

ZMI ACCELERATES ARGO TESTWORK FOR CRITICAL MINERALS

HIGHLIGHTS

- ZMI has accelerated and expanded its workplan to fast-track the development of the ARGO technology, focusing on the recovery of critical minerals (**germanium, gallium and indium**).
- The revised plan driven by industry's feedback will bring forward the targeted timing of ARGO's pilot plant to the beginning of 2027.
- The world-wide program includes input from Solvomet, a leading metallurgical research and innovation centre in Belgium and Australian-based Core Resources, a well-regarded facility involved with the commercialisation of multiple processing technologies.
- As ~20% of zinc smelter throughput ends up as ZLR, ARGO offers the potential benefits of providing a **new source of critical minerals**, eliminating hazardous-waste elements from the current pyrometallurgical route, whilst also reducing energy consumption and emissions.
- ZMI focus on critical mineral extraction **directly aligns with the macro tailwinds, regulatory shifts, and policy mandates** shaping the future of European zinc smelting. The ARGO technology presents a significant market opportunity:
 - Unlocking a new, onshore, non-Chinese source of strategic technology metals, specifically germanium, gallium and indium for EU markets in alignment with the Critical Raw Materials Act.
 - Simultaneously, addressing the mounting pressure on European operators as circular-economy directives and hazardous-waste regulations continue to tighten around industrial residue management.

Mr Greg Ross, CEO of ZMI, commented:

"One of our key strengths is being able to respond quickly to our key industry partner's requirements. The acceleration of this program is being made possible by bringing together a group of highly credentialed parties that have a track record of moving processing technologies into commercialisation. We have been able to bring together companies from Europe and Australia with a significant background in hydrometallurgical processes in the mining industry."

"The breakthrough ARGO technology represents a potential game changer for the global zinc refining industry, by not only reducing emissions and energy use, but importantly enabling higher recovery rates for zinc, lead and silver and also targeting previously difficult to recover critical minerals such as germanium, gallium, and indium."

"Once commercialised, the ARGO technology will strengthen the mineral supply chains, significantly reduce waste streams and reduce the reliance on new mines. This innovation not only bolsters the industry's economic viability but also enhances its climate-smart credentials. The recent record-breaking summer heatwave, drought and wildfires have made climate change and emissions reductions priority number one for Europe."

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Zinc of Ireland Limited (ASX: ZMI) (ZMI or Company) is pleased to announce it has accelerated and expanded its recently commenced major testwork program for its ARGO technology utilising experts from Europe and Australia, and focusing on the recovery of critical minerals.

The lead laboratory is Solvomet is the Catholic University of Leuven's Research Centre for Circular Hydrometallurgy. Solvomet supports mining, metallurgical and recycling companies in the development of more sustainable (circular, low-energy input) hydrometallurgical processes, using state-of-the-art lab and pilot scale experimental facilities and modelling capabilities.

Solvomet has worked on bilateral or collaboration projects with top-tier industry companies including Shell Petroleum, Umicore, ICL Fertilisers and ZMI's partner Nyrstar.

In addition to Solvomet, ZMI has engaged Core Resources (**Core**), a metallurgical project development firm based in Brisbane, Australia. Core is a global leader in the development and commercialisation of process technologies for the mining industry. Core has demonstrated expertise in the development of innovative mineral processing solutions that effectively address the most pressing technical challenges in the industry.



Figure 1: Pilot Plant constructed by Core Resources for another program

ZMI's revised plan will bring forward the targeted timing of ARGO's pilot plant to the beginning of 2027. Nyrstar have agreed to support ZMI by providing leach products for testing.

As ~20% of zinc smelter throughput ends up as ZLR, ARGO offers the potential benefits of providing a new source of critical minerals, eliminating hazardous-waste elements from the current pyrometallurgical route, whilst also reducing energy consumption and emissions.

ZMI's focus on the extraction of critical minerals directly aligns with the macro tailwinds, regulatory shifts, and policy mandates shaping the future of European zinc smelting. The ARGO technology presents a significant market opportunity by unlocking a new, onshore, non-Chinese source of strategic technology metals, specifically gallium, germanium, and indium for EU markets in alignment with the Critical Raw Materials Act (**CRMA**).

The CRMA, which came into force in May 2024, designates gallium and germanium among 17 "strategic raw materials" essential to the EU's digital, green, defence and aerospace sectors, and sets binding 2030 benchmarks requiring at least 10% of annual EU consumption from domestic extraction, 40% from domestic processing, and 25% from recycling, with no single third country supplying more than 65% of EU consumption of any strategic raw material. China is currently both the largest global and the EU's principal supplier of gallium and germanium, underscoring the strategic rationale for diversified, non-Chinese supply chains.

Simultaneously, the process directly addresses mounting pressure on European operators as circular-economy directives and hazardous-waste regulations continue to tighten around industrial residue management.

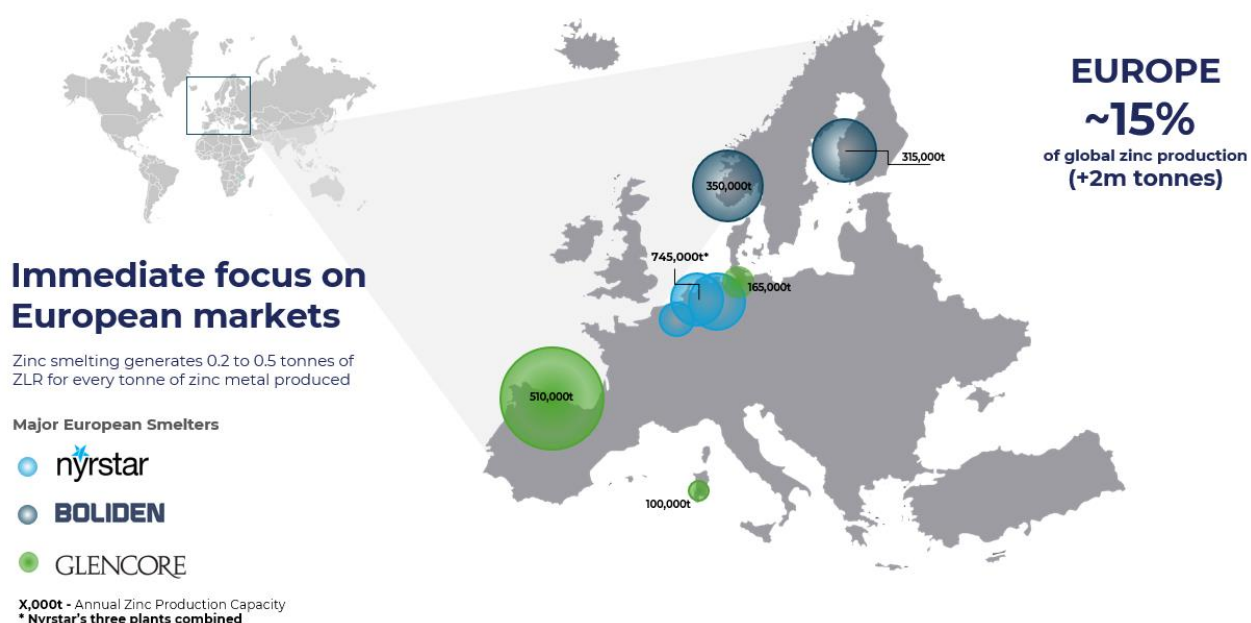


Figure 2: Zinc Smelting Operations across Europe with over 2 million tonnes of zinc produced annually

Critical Minerals Market

The supply for germanium, gallium and indium is considered critical across many jurisdictions, with all three sitting inside China's 2023 export-control regime alongside other strategic minor minerals like antimony, tellurium, and tungsten, and August 2026 shows a divergence: gallium and germanium prices pulling back domestically while Western premiums stay elevated or widen, versus indium converging toward parity across regions.

Mineral & Uses	Supply	Current Market
Germanium		
Infrared optics (thermal imaging, military sensors) and fibre-optic cable, AI accelerator chips, phased-array radar for automotive and defence	~80% of global refined output comes from China	The global germanium market is defined by structural supply bottlenecks, geopolitical trade friction, and accelerating high-tech demand Germanium price has increased +300% in the last 5 years ¹
Gallium		
5G wireless networks, radar systems, and next-generation power electronics. Essential for defence radar and next-generation power electronics	China accounts for more than 80% of global low-grade primary gallium capacity, with Germany, Japan, South Korea, Russia, and Ukraine as other producers	Following China's 2023 export licensing regime and subsequent restriction on exports to the United States, the market remains split between Chinese domestic and international pricing. Gallium price has increased +300% in the last 5 years ²
Indium		
Essential for touchscreens, flat-panel displays, smartphones, tablets, and TVs	Commercial production is almost entirely a byproduct of zinc mining , so it can't scale up independently. Refining is concentrated in Asia, led by China, South Korea, and Japan.	Supply remains structurally constrained as a by-product of zinc mining . Indium price has increased +170% ³ in the last 5 years and with the recent supply changes expected to increase further

Notes:

- <https://strategicmetalsinvest.com/germanium-prices/>
- <https://strategicmetalsinvest.com/gallium-prices/>
- <https://strategicmetalsinvest.com/indium-prices/>

About ZMI

ZMI is focused on the complete zinc supply chain with newly acquired metals technologies complementing ZMI's mineral exploration activities and unlocking significant value-add opportunities across its current portfolio. ZMI's new technologies, ARGO and VOLTA, directly address the significant environmental pressures facing industry, offering potential low temperature, low-emission alternatives to the incumbent high-cost pyrometallurgical processes. ZMI aims to commercialise these metals technologies to extract and recycle metals critical for the world's requirements. ZMI also owns the Kildare zinc deposit located approximately 40km southwest of Dublin, an area known for high-grade zinc mines.

Forward Looking Statements

This release may include forward-looking statements, which may be identified by words such as "expects", "anticipates", "believes", "projects", "plans", and similar expressions. These forward-looking statements are based on ZMI's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of ZMI, which could cause actual results to differ materially from such statements. There can be no assurance that forward-looking statements will prove to be correct. ZMI makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of that release.

This announcement has been approved and authorised for release by the Company's Chief Executive Officer, Mr Greg Ross.