MTM CRITICAL METALS

Revolutionising Metal Recovery with Breakthrough Technology

MTM Critical Metals Ltd
ASX: MTM / OTCQB: MTMCF

INVESTOR PRESENTATION

11 April 2025

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Who is MTM?

MTM Critical Metals Limited

 Perth, Australia

 Houston, Texas, USA

Ticker:	ASX: MTM; OTCQB: MTMCF
Price (A$):	$0.18*
Market Cap. (A$):	$80m*
Enterprise Value (A$):	$68m
Cash (A$):	$12m**
Debt (A$):	$Nil

* As at 21 March 2025

*Based on cash balance at 31 December 2024 plus net proceeds from Dec-24 Placement settled 7 Jan 2025.

The Future of Metals Recovery

- ✓ **MTM Critical Metals is a clean-technology metals processing company with a patented process to recover valuable metals from Waste and Ore more efficiently than traditional methods.**
- ✓ **Mission:** To redefine what's possible in critical metals recovery, bringing the industry into the 21st century with innovative, more efficient solutions.
- ✓ **Innovation:** Leveraging advanced technology to improve metal recovery rates, reduce environmental impact, and unlock value from previously untapped sources like waste.
- ✓ **Why:** Conventional metal recovery methods are inefficient, rely on harsh acids, and struggle to effectively extract metals from complex wastes and mineral ores.
- ✓ Technology was invented in the U.S., and MTM is initially focusing on U.S. operations to align with America's critical minerals security initiatives.
- ✓ **Geopolitical supply risks (over 95% of key critical metals imported, largely from China) make MTM's plan to reshore production a timely strategic solution.**
- ✓ Scaling to commercial production with diverse high-value feedstocks (e.g. semiconductor scrap, gold-rich e-waste, alumina refinery waste, rare-earth ores).
- ✓ Led by a team with several decades of relevant experience.
- ✓ **Validated by multibillion-dollar industry leaders like Vedanta and Indium Corp.**
- ✓ **E-Scrap Long-Term supply agreement with two (2) major U.S. Recycling firms**
- ✓ **Near-term cashflow: 1 ton/day plant is expected to produce revenue by H1 2026**

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Technology History

From the stable of renowned scientist and inventor Dr. James Tour

Flash Joule Heating (FJH) is a technique that utilises an intense short burst of electrical energy to generate heat and favourable chemical changes within a sample medium.

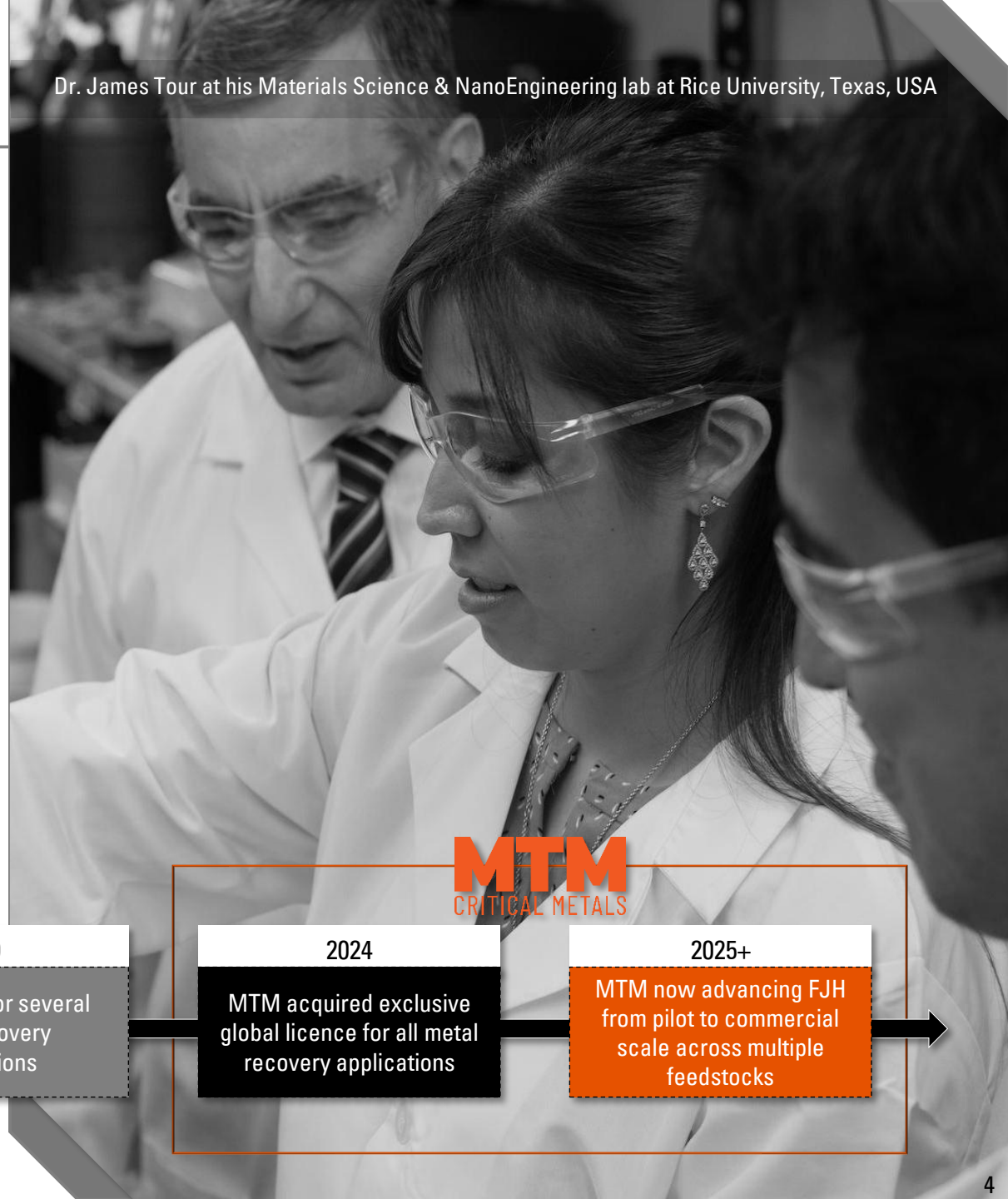
- ✓ When combined with proprietary chemical additives, it can be applied to a wide range of feedstocks to extract metals more efficiently than traditional methods.

2017: FJH invented: Developed in Dr. James Tour's lab at Rice University, Texas USA (initially to produce graphene from carbon).

- ✓ Universal Matter, a Canadian nanotechnology company, licenses FJH for graphene; today operating at 1 ton/day, proving scalability.

2020: Metals: Additional metal recovery applications were developed in conjunction with additional chemical methods (chlorination, carbochlorination etc.)

2024: MTM Exclusive Licence: MTM secures global exclusive rights to apply FJH on all metal-bearing wastes and ores. Extremely strong intellectual property (IP) position.


Dr. James Tour at his Materials Science & NanoEngineering lab at Rice University, Texas, USA

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2017	2018	2020	2024	2025+
Dr. Tour's lab develops FJH for Graphene production	FJH licenced to Universal Matter to make graphene commercially	FJH studied for several metal recovery applications	MTM acquired exclusive global licence for all metal recovery applications	MTM now advancing FJH from pilot to commercial scale across multiple feedstocks

The Industry's Technology Problem

PYROMETALLURGY

Energy intensive, fossil-fuel powered

HYDROMETALLURGY

Chemical intensive, embedded emissions

SUB-ECONOMIC OR DO NOT WORK

Legacy techniques unsuitable for certain ores and wastes

Legacy Metal Processing Tech is Costly and Unsustainable

- ✓ **Traditional methods:** High-energy smelting (1,000°C+) or kiln-based heating over long time periods, low yields.
- ✓ **Environmental cost:** Legacy processes emit large volumes of CO_2 and typically generate hazardous waste.
- ✓ **Economic cost:** Predominantly acid-based / chemical heavy with significant energy and management costs.
- ✓ **Legacy technology:** Many industry-standard equipment (e.g. centuries-old rotary kilns) remain inefficient, underscoring a lack of innovation in the sector.

The industry is ripe for a cleaner, more efficient solution …

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The Supply Problem

CRITICAL METALS SHORTAGE IN THE U.S. & THE WEST

- ✓ Essential for defence, semiconductors, and tech industries.
- ✓ Growing demand, limited domestic supply.

WHY THIS EXISTS

- ✓ **Lack of permitting** of new mines or lower grade new discoveries.
- ✓ **Limited Processing Infrastructure:** Decades of underinvestment.
- ✓ **Scrap & Waste Underutilised:** Valuable feedstock discarded.
- ✓ **Outsourced to China**: Processing has historically been offshored
  ⇒ **now a major strategic vulnerability.**

The Critical Metals Bottleneck: A Strategic Opening for MTM

- ✓ **Supply Already Exists:** Critical metals are readily available above ground in the form of e-waste / e-scrap, industrial scrap, and legacy stockpiles.
- ✓ **No Exploration Required:** MTM's business model is not reliant on new mining discoveries – feedstock is readily available from industrial + consumer waste.
- ✓ **Technology-Enabled Advantage:** MTM's proprietary FJH tech allows efficient, low-cost recovery of critical metals from complex waste streams.
- ✓ **De-risked, Fast-to-Market, "Permitting Light" Model:** No need for mining permits or long development timelines, MTM is positioned to rapidly supply to U.S. and others.

This results in a structural supply gap in critical metals and heavy reliance on geopolitically sensitive supply chains.

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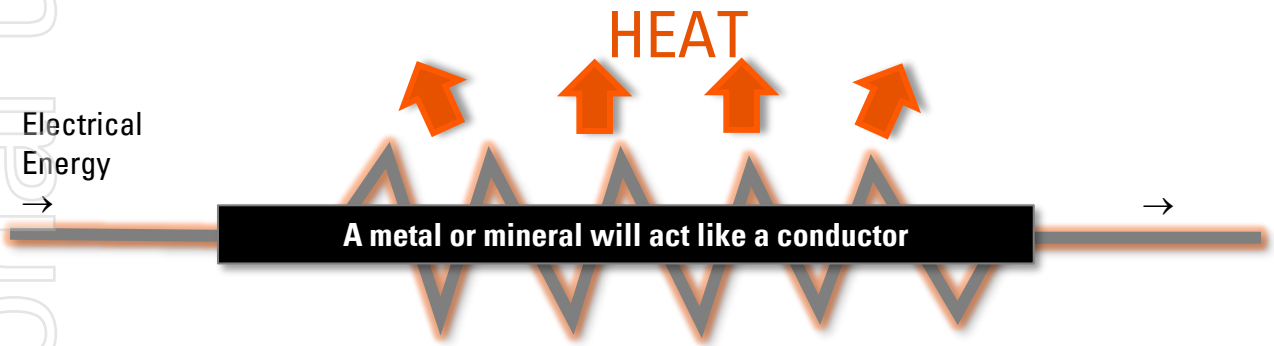
MTM's Elegant, Sustainable Solution:
Flash Joule Heating

- ✓ Electro-thermal activation of materials with additional chemistry. A metal or mineral will act like a conductor when electrical current passed through.
- ✓ **Electrically 'flash-heating' the feed:** Electrical energy is applied directly to crushed ore or waste, causing instantaneous heating (Joule heating).
- ✓ **Metals vaporise and are captured:** With proprietary additives, target metals are vaporised as chlorides in seconds*, without the need for strong acids or long melting processes. These metal vapours are then collected for refining.
- ✓ **Breaks "refractory" (tough to process) ores:** Sudden thermal shock can crack stubborn mineral structures (e.g. liberating Li from spodumene), improving recovery of metals that traditional methods struggle with.
- ✓ No concentrated acids or multi-step smelting – FJH achieves in minutes what others do in hours, using minimal chemicals.
- ✓ ***Net result: a one-step, low-carbon process to extract metals faster, with higher efficiency and lower reagent use than incumbent technologies.***



Targeting two primary Metal Processing Business Units:
(1) Electronic and other Wastes & (2) Minerals Ores

We extract metals from waste and mineral concentrates with superior efficiency compared to existing methods, overcoming the environmental and operational inefficiencies of conventional processes such as pyrometallurgy and hydrometallurgy.

Novel, efficient, low carbon process combining electrical energy + proprietary chemistry

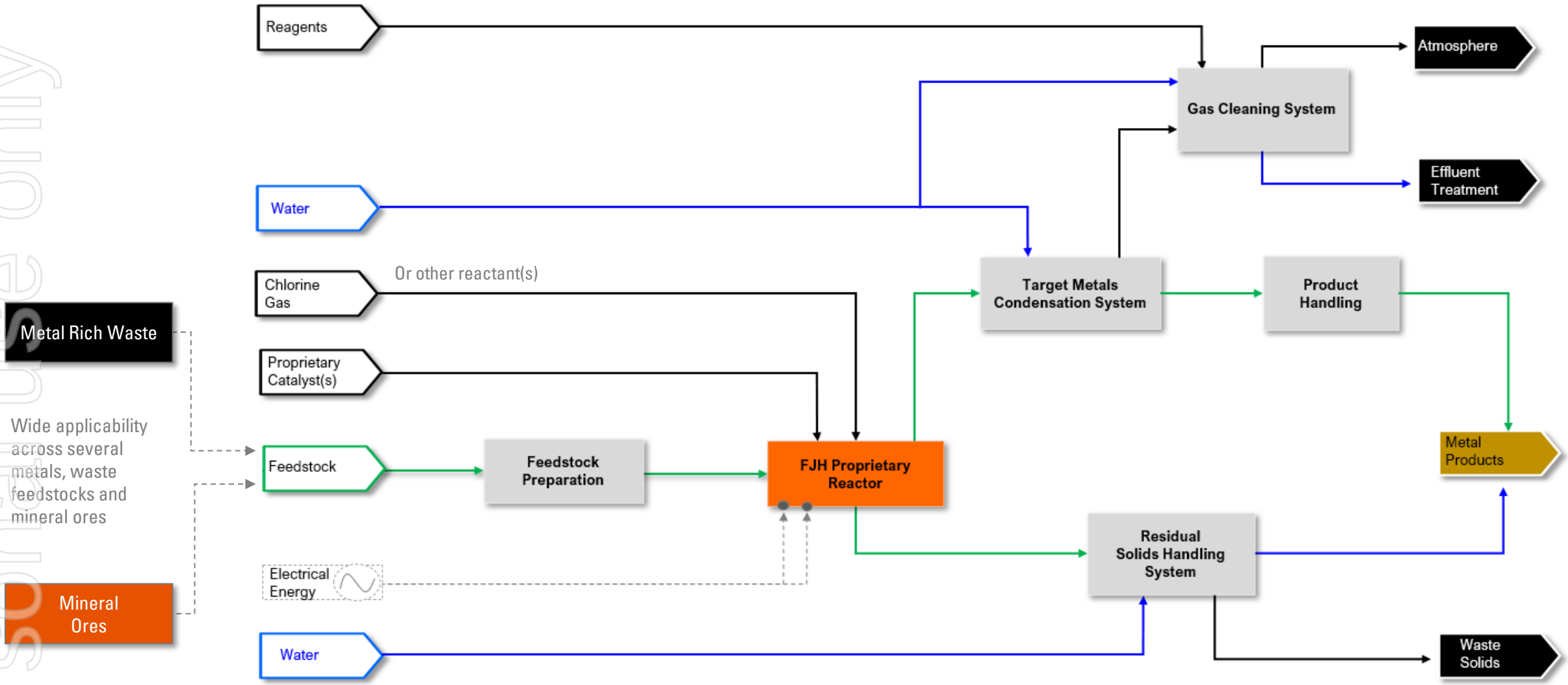
Ultrafast Electrical Heating + **Proprietary Chemistry**

FJH's broad applicability across many metals and feedstocks creates a natural competitive moat – a rare advantage in the mining / processing sector

* aided by the addition of proprietary chlorinating agents and catalysts

FJH Proprietary System – Block Flow Diagram

Process that turns varied raw wastes or ores into valuable metal products with minimal chemicals



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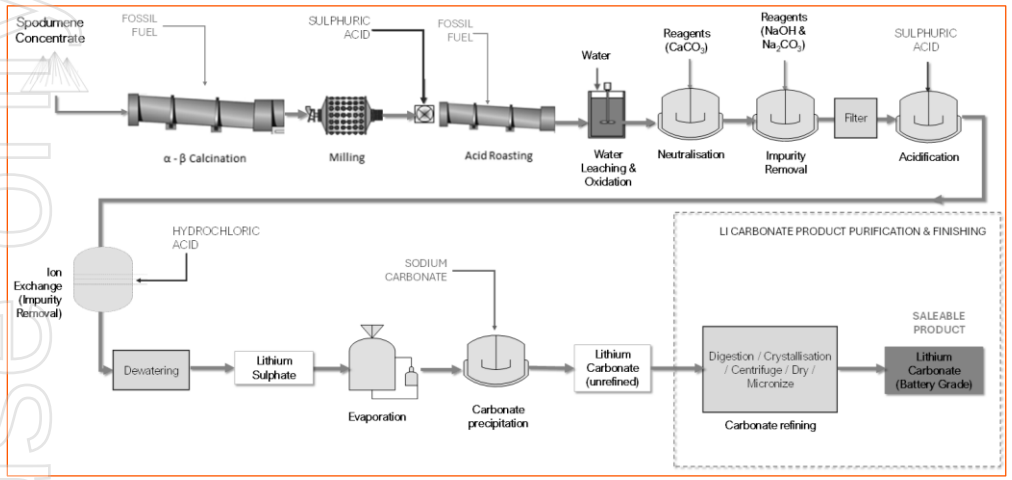
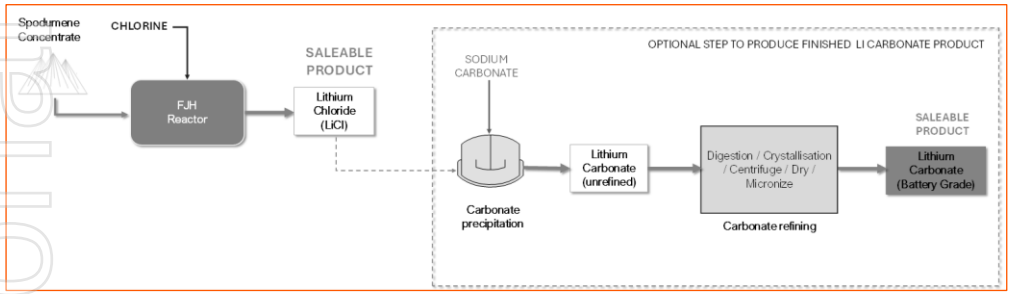
Example of how the technology is breakthrough

FJH has demonstrated potential to revolutionise mineral processing flowsheets, by reducing acid, energy & overall number of steps.

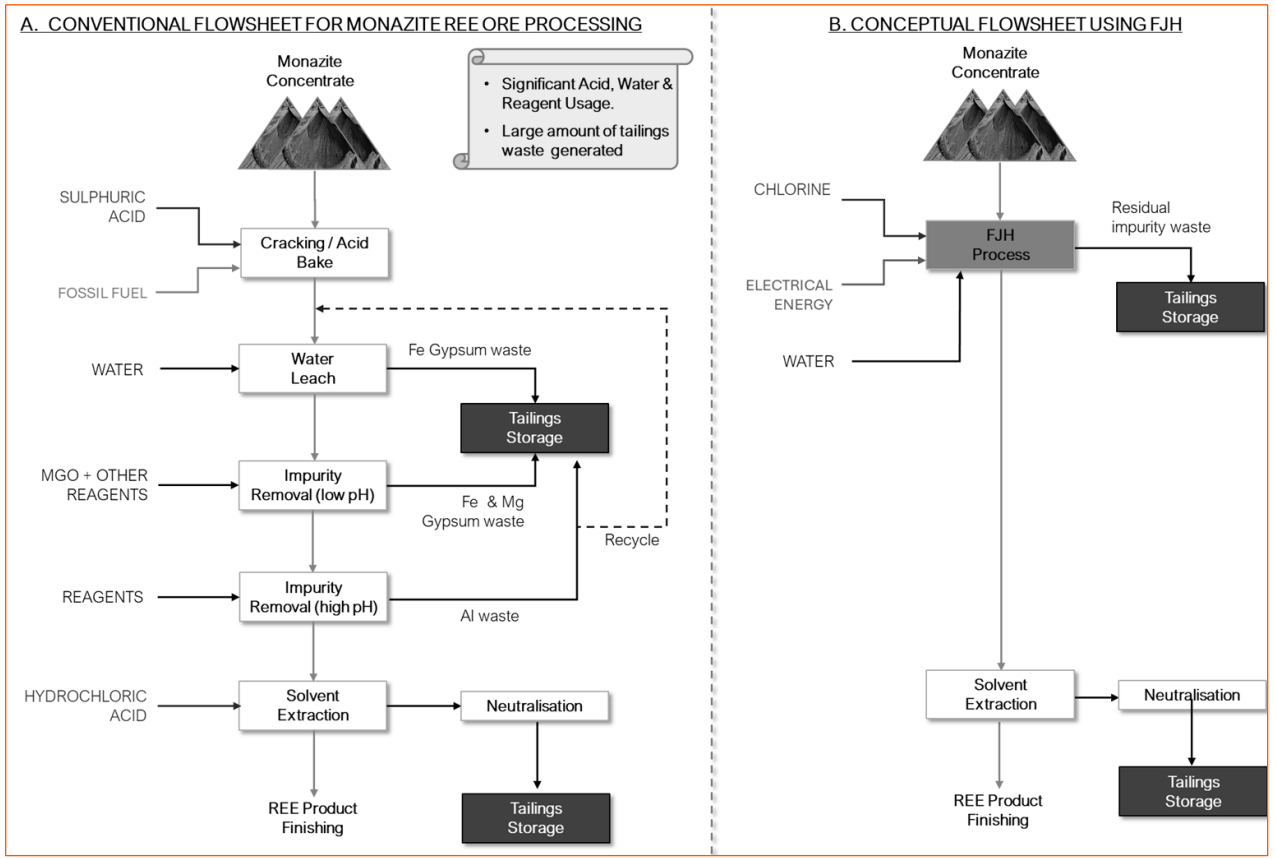
i.e. Conventional Flowsheet for Lithium Carbonate vs FJH



FJH Conceptual Flowsheet for LiCl or Li Carbonate



i.e. Conventional Flowsheet for REE concentrate processing vs FJH



Significantly less steps, no sulphuric acid (H_2SO_4) usage and much more efficient impurity removal.

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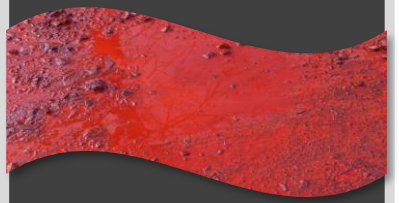
Business Model

MTM aims to deliver sustainable, scalable revenue and maximise shareholder value through two core business units.

Strategic partnerships are key to securing feedstock and deployment opportunities – **MTM has already secured supply**

	Urban Mining (Waste Recycling)		Mineral Processing (Mining Projects)	
	Technology Metals: Gallium, Germanium, Indium, Tin	**Electronic Waste:** Gold, Copper, PGE -rich Printed Circuit Boards	**Rare Earth Elements (REEs)**	**Red Mud (Bauxite Residue)**
				
INDUSTRIAL PARTNER(S)	INDIUM CORPORATION	DYNAMIC LIFECYCLE INNOVATIONS; Plastic Recycling Inc.	Engaging with strategic partners	vedanta transforming for good
POSSIBLE BUSINESS MODEL	MTM plans to Build-Own-Operate its processing units to directly capture the margins from recycling high-value waste		MTM can partner with miners (or plant owners) – either processing their materials for a tolling fee or licensing FJH technology to them for royalty/fee income	
GLOBAL ESTIMATED MARKET SIZE (INCL. DOWNSTREAM PRODUCTS)[1]	~US20B	~US40B	~US13B	~US15B

1. U.S. Geological Survey (2025) Mineral commodity summaries 2025: Gallium. Reston, USGS;https://pubs.usgs.gov/periodicals/mcs2025/mcs2025-gallium.pdf; Argus Media Group (2025) Argus non-ferrous markets. London: Argus Media; https://www.argusmedia.com/en/metals/argus-non-ferrous-markets; U.S. Census Bureau (2025) Foreign trade statistics. Washington, DC: U.S. Customs Service;https://www.census.gov/foreign-trade/statistics/index.html; China Nonferrous Metals Industry Association (2025) Gallium production estimates. In: Argus Media Group, Argus non-ferrous markets;https://www.argusmedia.com/en/news-and-insights.

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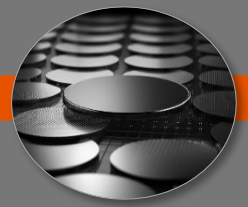
Primary Focus Feedstocks – High-Value Materials First

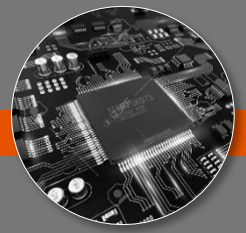
1



Gallium / Germanium / Indium
(semiconductor or refinery scrap)

Access to ultra-rich feed: e.g. Ga/Ge scrap very high in metal value.

2



Gold-Rich E-Waste (PCBs)

Tested material with up to 550 g/t Au + 40% Cu + 14% Sn

3

Mineral Concentrates

Engagements with major mining and chemical companies underway

Initial focus on HIGH VALUE waste feedstocks

Targeting High-Intrinsic Value

- ✓ Focusing on Ga, Ge, In-rich waste and gold/copper-rich electronic (PCB) waste– materials with very large $/t of contained (in-situ) value.
- ✓ Prioritizing Gold- and Copper-rich e-waste, specifically Printed Circuit Boards (PCBs).

  E-Scrap supply secured via agreements with two major U.S. recyclers ⇒ 1,100 t/year committed

Compelling Commercial Opportunities

- ✓ A 1–10 tonne/day operation can be highly profitable with such high-grade feed, meaning positive cashflow with modest plant sizes.
- ✓ Addresses growing demand for critical metals in tech and renewable energy sectors.

Strategic Advantage

- ✓ MTM is carving out a niche in processing high-value waste streams that others often ignore.

By starting with these high-grade feeds, MTM can generate early cashflow.
Next, we look at how MTM plans to turn these feeds into a business…

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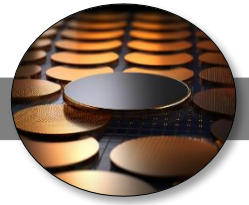
High-Grade, High-Value Feedstocks = Exceptional In-Situ Value

Even at small scale, potential to unlock significant value per tonne – impossible with most traditional ores

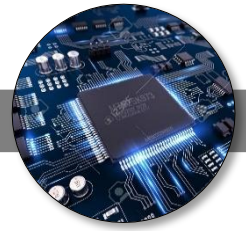
1



Gallium / Germanium/Indium
(semiconductor or refinery scrap)

Feedstock partner secured ✓

2



Gold-Rich E-Waste (PCBs)

Feedstock partner secured ✓

3

Mineral Concentrates

Engaging with partners ⏱

Feedstock Type	Illustrative Composition	Est. In-Situ Value (USD/t)*	Notes
Ga/Ge Scrap & In/Sn Scrap from refinery process	Ga: 15%, Ge: 18% In: 20%, Tin: 12%	$450,000 - $800,000+ $80,000 - $90,000+	Ultra-rich tech scrap from Indium Corp; >1000× typical ore grades
Gold-rich E-Waste (High)	Au: 551 g/t, Ag: 2,800 g/t, Cu: 42%, Sn: 13%, plus Al, Ni, Zn, Ti	$50,000-$75,000	Top-tier PCB char; lab tested by MTM
E-Waste (Typical Mixed PCBs)	Au: 10–150 g/t, Ag: 100–600 g/t, Cu: 5–20%, Sn: 1–3%	$8,000–$15,000	Reflects mass market PCB feed used by recyclers
REE Concentrates	~20–40% TREO (blended basket ~US$25-50/kg)	$4,000-$18,000	Monazite value depends on Nd/Pr/Dy/Tb content

NOTE: realised value depends on: recovery efficiency, payability, product purity & form, final offtake terms etc. Above illustrative only for in-situ value. See *Appendix* for supporting info.

* Fastmarkets (2025). *Prices for Ga, Ge, In, Au, Ag, Cu, Sn*. [Online] https://www.fastmarkets.com; USGS (2025). *Mineral Commodity Summaries 2025*.

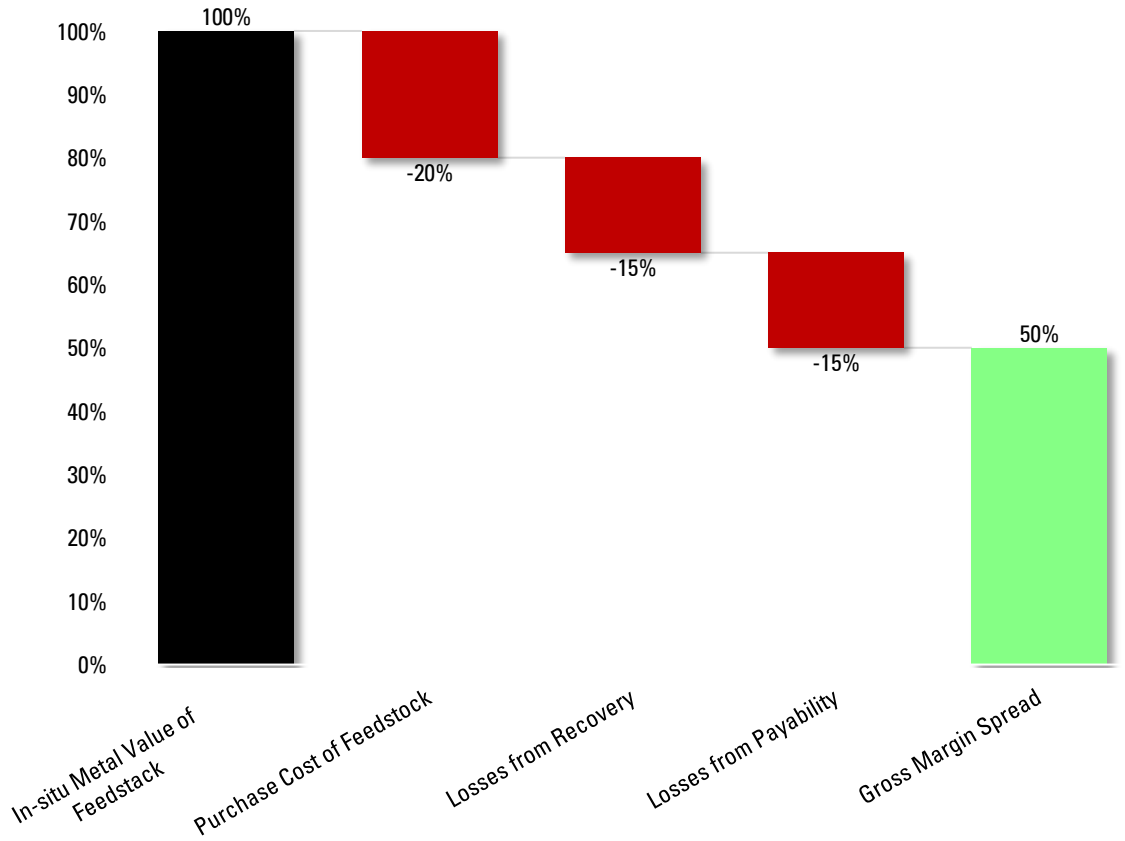
* Estimated in-situ metal values are based on contained metal content and current spot pricing. Actual realised recovered value will depend on final process recoveries, product purity, and offtake pricing — all of which remain subject to ongoing testwork and commercial negotiations. See: Appendix – Supplementary Information on In-Situ Value Derivation.

Illustrative Potential E-Waste Recycling Business Model

Conceptual overview of the potential e-waste recycling business model

- ✓ Using illustrative assumptions, we model the value flow from purchasing e-waste feedstock through to the sale of recovered product.
- ✓ Feedstock is assumed to be procured at current market price for this waste, **which is a discount to in-situ metal value,** determined via assay and indexed metal pricing (typical recycling model).
- ✓ Accounting for assumed recovery efficiency and payability (illustrative only) on the recovered products, with sale prices based on prevailing market indices.
- ✓ The waterfall chart illustrates the cumulative impact of each step on realised value, highlighting a potentially **gross margin spread available** (not accounting for operational or other costs).
- ✓ MTM is evaluating mechanisms such as feedstock supply incentives (e.g., higher pricing for long-term contracts) to ensure high quality, consistent, scalable throughput.

Illustrative Economics – Preliminary E-Waste Recycling Model
(Relative to In-situ metal value of feedstock)



Important Notice: This model is for illustrative purposes only and does not represent confirmed project economics. All figures are based on illustrative estimates and indicative assumptions. Actual commercial outcomes may vary materially depending on several factors including scale-up results, feedstock variability, market pricing, and final offtake terms. No reliance should be placed on these figures for investment decisions.

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Market Opportunity

- ✓ **Essential for tech and defence:** Lithium (batteries), REEs (magnets), Gallium / Germanium (semiconductors).
- ✓ **Critical importance in high-tech industries including defence.**
- ✓ **Major demand** underpinned by AI (i.e. gallium chips), and datacentres (all metals).
- ✓ **Applications:** EVs (Tesla), aerospace and defence (Lockheed Martin), consumer electronics (Apple), Data Centres.
- ✓ **Precious Metals in E-Waste:** Gold, silver, & palladium in circuit boards, with waste containing up to 500x more gold/t vs mined ore.
- ✓ **Huge addressable market size and growth projections**: > $20B/yr addressable market in lithium & rare earths; > $40B/yr in electronic waste metals (2025 est.)[1].

1. U.S. Geological Survey (2025) Mineral commodity summaries 2025: Gallium. Reston, USGS;https://pubs.usgs.gov/periodicals/mcs2025/mcs2025-gallium.pdf; Argus Media Group (2025) Argus non-ferrous markets. London: Argus Media; https://www.argusmedia.com/en/metals/argus-non-ferrous-markets; U.S. Census Bureau (2025) Foreign trade statistics. Washington, DC: U.S. Customs Service;https://www.census.gov/foreign-trade/statistics/index.html; China Nonferrous Metals Industry Association (2025) Gallium production estimates. In: Argus Media Group, Argus non-ferrous markets;https://www.argusmedia.com/en/news-and-insights.

MTM's technology targets metals that are **essential for high-tech and defence** but face supply constraints

Demand for these critical metals is soaring, yet supply chains are fragile – a gap MTM is positioned to exploit

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E-Waste Industry: The Recycling Challenge

Limited Recycling Infrastructure

- ✓ ~80 million tonnes of e-waste are generated annually worldwide, but <10% is recycled.
- ✓ Only a small fraction of this recycled material reaches smelting facilities (mainly Asia).
- ✓ High-cost, low recovery, capital-intensive processes (smelting or chemical leaching) extract metals but leave plastic waste incinerated, which generates toxic air pollution (dioxins, furans etc) and large amounts of CO_2.

Environmental and Health Risks

- ✓ Current extraction methods emit significant carbon and toxic by-products (e.g., lead, mercury, cadmium).
- ✓ Offshoring to poorer nations (e.g., Ghana's Agbogbloshie) results in informal recycling, landfill buildup, and ecological damage.

Opportunity for Innovation

- ✓ Sustainable technologies (e.g., Flash Joule Heating) can process e-waste domestically.
- ✓ Reduces carbon footprint, protects health, and transforms e-waste into an economic asset.

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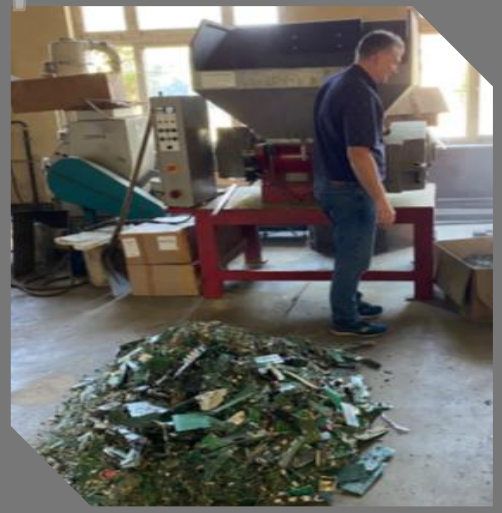
Example of waste tested recently:
Ultra-high gold & other metal content E-Waste

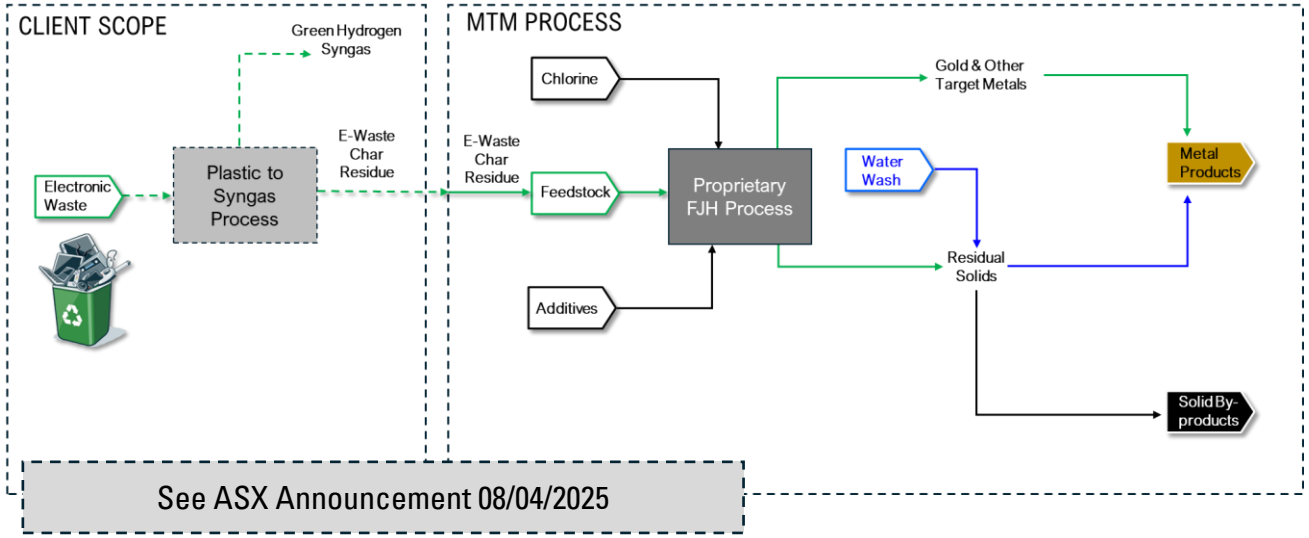


Element	E-Waste Char* Feedstock Grade
Gold (Au)	**551 g/t**
Silver (Ag)	**2,804 g/t**
Copper (Cu)	41.6%
Tin (Sn)	13.2%
Aluminium (Al)	5.2%

*E-Waste char = E-Waste with plastics removed by separate process

Breakthrough FJH Metal Recovery Solution for E-Waste

Single-step, acid-free process converts metal-rich e-waste into metal chlorides—without prolonged heating or chemicals used in traditional methods



See ASX Announcement 08/04/2025

MTM has signed LOIs with two top-tier U.S. recyclers (Dynamic Lifecycle Innovations & Plastic Recycling Inc.) securing >1,100 tonnes/year of ultra-high-value E-waste feedstock. (for a separate E-Scrap material as described above)

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Navigating Trade Shocks: MTM's Strategic Edge

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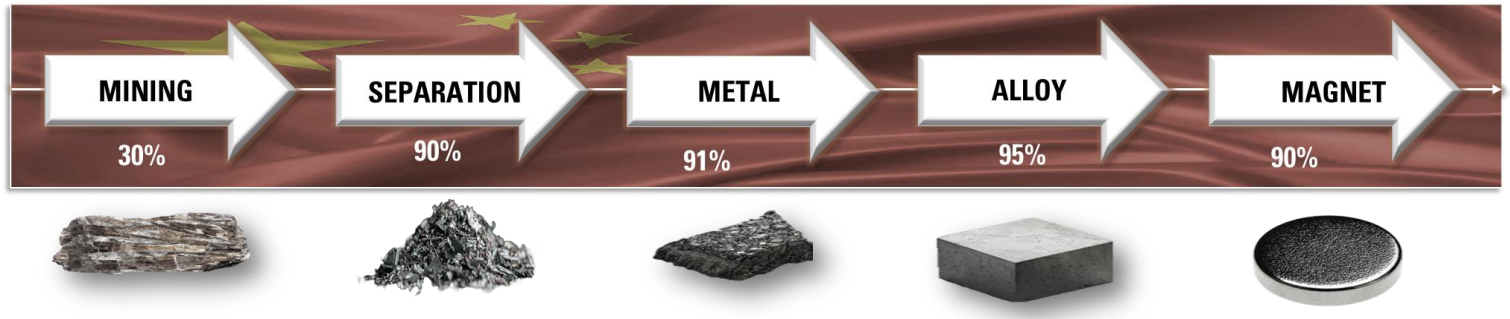
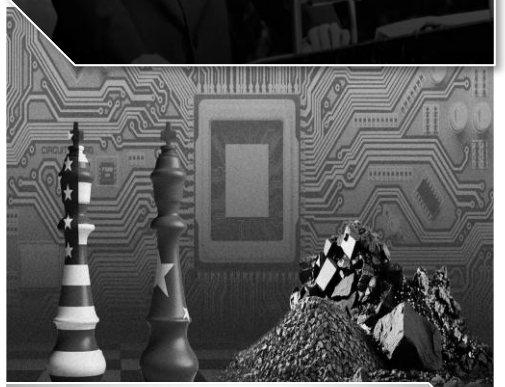
The Cost of Dependency: Why a Domestic Critical Metals Solution is Urgent

China controls ~100% of REE & Technology Metal Processing, Refining; Tariff Wars Disrupt Supply.

- ✓ Dominates ~100% of Rare Earth Elements (REE) and Technology Metal processing/refining.
- ✓ Controls the entire **magnetic REE value chain**, creating global supply vulnerabilities.





China's Strategic Control: Leverages 100% of Gallium, >60% Germanium, and 85% Antimony refined supply through export restrictions and state-backed production, limiting global competition and innovation.

U.S. Risks: Major economic loss, strategic vulnerability & technological impacts if critical metal supply is cut off.

Recent trade tensions and export bans (e.g., China's gallium/germanium & antimony export controls in 2024) underscore that this is not a theoretical issue – it's happening now.

MTM's domestic solution: By 'urban mining' waste in the U.S. with FJH, there is less reliance on foreign-controlled supply chains

MTM CRITICAL METALS

U.S. Tariffs on Strategic Metals

U.S.–China Trade Measures – MTM's Domestic Model Unlocks a Competitive Edge

Trade Pressures on Critical Metals (2023–2025)

- ✓ **New U.S. Tariffs (April 2025):** 10% baseline tariff on all imports, **up to 125% total for Chinese-origin goods (as of April 10, 2025)**.
- ✓ Up to 45% Section 301 tariffs on Chinese-origin Gallium, Germanium, Indium.
- ✓ China's export controls restrict Ga, Ge, In, Sb, Bi, Te, and now REEs.
- ✓ China has used their dominance in critical metal supply as geopolitical tools before

MTM's Strategic Advantage – A Tariff-exempt, Local Production Model

- ✓ Sources feedstock from U.S. partners (e.g. Indium Corp, Recyclers) – tariff-exempt
- ✓ Bypasses both U.S. import duties and Chinese export restrictions
- ✓ Delivers price stability and security of supply to customers
- ✓ As seen in the titanium industry, tariffs and trade disruptions are already causing force majeure events. MTM avoid these risks entirely through domestic sourcing

Tariff Landscape Across MTM Feedstocks (China-Origin Metals)

Metal	Base U.S. Tariff	Section 301 Tariff	Additional 2025 Tariffs *	Estimated Max Total **	MTM Exposure
Gallium	3%	25%	+97%	~125%	Sourced domestically via Indium Corp – Not impacted
Germanium	2.6–4.4%	45%	+76%	~125%	Sourced domestically via Indium Corp – Not impacted
Indium	0%	25%	+100%	~125%	Sourced domestically via Indium Corp – Not impacted
Rare Earth Elements	0–3.7%	25%	+76%	~125%	Possible sources from within U.S. and from low-tariff country
Gold	0%	0%	0% ***	0%	From e-waste; sourced domestically – No exposure
Copper	0%	0%	0–76%	0–76%	From e-waste; sourced domestically – No exposure
Tin	0%	0%	0% ***	0%	From e-waste; sourced domestically – No exposure

Notes: ~125% = base tariff + Section 301 (25–45%) + Trump-era + 10% baseline (April 2025); *if applied; ** if imported ex China; ***(may increase under expanded Trump tariffs).
Section 301 refers to U.S. trade enforcement measures in place since 2018. Additional 2025 tariffs reflect new reciprocal duties announced in April 2025.

Sources: Harmonized Tariff Schedule of the United States (HTSUS), Chapter 81, Revision 7 (2025), United States International Trade Commission; Office of the United States Trade Representative (USTR), 2018. Section 301 Investigation: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation. Washington, D.C.: Executive Office of the President.Zhang, N., 2025. US reciprocal tariffs, China's export controls fuel uncertainty in minor metals market. London: Fastmarkets.The White House, 2025. Statement on Reciprocal Tariffs and Critical Mineral Strategy. Washington, D.C.: Executive Office of the President. NOTE: Section 301 refers to a provision of the U.S. Trade Act of 1974 that gives the United States Trade Representative the authority to investigate and respond to unfair trade practices by foreign countries.

MTM's U.S.-based supply model bypasses this intensified trade friction

Tariff Risk Exposure: MTM vs. Import-Based Models

Feedstock Type / Source	MTM (Urban Mining / Domestic U.S.	Import-Based Competitor (China-Origin / Foreign)
Gallium, Germanium, Indium	Low — sourced from Indium Corp (U.S.)	High — up to 125% tariffs & export controls
Rare Earth Elements (REEs)	Medium — mix of U.S. / allied sources	High — dominated by China
Gold, Copper, Tin (e-waste)	Low — recovered from domestic U.S. e-scrap	N/A or Low — typically low or zero tariffs
Supply Chain Control	Low Risk — fully domestic U.S. / controlled	High Risk — geopolitical/trade shocks
Eligibility for U.S. Incentives	High — meets domestic U.S. content rules	Low — foreign content may disqualify
Price Volatility	Low — stable, domestic U.S. sources	High — tariff shocks, FX volatility

Tariffs are not a threat — they're a tailwind. MTM benefits from punitive trade measures due to 100% domestic sourcing / urban mining model.

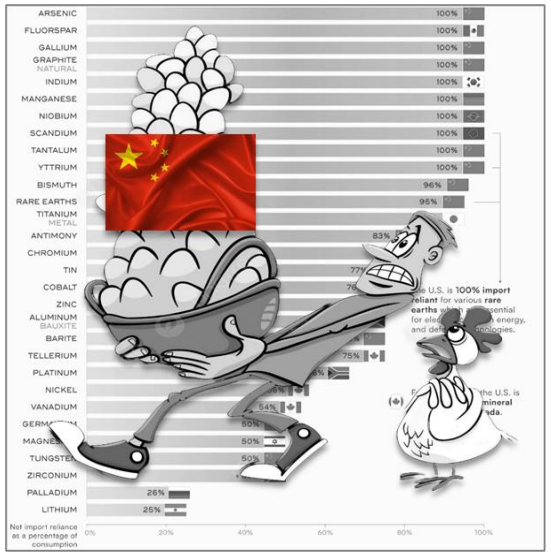
- ✓ A tariff hedge for customers;
- ✓ A preferred supplier amid geopolitical shocks;
- ✓ A target for government procurement and incentives.

Sources: Harmonized Tariff Schedule of the United States (HTSUS), Chapter 81, Revision 7 (2025), United States International Trade Commission; Office of the United States Trade Representative (USTR), 2018. Section 301 Investigation: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation. Washington, D.C.: Executive Office of the President.Zhang, N., 2025. US reciprocal tariffs, China's export controls fuel uncertainty in minor metals market. London: Fastmarkets.The White House, 2025. Statement on Reciprocal Tariffs and Critical Mineral Strategy. Washington, D.C.: Executive Office of the President. NOTE: Section 301 refers to a provision of the U.S. Trade Act of 1974 that gives the United States Trade Representative the authority to investigate and respond to unfair trade practices by foreign countries.

MTM CRITICAL METALS

Strong Tailwinds for U.S. Onshoring

- **Policy Support:** Billions in grants offset tariff-driven costs, boosting MTM's domestic edge. U.S. legislation (e.g., DoD & DoE grants) funnels funds into critical mineral projects, **enhancing MTM's tariff-exempt, local production model**.
- **ESG & Supply Chain Mandates:** Manufacturers (EV, electronics) are increasingly seeking local, environmentally friendly sources for raw materials to meet ESG goals and secure supply – MTM's recycling-based approach ticks both boxes.
- **Rising Demand:** Booming sectors (EVs, renewable energy, semiconductor expansion in the US) are amplifying the need for critical metals domestically, providing a ready market for MTM's future production.
- With bipartisan support building for reshoring critical mineral supply chains, **MTM is ideally positioned to benefit from future tariff relief, procurement mandates, and funding streams favouring U.S.-based producers.**



Sources: The White House, 2025. *Immediate Measures to Increase American Mineral Production.*, https://www.whitehouse.gov/presidential-actions/2025/03/immediate-measures-to-increase-american-mineral-production/; https://elements.visualcapitalist.com/americas-import-reliance-of-critical-minerals-charted/

MTM CRITICAL METALS

Scaling Towards Commercial Production

MTM CRITICAL METALS

Trusted Design Partner – KnightHawk Engineering (KHE)

30+ years experience in bespoke high-temperature process design (expertise in gasification, fluidized beds, etc.)

- ✓ KnightHawk is leading the design/engineering of MTM's Flash Joule Heating demonstration plant in Houston.
- ✓ Global specialists in high-temperature engineering with world-class expertise in scaling novel process technologies.
- ✓ Clients have included Fortune 500 industrial and energy companies:

RioTinto, NASA, Chevron, Sasol, Texaco

KnightHawk Engineering, FJH Team, Houston Texas

Skin in the game: Notably, KnightHawk is also an investor in MTM having taken equity in lieu of fees – a strong vote of confidence

Having KHE onboard significantly de-risks scale-up, ensuring the upcoming pilot plant is professionally designed & successful


FJH Lab & Prototype Testing

MTM CRITICAL METALS

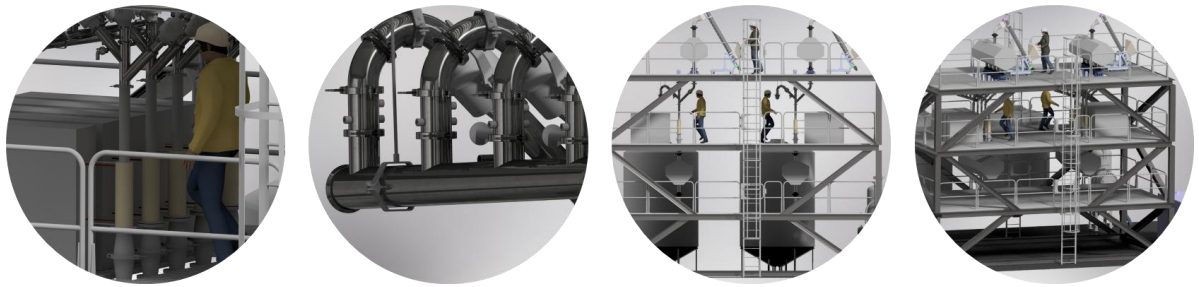
Current prototype FJH reactor in testing at our U.S. Operations Hub (Houston, TX)

From Prototype to Plant: Building the Foundation for Scale

MTM is rapidly progressing from successful lab-scale results to building a pilot plant and beyond. Our approach to scale-up is systematic and de-risked, with expert partners alongside us.

Iterative Prototyping Driving Commercial Reactor Design

- ✓ Building and testing successive FJH reactor prototypes – to gather data and optimise design parameters in real time.
- ✓ Each prototype run informs improvements (throughput, energy efficiency, recovery rates), which are then incorporated into the next design iteration.
- ✓ This rapid build-test-refine cycle accelerates learning and ensures the eventual commercial reactor is fully vetted and optimised.
- ✓ Lessons from these prototypes feed directly into the design of the 1 t/day plant
- ✓ **Bottom line: We're de-risking commercial deployment.**



Lab R&D → Prototype Phase (current) → Pilot/Demo Plant (Q4 2025) → Commercial Production (2026+)

MTM CRITICAL METALS

Proven Technology, Scaling Now

FJH Technology Already Proven at Scale by Universal Matter for Advanced Graphene

- ✓ **FJH is already proven at industrial scale** in a related application – peer company Universal Matter (UM) scaled the process to 1 tonne/day (for graphene production)*.
- ✓ UM (founded 2018) upcycles carbon waste to graphene using FJH, and is producing at a commercial level, demonstrating the process's scalability and reliability.

MTM's 1 ton/day Pilot Plant has significantly REDUCED SCALE-UP RISK

- ✓ 1-ton/day demonstration plant (Houston, TX) **on track for commissioning by Q4 2025.**
- ✓ **Low Capex, Modular Design:** The **demonstration plant will use mostly off-the-shelf components in a modular setup** – keeping costs low and making it easy to scale by adding modules.
- ✓ **Design for a larger continuous-flow FJH plant is underway**, targeting prototyping by mid-2026 – this would significantly multiply throughput beyond the 1 t/day current design.

*Note: While graphene production parameters differ from metal recovery, Universal Matter's 1 tpd scale confirms the core FJH process is industrially robust and scalable.

MTM CRITICAL METALS

Planned Texas Technology Campus

MTM's U.S. Technology Campus will house our demonstration plant and serve as a hub for ongoing R&D and future expansion.

Provisional Site Example

Planned Prime Location in Houston Industrial Corridor

We are in late-stage selection of a Houston-area industrial site that already has key environmental permits – this will significantly shorten startup time and reduce regulatory hurdles for the pilot plant.

This facility will bring MTM's breakthrough technology to a commercial-ready stage, generating initial cash flow and proving the model for larger expansion

Operational Timeline and Capabilities

- ✓ **Demo Plant by Q4 2025:** Targeting to have a 1-ton/day plant operational by late 2025.
- ✓ **Processes diverse feedstocks:** semiconductor waste, e-waste, red mud, and ore.

Innovation and Optimisation Hub

- ✓ **On-site R&D Centre:** We will establish a dedicated FJH innovation lab at the campus to continually improve the process and adapt it to new feedstocks.
- ✓ This ensures MTM remains on the **cutting edge** and can expand its tech. applications.

MTM CRITICAL METALS

Strategic Partnerships – Validating and Accelerating Our Strategy

MTM CRITICAL METALS

Billion Dollar Industry Leaders Back MTM

Success Underpinned by the Company We Keep

Vedanta: Vedanta (US$20B market cap) – Partnering with MTM to deploy FJH on red mud (alumina refinery waste) – aiming to extract residual valuable metals and produce a low-carbon cement additive (a world-first solution).

- ✓ **Goals:** (1) recover Al, Ti, Ga, REEs and (2) remove iron to produce a green cement additive from waste.
- ✓ Vedanta gains a solution for a large waste problem; MTM gains a pathway to scale its tech at an industrial site.

Indium Corp: Collaborating to process Indium Corp's ultra-rich gallium/germanium scrap, which has grades ~1000x higher than typical ores (unlocking significant value)

- ✓ **Goal:** secure ultra-rich feedstock and validation in the semiconductor materials supply chain.
- ✓ Indium provides feedstock and industry know-how; MTM provides tech to extract value.

Dynamic Lifecycle Innovations & Plastic Recyclers Inc. - Major E-Scrap Recycling Firms in the U.S.

- ✓ Signed LOI with two leading U.S. recyclers to secure E-Scrap supply.
- ✓ Secures >1,100 tonnes/year of PCB-rich high-value E-Scrap under long-term LOIs.
- ✓ Supply penalties ensure reliability; Enables commercial rollout and de-risks operations.

Pipeline: MTM is in discussions with > 8 additional companies across mining, recycling, and processing sectors – underlining broad industry interest in our technology.

U.S. Gov't Interest: MTM's work has drawn interest from **U.S. Department of Defense** and Department of Energy for its potential to bolster strategic metal supply chains.

vedanta

INDIUM CORPORATION

DYNAMIC LIFECYCLE INNOVATIONS

Plastic Recycling Inc.

DEPARTMENT OF DEFENSE · UNITED STATES OF AMERICA

MTM CRITICAL METALS

Strategic Partnership with Indium Corporation

Indium Corporation – a private New York-based company – is a global leader in specialty metal refining, particularly for gallium, germanium, and indium used in semiconductors.

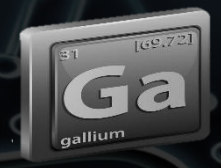
- ✓ Established 1934 in New York, USA, Indium Corp operates 16 facilities across 8 countries with 3000+ employees, serving high-tech industries (semiconductors, defence, etc.).
- ✓ Considered a global authority in Gallium, Germanium, and Indium supply.
- ✓ **Partnership scope:** Indium will provide MTM with access to its ultra-high-grade production scrap (rich in Ga, Ge, In) for processing.
- ✓ This gives MTM an immediate pipeline of valuable feedstock and a foothold in the electronics metals supply chain.
- ✓ For Indium Corp., this collaboration could turn a waste liability into a profit centre and ensure a domestic source of critical materials.

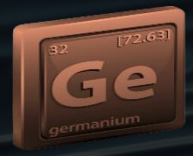
MTM CRITICAL METALS

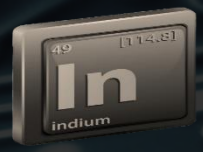
Supply of ultra-high value scrap from Indium Corp.

Ultra-high-grade scrap from Indium Corp. enables MTM to produce strategic tech metals at commercial scale—without the cost, complexity, or environmental impact of mining low-grade ore. A game-changing economic advantage.

Compare with typical primary sources of these metals, which are commonly recovered as secondary by-products from zinc or alumina ore mining







	INDIUM CORPORATION		
Feedstock (Scrap)	150,000 ppm (15%)	180,000 ppm (18%)	200,000 ppm (20%)
Primary Source of Metal Globally	Bauxite ore	Zinc Ores	Zinc Ores
Typical Ore Grades	10 – 50 ppm	30 – 150 ppm	1 – 100 ppm
Current Metal Price**	U$700/kg (4N)	U$3,300/kg (5N)	U$530/kg (4N)

Bottom line: Partnership with Indium Corp. secures feedstock that is orders-of-magnitude richer than what traditional miners handle – positioning MTM for exceptional processing economics. **Negotiations underway with Indium Corp. for both a binding supply and offtake agreement.**

REFERENCES:
- Frenzel, M., Ketris, M.P., and Gutzmer, J. (2014). 'On the Geological Availability of Germanium', Minerals, 4(2), pp. 275–300.
- U.S. Geological Survey (2013). Critical Mineral Resources of the United States—Economic and Environmental Geology and Prospects for Future Supply. Chapter N: Gallium. Available at: pubs.usgs.gov.
- European Commission (2017). Study on the review of the list of critical raw materials: Critical Raw Materials Factsheets. Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs
- ** Fastmarkets 2025.

Landmark Collaboration with Vedanta

Vedanta Ltd. – A diversified global mining company (~US$20B market cap, operations in zinc, lead, silver, copper, iron ore, aluminum, oil & gas, power). A leading producer of aluminum globally

Scope: MTM and Vedanta are partnering to reprocess Red Mud (alumina refinery tailings) using FJH technology.

- ✓ The aims are twofold: (1) recover valuable metals from this waste (Aluminium, Titanium, Gallium, Rare Earths), and (2) convert the residual into a green cement additive.
- ✓ No current commercial technology can economically unlock Red Mud's value – until now. FJH offers the first viable solution, which is why Vedanta (one of the largest aluminium producers) is on board.
- ✓ MTM have demonstrated that the iron content from Red Mud can be effectively removed using FJH, thereby unlocking the remaining residual metals.

Dual Value Creation

- ✓ Dual outputs: a saleable green cement product from removed iron, or a suite of recovered metals.
- ✓ Massive Market Potential: >4 billion tonnes of Red Mud waste exist globally – an immense untapped source of critical metals and materials..

Leading diversified natural resources company.

Operates across metals and mining (zinc, lead, silver, copper, iron ore, steel, aluminium), oil and gas, and power.

Leading force in aluminium production globally.

Residual value can include:

Alumina	2-30%
Ti	1-7%
Iron	30-50%

FJH

Other valuable metals → Metal Recovery

Iron removal → Green Cement Additive

MTM CRITICAL METALS

Long-Term E-Scrap Supply Secured: 1,100 t/year with Two Leading U.S. Recyclers

MTM CRITICAL METALS

Dynamic Lifecycle Innovations Inc. and, Plastic Recyclers Inc., are leading providers of electronics and plastics recycling in the U.S.

Scope: Metal recovery from E-Scrap using FJH Tech. 5-year supply agreement (LOI signed)

Secures **>1,100 tonnes/year minimum of high-value, metal-rich PCB-rich e-scrap.**

- ✓ Agreement includes significant penalties for non-performance, ensuring reliable feedstock.
- ✓ Exclusive volumes committed to MTM, with flexibility for expansion.
- ✓ Deep access to high-quality e-scrap: cell phones, servers, laptops, telecom gear etc.

Why Recyclers Are Turning to MTM

- ✓ Most recycled e-waste is shipped to large, centralised smelters in Asia.
- ✓ Smelters hold a quasi-monopoly, typically paying recyclers only a small portion of the metal value.
- ✓ MTM offers domestic, transparent, value-maximising solution— avoiding shipping costs, bypass tariffs, and extract significantly more value from the same material.

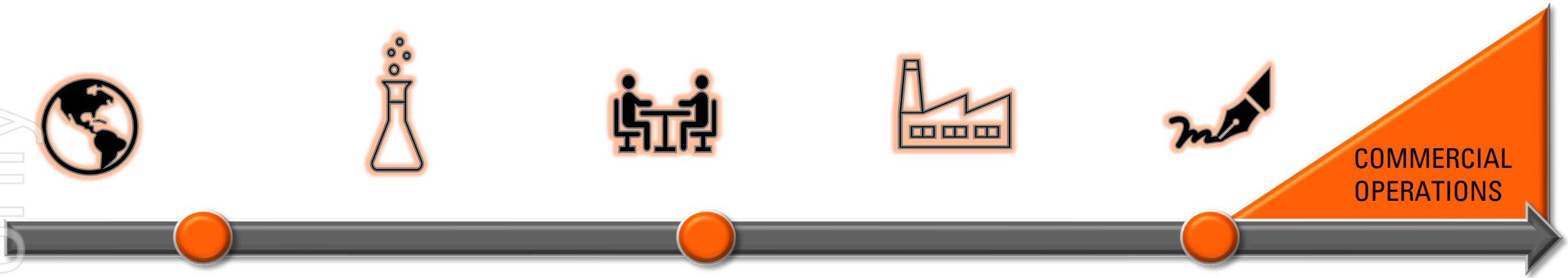
Compelling reason to partner with MTM: Keep onshore, avoid middlemen, & capture more value.

Strategic Importance to MTM

- ✓ De-risks commercial rollout by securing feedstock and supports future scale-up plans.
- ✓ Enables predictable metal throughput → supports revenue models & offtake discussions.
- ✓ Enhances MTM's credibility with government (DoD) and private sector partners.

Reliable feedstock is fundamental to any recycling operation. These agreements ensure a scalable, long-term supply and support future scale-up plans

Key Milestones Through End 2025



CY 2024: Q2 onwards

- Testwork Updates
- Strategic collaborations
- Feedstock supply arrangements
- Business model updates

CY 2025: Q3

- Pilot plant progress updates
- Site selection for plant
- Testwork Updates
- Strategic Partnerships updates
- Non-Dilutive Funding: update on grant opportunities USA & AU

CY 2025: Q4 +

- Commissioning
- Binding offtake & supply agreements
- Commercialisation of recovered Ga, Ge, Au and other metals from electronic / refinery wastes
- Pathway to commercialisation for other metals
- Ongoing testwork updates

MTM CRITICAL METALS

Why Invest Now

→ **Disruptive Technology**
Patented FJH tech enables single-step, acid-free metal recovery — a breakthrough in processing efficiency and sustainability.

→ **Strong Strategic Validation**
Partnered with Vedanta (US$20B diversified miner) and Indium Corp (global specialty metals refiner) — de-risked, real-world application underway.

→ **High-Margin, Low-Capex Model**
Targeting ultra-rich waste streams (e.g. Ga/Ge scrap & Gold-rich e-waste); 1 tpd demo plant expected online end 2025 — rapid path to cash flow with low capital intensity.

→ **Clear Scalability**
Modular plant design supports scalable roll-out across diverse feedstocks and geographies — significant global growth potential.

→ **Derisked Commercial Operations with Long-term High-value Feedstock Secured**
Long-term E-Scrap feedstock supply agreement secured with 2 leading U.S. Recyclers.

→ **Tariff Chaos? A Tailwind for MTM**
MTM's domestic solution provides a hedge – a tariff-exempt, local production model. Unlike most peers, MTM benefits due to 100% domestic sourcing of feedstock.

→ **Attractive Entry Point**
~Low Enterprise value with near-term catalysts (pilot commissioning, offtake agreements, U.S. funding) — unique early-stage exposure to metals industrial tech.

Board & Senior Management

Michael Walshe
B.Eng. (Hons) Chemical, MIEAust
CPEng, MBA (Finance), MAusIMM

Managing Director & CEO

15+ years in minerals processing tech (ex-Metso Outotec), chemical engineer and MBA (Finance), experienced in engineering, scaling new processes and running listed companies as CEO.

Significant experience in mineral processing (Lithium, Rare Earths, and Gold, etc), flowsheet development, waste processing including waste-to-energy, and scaling up novel industrial technologies.

Steve Ragiel
BCHe, Chemical Engineering

President – U.S. Operations

30+ years as CEO / executive in industrial recycling and waste management; successfully commercialized multiple new technologies and built processing plants in the U.S. and globally.

Led Waste Management Inc.'s global recycling division, the world's largest waste company. Significant experience in waste contracting and processing.

John Hannaford
BCom, FFin

Non-Executive Chairman

Corporate finance expert with extensive ASX resources sector experience (Chartered Accountant, ex-Executive and Chairman roles in several mining companies).

Current director for several Australian-listed companies.

Tony Hadley
B.Sc. (Extractive Metallurgy & Chemistry)

Non-Executive Director

30+ years metallurgist in mining industry; deep technical expertise in mineral processing (REE concentration, extraction techniques, plant commissioning).

Significant experience in Rare Earths processing and metallurgy including with Lynas Rare Earths as General Manager.

Paul Niardone
MBA, BA

Non-Executive Director

Seasoned company director and entrepreneur; has built and led multiple ASX-listed companies (background in business development and corporate strategy).

Founder of the Agency (ASX: AU1).

PAST EXPERIENCE INCLUDES:

Metso
Outotec
Pfizer

WM WASTE MANAGEMENT
greenstar RECYCLING
BRACE INDUSTRIAL GROUP

ARTHUR ANDERSEN
VENTNOR CAPITAL
ROCKFORD PARTNERS

Lynas Rare Earths
METEORIC RESOURCES
NORTHERN MINERALS

THE AGENCY
PPR Professional Public Relations (PPR)

MTM CRITICAL METALS

MTM Corporate Overview

SHARE PRICE

A$0.18

As at 21 March 2025
(52 week high $0.305, low $0.024)

MARKET CAPITALISATION

A$80m

As at 21 March 2025

SHARES ON ISSUE

459m

CASH

A$12m

*Based on cash balance at 31 December 2024 plus net proceeds from Dec-24 Placement settled 7 Jan 2025.

ENTERPRISE VALUE

A$68m

DEBT

Nil

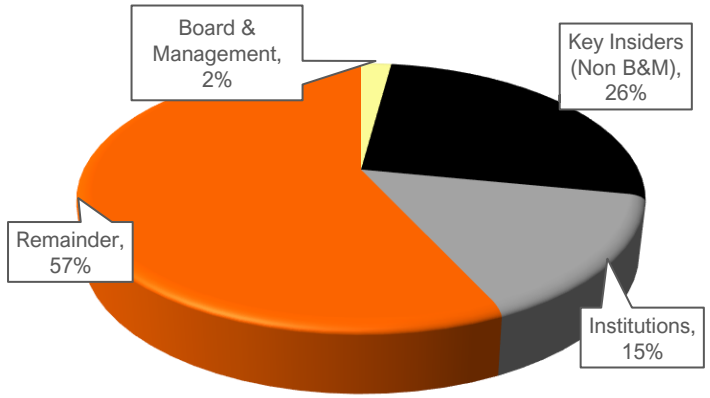
SHAREHOLDER BREAKDOWN

Institutional Ownership

15.4%

PENGANA CAPITAL GROUP 6.0%

TERRACAPITAL 9.4%



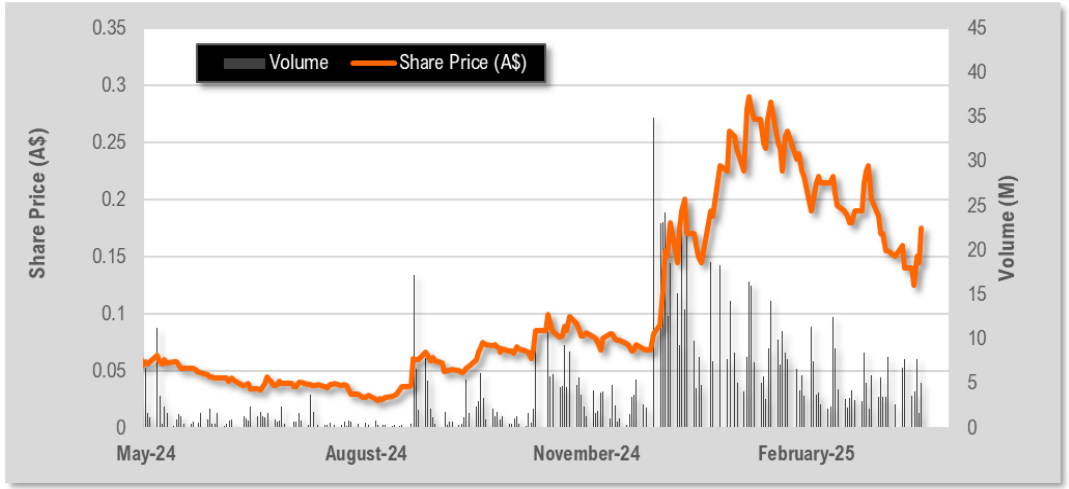
Top 20 Holders:

51%

Total No. of Shareholders:

2,091

ASX SHARE PRICE & VOLUME

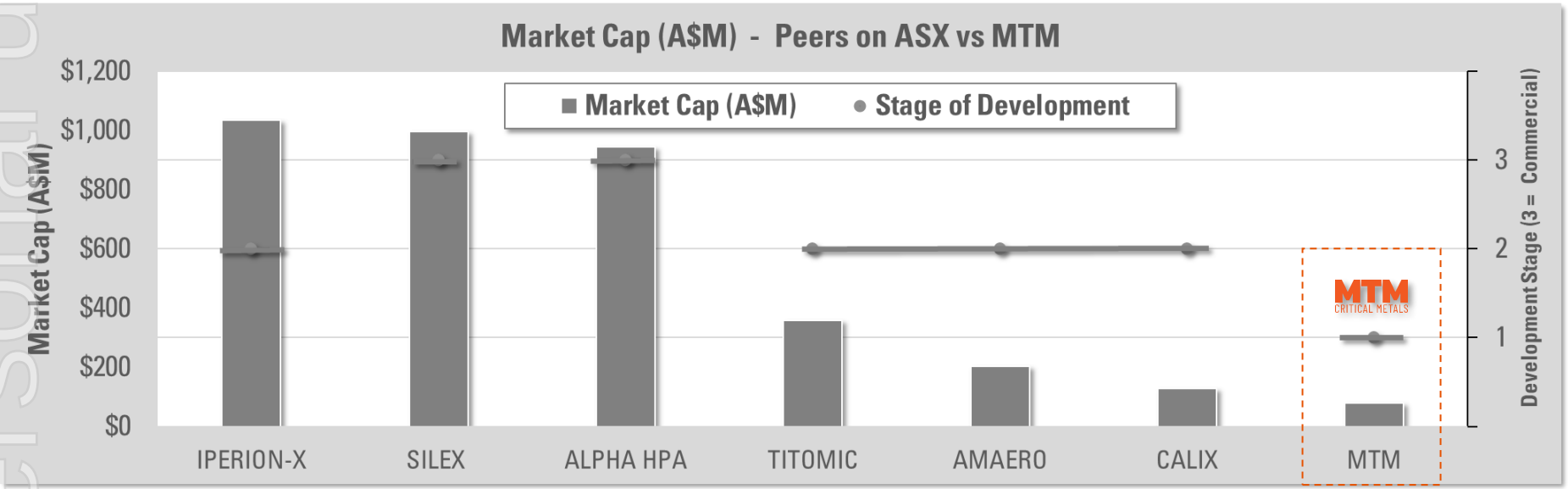


Benchmarking MTM's Opportunity: Peers

Date Reference: 17/03/2025

Selection of Industrial Technology companies on the Australian Stock Exchange

PEERS	TYPE	Market Cap (A$M)	Share Price (A$)	Development Stage	STAGE (1-Early, 2-Development, 3-Commercial)
IPERIONX (ASX: IPX)	Titanium recovery and manufacturing technology	$1,034	$3.24	Advanced pilot	2
SILEX (ASX: SLX)	Uranium processing tech (lazer-based)	$997	$4.19	Commercial scale production (Stage 1)	3
ALPHA HPA (ASX: A4N)	High purity alumina production from waste	$943	$0.83	Commercial scale production (Stage 1)	3
TITOMIC (ASX: TTT)	Metal additive manufacturing technology	$358	$0.27	Advanced pilot	2
AMAERO (ASX: 3DA)	Metal additive manufacturing company, with ambitions in metal powder production	$202	$0.30	Advanced pilot	2
CALIX (ASX: CXL)	Electric kiln heating technology	$129	$1.61	Advanced pilot for Li refining	2
MTM (ASX: MTM)	Metal recovery tech (Rapid heating & chemistry)	$80	$0.175	Prototype; Pilot plant underway	1



The Future of Metals Recovery – Contact us to learn more or for partnership discussions

Michael Walshe

Managing Director & Chief Executive Officer

MTM Critical Metals Ltd

Phone +61(08) 6391 0112 | Email info@mtmmetals.com.au

Stock Exchange

ASX: MTM | OTCQB: MTMCF

Investor and Announcement Engagement

InvestorHub

https://investorhub.mtmcriticalmetals.com.au/

www.linkedin.com/company/mtm-critical-metals

twitter.com/MTMCriticalMet

mtmmetals.com.au

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Appendix – Supplementary Information on In-Situ Value Derivation

This appendix provides the assumptions and methodology used to calculate estimated in-situ metal values (USD/t) for key feedstocks referenced herein.

Calculation Methodology:

In-situ values were calculated as: [Grade] × [Spot Price per unit] × [Unit conversion (if needed)]

For example: 551 g/t Au × $97/g ≈ $54,000/t value for gold in high-grade PCB e-waste

Metal Price Inputs (April 2025)

Metal	Unit	Spot Price (USD)	Source
Gold (Au)	g	$96.45	Fastmarkets (2025)
Silver (Ag)	g	$0.97	Fastmarkets (2025)
Copper (Cu)	kg	$9.92	Fastmarkets (2025)
Tin (Sn)	kg	$35.00	Fastmarkets (2025)
Gallium (Ga)	kg	$700.00	Fastmarkets (2025, 4N)
Germanium (Ge)	kg	$3,300.00	Fastmarkets (2025, 5N)
Indium (In)	kg	$530.00	Fastmarkets (2025, 4N)
Nickel (Ni)	kg	$18.00	Fastmarkets (2025)
Aluminium (Al)	kg	$2.30	Fastmarkets (2025)
Zinc (Zn)	kg	$2.50	Fastmarkets (2025)
Titanium (Ti)	kg	$2.50 (est.)	Industry estimate (2025)
REE (TREO basket)	kg	$25 - $40 (blended)	USGS (2025)

REFERENCES & NOTES

- Fastmarkets (2025) Prices for Gallium, Germanium, Indium, Gold, Silver, Copper, Tin, Nickel, Aluminium and Zinc, https://www.fastmarkets.com.
- USGS (2025) Mineral Commodity Summaries 2025: Rare Earth Elements. United States Geological Survey, https://pubs.usgs.gov/periodicals/mcs2025.
- Industry Estimate (2025) Indicative pricing for Titanium (as TiO_2 basis).

- In-situ values do not reflect actual recoveries or net saleable product revenue. Realised values will depend on yield, product purity, and offtake terms.