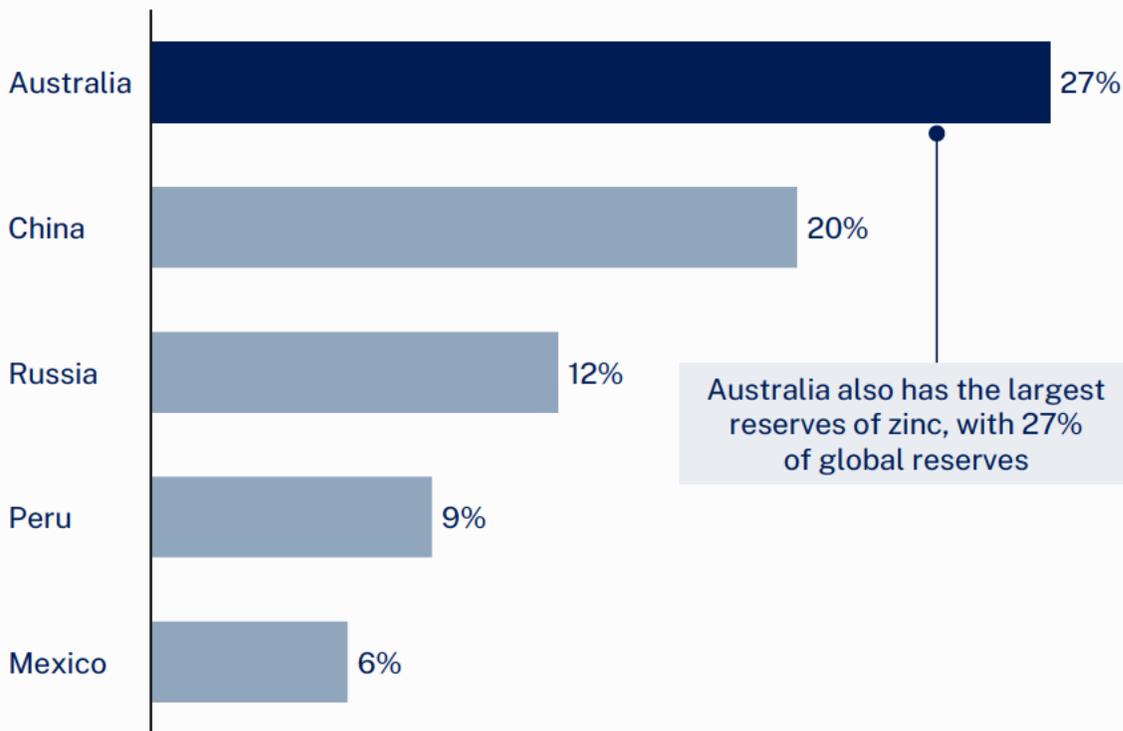
Top five countries for lead reserves by volume

% of global reserves, 2024



Top five countries for zinc reserves by volume

% of global reserves, 2024



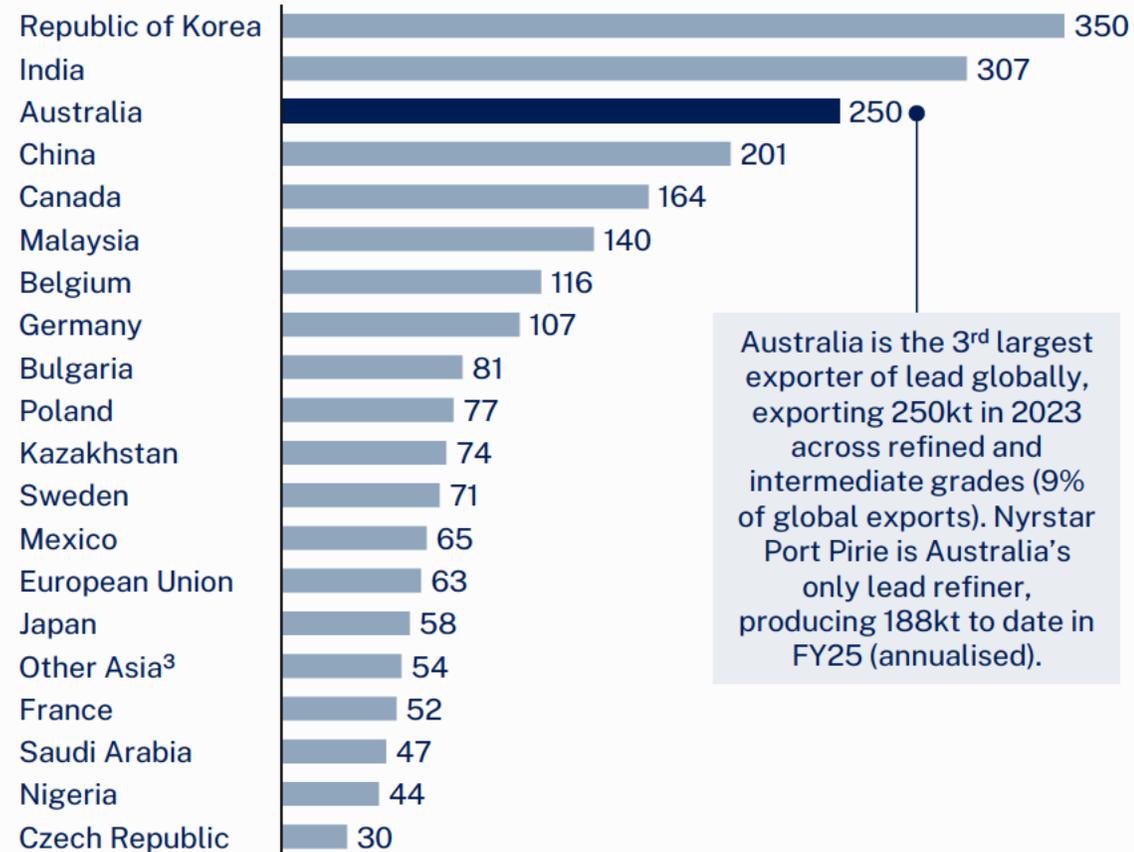
Australia has some of the richest mineral resources in the world – providing a strong foundation to move downstream in mineral supply chains and a significant long-term opportunity to protect and develop sovereign capability in processing and manufacturing

Source: Department of Industry, Science and Resources (2023), *Critical Minerals Strategy*; Department of Industry, Science and Resources (2025), *Minerals*; USGS (2025) Zinc, (2025) Lead, (2025) Antimony, (2025) Bismuth, (2025) Germanium; (2025) Tellurium, (2025) Indium; Mandala analysis.

Moving down the value chain, Australia is the third largest exporter of lead and second largest exporter of refined zinc globally

Lead exports by country

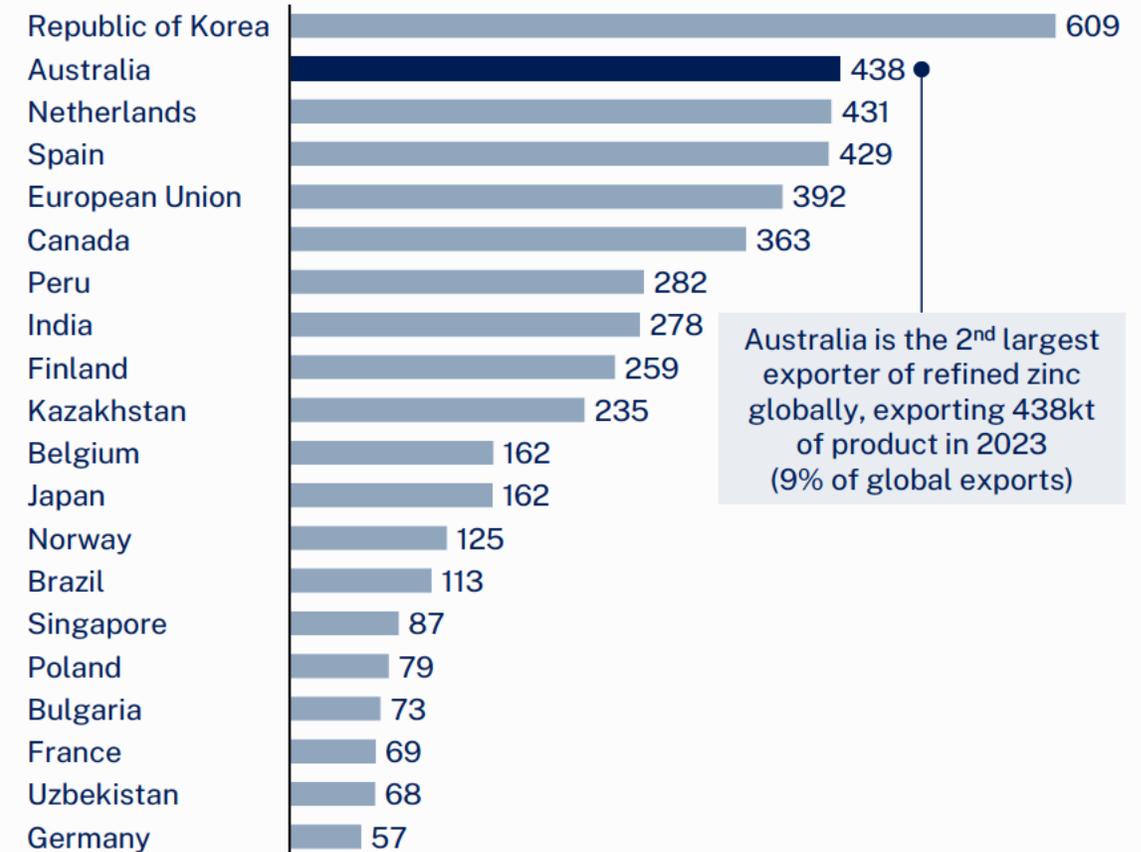
Kilotonnes (kt), top 20 exporters of refined and intermediate lead,¹ 2023



Australia is the 3rd largest exporter of lead globally, exporting 250kt in 2023 across refined and intermediate grades (9% of global exports). Nyrstar Port Pirie is Australia's only lead refiner, producing 188kt to date in FY25 (annualised).

Zinc exports by country

Kilotonnes (kt), top 20 exporters of refined and intermediate zinc,² 2023



Australia is the 2nd largest exporter of refined zinc globally, exporting 438kt of product in 2023 (9% of global exports)

¹ Refined lead defined as WITS product codes relating to unwrought lead: 780110, 780199, 780191; ² Refined zinc defined as WITS product codes relating to unwrought zinc: 790111, 790112, 790120; ³ Other Asia not elsewhere specified (nes) as defined by the World Bank.
Source: World Bank WITS (World Integrated Trade Solution) (2023) Trade Statistics by Product (HS 6-digit); Nyrstar data.

Valuable critical minerals can be extracted as by-products from lead and zinc refining

Lead and zinc are core inputs into many products we rely on daily. Zinc is required to galvanise (protect) steel, which is used in the production of wind turbines, cars, electrical appliances, and buildings. Lead is widely used in car batteries, ammunition, and electrical cables.

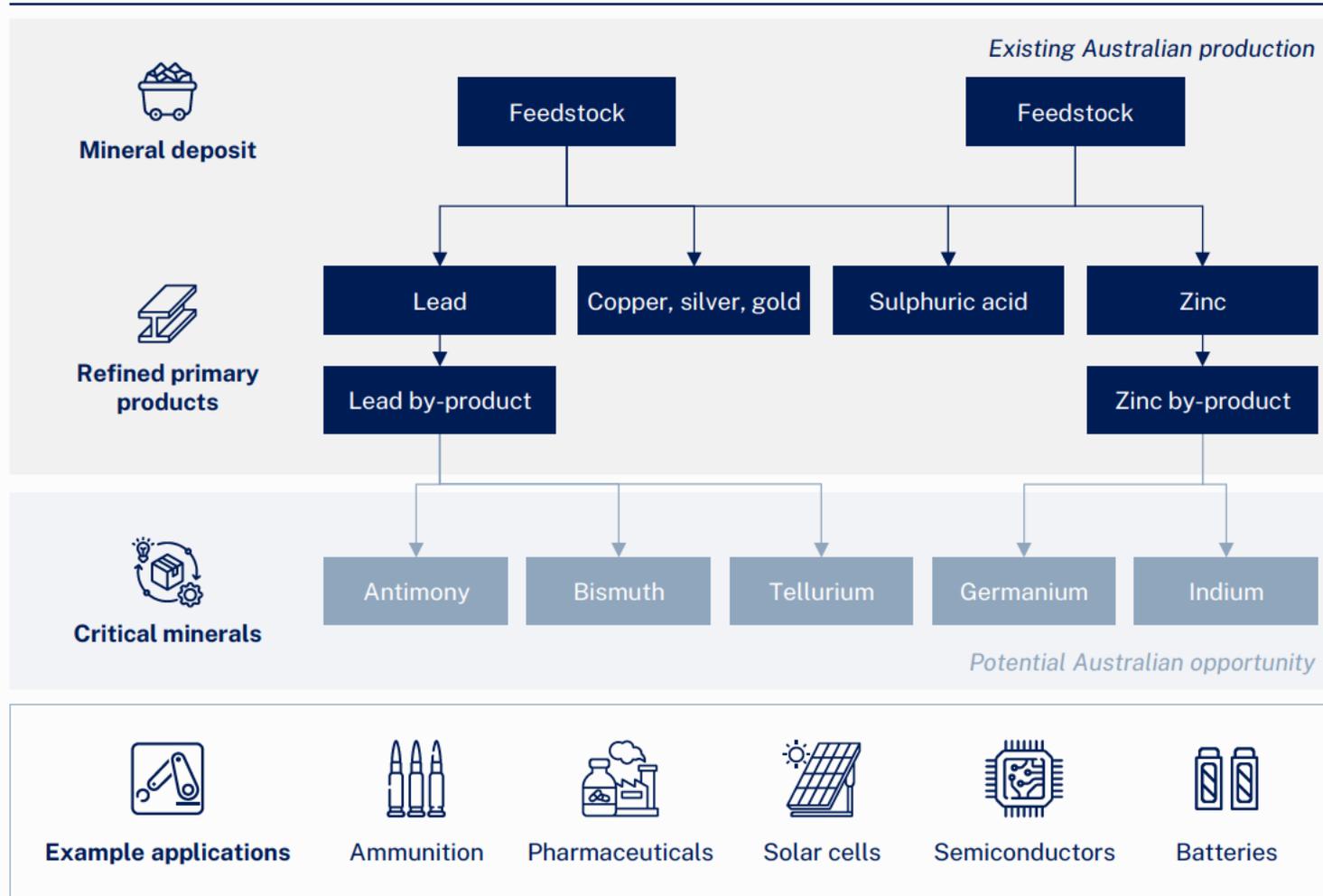
Australia has an established lead and zinc refining capability. Recently, the value of by-products from this refining process has been recognised. In fact, five of Australia's registered critical minerals are produced as by-products of lead and zinc. These critical minerals are antimony, bismuth, tellurium, germanium, and indium.

Strategically important sectors like energy, transport, defence, and advanced manufacturing rely on the critical minerals derived from zinc and lead refining. For example, antimony is required to make ammunition and flame retardants, and germanium is a key input into semiconductor manufacturing. Other critical minerals are essential for the net-zero transition, including indium for batteries and tellurium for solar cells.

Australia currently has limited refining capabilities for critical minerals but could leverage existing lead and zinc refining facilities, with investment in proven engineering, to bring forward this capability. For example, lead processing is an essential precursor to extracting and refining antimony. Australia could acquire an antimony refining capability quickly through the upgrade of existing lead smelters.

Source: Geoscience Australia (2024) *Critical Mineral By-product potential*.

Illustrative overview of lead and zinc processing outputs

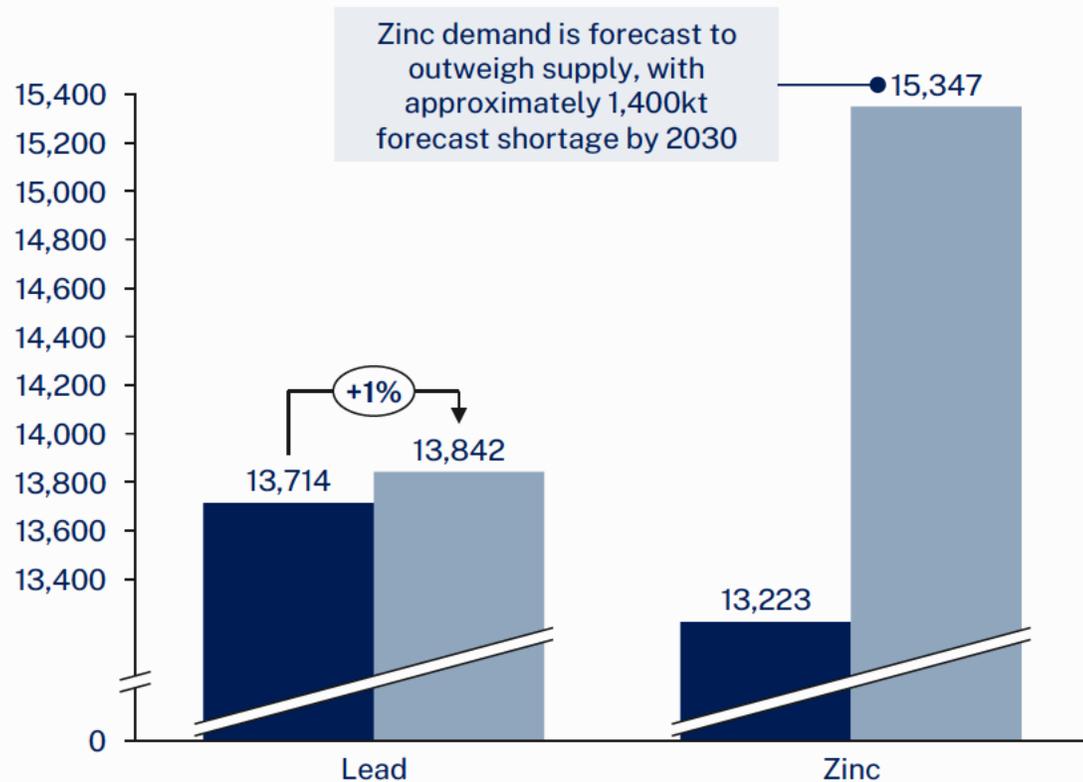


Source: European Commission (2023) *Study on the Critical Raw Materials for the EU 2023*; SCRREEN (2023) *Critical Raw Materials 2023*; Patel & Karamalidis (2021) *Germanium: A review of its US demand, uses, resource, chemistry, and separation technologies*; Perpetua Resources (2021) *Antimony: A Critical Metalloid for Manufacturing, National Defence and the Next Generation of Energy Generation and Storage Technologies*; IEA (2021) *The Role of Critical Minerals in Clean Energy Transitions*; Mandala analysis.

Strong growth fundamentals in lead, zinc, and associated critical minerals markets are supporting demand including 130% growth in antimony demand by 2030

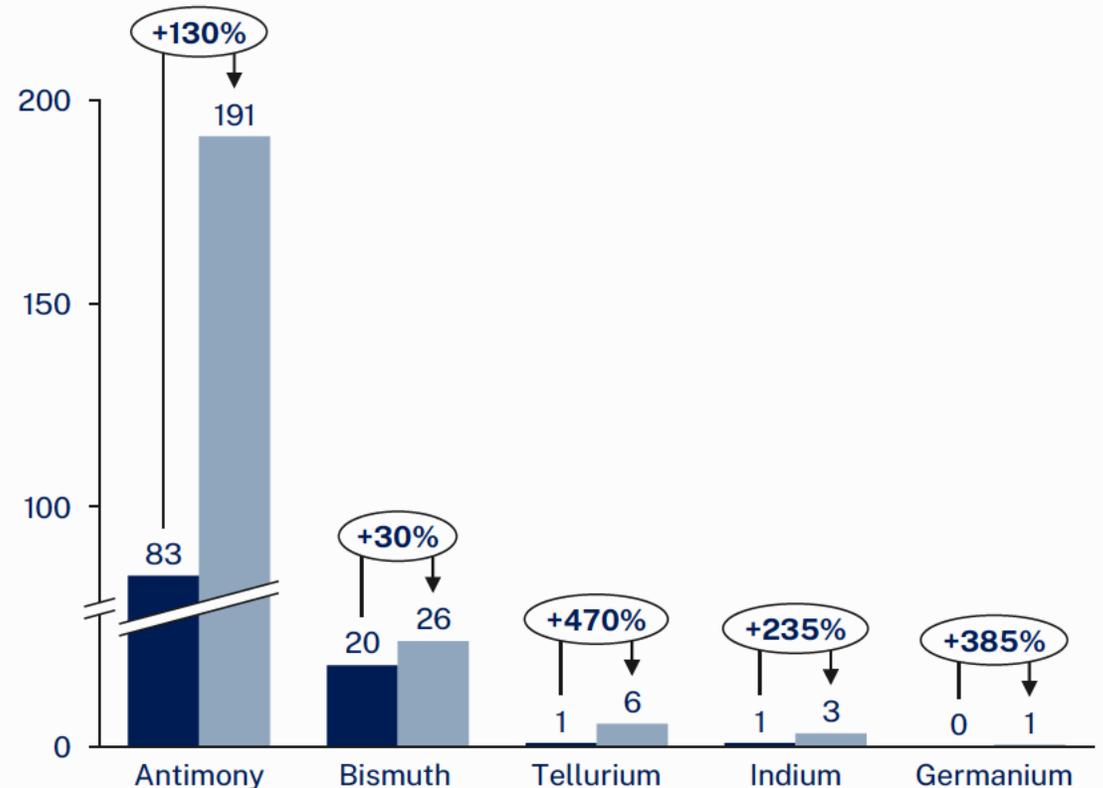
Refined lead and zinc forecast demand

Kilotonnes (kt), global demand, latest available data¹ ■ 2024 ■ 2030



Critical minerals forecast demand

Kilotonnes (kt), global demand, latest available data¹ ■ 2024 ■ 2030



¹ Current 2023 or 2024 mine production for antimony and refinery production for indium, tellurium, and bismuth from USGS. Current germanium refinery production based on a 2016-2020 average from SCRREEN. Bismuth demand forecasted with a historical 2016-2020 growth rate of 4-5%. Antimony demand forecasted as an additional 18kt per year to 2030. Tellurium, indium, and germanium based on an average of forecasts for all applications from Watari et al. ² USD converted to AUD.
Source: Nyrstar market data; USGS (2024) Antimony, (2024) Bismuth, (2024) Indium, (2024) Tellurium; SCRREEN (2023) Germanium Factsheet; Watari et al. (2020) Review of critical metal dynamics to 2050 for 48 elements; SCRREEN (2023) Antimony Factsheet; Perpetua Resources (2021) Antimony: A Critical Metalloid for Manufacturing, National Defence and the Next Generation of Energy Generation and Storage Technologies; SCRREEN (2020) Bismuth Factsheet; Mandala analysis.



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Australia's existing zinc and lead capabilities are a gateway to critical minerals processing

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Securing a stable supply of critical minerals is increasingly important for Australia

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Fundamental shifts in global industrial policy have undermined the viability of domestic minerals processing

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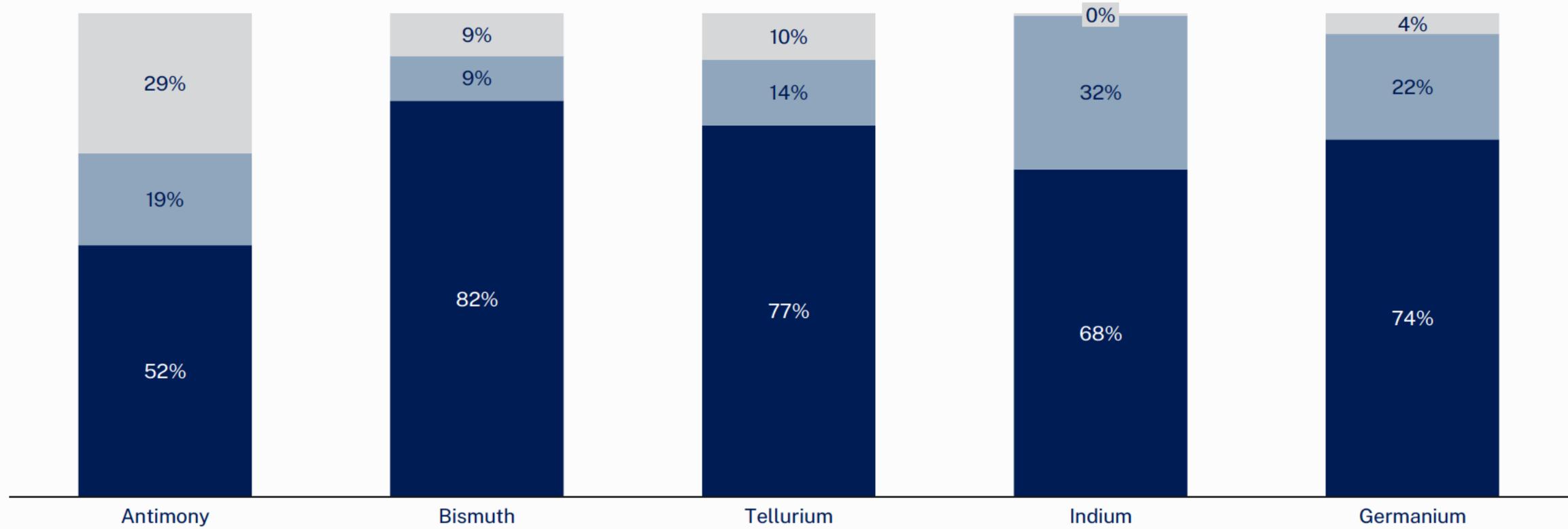
Appendix

Critical minerals processing is highly concentrated, with China producing between 52% to 82% of the global supply

Proportion of global production by source region

%, latest available data, in order of global demand forecast to 2030

■ China ■ Strong trade and security relationship with Australia ■ Other



Notes: 2023 production for germanium, bismuth, indium, and tellurium, 2016-2020 average production for antimony. Countries or regions defined as having a strong trade and security relationship with Australia: Belgium, Canada, Europe, France, Japan, South Korea, Sweden, Thailand, and the United States. Other includes Bolivia, Bulgaria, Kazakhstan, Laos, Myanmar, Russia, South Africa, and Uzbekistan, and Vietnam. Sources: Nyrstar market data; USGS (2025) Bismuth, (2025) Indium, (2025) Tellurium; SCRREEN (2023) Factsheet Antimony; World Bank WITS (World Integrated Trade Solution) (2023) Trade Data; Mandala analysis.

Australia could become a valuable trading partner in diverse supply chains

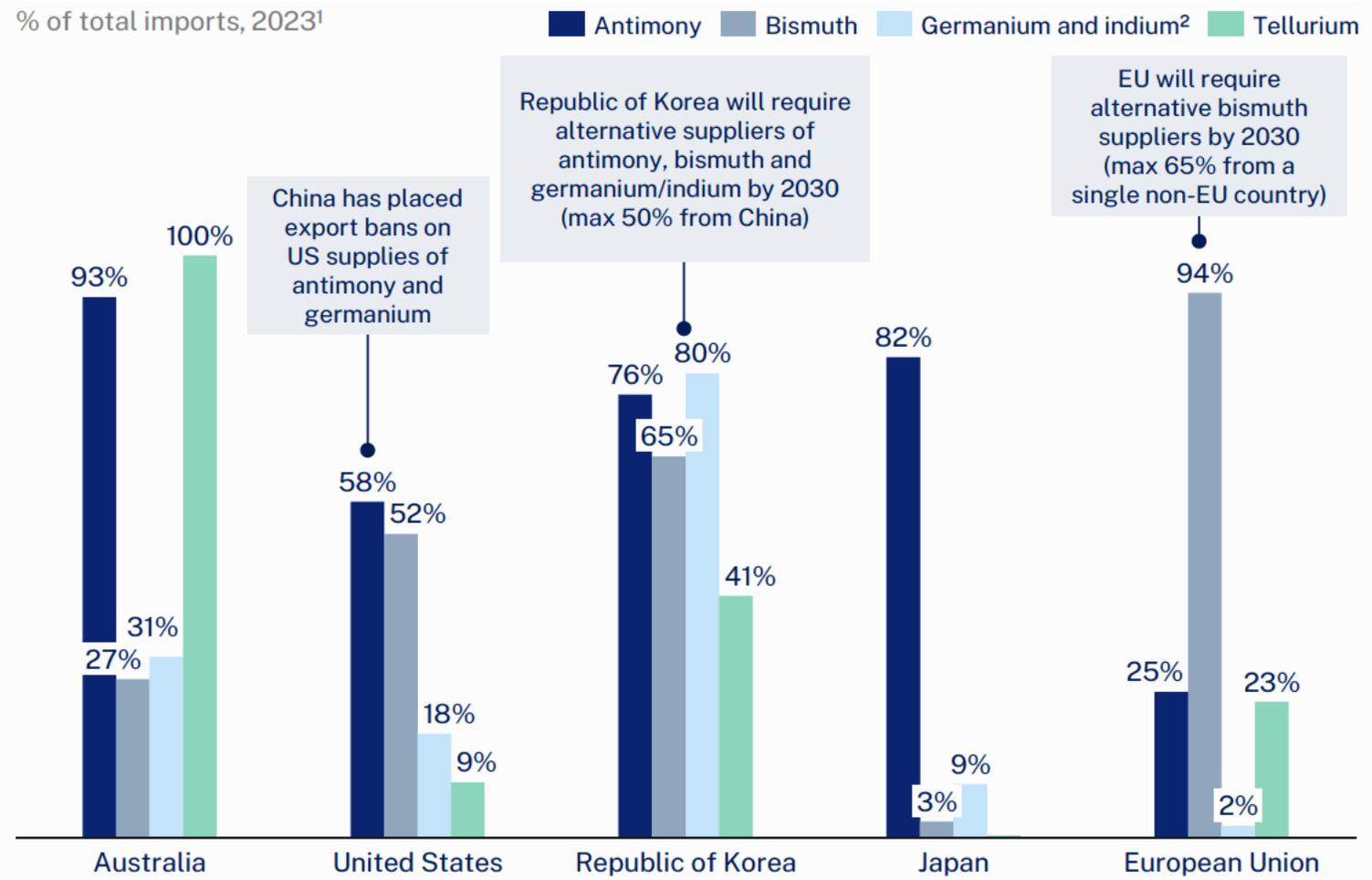
Australia and other nations are highly reliant on China for refined critical minerals and are vulnerable to supply chain disruption. For example, 100% of Australia’s tellurium imports were sourced from China in 2023. Tellurium is used to manufacture metals, glass and ceramics, electronic products, and solar cells.

The US placed restrictions on the export of semiconductors to China in 2024. In response, China banned antimony exports to the US – affecting 58% of the US’ antimony imports (based on 2023 data). Antimony has key defence applications, particularly in ammunition manufacturing. Given the US has limited domestic capabilities (one smelter and no operational mining), it will have to source antimony from multiple smaller producers. The second and third largest suppliers of antimony to the US in 2023 were Thailand and Belgium (9% and 8% of imports respectively). The second largest antimony producer globally is Tajikistan (25% of production).

Supply chain diversification has become a priority for governments around the world, with many countries introducing maximum import guardrails to limit dependencies on a single market. Australia is well placed to meet global demand for value-added critical minerals given its high mineral reserves and existing processing capabilities, including a lead refinery with critical minerals extraction capacity.

Note: Listed policies as of March 2025.
Source: Australian Government (2023) *Critical Minerals Strategy 2023 – 2030*; Center for Strategic and International Studies (2024) *China’s Antimony Export Restrictions: The Impact on U.S. National Security*; IEA (2024) *European Critical Raw Materials Act*; Department of Health and Aged Care (2024) *Tellurium and its inorganic compounds: Evaluation statement*.

Proportion of refined critical mineral imports sourced from China



¹ Data refers to the following International Harmonized System product codes: Unwrought antimony and powders (811010), antimony oxides (282580), Bismuth above and below 99.99% (810601, 810690), Germanium, indium and others (811292, 811299), Tellurium and boron (280450). Imports with data gaps aligned with USGS. ² Germanium and indium grouped as minerals are grouped in WITS data.
Source: World Bank WITS (World Integrated Trade Solution) (2023) *Trade Data*; S&P Global (2025) *China responds to US restrictions with export ban on select critical minerals*; USGS (2025) *Bismuth*; Mandala analysis.



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Australia's existing zinc and lead capabilities are a gateway to critical minerals processing

2

Securing a stable supply of critical minerals is increasingly important for Australia

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Fundamental shifts in global industrial policy have undermined the viability of domestic minerals processing

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Appendix

Nyrstar is one of Australia’s major lead and zinc producers and a key local employer

Nyrstar owns and operates two multi-metals smelters in Australia: Nyrstar Port Pirie, a multi-metals recovery plant producing refined lead and silver and Nyrstar Hobart, which primarily produces refined zinc. Both facilities are core pillars of the local industrial base and some of the few remaining employers of metals manufacturing trades. For example, Nyrstar employs almost 20% South Australia’s engineering production workers (who refine, treat, and produce metal) and 25% of engineering production workers in Tasmania.

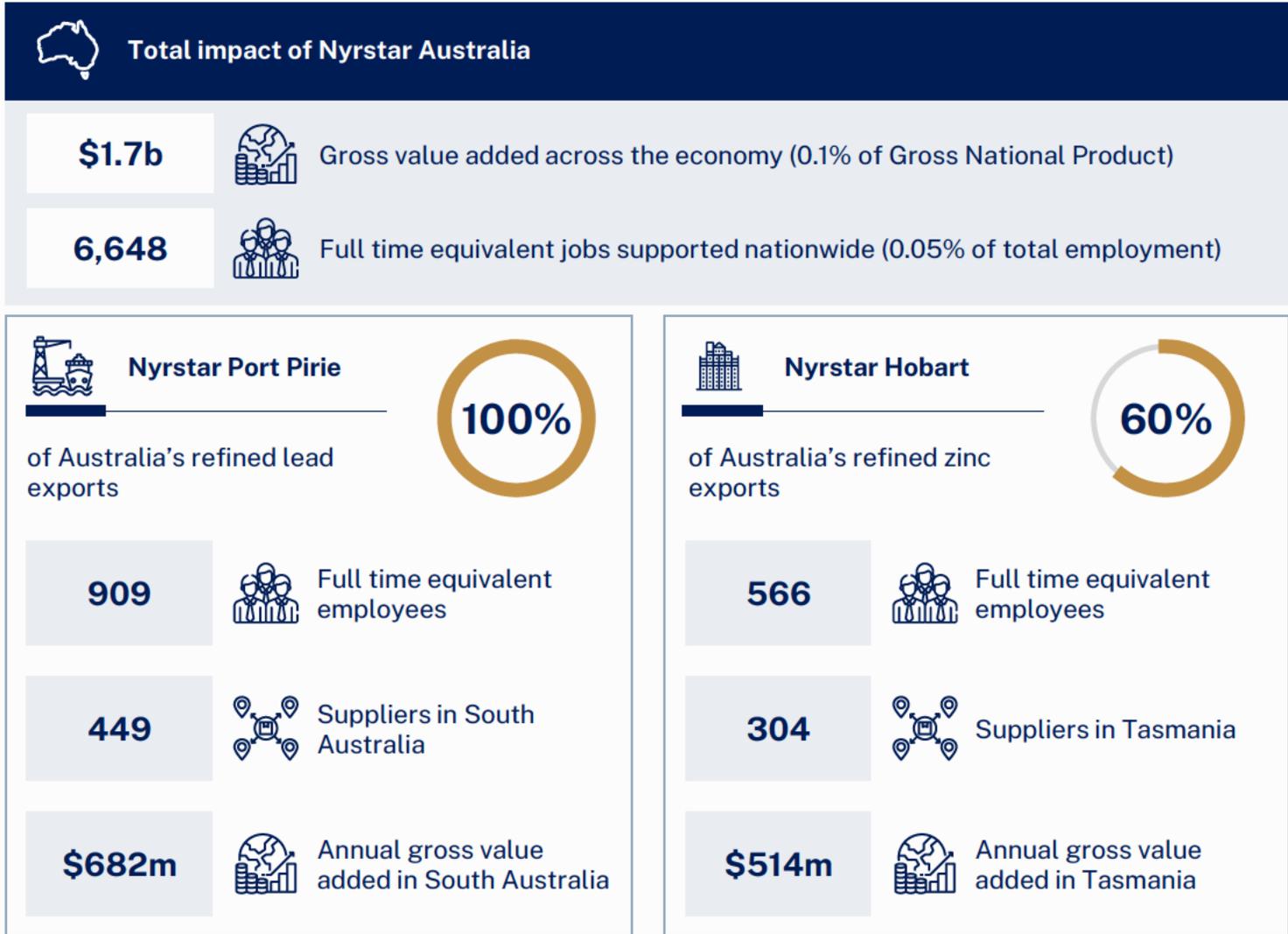
Nyrstar Port Pirie produces all of Australia’s refined lead exports and half of Australia’s total lead exports. The smelter is one of the world’s largest primary lead smelting facilities, and the third largest silver producer. Nyrstar Port Pirie is also Australia’s only producer of refined lead with critical minerals extraction capacity. The smelter employs 909 full time equivalent employees (FTE) workers and spent \$351 million in South Australia in 2024, generating \$682 million of gross value added.

Nyrstar Hobart produces 60% of Australia’s refined zinc exports. The smelter employs 566 FTE workers and spent \$293 million in Tasmania in 2024, generating \$514 million of gross value added.

Overall, Nyrstar generated \$1.7 billion in gross value added across the Australian economy in 2024 and supported 6,648 jobs.

Source: Nyrstar (2023) *Australia’s opportunity in the energy transition*; Lawrence Consulting (2025) *Economic Impact of Nyrstar Australia 2024*; Lightcast (2024) *Labor Insights*, ABS (2021-22) *Input-Output tables*, ABS (2021) *Census*; Mandala analysis.

Nyrstar’s economic impact in 2024



Source: Lawrence Consulting (2025) *Economic Impact of Nyrstar Australia 2024*.

Protecting Australia's minerals processing capability is in the national interest

Domestic lead and zinc smelting capabilities are fundamental to Australia's ambition to become a leading exporter of value-added critical minerals and metal compounds. This is because lead and zinc smelting is an essential precursor to processing critical minerals.

Fundamental shifts in global industrial policies have undermined the earnings viability of Australian smelting activities, delaying or deterring investment decisions in new processing activities. This is driven by a deterioration of operating margins and the markets' failure to price in the value of national security and sovereignty.

Australia's smelters play an important role in the domestic industrial base as a customer of domestic mines, a supplier of high-quality refined products to downstream manufacturers, and a key pillar of local economies. Maintaining and developing Australia's minerals processing capability has nationwide benefit – supporting local communities while unlocking opportunities in global supply chains. This is a core component of Australia's economic resilience.

Should Australia's capabilities falter or shut down, rebuilding would require impractical levels of cost and delay. This includes the likely collapse of local skills pipelines, particularly for metals manufacturing workers. A lack of alternative employment opportunities would likely force workers to exit the industry.

The role of lead, zinc, and associated critical minerals processing in Australia's national interest



Economic

Australia has a world-leading resources industry and the opportunity to provide a stable source of in-demand minerals, but the viability of domestic operations is being affected by external market failures



Strategic

Australia has high levels of reserves, but critical minerals are mainly processed overseas, with processing heavily concentrated in a single market



Security

Lead and zinc smelting is an essential precursor to capturing and processing five critical minerals used in defence, energy, transport, and advanced manufacturing



Industrial

Domestic smelters play an important role as a customer of Australian mines, a supplier of high-quality refined products to downstream manufacturers, and a key pillar of the local industrial base



Societal

Domestic processing supports local jobs, businesses and supply chains in major regional centres such as Hobart and industrial areas such as Port Pirie

Chinese industrial policy is reshaping global smelting economics

As smelters around the world face declining profitability and challenging market conditions, maintaining smelting capabilities outside of China will become increasingly challenging without deliberate investment. This is because Chinese smelters can withstand loss-making activities longer than their peers.

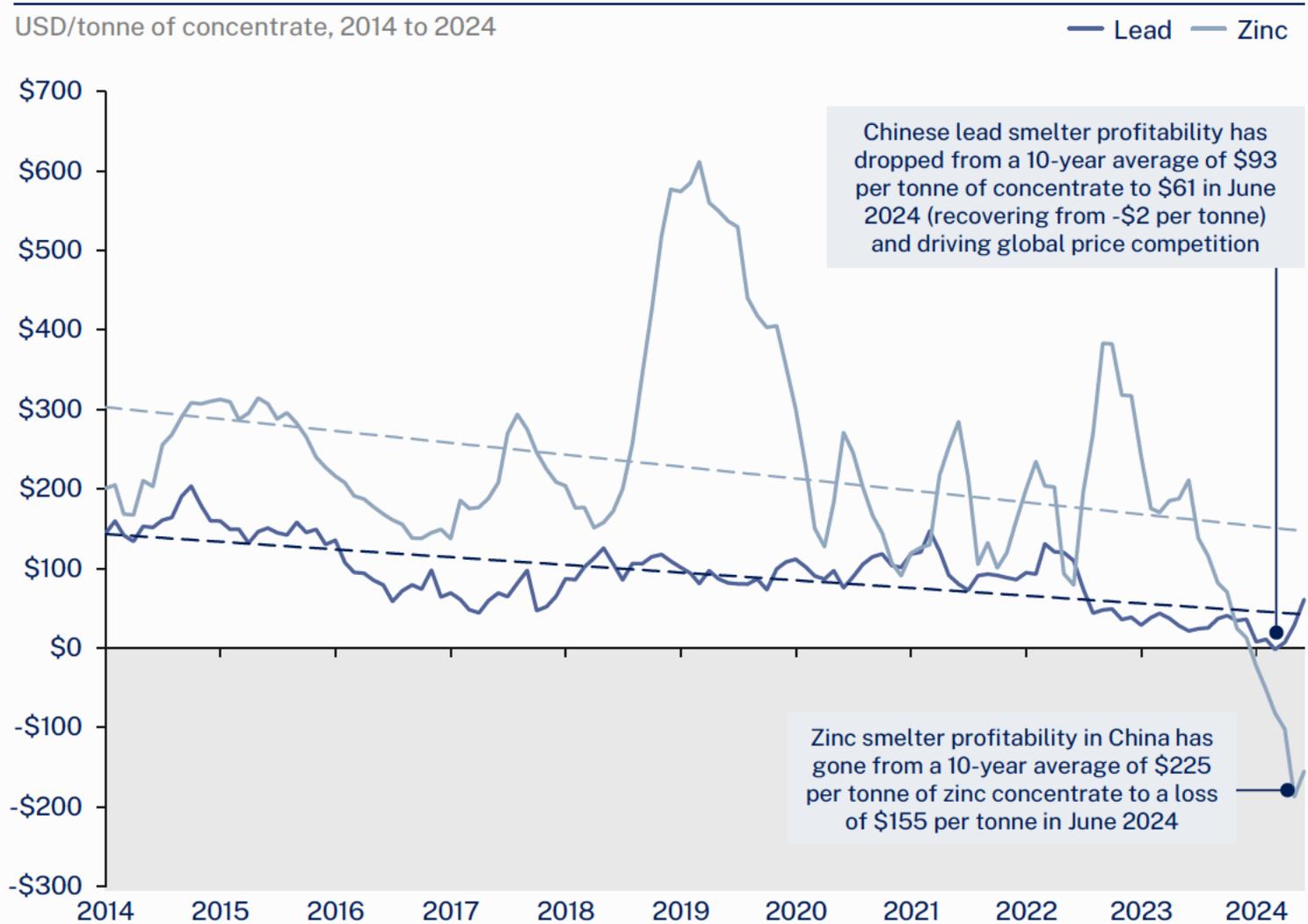
China's lead smelter profitability dropped to US\$61 per tonne of concentrate in 2024 from a 10-year average of US\$93, and zinc smelter profitability was negative at -US\$155. However, Chinese smelters are increasing by-product processing which offsets eroded margins on primary metals and enables smelters to offer higher prices for feedstock. This increased competition for feedstock has driven treatment charges to their lowest in a decade, diminishing a key source of revenue. Australian smelters must match these terms but are technology-constrained in recovering by-product metals.

China's industrial policy has established vertically integrated value chains, enabling cross-subsidisation between smelting and manufacturing. China is also the largest producer of lead, zinc, and associated critical minerals globally. With unmatched economies of scale, Chinese smelters can invest in new technology and upgrades, creating a widening efficiency gap with the rest of the world.

Source: Nyrstar data; ILZSG (2024) *World Factbook 2024*; ILZSG (2025) *Review of Trends in 2024*; Nyrstar (2017) *Modeling Nyrstar*; Noranda (2021) *Zinc Smelter Revenue Model*; Wood Mackenzie (2024) *Zinc production cost trends and outlook*; Naughton (2021) *Industrial Policy in China*; Reuters (2022) *European smelter hits mean another year of zinc shortfall*.

China's smelter profitability

USD/tonne of concentrate, 2014 to 2024



Source: The foregoing chart was obtained from Global zinc and lead short-term outlook™ and Lead markets: Investment Horizon outlook™, a product of Wood Mackenzie; alongside Mandala analysis of Trafigura (2024) *The Future Outlook for World Zinc Demand*.

Government support will be required to protect Australia’s current and future minerals processing capability

Policy enablers to improve competitiveness of domestic lead, zinc, and associated critical minerals processing

	Enabler	Description	Example application to zinc, lead, and by-product processing
↑ HIGHER Importance for sector development ↓ LOWER	 Finance	The ability of firms to access sufficient volumes of capital with appropriate risk profile	Grants, loans, guarantees (for loans or contractual commitments), and tax incentives
	 Feedstock	The ability of firms to access key production feedstock and coordinate relationships with suppliers	Supporting access to domestic supplies of feedstock and coordinating relationships with suppliers (particularly in domestic value chain)
	 Energy and infrastructure	The availability of connecting infrastructure including energy	Investments in supporting grid, port, and transport networks
	 Coordination and regulation	The availability of coordinated and centralised support across the value chain	Coordinating supply and demand for a more integrated domestic value chain and developing regulation to accelerate ecosystem development
	 Workforce	The availability of skilled employees and access to training facilities	Supporting ongoing operations to retain workers, local training programs, and pipeline development including apprenticeships

The Australian government has supporting industries that coincide with a strong economic, strategic, security, industrial, or societal need

Precedents of direct government intervention to support Australia’s strategic mining and metallurgical assets

	 Copper smelting and refining¹	 Aluminum smelting²	 Steelmaking³
Context 	<p>Glencore’s copper smelting and refining assets in Mt Isa and Townsville faced significant economic pressures including high fixed operational costs and increasing energy costs which impeded competitiveness against international counterparts.</p>	<p>Alcoa was reviewing its international smelter fleet, leading to concerns about Portland’s profitability. The smelter was losing production (and income) during summer shutdowns, particularly as the smelter was unable to re-supply the grid with energy during these periods.</p>	<p>Whyalla Steelworks is one of two steelworks in Australia. The steelworks was running at limited capacity due to a number of maintenance and repair issues while also operating at a loss, with outstanding debts of \$1.3b.</p>
Intervention 	<ul style="list-style-type: none"> ▪ Incentive payment: Government designed a support strategy with Glencore with a multi-million-dollar funding agreement (details not public) to offset operational costs and facilitate necessary maintenance, extending operational life. Glencore committed \$500m towards continuing operations at these facilities. ▪ Previous funding: \$15m funding in 2016 to extend operations to 2022. 	<ul style="list-style-type: none"> ▪ Revenue underwriting: Government agreed to underwrite the revenue earned by the facility from resupplying energy to the grid if closed over summer. The smelter can draw on up to \$19.2m per year in subsidies for four years (between 2020 and 2025). 	<ul style="list-style-type: none"> ▪ Immediate support: Government forced facility into administration with \$484m in support for creditors, infrastructure upgrades and operating costs (including wages). ▪ Upgrades and infrastructure: Government committed \$1.9b for upgrades to green steel production.

Source: 1 ABC (2020) Mount Isa copper smelter gets three more years with 'one-off' incentive from Queensland Government. 2 ABC (2020) Alcoa's Portland aluminium smelter subsidy secures jobs, fails green energy test; Australian Mining (2020) Australian Government throws Portland smelter subsidy at Alcoa. 3 Whyalla City Council (2025) \$2.4 billion plan to secure Whyalla's future.



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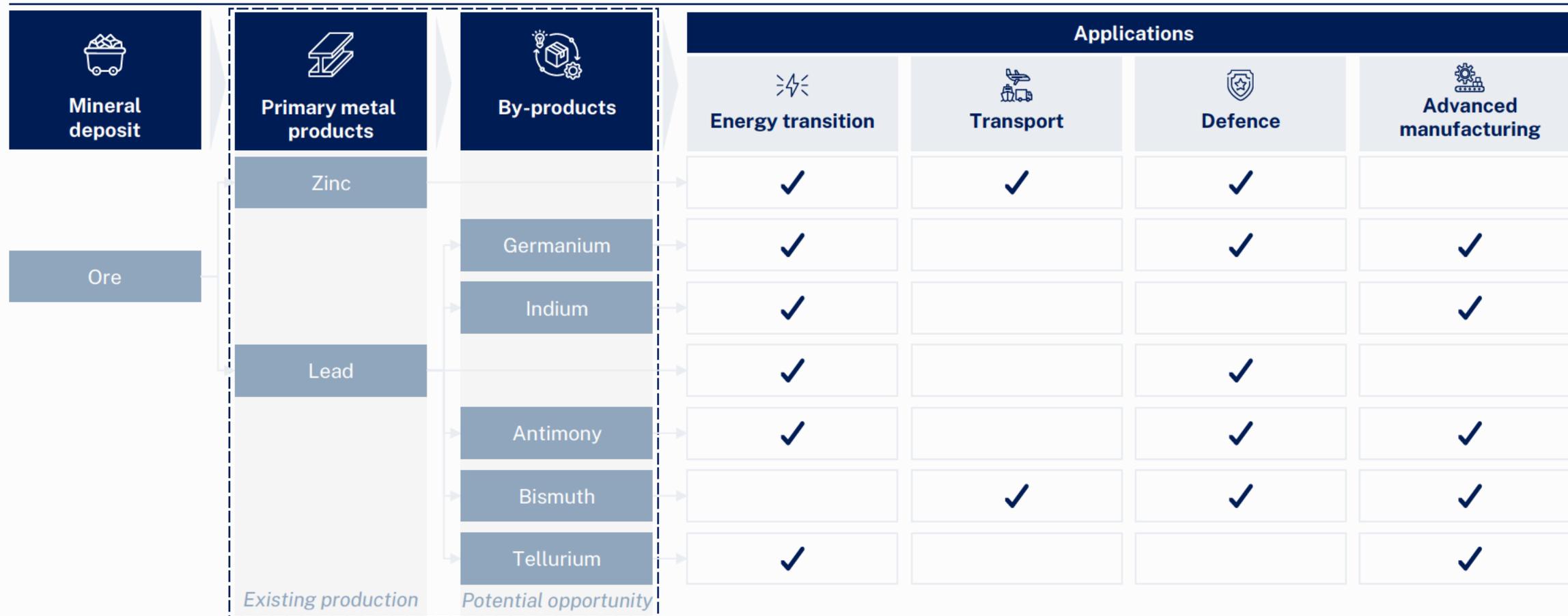
Fundamental shifts in global industrial policy have undermined the viability of domestic minerals processing

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Appendix

Zinc and lead processing can unlock valuable by-products such as germanium and antimony, all of which are required in priority sectors

Illustrative overview of minerals processing outputs and applications



Nyrstar minerals

Illustrative use case examples by mineral

Mineral	Use cases			
	Energy 	Transport 	Defence 	Advanced manufacturing 
Zinc	<ul style="list-style-type: none"> Wind, hydro, and solar Batteries 	<ul style="list-style-type: none"> Electric vehicles 	<ul style="list-style-type: none"> Defence vehicles 	
Antimony	<ul style="list-style-type: none"> Solar panels Wind turbines 		<ul style="list-style-type: none"> Detonators Smoke agents Primers 	<ul style="list-style-type: none"> Flame retardants
Germanium			<ul style="list-style-type: none"> Thermal imaging 	<ul style="list-style-type: none"> Semiconductor Satellite solar cells Fibre and infrared optics
Bismuth		<ul style="list-style-type: none"> Rocket propellant 	<ul style="list-style-type: none"> Ammunition Rocket propellant 	<ul style="list-style-type: none"> Pharmaceuticals
Tellurium	<ul style="list-style-type: none"> Solar cells 			<ul style="list-style-type: none"> Chemical manufacturing
Indium	<ul style="list-style-type: none"> Batteries 			<ul style="list-style-type: none"> Semiconductors LEDs
Lead	<ul style="list-style-type: none"> Batteries 		<ul style="list-style-type: none"> Ammunition 	

Source: European Commission (2023) *Study on the Critical Raw Materials for the EU 2023*; SCRREEN (2023) *Critical Raw Materials 2023*; Patel & Karamalidis (2021) *Germanium: A review of its US demand, uses, resource, chemistry, and separation technologies*; Perpetua Resources (2021) *Antimony: A Critical Metalloid for Manufacturing, National Defence and the Next Generation of Energy Generation and Storage Technologies*; IEA (2021) *The Role of Critical Minerals in Clean Energy Transitions*; Mandala analysis.

Zinc and associated minerals have been recognised as strategically important by governments around the world

Recognition of zinc and associated minerals as critical minerals by country

Critical minerals list² ✓

Mineral	Australia 	United States 	New Zealand 	United Kingdom 	Canada 	Indonesia 	Japan 	India 	South Korea 	Germany ³ (EU) 
Antimony	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Germanium	✓	✓	✓	✓	✓	✓	✓	✓		✓
Bismuth	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Indium	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Tellurium	✓	✓	✓	✓	✓	✓	✓	✓		
Zinc	Strategic minerals list	✓	✓	✓	✓	✓			✓	✓

While there are variations between each country's definition of critical minerals, common criteria for all countries include:

- minerals are at risk of supply chain disruption; and
- minerals are an essential input for key priority technologies, especially those required in the energy transition.¹

Australia also has strategic minerals which are important for key applications and technologies, but supply chains are not as vulnerable to the extent of critical minerals.

¹ Some countries have additional criteria for a critical mineral. For example, it must be important for end-use applications and manufacturing value-add in Europe, have geological potential and be in-demand from strategic partners in Australia, or have production potential in Canada. ² Australia's top 15 two-way trading partners for 2023 also include China, Singapore, Taiwan, Malaysia, Thailand, Vietnam, and Hong Kong but these countries do not have a critical minerals list. ³ Germany follows the EU critical minerals list.

Source: Australian Government DISR (2024) *Australia's Critical Minerals List and Strategic Minerals List*; Mandala analysis.





MANDALA



An Australian Government Initiative



Regional
Development
Australia

YORKE AND MID NORTH

Heavy Industry Multi Skills Program

January 2026

Program History

The Heavy Industry Multi Skills (HIMS) Program was established in 2019 in response to ongoing workforce shortages across the mining, manufacturing, construction and engineering sectors in the Upper Spencer Gulf and surrounding regions. Developed through a unique partnership between Regional Development Australia Yorke and Mid North (RDA Yorke and Mid North) and local industry employers, HIMS was co designed to better align training delivery with real workforce needs while supporting jobseekers experiencing barriers to employment.

Now in its seventh year, HIMS has become RDA Yorke and Mid North's flagship pre-employment and training initiative. To date, the program has supported more than 120 disadvantaged or disengaged jobseekers, with over 100 students successfully graduating from the program, and 80% of graduates moving into employment. Due to its strong proven results, the program has secured ongoing core funding through the South Australian Government's Adult Community Education (ACE+) program for continued delivery over the next 3 years.

Program Objective

The primary objective of the HIMS Program is to prepare local jobseekers for sustainable employment in heavy industry by developing work ready skills, behaviours and attitudes aligned with employer expectations.

The program aims to:

- Address skills shortages in key regional industries
- Reduce barriers to employment for individuals facing disadvantage
- Bridge the gap between jobseekers and employers
- Support long term workforce participation and social inclusion

Program Structure

HIMS is delivered as a 12 week, full time program designed to closely simulate a real working environment. Students attend five days per week and are expected to meet workplace standards around attendance, behaviour, teamwork and safety.

Key program components include:

Accredited Training: Industry relevant construction, civil and safety skill sets aligned to entry level heavy industry roles

Non Accredited Training: Digital literacy, employability skills and workplace readiness

Personal Development: Confidence building, communication, teamwork and professional behaviours

LLN Support: Embedded literacy and numeracy support to assist learning and task completion

Industry Engagement: Mock interviews, site visits, industry talks and employer interaction

Mentoring and Case Management: Ongoing individual support to address personal and practical barriers

The program is guided by an active Project Advisory Group made up of industry partners who provide workforce intelligence and ensure training remains relevant to local employment needs.

Desired Outcomes

The HIMS Program is designed to deliver both employment and broader social outcomes.

Key desired outcomes include:

Increased employment outcomes in mining, construction, manufacturing and engineering

Participants obtaining entry level industry tickets and certifications

Improved work readiness, safety awareness and teamwork skills

Increased confidence, routine and engagement with education or employment

Positive impacts on wellbeing, social connection and community participation

By combining practical training with wrap around support, HIMS delivers a holistic workforce development model that benefits participants, employers and the broader region.

Further information on the program can be found here: <https://yorkeandmidnorth.com.au/ace-programs/hims-program/>

Prepared by:

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An Australian Government Initiative



YORKE AND MID NORTH

Braemar infrastructure corridor

Concept paper

February 2026

Background

The Braemar province is a highly prospective iron region situated approximately 400km northeast of Adelaide within the Adelaide Rift Complex. Magnetite deposits, with coincident and regional mineralisation of critical, strategic and other commodities, including copper, gold, rare earths, uranium and tin, are situated along a rift line spanning roughly 150km to the border of New South Wales, hosting ores which are characterised by having high iron and low phosphorous contents, and soft crushing strengths.

Developing projects located in the Braemar province (with JORC 2012 indicated resources referenced – Mineral Resources) include:

- Grants (Havilah Resources) 304 million tonnes
- Maldorky (Havilah Resources) 147 million tonnes
- Olary Flats (Lodestone Mines) 329 million tonnes
- Razorback Iron Ore (Magnetite Mines) 3.8 billion tonnes

Developing projects across these deposits are forecast to produce more than 20 million tonnes per annum (mtpa) in the coming decade, generating in excess of \$10 billion in direct investment, upwards of 1,500 annual full-time equivalent jobs, as well as an estimated \$1.8 billion in production revenues and \$90 million in royalties annually once projects reach full production.

Activities to progress the development of these deposits are progressing concurrently with a number of other projects and advanced exploration projects in the region, presenting a significant scalable opportunity for infrastructure and investment in the region.

The Braemar province sits in close proximity to existing the mining and metals manufacturing centres of Broken Hill and Port Pirie, as well as a number of regional towns that are well positioned to support construction and operations at the mines as they develop, as well as staging, logistics and residential drive-in drive-out (DIDO) workforces between Peterborough, Orroroo and Jamestown.

The development of the Braemar province, and infrastructure required to facilitate this, will deliver transformative opportunities to improve the economic makeup of these rural and regional communities. More importantly, the growth in local populations through resident and DIDO workers and their families

would play a crucial role in securing and growing the range and depth of services required to support vibrant, healthy and positive communities in these areas that have suffered since the consolidation of railways servicing from the 1970s and 1980s onwards.

Concept

This proposal involves the establishment of a consortium of local partners to advance planning and technical studies that deliver on the duality of needs between improving the liveability and sustainability of rural communities locally (e.g. water), and which support the development of the Braemar province through the construction and operation of these mineral deposits. The proposal investigates solutions to reduce the duplication of infrastructure specific to the developments.

The types of projects to be investigated are:

- **Freight and transport studies** to assess the capacity of key freight routes servicing the province and develop plans for treatments and upgrades to sections of the road and rail network where required.
 - Traffic volumes and oversize movements to service mining operations would be the focus of these studies, but with the added benefit of providing greater capacity for larger project freight tasks such as those involved in constructing wind farms and substations.
 - **Seaport** and **airport** requirements will also be considered to support development (or expansion) of paths to market, greater capacity for value adding activities domestically, and options for workforce models which can also support greater services in the visitor economy locally.
- **Water supply and infrastructure** studies to meet the requirements for on-site minerals processing, potable supply for mining operations and communities located between the point(s) of supply and use, as well as wastewater processing and reuse options.
- **Energy transmission, distribution and network storage** studies to assess the capacity (and suitability) of existing infrastructure networks and options for augmentation.
- **Social infrastructure** assessments and studies to assess capacity of key infrastructure (i.e. housing, primary and allied health services, hospital services, education and childcare, vocational training, airports) and develop plans for adding capacity (and improving services) where required to accommodate population growth.

Critically, planning activities would be scoped and developed having regard for current and historic studies prepared by stakeholders and proponents, making optimal use of existing information and planning for aggregated demand (profiled over time), rather than scenarios developed to reflect individual projects.

This approach will allow for greater economies of scale, more efficient use of existing (and subsequent) infrastructure, more appropriate cost allocations for projects and better outcomes for regional communities.

Potential partners to be approached to join the consortium:

- Local government (and equivalents)
 - District Council of Orroroo Carrieton
 - District Council of Peterborough
 - District Council of Mount Remarkable
 - Northern Areas Council
 - Outback Communities Authority
 - Port Pirie Regional Council
- Traditional Owner Groups through respective registered native title bodies; including

- Ngadjuri Nation Aboriginal Corporation
- Nukunu Wapma Thura Aboriginal Corporation
- Wilyakali Aboriginal Corporation
- Industry partners
 - Green Iron SA (Magnetite Mines, GHD, Flinders Ports and Aurizon)
 - Havilah Resources
 - Livestock SA
 - Lodestone Mining
 - Magnetite Mines
- Government agencies
 - Department for Energy and Mining
 - Department for Environment and Water
 - Department for Infrastructure and Transport
 - Department of Primary Industries and Regions
 - SA Water

The delivery of planning and technical studies for future precincts and corridors such as that envisaged for the Braemar province are being investigated and aligned with future grant funding opportunities.

The structure of the consortium, and agreements between partners, would be refined through the development of a grant submission.

Opportunity

The development of deposits located throughout the Braemar province will transform the northeastern region of South Australia, invigorate key rural communities hosting the workforce and servicing the mines (principally Peterborough, Orroroo and Jamestown), and support the diversification and scaling of the major regional centre in Port Pirie.

The realisation of this opportunity would yield significant benefits to the region, state and nation, including:

- **Greater investment** – both directly into the mines themselves and related processing capabilities for concentrates and metals (critical minerals linkage), but also through the connecting infrastructure and workforce (and their communities) required to service the operations.
 - Diversifying portfolios of access agreements required to secure finance for new or expanded infrastructure required to service the mines and other uses.
 - Closing out offtake requirements to fund new renewable energy generation and storage projects via power purchase agreements (PPAs).
- **Expanded economic activity** – the operations of the mines and related value adding activity, as well as the supply chains servicing the operations.
 - Value and supply chain businesses scaling to support operations and markets in other parts of the country and region. Examples include greater capacity of supply chains to service growth in the Gawler Craton with expansions in copper mining (strategic mineral with linkage to critical minerals strategy delivery), but also future developments in rare earth elements (REEs) and hydrogen as technologies commercialise and markets scale.

- Providing greater capacity in infrastructure and services to support existing industries and communities, including water for reticulated networks (benefiting communities and livestock production), improved access to machinery and freight services, and stronger and deeper services for communities.
- **Stronger cultural understanding and protection** – the corridor approach preferred through this concept would minimise the number of routes being developed by proponents independently, reducing the impact on Country protected by Traditional Owners.
 - The collaborative, coordinated approach also offers an opportunity to train and employ cultural observers to ensure investigations are undertaken appropriately and plans are developed with regard for important cultural and environmental assets. This is critical for ensuring Traditional Owner groups (and their representatives) are resourced to undertake cultural surveys and observation works effectively and appropriately.
- **Improved services** – growth in resident and DIDO workforces will support faster population growth (or repopulation in some instances) in these communities, contributing to the scale required to secure local services. Many of these communities have either experienced reductions in existing services as resident populations have declined or aged, and/or struggled to build the critical mass needed to secure new or expanded services.
- **Enabling the shift towards net zero** – the ores within these deposits are crucial to efforts to decarbonise industrial production through direct substitution of inputs into steelmaking (via direct reduced iron (DRI) production substituting for BOS-manufactured steel) and for electrification of a vast array of industrial processes.

Strategic alignment

These characteristics make deposits situated in the Braemar province (in close proximity to existing rail and developing electrical infrastructure) highly attractive to steelmakers and investors interested in decarbonising steel production, supporting the objectives set out in range of strategic government policies.

These include:

- Australian Government
 - [Industry Sector Plan](#) – specifically through reducing emissions (via DRI processes over conventional steel production), improving competitiveness of local industries (through achieving market premiums via high grade DRI exports using lower-cost renewable energy) and more equitable distribution of economic benefits (by supporting diversification and employment growth in rural communities).
 - [National Reconstruction Fund](#) – the development of these resource deposits will make important contributions to several of the key outcomes sought under the resources priority area of the Fund, via the refinement of minerals used in battery manufacturing and technologies, and innovative approaches to value adding to resources locally (namely DRI).
 - [United States-Australia Framework for Securing of Supply in the Mining and Processing of Critical Minerals and Rare Earths](#) – supplying raw materials for, and processing, critical minerals needed for commercial and defence industries of the United States and Australia.
 - [Regional Precincts and Partnerships Program](#) – the progression of a multi-purpose regional precinct comprising multiple infrastructure components that benefit the productivity, sustainability and resilience of communities.
 - [Future Made in Australia Innovation Fund](#) – grant funding available across three priorities, with the first being green metals including iron and steel.

- South Australian Government
 - [Green Iron and Steel Strategy](#) – South Australia’s abundant solar and wind generation capacity lends itself to decarbonising steel production, adding value to the vast quantities of high-purity iron ore contained in banded formations across a number of areas of the State. This document sets a vision and associated actions that includes South Australian Government support for the establishment of common user infrastructure corridors to de-risk projects across the value chain, create shared cost savings and expedite project approvals.
 - [State Infrastructure Strategy 2025](#) – South Australia’s 20-year strategy developed to provide evidence-based, stakeholder-informed directions, and recommendations with multiple references to the Braemar Province and the opportunities it presents.
 - [South Australian Economic Statement -](#) The SA Economic Statement aims for the development of a sustainable economy by capitalising on the State’s natural endowments and advancing the green reindustrialisation of the State’s economy, including through the production and export of green iron and critical minerals.