
Fairmont Consulting Completes Comprehensive Market Study

- **C103 PBF powder demand expected to grow to 105 tonnes in FY2028 with demand growth estimated at 62% CAGR for 5 year period ending FY2028. Demand driven by investment cycle in hypersonics, strategic missiles, space launch and satellites**
 - **Survey of C103 PBF powder price indicates range of \$4,150 to \$5,385 / kg with order lead times of 12-24 months**
 - **Amaero positioning to be largest and most responsive U.S. domestic producer of C103 and high-value specialty alloys**
 - **Planned production of C103 and high-value specialty alloy powder is expected to increase revenue and to accelerate path to profitability**
 - **Amaero secures 2.5 tonnes of C103 feedstock**
-

Amaero International Limited (ASX:3DA) (“Amaero” or “the Company”) is pleased to announce that Fairmont Consulting Group LLC (“Fairmont”) has completed a comprehensive market study commissioned by Amaero of Niobium C103 alloy (“Nb C103” or “C103”) and other high-value specialty materials used in mission-critical defence and space applications. Fairmont is a leading specialist providing Aerospace and Defence (“A&D”) and government market insights, engaged by Amaero to provide a detailed independent market assessment evaluating the current C103 market landscape and anticipated future demand.

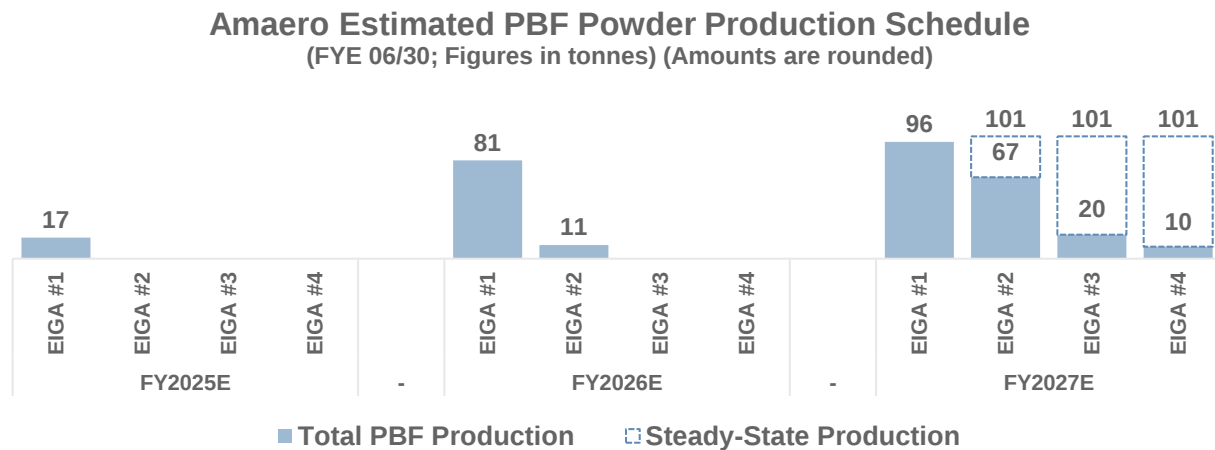
The 72-page comprehensive market study and accompanying proprietary market model provides key details and analysis for 550 discrete programs in hypersonics, strategic missiles, space launch and satellite programs. The study and supporting analysis provide Amaero with a granular, program-by-program study of demand signals, market supply powder pricing and feedstock costs, as well as an analysis of Amaero market positioning and go-to-market recommendations.

For the purpose of strategic planning and financial analysis, Amaero has incorporated key assumptions and financial drivers from the market study. For corporate planning purposes, the Company has allocated production based on Fairmont’s estimated demand for C103 powder (see Exhibit 8) and Fairmont’s estimated achievable market share for Amaero. The estimated market share takes into consideration current market producers, the market preference for U.S. domestic production and market dynamics for low volume, high-value specialty alloy. Though Amaero does not provide financial guidance, we are providing investors with certain key assumptions and key financial performance drivers that are supported by the Fairmont Consulting report, other independent reports referenced in announcement and Amaero’s direct discussions with numerous stakeholders. The expansion of Amaero’s operations to include four atomisers and the related capital investment is summarized in Exhibit 14. The capital expenses planned for FY2025–FY2027 remain subject to Board approval and final investment decision is expected by end of FY2024.

Fairmont estimates the demand for C103 PBF powder in FY2025 at 25 tonnes with estimated demand growing to 105 tonnes in FY2028 for a 62% CAGR over the 5-year period ending FY2028. Fairmont’s survey of current C103 powder price reflects a range of \$4,150 / kg to \$5,385 / kg (US\$2,700 / kg to

US\$3,500 / kg) with order lead times estimated at 12–24 months.

Amaero is pursuing a strategy of prioritising production of C103, development refractory alloys, other high-value specialty alloys and Ti-64 powder production, to uniquely position the Company as a U.S. domestic, agile and scalable producer of high-value, specialty powder for additive manufacturing of mission-critical components for the defence, space and aviation industries. Amaero estimates its total production capacity of powder for powder bed fusion (“PBF”) applications as follows:



Note, Steady-State Production indicates expected capacity production to be achieved after FY2027.

Amaero remains on schedule regarding the fit out of its headquarters in McDonald, Tennessee and associated installation and commissioning of the first atomiser (“EIGA #1”). Installation is expected to begin in late February with commissioning expected by June 2024. For the purpose of qualification, Amaero expects to produce C103 powder beginning in Q1 FY2025 and to commence commercial sales in Q3 FY2025. In addition to commercial sales of C103, we anticipate utilising excess capacity to produce development refractory alloys, other high-value specialty alloys and Ti-64 powders in FY2025.

Amaero recently signed a supply agreement (purchase order) for 2.5 tonnes of C103 feedstock. The C103 bar is scheduled to be delivered over the coming months and is anticipated to be sufficient for production of C103 that’s planned for Q1/Q2 FY2025. The Company is advancing discussions with the same supplier to provide a long-term supply agreement.

Amaero continues to advance commercial discussions with multiple parties for C103 offtake agreements.

To achieve the level of production indicated in this announcement through FY2027, funding for capital expenses through the same period is estimated at \$76 million (see Exhibit 14). As stated in prior ASX announcement dated 29 January, the Company expects to achieve breakeven operations in CY2025. Losses from operations in CY2024 are estimated at \$14 million.

Amaero recently engaged a U.S.-based advisor to explore strategic equity financing alternatives. As it pertains to retail and institutional investors in Australia, Amaero will continue to work with financial advisors in Australia. Investors should note that there is no certainty that Amaero will be able to raise the amount of funding when needed and it is possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Amaero’s shares.

Amaero continues to advance U.S. government funding discussions that include subsidized debt facilities and government-funded grants. Amaero has engaged SMI, a leading government affairs consulting firm in Washington DC, to advise Amaero as it pertains to government-funded grants and non-dilutive capital.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Fairmont market study.

Amaero Chairman and CEO, Hank J. Holland stated, “We took bold and decisive steps over the past year to position Amaero as the largest and most responsive U.S. domestic producer of C103 and other high-value specialty alloy powders. The Fairmont Consulting market report validates the strategic direction and provides important market signals for demand, supply and pricing. The report also provides important insights at the program-level that will assist the business development strategy. Amaero has an opportunity to play an important role in re-shoring highly strategic industrial base capabilities to the U.S. and to contribute to a more resilient and scalable supply chain for defence production and for the space ecosystem. We expect that prioritising the production of C103 and high-value specialty alloy powders will materially increase revenue trajectory and will accelerate the path to profitability.”

Investor Briefing

Amaero Chairman and CEO, Hank Holland, will host an investor briefing on **Tuesday, 13 February at 11:00am AEDT**.

Mr. Holland will take questions following the formal presentation. The investor briefing will be recorded and posted to Amaero's website.

To pre-register for the briefing please use the link below:

https://janemorganmanagement-au.zoom.us/webinar/register/WN_xP3-zn05SKu1F7sypbe2bg

After registering you will receive a confirmation e-mail with information about joining the briefing.

For further information, please contact:

Amaero International Limited (ASX:3DA)

Hank J. Holland

Chairman and CEO

hank.holland@amaeroinc.com

Jane Morgan Management

Jane Morgan

Director

jm@janemorganmanagement.com.au

.....

About Amaero International Limited (ASX:3DA)

Amaero International Limited is an ASX-listed company focused on high-value refractory, specialty alloy and titanium powder production for additive manufacturing of mission-critical components utilised by the defence, space and aviation industries.

For further information, please visit: <https://www.amaeroinc.com>

.....

For more information



Follow us on X



Subscribe on our YouTube



Follow us on LinkedIn



Subscribe to our mailing list to receive updates



Visit our investor website: <https://www.amaeroinc.com>

This ASX announcement has been authorised by the Board of Amaero International Limited (ASX:3DA)

.....

Legal disclaimer:

This announcement has been prepared by Amaero International Limited ACN 633 541 634 ("Amaero" or the "Company") and does not constitute or form part of, and should not be construed as, an offer, solicitation or invitation to subscribe for, underwrite or otherwise acquire, any securities of Amaero or any member of its group nor should it or any part of it form the basis of, or be relied on in connection with, any contract to purchase or subscribe for any securities of Amaero or any member of its group, nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever.

This announcement is not a prospectus, product disclosure statement or other disclosure document under Australian law (or any other law), and has not been lodged with the Australian Securities and Investments Commission (or any other regulatory body in Australia or abroad). This announcement contains summary information about Amaero and its activities, which is current as at the date of this announcement. The information included in this announcement is of a general nature and does not purport to be complete nor does it contain all the information which a prospective investor should consider when making an investment decision. Each recipient of this announcement should make its own enquiries and investigations regarding all information in this announcement including but not limited to the assumptions, uncertainties and contingencies which may affect future operations of Amaero and the impact that different future outcomes may have on Amaero. This announcement has been prepared without taking account of any person's investment objectives, financial situation or particular needs. Before making an investment decision, prospective investors should consider the appropriateness of the information having regard to their own objectives, financial situation and needs, make their own assessment of the information and seek legal, financial, accounting and taxation advice appropriate to their jurisdiction in relation to the information and any action taken on the basis of the information.

The information included in this announcement has been provided to you solely for your information and background and is subject to updating, completion, revision and amendment and such information may change materially. Unless required by applicable law or regulation, no person (including Amaero) is under any obligation to update or keep current the information contained in this announcement and any opinions expressed in relation thereto are subject to change without notice. No representation or warranty, express or implied, is made as to the fairness, currency, accuracy, reasonableness or completeness of the information contained herein. Neither Amaero nor any other person accepts any liability and Amaero, its related bodies corporate and their respective directors, officers and employees, to the maximum extent permitted by law, expressly disclaim all liabilities for any loss howsoever arising, directly or indirectly, from this announcement or its contents.

This announcement includes forward-looking statements that reflect Amaero's intentions, beliefs or current expectations concerning, among other things, Amaero's results of operations, financial condition, liquidity, performance, prospects, growth, strategies and the industry in which Amaero operates. These forward-looking statements are subject to risks, uncertainties and assumptions and other factors, many of which are beyond the control of Amaero. Amaero cautions you that forward-looking statements are not guarantees of future performance and that its actual results of operations, financial condition, liquidity, performance, prospects, growth or opportunities and the development of the industry in which Amaero operates may differ materially from those made in or suggested by the forward-looking statements contained in this announcement. In addition, Amaero does not guarantee any particular rate of return or the performance of Amaero nor does it guarantee the repayment or maintenance of capital or any particular tax treatment. Investors should note that past performance may not be indicative of results or developments in future periods and cannot be relied upon as an indicator of (and provides no guidance as to) Amaero's future performance. Amaero, its related bodies corporate and each of their respective directors, officers and employees expressly disclaim any obligation or undertaking to review, update or release any update of or revisions to any forward-looking statements in this announcement or any change in Amaero's expectations or any change in events, conditions or circumstances on which these forward-looking statements are based, except as required by applicable law or regulation.

This announcement and any materials distributed in connection with this announcement are not directed to, or intended for distribution to or use by, any person or entity that is a citizen or resident or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would require any registration or licensing within such jurisdiction.

The distribution of this announcement in certain jurisdictions may be restricted by law and persons into whose possession this announcement comes should inform themselves about, and observe any such restrictions.

Fairmont Consulting Group Market Study

The 72-page comprehensive market study and accompanying proprietary market model provides key details and analysis for 550 discrete programs in hypersonics, strategic missiles, space launch and satellite programs. The study and supporting analysis provide Amaero with a granular, program-by-program study of demand signals, market supply, powder pricing and feedstock costs, as well as an analysis and insights pertaining to Amaero's market positioning, market share opportunity and go-to-market strategy

High-temperature materials are required for numerous applications within the defence and space industries. Development and production of these materials is a complex and resource-intensive endeavor, and the material applications are in severe, demanding conditions.

Aerospace manufacturing is increasingly adopting additive manufacturing ("AM"), particularly within Amaero's target use cases in highly engineered sub-segments of the market: hypersonics, strategic missiles, space launch and satellite systems. AM is attractive to these markets due to its ability to create complex geometry, cost profile at low volumes, and significant reduction in raw material usage. The ratio of the amount of raw material originally acquired to the volume of material contained in the final part is the 'Buy-to-Fly' ratio. This metric is an important driver of total part cost, particularly when the raw material is expensive. AM can reduce traditional manufacturing buy-to-fly ratios of 40:1 for machining and 15:1 for forging to below 1.5:1 for AM - resulting in significant efficiencies during the design and manufacturing process (source: Fairmont Consulting Group).

C103 is a high-performance, heat-resistant alloy comprised of 89% Niobium, 10% Hafnium and 1% Titanium. Due to its superior refractory and conductivity properties, C103 is critical to a range of applications in hypersonics, strategic missiles, space launch and satellite programs. Mission-critical applications that include thermal protection and propulsion systems are well suited for additive manufacturing using C103 and other refractory alloys. C103 is known for its strength and resistance at high temperatures, with a melting point of ~2,350 degrees Celsius. The confluence of production-scale adoption of AM and the increasing number of applications requiring high-temperature materials are creating a large market opportunity that C103 PBF powder is well suited to address. The combination of C103's long history as a highly capable material and its ability to be additively produced bodes well for its share within the high-temperature material markets.

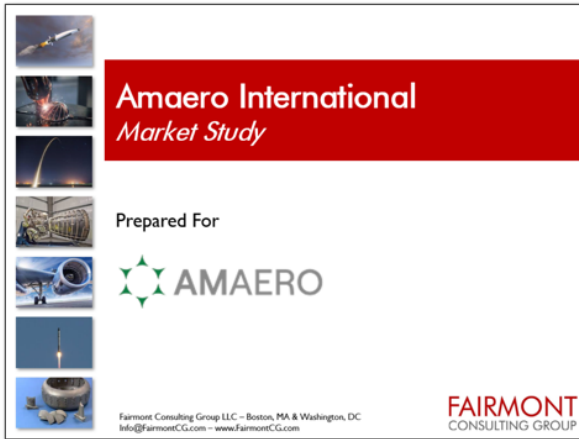
Fairmont's study and market model conclude that high-temperature material demand is forecast to double over the 5-year period ending FY2028 for an estimated annual growth rate of 15%. The study reflects C103 in all forms (wrought and powder) is expected to take share from other high-temperature materials and estimates that total C103 demand will grow at a higher rate of approximately 25% CAGR during the same period. Based on the expected growth in demand for high-temperature materials coupled with expected growth of AM insertion, Fairmont estimates that **demand for C103 PBF powder will increase by four-fold from an estimated demand of 25 tonnes in FY2025 to approximately 105 tonnes in FY2028. The expected growth in demand reflects a 62% CAGR over the 5-year period ending FY2028 (See Exhibit 8).**

The strong demand growth is driven by the U.S. military's priority initiatives in the development and production of hypersonic weapon platforms and strategic missiles, coupled with the strong investment cycle in space launch and satellite programs. The current C103 powder market is underserved. Few suppliers are qualified, and customers are faced with long lead times, inflexible production runs and high prices for C103 PBF powder today. As highlighted in the U.S. Department of Defense's recently published 59-page National Defense Industrial Strategy, improving the capability and resiliency of the defense production supply chain is a national strategic imperative. As discussed with leading DoD funded research and development laboratory, in order to accelerate adoption/insertion of additive manufacturing for high-temperature applications, it's a supply chain imperative that a U.S. domestic, agile and scalable producer of C103 and specialty alloy PBF powder emerge.

Exhibit 1: Fairmont Study Overview

Detailed Market Report

Exhaustive 72 page report detailing Fairmont's market assessment. Key program detail and outlooks, granular market analysis and substantial, Amaero market positioning, and go-to-market assessment. Detailed write-ups of critical stakeholder discussions.



Detailed report communicating all analyses and recommendations

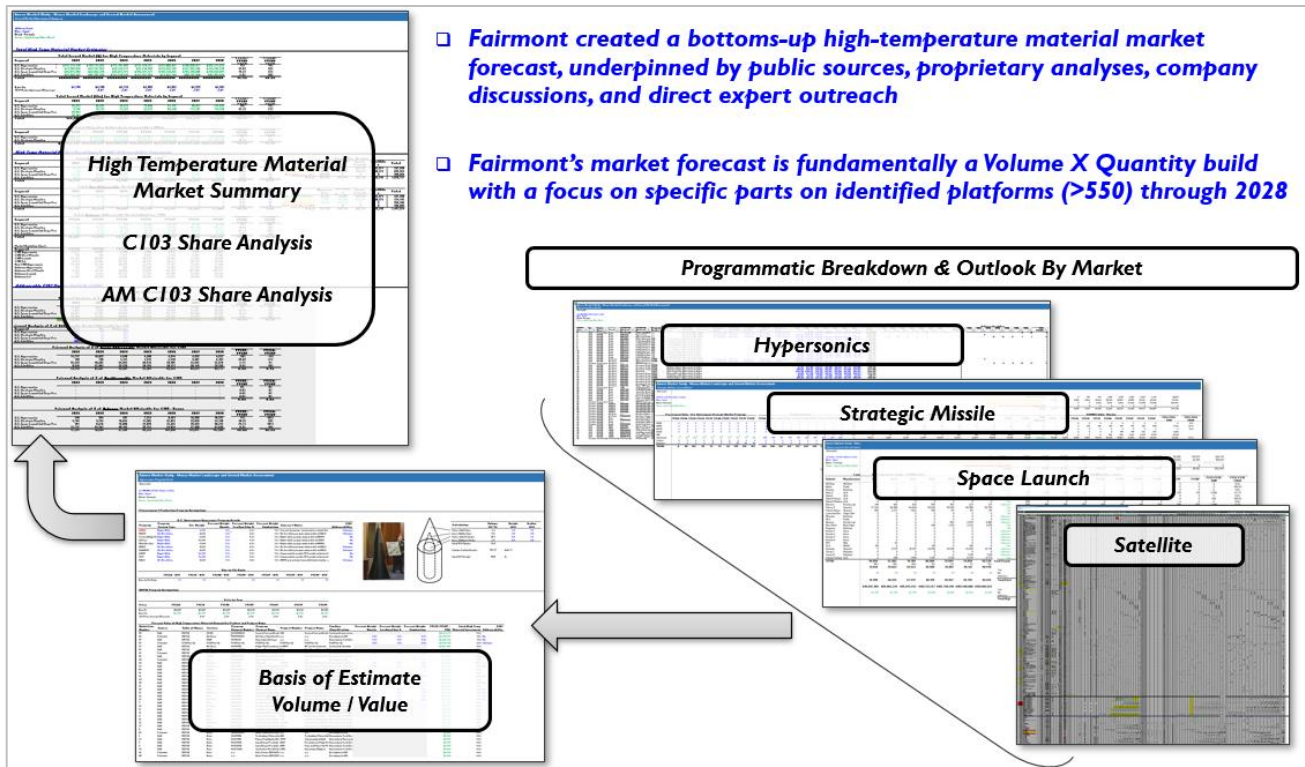
Detailed Market Model

Detailed review of over 550 discrete programs related to the markets of interest: hypersonic & strategic missiles and satellite & space launch vehicles. Bottom-up build of the C103 addressable market.



Insightful business development tool and growth plan substantiation

Exhibit 2: Fairmont Market Model Detail



Fairmont leveraged U.S. DoD Future Years Defense Program ("FYDP") budget data, market experts possessing deep expertise of the programs in question, and Fairmont's proprietary space launch forecast models with details on launches and satellite quantities. By applying estimated weights on each system based on DoD product specifications and academic research, as well as the percent weight of each product

based on open-source data, a total high-temperature material market was derived for the target markets. Within those forecasts, Fairmont then assessed the addressability of C103 as the material of choice. The forecast period was FY2023–FY2028 (inclusive), unless otherwise noted, with a geographic focus solely on the United States market. Demand for high-temperature materials across the four markets of interest is projected to double in the five years ending FY2028 (U.S. Gov’t fiscal year ending September 30), resulting in an estimated CAGR of 15% (see Exhibit 7). Several of the markets show outsized growth in demand, underpinned by significant public and private investment.

Hypersonics

Hypersonic weapons require high-temperature materials for thermal protection systems including applications in first and second-stage rocket nozzles of the launch and propulsion systems of the weapon.

Growth is driven by ramping production of boost-glide weapons such as the Army’s Long-Range Hypersonic Weapon (“LRHW”) and the Navy’s Conventional Prompt Strike (“CPS”), and the development of air-breather hypersonic missiles

The U.S. government’s priority focus and funding for the hypersonics market has resulted in a surge of activity and development.

Strategic Missiles

Strategic missiles require high-temperature materials for their first-, second-, and third-stage rocket nozzles. The missiles also require high-temperature materials for their reentry vehicles, which experience extreme environments as they travel back through the atmosphere. The U.S. is developing the Sentinel platform to replace the 60-year-old Minuteman Intercontinental Ballistic Missile (“ICBM”) platform. The modernisation of the United States’ nuclear triad via the Sentinel program drives high-temperature material requirement growth.

Space Launch

Space launch vehicles require high-temperature materials for their first- and second-stage rocket motor nozzles, which must endure extreme conditions during launch. The space launch market is evolving as additional suppliers enter the market and the cost per launch decreases. C103 is well-established in this market for second-stage rocket motor nozzle extenders that operate after the core stage has successfully propelled the rocket from the ground to approaching orbit.

For space applications, C103 is commonly used in a rocket’s engine expansion nozzle, the bell-shaped nozzle visible at the aft end of a rocket. C103 was used on the Apollo program for the engine nozzle of the upper

Exhibit 3: Hypersonics

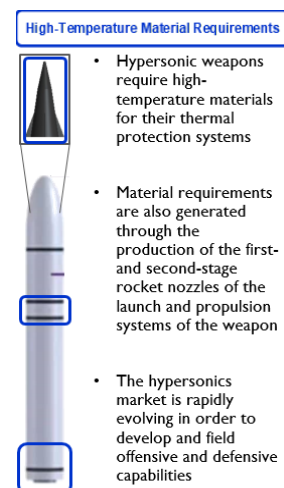


Exhibit 4: Strategic Missiles

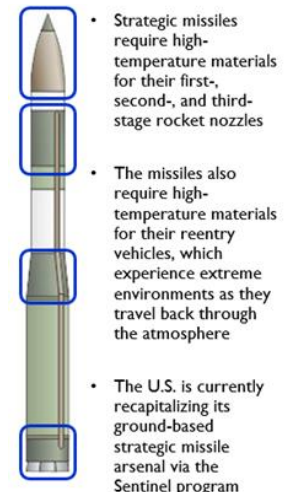


Exhibit 5: Space Launch

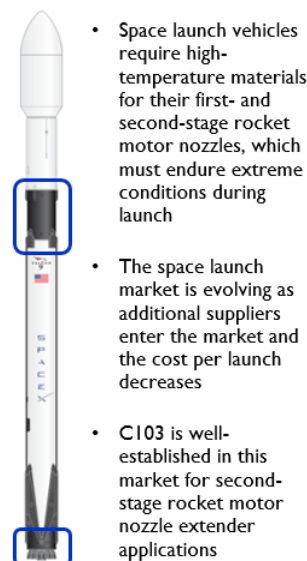
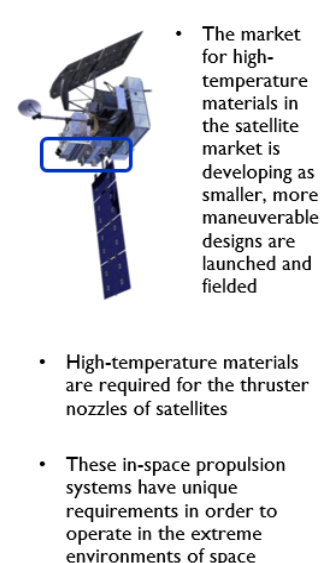


Exhibit 6: Satellites



stage Service Propulsion Module that transited to the Moon.

Satellites

The market for high-temperature materials in the satellite market is developing as smaller, more maneuverable designs are launched. High-temperature materials are required for the thruster nozzles of satellites to maneuver in orbit. These in-space propulsion systems have unique requirements to operate in the extreme environments of space. C103 is also used for the nozzles on satellite thrusters.

The growth of broadband communications constellations fuels demand for high-temperature materials, with a shift from larger satellites to constellations of more numerous small satellites.

Exhibit 7: Estimated High-Temperature Material Demand by Sub-Market

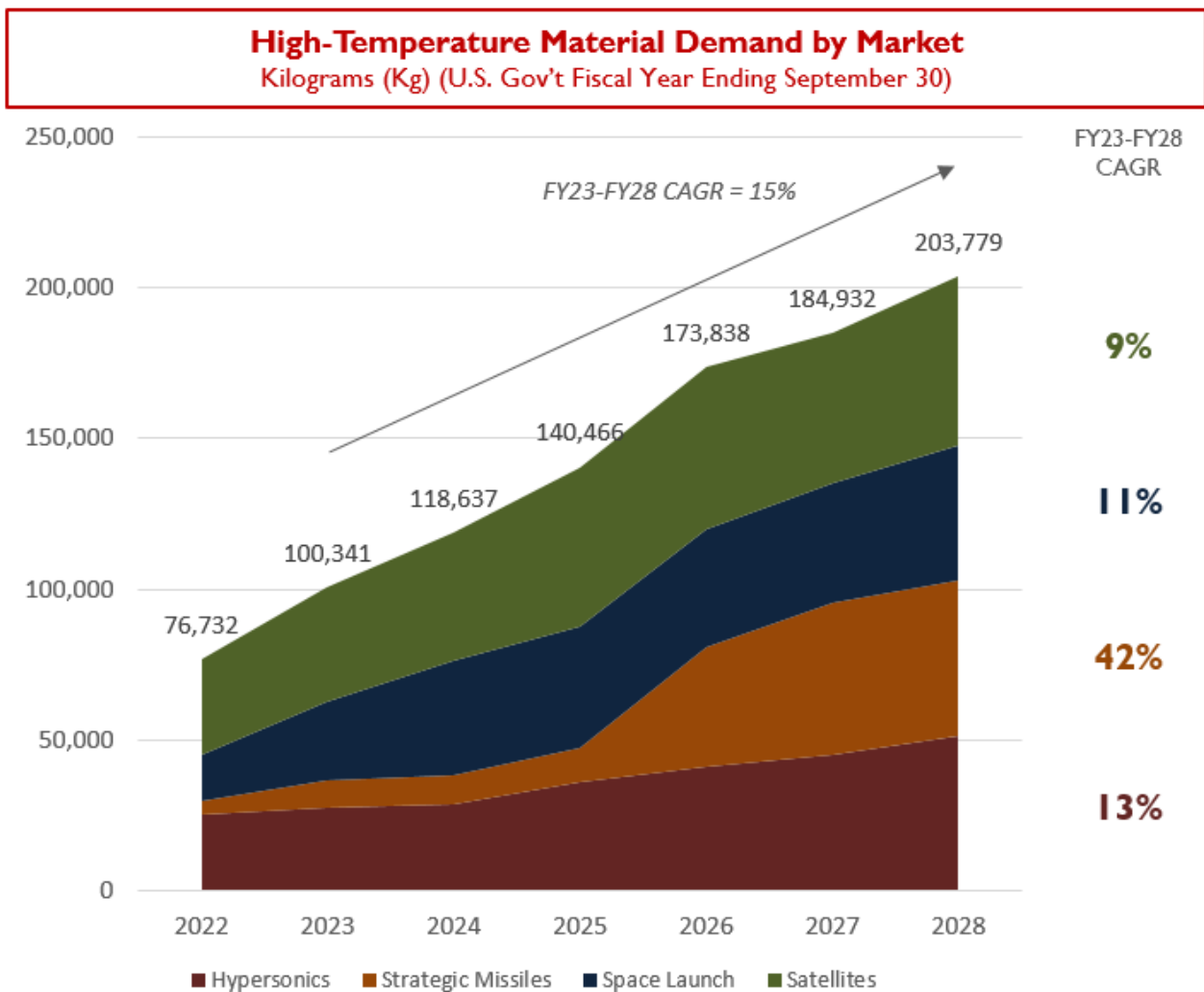
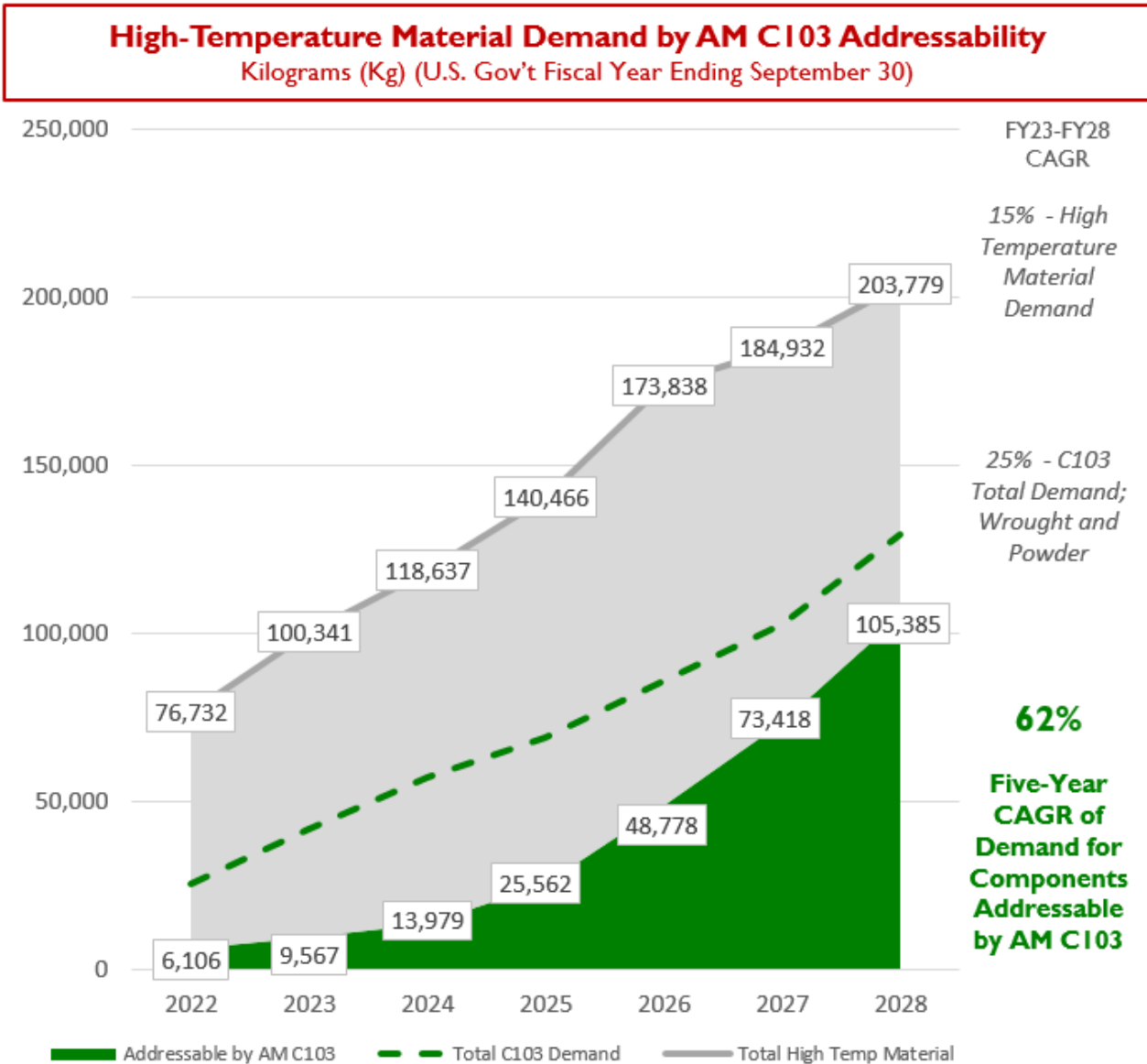


Exhibit 8: Estimate High-Temperature Material Demand by C103 Addressability



Production Planning, Feedstock Cost and Powder Prices

Production across Amaero's current and planned four atomisers is shaped by the following strategic plan:

- i. Prioritise C103 and development refractory alloys;
- ii. then, other high-value specialty alloys;
- iii. then, allocate excess production capacity to titanium alloys.

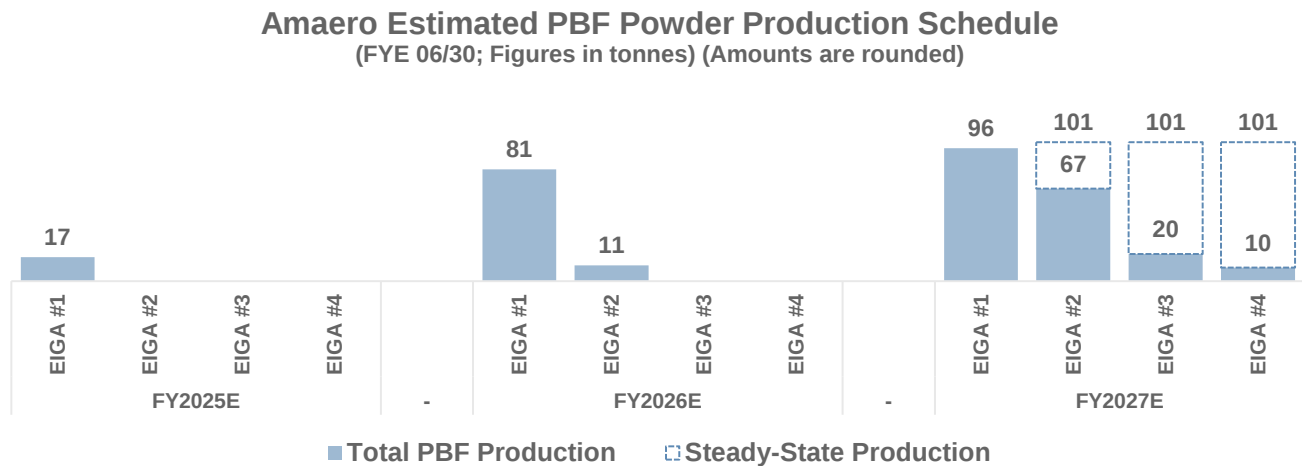
Amaero's expected PBF powder yield is industry leading and estimated to be approximately double the yield achieved by alternative atomisation technologies.

It takes approximately 20 months from purchase order to commissioning for each EIGA Premium. The EIGA commissioning includes equipment assembly, followed by cold and hot testing. EIGA #1 assembly will commence in February 2024 and commissioning is expected to occur in June 2024. Powder production and qualification is expected to commence in Q1 FY2025, with the 1st shift of production scaling through Q4 FY2025. In FY2026, Amaero expects to ramp EIGA #1 production with two additional shifts of production. Amaero believes qualification of C103 and high-value specialty alloys may be expedited due to lack of U.S. domestic and customer responsive supplier alternatives. In anticipation of an estimated 12-18 month qualification process for Ti-64 PBF powder, Amaero plans to produce Ti-64 powder with EIGA #1 and to commence qualifications with multiple customers

Production is expected to commence by atomiser on the following schedule:

- EIGA #1: Q1 FY2025
- EIGA #2: Q2 FY2026
- EIGA #3: Q1 FY2027
- EIGA #4: Q2 FY2027

Exhibit 9: Estimated Production Schedule by Atomiser



Note, Steady-State Production indicates expected capacity production to be achieved after FY2027.

It should be noted that the estimated date for commencement of production by atomiser is subject to delay due to potential risks that include availability of funding, delay in manufacturing and shipping of atomisers, delay in testing and parameter optimization, delay in qualification of powder and lack of demand.

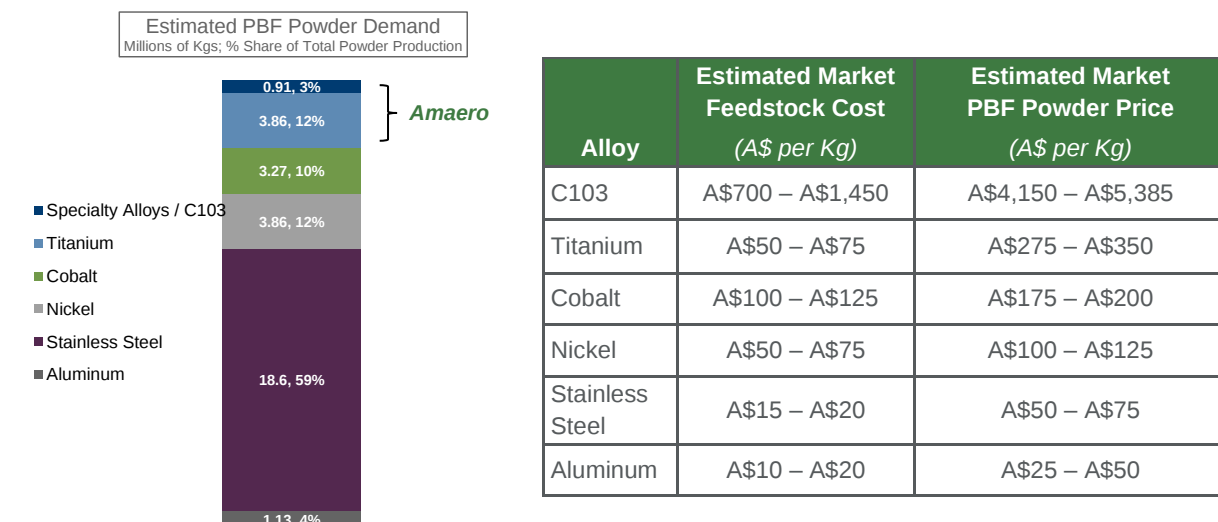
Amaero plans to prioritise production of C103, development refractory alloys and other high-value specialty alloys in EIGA #1. For production planning, Amaero has based its production planning on the expected commissioning period for the four planned atomisers and Fairmont's estimate of total C103 PBF demand and Amaero's achievable market share. Pertaining to Fairmont's estimate of Amaero's achievable market

share, the estimate takes into consideration the limited supplier base for U.S. domestic production, the lack of production capacity that can be responsive with lead times and with smaller batch production runs and the lack of proven atomization technologies that are capable of scaling powder production for refractory alloys. As a powder producer of multiple alloys and more flexible production environment, Amaero is positioned to adjust production runs based on final demand.

Total metal PBF powder production in North America in CY2022 was estimated at approximately 32 million kgs with approximately 85% of production dedicated to commodity metals, including stainless steel (59%), nickel alloys (12%), cobalt alloys (10%) and aluminum alloys (4%). Of total metal powder production, only 15% of production is dedicated to higher value powders – Ti-64 (12%) and specialty alloys (3%).

As specialty alloy powders comprise smaller volumes and require disruption to long production runs with changeover between materials, commodity-oriented powder producers are not well suited for smaller batch, higher value production runs. Further, certain of the atomisation equipment utilised to atomise stainless steel, nickel and other powders is not capable of operating at a sufficiently high melting point to atomise C103 and refractory alloys.

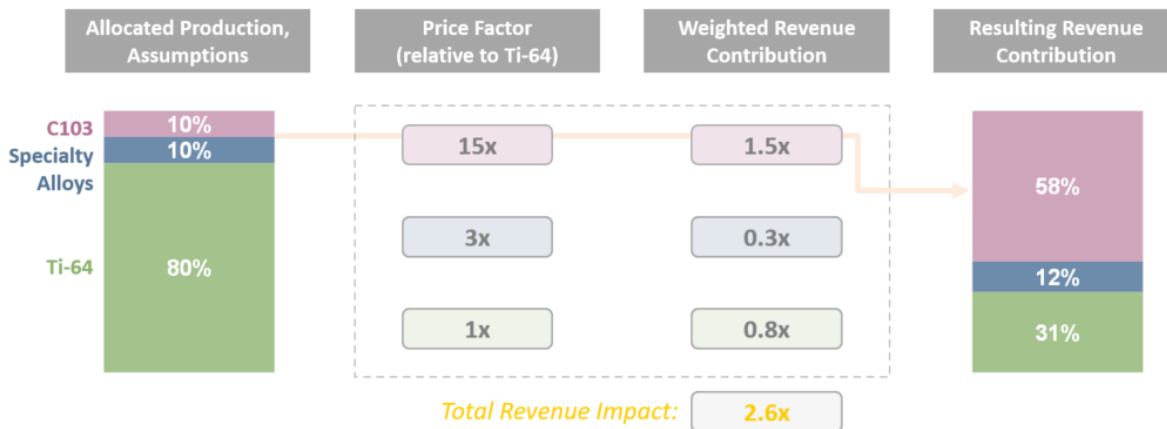
Exhibit 10: Estimated Alloy PBF Powder Demand and Price



Relative to commodity alloys, Ti-64 yields a higher price and more attractive unit economics. At capacity, the Company expects that four atomisers (4 atomisers with 3 production shifts / atomiser) could produce approximately 800 tonnes of Ti-64 powder (~400 tonnes of PBF powder). As C103 powder currently commands an approximately 15x higher market price than Ti-64, a single shift of production of C103 or ~33 tonnes of PBF powder should result in a more than doubling of revenue expected from four atomisers dedicated to Ti-64 powder production.

Though Amaero is not providing guidance on production planning by alloy, the below example illustrates that a 10% allocation of production capacity to C103 and 10% allocation to specialty alloy powders (20% total) would result in an estimated increase in revenue of 2.6x, as compared to production dedicated to Ti-64. The price factor estimates the price of C103 and specialty alloy versus a base price for Ti-64; for example, the average current price of C103 PBF powder as summarized in Exhibit 10 is estimated at \$4,768 / kg versus an average price of Ti-64 is estimated at \$313 / kg resulting in a Price Factor of approximately 15x. Specialty alloys will span very high-value refractory alloys and other specialty alloys, Amaero has assumed a Price Factor, on average, of 3x for specialty alloys.

Exhibit 11: Revenue Contribution by Alloy, Illustrative Example



The higher revenue expected to be achieved from C103 and other high-value specialty alloys in EIGA #1 would accelerate the path to profitability. Further, prioritising production of C103 is expected to establish Amaero's differentiated market position as the largest U.S. domestic supplier of refractory and other high-value specialty alloys while delivering a more responsive, customer-centric production environment.

Amaero's expected higher yield of PBF powder would result in the Company being a lower cost producer in the U.S. The more resilient and scalable supply chain coupled with the expected shift in the cost curve will strengthen the case for insertion of additive manufacturing of high temperature materials such as C103 and development refractory alloys for mission-critical applications such as thermal protection and propulsion systems.

The powder cost as a percentage of end-part price increases for high-value powders. As such, Amaero's position as a lower cost producer is more impactful on the end-part price and margin for C103 and high-value specialty alloys. Based on a mid-size 3D printer such as a SLM280, an average material deposition rate of 15cc / hr, a 7 day build, densities of 4.43 g / cc for Ti-64 and 8.85 g / cc for C103 and PBF powder costs of \$275 / kg for Ti-64 and \$4,250 / kg for C103, a comparative estimate of final end-part price follows,

Exhibit 12: Powder Cost as Percentage of End-Part Pricing

Illustrative End Part Pricing Decomposition				(AUD)	
	Ti-64		C103		
	\$	%	\$	%	
Engineering / Print / Post Processing	9,000	74%	9,000	9%	
PBF Powder	3,100	26%	94,800	91%	
End Part Total Price	\$12,100	100%	\$103,800	100%	

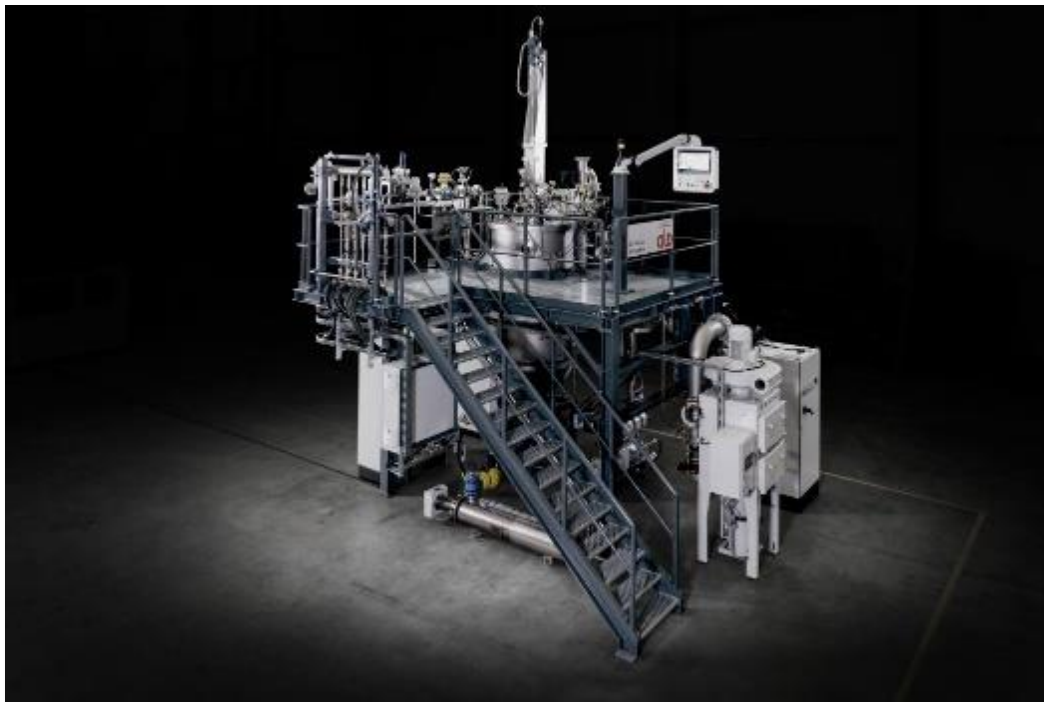
As powder contributes approximately 91% of end-part pricing for part produced from C103 versus an approximately 26% of end-part pricing for part produced from Ti-64, a reduction in powder cost disproportionately affects the final cost for a part produced from C103. As an example, a 10% reduction in powder cost would result in an approximate 3% reduction in estimated pricing of a part produced from Ti-64 compared to a 9% reduction in estimated pricing of a part produced from C103.

Industry-Leading Technology and Experienced Team

Utilising ALD’s world-leading EIGA 100-1000 Premium technology (see Exhibit 13) alongside Amaero’s process and parameter optimization know-how, Amaero is expected to produce industry-leading yield of PBF specification powder with highly consistent quality in terms of powder morphology and sphericity. In the inert gas atomisation process, induction heating is used to melt solid metal electrode feedstock, and a stream of molten metal flows through high-pressure inert gas which breaks apart the molten metal stream into droplets that solidify in-flight into spherical powder particles. This process enables the cost-efficient and reliable production of metal powders with specific quality criteria such as size, shape, rheological flow characteristics, and oxygen and nitrogen content.

Importantly, EIGA technology is one of the few atomisation technologies that is capable of melting high-temperature refractory alloys.

Exhibit 13: ALD EIGA Premium



Following Pegasus Growth Capital’s initial investment in the Company in May 2022, Pegasus’s Founder and Managing Partner, Hank Holland, and the Board undertook a review of its operational and strategic plan. Following this review, the Company announced that Holland would assume the role of Chairman and CEO, that the Company would scale its titanium alloy powder production plans and that the Company would exit other businesses including contract 3D manufacturing and 3D equipment sales. In July 2023, Amaero announced it would relocate to Tennessee. Following the announced move to Tennessee, Amaero announced that it would prioritise production of first atomizer to C103 and other high-value specialty alloys.

Amaero’s strategic focus on critical and high-value specialty alloy production positions it at the intersection of U.S. national security and U.S. economic policy. To accelerate and support the buildout of Amaero’s Tennessee production facility, Amaero hired experienced industry veterans Eric Bono (President and CTO), Chris Scanlon (CFO), Steve Kachur (CCO), Jay Chandran (COO) and Ron Aman (Director of Manufacturing). In December 2023, Amaero’s EIGA #1 from ALD Vacuum Technologies GmbH (“ALD”) was delivered to Amaero’s facility in Tennessee, and commercial powder production is expected to commence in

Q1 FY2025. EIGA #1 will be focused on C103 powder production, with excess capacity filled by development refractory alloys, other high-value specialty alloys and Ti-64. The next-generation EIGA Premium technology utilised by Amaero will be only the second to be commissioned in the world, and the first to be commissioned in the United States; further, Amaero's technical team brings decades of atomisation experience and specialised know-how which, as supported by early trials to date, is expected to produce industry-leading PBF yields. Amaero has placed its order for a second atomiser ("EIGA #2") from ALD with delivery expected in CY2025. The McDonald, Tennessee facility has been designed for capacity to operate five atomisers.

Specialty alloys are proprietary blends created on a bespoke basis. Due to the lower volume and higher value of specialty powders, coupled with the customer-centric production planning and responsive lead times, Amaero's production strategy is expected to produce more attractive unit economics. Given the lower volume production runs coupled with the approximately two year lead time from atomization equipment order to commercial powder production, Amaero expects to have a first mover advantage and a defensible market position. Titanium alloy powder will be sold into an established and growing base of demand for U.S. domestically produced titanium powder that is expected to exceed Amaero's allocated production capacity.

Among the current supplier landscape, C103 and high-value specialty alloys are ancillary products within larger, more commodity metal alloy portfolios. This results in inflexible production schedules including long lead times and an inability to procure small batch production. With one atomiser expected to be commissioned in June 2024 and a second atomiser ordered, Amaero expects to provide a highly underserved C103 and specialty market with a much needed U.S. domestic, agile and scalable supplier.

It's customary for materials utilised in AM applications that the end-part manufacturer and/or the prime contractor may require testing of the material and AM printed specimens to assure that it meets specifications, including chemical, physical, metallurgical, dimensional and mechanical properties. As powder manufacturing is process and parameter dependent, manufacturers must also demonstrate that the process and parameters are stable and repeatable. In the case of commodity powders such as stainless steel and nickel alloys, end customers have numerous approved suppliers and a more resilient supply chain. In the case of Ti-64, end customers may have numerous approved suppliers; however, there is expected to be strong growth in AM applications coupled with desire to shift the supply chain to U.S. domestic production. In the case of C103, development refractory alloys and other specialty alloys, end customers are currently reliant on a limited universe of qualified suppliers and there is expected to be a strong preference for U.S. domestic suppliers.

As successfully qualifying PBF powder is a predicate condition for many commercial sales, Amaero will seek initial offtake agreements for C103 that include a purchase order and that provide for timely testing to support qualification. Based on the prior C103 qualification by another supplier utilising EIGA atomization technology, based on Amaero's technical team's prior experience qualifying PBF powder and based on trials performed on Amaero's EIGA Premium while installed in Germany, Amaero expects that the C103 and specialty alloy powders will achieve qualification. There is a risk that achieving the initial steady state process and parameter optimization could result in a delay to the planned production schedule and planned commercial sales. As it relates to qualification of titanium PBF powder, Amaero expects a longer period to complete qualification and to be accepted as an approved supplier by some end customers. Amaero plans to produce titanium PBF powder in FY2025 that can be utilised for testing and qualification purposes. Amaero expects that there will be other market demand for titanium alloy powder that does not require prior qualification and that commercial sales would be a combination of "prior qualification" PBF powder sales and "prior qualification not required" PBF powder sales.

Apart from specific PBF powder qualification that may be required from end customers, industry-standard quality management systems (QMS) must be certified. Amaero is currently AS9100 and ISO 9001 certified at other facilities and expects to achieve the certifications for its Tennessee facility in FY2025.

Planned Capital Expenditures

Amaero has developed a capital investment plan that supports the planned production schedule. Estimated capital expenditures, including facility fit out and capital equipment, are summarised below,

Exhibit 14: Estimated Capital Expenditures by Fiscal Year

Amaero Capital Expenditures by Fiscal Year				(AUD in millions)
	FY2024E	FY2025E	FY2026E	FY2027E
Facility — Fit Out	8.1	14.5	—	—
Facility — FP&E / ERP	—	3.1	—	—
Atomisers (4)	2.0	7.0	6.6	0.5
Ancillary Equipment	7.8	11.8	9.8	5.0
Total Capital Expenditures	\$17.9	\$36.3	\$16.4	\$5.6

Note: FY2024 excludes Q1 and Q2 which have already been funded.

Project Funding

To achieve the planned production, funding for capital expenses through FY2027 is estimated at \$76 million (See Exhibit 14). As stated in prior ASX announcement dated 29 January, the Company expects to achieve breakeven operations in CY2025. Losses from operations in CY2024 are estimated at \$14 million.

An assessment of various funding alternatives has been considered based on Amaero's prior capital raises and based on precedent financing transactions in the advanced manufacturing, critical materials and defence production supply chain sectors. Given the strategic nature of Amaero's capability, coupled with the U.S.' strategic imperative to re-shore capabilities, Amaero considers that it has reasonable grounds to expect that funding is likely to be available from a combination of equity capital, government-funded grants and asset-backed debt financing.

Investors should note that there is no certainty that Amaero will be able to raise the amount of funding when needed and it is possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Amaero's shares.

Pegasus Growth Capital, the investment firm associated with Hank Holland, currently owns 188.5 million ordinary fully paid shares or 39.3% of the total issuance of ordinary shares. Amaero's Executive Chairman and CEO, Hank Holland, as well as other Board members have strong capital markets experience and deep connectivity in the U.S. capital markets. Board members also have strong legal experience relating to corporate finance, capital markets, mergers and acquisitions.

Government-funded grants and non-dilutive capital programs are potentially available. The President of the United States has issued executive orders requiring strong actions by Department of Defense to secure and re-shore the supply chains of critical defence production, including the supply of advanced materials. Further, the U.S. Congress strongly supports the DoD's supply chain efforts and has appropriated funding to execute on re-shoring initiatives. Amaero has submitted applications and predicate submittals for numerous federal government funded programs.

State of Tennessee and Local grants totaling US\$820,000 (approximately A\$1.26 million) are contractually committed and funding is expected to be received by end of FY2024. The FastTrack Economic Development grant is based upon Amaero's (i) creation of 105 new full-time jobs and (ii) capital investment of at least



US\$54.9M by July 2028. The VIP Performance Grant is based upon Amaero's (i) creation of 120 full-time jobs and (ii) capital investment of at least US\$55M by August 2028.

In addition to above State and Local grants, Amaero received 10-year subsidized electricity rate, tax credits, property tax reduction and other economic incentives.