

ASX Release

19 May 2026

## AWARD OF US\$1M U.S. DEPARTMENT OF WAR PHASE II PROGRAM FOR GALLIUM AND GERMANIUM RECOVERY FROM ELECTRONIC WASTE

### KEY HIGHLIGHTS:

- **Awarded Phase II Small Business Innovation Research (SBIR) contract with the U.S. Department of War through the Defense Logistics Agency (DLA)**
- **Up to US\$1 million in funding to support pilot-scale development and scale-up of Flash Joule Heating (FJH) technology**
- **Follows successful completion of Phase I, delivered in six months with all technical milestones achieved**
- **Phase II focuses on extraction of gallium and germanium from electronic waste streams**
- **Gallium is a defence-critical material used in radar, semiconductors and advanced communications systems**
- **The U.S. is 100% dependent on imports for gallium supply, with China responsible for approximately 100% of global primary gallium production**
- **Metallium's technology provides a pathway to recover gallium from alternative sources, supporting development of secure domestic supply chains for critical materials**
- **Work to be conducted at the Company's Gator Point Technology Campus in Texas**
- **Strengthens positioning for commercial deployment and continued U.S. government engagement**
- **Compliments Metallium's recently announced collaboration with Indium Corporation, a major U.S. refiner of Gallium, Germanium and other critical metals used in electronics, AI and defense<sup>1</sup>**

**Metallium Limited** ("Metallium" or the "Company") (ASX: **MTM**; OTCQX: **MTMCF**; OTCQX ADR: **MTLMY**) is pleased to announce that Flash Metals Texas Inc., its U.S.-based affiliate, has been awarded a US\$1 million Phase II Small Business Innovation Research (SBIR) contract with the U.S. Department of War (DoW) through the Defense Logistics Agency (DLA).

The Phase II award follows the **successful completion of Phase I, which demonstrated the ability of Metallium and Flash Metals Texas' proprietary Flash Joule Heating electrothermal chlorination technology to recover gallium from semiconductor and electronic waste streams**. All technical milestones were achieved or exceeded, and the program was delivered in approximately half the standard timeframe.

The Phase II program will **expand this work** to focus on the extraction of both **gallium and germanium** from electronic waste streams, with **activities centred at the Company's Texas Technology Campus**. The program will advance the technology toward **pilot-scale deployment**, including optimisation of operating conditions, improvement of recovery efficiency, and demonstration of repeatable, industrially relevant operation.

*"The SBIR process is a highly competitive initiative, and it encourages Flash Metals, a U.S. small business, to compete and demonstrate our team's and technology's capacities in this crowded landscape,"* said Metallium's and Flash Metals Texas' President of U.S. Operations, Steve Ragiel. *"This new contract sets us apart and validates our approach and our commitment to supporting national security priorities."*

A twelve-month project will culminate with process readiness that is appropriate beyond pilot demonstration, placing Flash Metals Texas to potentially work on a **Phase III award, and on broader commercial deployment**. This timeline also meets and integrates into Metallium's and Flash Metals Texas's operationalization of the Gator Point Technology Campus in Chambers County, Texas.

<sup>1</sup> See ASX:MTM announcement dated 31/03/2026, 'Offtake Agreement with Indium Corp for Gallium & Germanium'.

**STRATEGIC IMPORTANCE**

Gallium and germanium are designated by the United States government as critical materials essential for defence systems, semiconductors and advanced communications technologies. These materials underpin applications including radar systems, satellite electronics, missile guidance systems, advanced semiconductors, and 5G and optical fiber infrastructure.

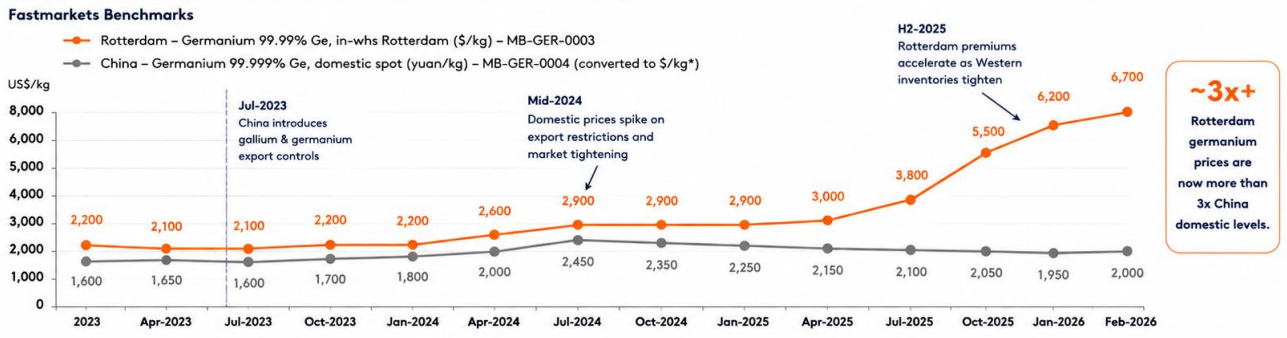
**Germanium supply is structurally constrained, with greater than 70% net import reliance in the United States** and domestic consumption of approximately 30,000 kg per year. Recent supply disruptions have further highlighted this vulnerability, with U.S. imports of germanium metal declining by approximately 67% in 2025.

Gallium supply faces similar structural challenges, **with the United States fully dependent on imports** and global production highly concentrated. This has driven increased focus from the U.S. Department of War and allied governments to establish domestic supply pathways for gallium, germanium, and related semiconductor materials. At the same time, electronic waste streams represent a growing and largely untapped domestic source of both critical and precious metals, including semiconductor-related elements such as gallium and germanium.

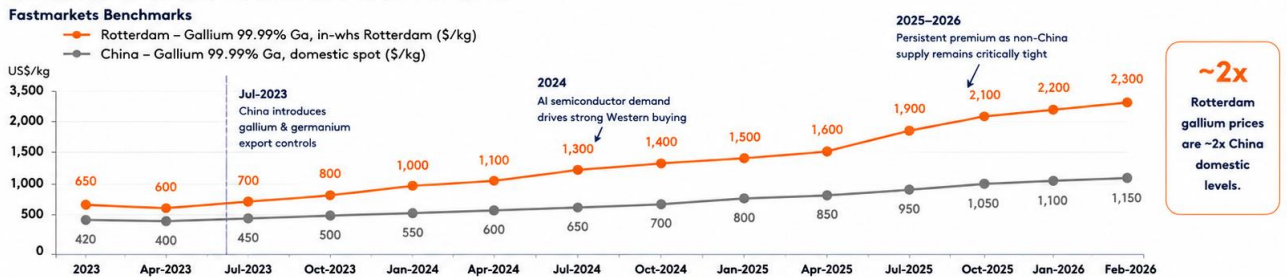
China's tightening export controls on gallium and germanium have materially **reshaped global pricing dynamics**, particularly across Western markets where supply remains constrained. Since the introduction of export licensing requirements in 2023, Rotterdam benchmark prices have diverged sharply from China domestic pricing, reflecting growing strategic concerns around supply security, defence applications, AI infrastructure demand, and limited non-China refining capacity (See Fig. 1).

Metallium and Flash Metals Texas' Flash Joule Heating technology provides **a pathway to recover gallium and germanium from electronic waste streams alongside high-value metals including gold, silver, tin, palladium, and copper**. By extracting these materials from existing waste, the technology has the potential to diversify supply sources, improve overall feedstock economics, reduce reliance on concentrated primary production, and strengthen U.S. defence and semiconductor supply chains.

**GERMANIUM PRICES: CHINA vs ROTTERDAM**



**GALLIUM PRICES: CHINA vs ROTTERDAM**



\* China yuan/kg converted to US\$/kg using average monthly USD/CNY FX rates.  
 Sources: Fastmarkets (MB-GER-0003, MB-GER-0004, MB-GAL-0003), SMM, TradingEconomics  
 Note: Data points are monthly (month-end). Latest point: Feb 2026.

**Figure 1: Indicative Gallium & Germanium Pricing Trends: China Domestic vs European Benchmark Markets**

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**NEXT STEPS**

The Phase II program will support advancement toward pilot-scale deployment at the Texas Technology Campus and continued engagement with U.S. government and industry partners for future development and deployment opportunities.

**This announcement has been authorised for release by the Board of Directors of Metallium Limited.**

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**References:** *USGS (2025) Mineral Commodity Summaries: Gallium. United States Geological Survey; Fastmarkets (2026), Shanghai Metals Market (2026), TradingEconomics (2026).*

**ABOUT METALLIUM LIMITED**

**Metallium Ltd** (ABN 27 645 885 463), is pioneering a low-carbon, high-efficiency approach to recovering critical and precious metals from mineral concentrates and high-grade waste streams. The company's patented **Flash Joule Heating (FJH)** technology enables the extraction of high-value materials, including **gallium, germanium, antimony, rare earth elements, and gold** — from feedstocks such as refinery scrap, e-waste, and monazite.

Aligned with U.S. strategic supply chain objectives, Metallium has recently secured its first commercial site in Texas via its wholly owned subsidiary, **Flash Metals USA Inc.**, marking a major step toward near-term production and revenue generation.

To learn more, visit:

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