

# Titomic signs \$1.8 million Defence MoU with TAUV

- Titomic signs 12-month \$1.8 million exclusive defence program with TAUV Pty Ltd.
- Next Generation of Soldier Systems to be manufactured by Titomic Kinetic Fusion™
- Validation of TKF automated AM production line systems in key target industry.

**Melbourne, Australia Monday 22nd October 2018:** Australian metal additive manufacturing Company Titomic Limited (ASX: TTT) ("Titomic" or "Company") is pleased to announce it has signed an agreement with TAUV Proprietary Limited ("TAUV") to commence an up to \$1.8 million exclusive defence program to manufacture unmanned aerial vehicles ("UAV"), solider systems and solider sensors for TAUV.

Following the successful launch of the Titomic manufactured TAUV ruggedised drone prototype at Land Forces 2018 (Phase I), the parties entered into an MoU for a further two-phase extension to the relationship with TAUV to license the patented Titomic Kinetic FusionTM (TKF) technology to manufacture next-generation soldier systems. "The soldier systems market is projected to grow from USD\$9.78 billion in 2018 to USD\$14 billion by 2023, at a CAGR of 7.65%1."

Under Phase II Titomic will deliver a feasibility report to TAUV outlining the various performance parameters, mechanical properties and product cost advantages of the Titomic technology including proof of concept prototypes. To maintain exclusivity, TAUV must execute Phase II, outlining the Specific Products on or before 30th November 2018, at a total Phase cost of \$300,000.

Phase III will comprise of Titomic designing and engineering a manufacturing process for TAUV's soldier system for up to five (5) different specific products at a total cost of \$300,000 per product for total revenue of up to \$1.5 million.

On successful completion of production and evaluation trials (Phase III), TAUV will finalise product licenses with Titomic to use the TKF technology automated production line systems to manufacture soldier system products with ongoing royalty payments to Titomic for use of the TKF technology.

TAUV's recent successful launch of the world's first ruggedised titanium tactical UAV at Land Forces 2018 created excitement across the defence and additive manufacturing industries and was widely covered in the global media. TAUV received huge interest for not only its UAV, but for other soldier system products, such as helmets and body armor and has sought to secure exclusivity with Titomic for these products.

Working closely with Force Ordnance, TAUV will be providing product innovation and advanced manufacturing solutions to some of the worlds largest defence product manufacturers.

These international partnerships stem from an increasing global demand for new, innovative defence products.



TAUV Tactical Unmanned Aerial Vehicle at Land Forces, 2018

The market size and demand for these military products has significantly expanded, with current figures across each area of the Soldier System and Soldier Sensor market including:

- Tactical UAV market which was estimated to be valued at USD\$545 million<sup>2</sup> in 2018;
- Combat helmets market which is estimated to grow to USD\$3 billion³ by 2024;
- Body armour market which is estimated to be valued at USD\$4 billion⁴ by 2024.

The TKF process provides innovative capabilities for defence organisations to produce next-generation, lightweight, high-performance defence products using advanced 3D additive manufacturing techniques which achieve improved performance characteristics compared to traditional manufacturing methods.

Titomic is the global leader in fully-automated digital metal manufacturing systems that compete directly with traditional manufacturing methods at comparable, or reduced, cost with enhanced performance properties.

## **Titomic Managing Director, Mr Jeffrey Lang commented:**

"This MoU with TAUV provides the first significant revenue for Titomic. The granting of an exclusive license to TAUV for the production of soldier systems further validates Titomic's licensed CSIRO patents as a viable additive manufacturing process that enables Australian companies to manufacture cutting-edge products with competitive advantages for the global market."

### **TAUV Director, Nathan Kalisch, Director of TAUV, added:**

"The solider system products produced by Titomic's TKF process will enhance the offering to defence and law enforcement agencies through improved strength, functionality and capability. A new ruggedised UAV will be capable of deployment in dangerous, live combat situations to perform some of the direct combat roles we want to remove military personnel from, heightening their security."



Titomic Managing Director Jeff Lang, TAUV Director Nathan Kalisch and Titomic Sales Manager Elias Baini (from left).

#### Sources:

- 1) Soldier systems market by end user (military, homeland security), type (personal protection, communication, power and transmission, surveillance and target acquisition, navigation and health monitoring, vision), region global forecast to 2023 (Research and Markets https://www.researchandmarkets.com/research/fvpwlk/14\_billion?w=5).
- 2) Teal Group. (n.d.). Estimated worldwide production value for unmanned aerial vehicles (military drones) from 2013 to 2022 (in million U.S. dollars). In Statista The Statistics Portal.
- 3) Variant Market Research. Advanced Combat Helmet Market Overview https://www.variantmarketresearch.com/report-categories/defense-aerospace/advanced-combat-helmet-market
- 4) Global body armour market size \$4 billion USD in 2016 https://www.grandviewresearch.com/industry-analysis/body-armor-market

#### **Contacts:**

James Strong Investor Relations +61 (0) 448 881 174 investors@titomic.com

#### **About TAUV Pty Ltd (TAUV)**

TAUV is an Australian company specialising in the integration of electronical technologies into personnel solder protection to develop intelligent platforms for advanced soldier systems to improve soldier safety and performance whilst enabling advanced tactical systems to ensure optimal operational advantage. This UVAs and soldier system capabilities can also be applied to develop super lightweight protection and airborne assets for defence, law enforcement and civil industry. Force Ordnance purchased a 50% stake in TAUV during 2018. For more information on TAUV, visit https://tauv.systems

For more information on Titomic, visit www.titomic.com and follow us on LinkedIn, Facebook and Twitter.

#### **About Titomic:**

Titomic (ASX:TTT) is headquartered in Melbourne, Australia. The company overcomes limitations of additive manufacturing (3D printing) for metals to manufacture complex parts without shape or size constraints. Titomic Kinetic Fusion offers manufacturing which enables speed-to-market, superior products with lower production inputs and using less resources for a more sustainable future.

Titomic systems can be customised to client requirements offering additive manufacturing advantages at industrial scale. Multiple robots can be utilised to scale up in both speed and size to compete with traditional subtractive manufacturing for industries such as aerospace, defence, resources (oil & gas, mining, industrial equipment), marine, construction, automotive and consumer & sporting goods.

Other benefits of the Titomic Kinetic Fusion technology include:

- Joining dissimilar metals and composites for engineered properties in a structure
- no heat-related oxidation or distortion issues when it comes to manufacturing large parts
- Reduced time to market with industry-leading deposition speeds

Titomic's business model involves providing clients with feasibility tests and manufacture of prototypes to work out the manufacturing costs of the product. Clients will be offered a licence to manufacture via Titomic Kinetic Fusion or choose to commission their own Titomic system. After the system sales, Titomic continues to support clients with powder and consumables supply, system upgrades, service and maintenance. For more information visit: www.titomic.com

#### Forward-looking statements:

Certain statements made in this release are forward-looking statements and are based on Titomic's current expectations, estimates and projections. Words such as "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates," "guidance" and similar expressions are intended to identify forward-looking statements. Although Titomic believes the forward-looking statements are based on reasonable assumptions, they are subject to certain risks and uncertainties, some of which are beyond Titomic's control, including those risks or uncertainties inherent in the process of both developing and commercialising technology. As a result, actual results could materially differ from those expressed or forecasted in the forward-looking statements. The forward-looking statements made in this release relate only to events as of the date on which the statements are made. Titomic will not undertake any obligation to release publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this release except as required by law or by any appropriate regulatory authority.