AMAERO
ADDITIVE MANUFACTURING
ASX:3DA

ASX Release **11 May 2020**

Amaero enters into a commercial collaboration for 3D printing via a Research Agreement with Fletcher Insulation - a leading Australian insulation company

Highlights

- **Amaero has entered an Agreement with Australia's leading insulation company, Fletcher Insulation, for the development of an additive manufacturing application, to provide a superior tooling solution for Fletcher.**
- **Once 3D printed, tested and approved by Fletcher Insulation, Amaero and Fletcher Insulation will work to commercialise this opportunity.**
- **Fletcher Insulation has a national sales and distribution footprint comprising two manufacturing plants and over fourteen branches across Australia.**
- **The Agreement will provide revenue and subject to performance will result in serial production revenues consistent with Amaero's growth strategy and will require additional capital equipment to meet volume requirements.**

Amaero International Limited ("**Amaero**"), (the "**Company**") a leader in metal additive manufacturing, is pleased to announce that the Company has entered a Research Agreement ("**Agreement**"), with Fletcher Insulation Pty Ltd ("**Fletcher Insulation**") commencing 15 May 2020.

Under the Agreement, Amaero will manufacture and test the new tooling production technique, and once tested and approved by Fletcher Insulation, Amaero and Fletcher Insulation will work together to commercialise the opportunity.

Fletcher Insulation National Operations Manager, Andrew Rowe, commented: "Being able to improve the performance of the process by applying greater flexibility in tooling design, enabled by Amaero's Additive Manufacturing process, provides an exciting opportunity for Fletcher Insulation to explore."

Amaero CEO, Barrie Finnin, commented: "We are very pleased to have entered this Agreement with Fletcher Insulation. In the coming months we will print tooling that will be tested at full operational load, and if successful, Amaero expects to win supply agreements for tooling to be manufactured in our Melbourne and Los Angeles facilities."

"The Company continues to grow its pipeline and build capability, and this project is further validation of the successful strategic shift to the manufacture and supply of tooling using additive manufacturing".

While the commercial terms are confidential, the Agreement is significant to Amaero's business model, as it validates the new focus on the manufacture and supply of tooling using additive manufacturing as identified in the IPO prospectus. Material terms relating to the Agreement are detailed in the latter part of this document.

The Agreement with Fletcher Insulation aligns with Amaero's short term strategy of focussing predominantly on tooling and prototyping work. Amaero will own the intellectual property arising from the project.

David Hanna
Chairman Amaero
International Limited

This ASX release is approved by the Board of Amaero International Limited.

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About Amaero International Limited:

Amaero International Limited is an Australian based company that manufactures large format complex components in metal with laser-based additive manufacturing processes, commonly known as 3D printing.

The principal activity of Amaero is the provision of end to end additive manufacturing solutions in terms of services, equipment and technology to its key clients in the Aviation Defence and Space sectors and the Tool and Die industry.

Amaero has worked with many of the world's leading manufacturers of aerospace and defence products in both an R&D and manufacturing capability and has a demonstrated ability to deliver aviation and military specification 3D printed alloy critical operation components.

Amaero was established with the support of Monash University in 2013 to take advantage of commercial opportunities identified by the Monash Centre for Additive Manufacturing (MCAM). Amaero is co-located with MCAM in Melbourne Australia. It operates two additional facilities, in Adelaide, South Australia, and El Segundo, California, USA.

About the tooling market:

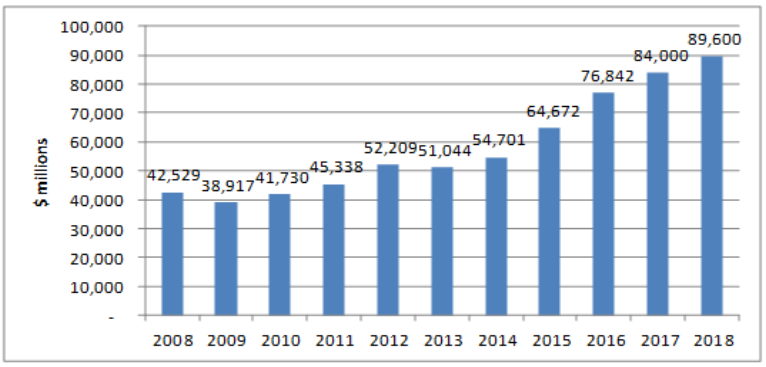
The tooling market was evaluated by Frost and Sullivan as part of their industry report, below is an excerpt from the report.

Tooling refers to the fixtures, tools and accessories that are used in machine tools such as computer numerical control (CNC) machines and injection moulding machines, including jigs, dies, moulds and patterns. The manufacture of tooling is a significant global industry, with the global dies and moulds market estimated at $90 billion in 2018. Over the decade since 2008, the market has grown at a CAGR of 7.7%.The metal dies and moulds segments account for about 50% of the market. [1] Market growth in tooling is driven by requirements for increased product customisation and shorter life-cycles and the growth of manufacturing in developing countries, especially China, which is now the world's largest producer and user of tooling.

Agile tooling (or rapid tooling) is a growing application for AM, where it is used to manufacture tools or tool components themselves in metal or plastic, or in producing patterns or moulds which are then used to manufacture tools. This can significantly reduce the lead time and cost of tooling manufacture. Additionally, use of AM for tooling can reduce material waste and the amount of labour required to produce tooling. It can also improve the functionality of tooling, for example by allowing the production of tooling in designs that were previously unobtainable or unaffordable.[2] For example, AM allows the manufacture of injection moulding tooling incorporating free-form cooling channels that provide more homogeneous

heat transfer during the injection moulding process. This gives improved cooling characteristics with the quality of the injection-moulded items higher.[1]

Figure 1: Dies and Moulds Market, Global, 2008 to 2018



Source: ISTMA, Statistical Yearbook 2017; Frost & Sullivan estimates for 2017, 2018

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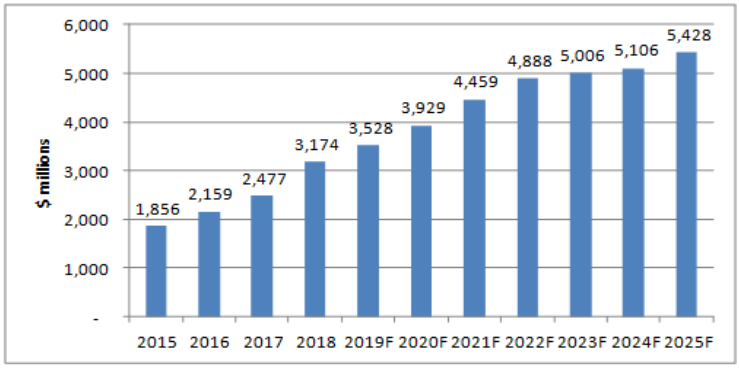
Agile tooling is particularly important for manufacturers located in relatively high-cost markets such as North America and Europe, which are generally unable to compete with countries such as China in high volume manufacturing. Consequently, manufacturers in these countries are increasingly focused on lower-volume, more specialised production. Agile tooling supports these manufacturers in being able to more quickly set up machines for manufacture of lower-run items.

Whilst tooling is a more mature and slower-growing application for AM than finished part manufacture, it remains a significant market opportunity, with strong growth still forecast given the growing adoption of agile tooling by manufacturers. Frost & Sullivan forecasts that the market for AM in tooling applications (including systems, materials and services) will increase from $3.17 billion in 2018 to $5.43 billion in 2025 at a CAGR of 11.3%.

Figure 2: AM Market Size, Tooling, 2015 to 2025F



Source: Frost & Sullivan

[1] Petrovic et al, Additive layered manufacturing: Sectors of industrial application shown through case studies, International Journal of Production Research 49, no. 4
2 Amaero Prospectus 2019
3 Amaero Prospectus 2019

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Material terms of the Research Agreement

Name of the customer
Fletcher Insulation Pty Ltd

Term of the Agreement
6 months

Nature of the products or services to be supplied to the customer
A project involving the manufacture and testing of a new tooling technique which, if successful, are intended for production.

Significance of the Agreement to Amaero;
It will provide revenue and subject to performance will result in an opportunity for serial production revenues consistent with Amaero's growth strategy and require additional capital equipment to meet volume requirements.

Any other relevant material information
Amaero will own the intellectual property arising from the project.