TITOMIC awarded $2.325 million MMI grant for space-based applications

27 August 2021

- **Titomic awarded $2.325 million Federal Government Modern Manufacturing Initiative grant as part of a planned total eligible project expenditure of $4.65m to create space vehicle manufacturing capability**

- **Titomic Kinetic Fusion additive manufacturing will be used to uniquely manufacture and commercialise low carbon emission "green" titanium space vehicle demonstrator for the Australian space sector and export markets.**

- **Titomic to develop heterogeneous material blends, and high-performance coatings for radiation shielding, thermal heat exchange and hypersonic protection of satellites and space vehicles.**

- **Titomic to supply a TKF1000 System to Swinburne University of Technology with Industry 4.0 additive manufacturing platform embedded within its Titomic Kinetic Fusion technology**

Melbourne, Australia: Titomic Limited (ASX: TTT) ("Titomic or "Company) has been awarded a $2.325 million Federal Government Modern Manufacturing Initiative grant to manufacture and commercialise low carbon emission "green" titanium space vehicle demonstrator parts for the Australian space sector and export markets.

This grant will be part of a planned total eligible project expenditure of $4.65m that will allow Titomic to use its unique Kinetic Fusion cold spray additive manufacturing technology to build and commercialise space vehicle parts using green titanium, heterogeneous material blends, and high-performance coatings for radiation shielding and hypersonic protection.

Titomic, Swinburne University of Technology and the Australian Nuclear Science and Technology Organisation (ANSTO), will conduct extensive testing and validation of demonstrator parts produced within an Industry 4.0 additive manufacturing platform embedded within its Titomic Kinetic Fusion technology.

Titomic is teaming with commercial partners, such as Inovor Technologies, Australia's only sovereign commercial satellite manufacturer, to provide specific application use cases and establish performance, testing and acceptance requirements for the technologies. This additive manufacturing capability will drive high-value technological and material developments, accelerate Space and Manufacturing sector growth, create high-value jobs, and attract investment.

***Minister for Industry, Science and Technology The Hon Christian Porter MP said**: "Australia has unique opportunities when it comes to space manufacturing. These grants will help bolster Australia's reputation in the growing global civil space industry and build on the important work being led by our Australian Space Agency. From satellites, to componentry in sensors and even rocket engines, Australian manufacturers are drawing on our existing advanced manufacturing expertise to launch into new exciting local and global markets. This funding is about creating more opportunities to grow our local space industry, unlocking further investment and delivering the skilled jobs we need now and for the future." (1)*

The grant project runs until December 2022 and includes the supply of a Titomic TKF1000 additive manufacturing system to Swinburne University of Technology with Industry 4.0 additive manufacturing platform embedded within its Titomic Kinetic Fusion technology. It will provide students with direct access to Titomic's Kinetic Fusion additive manufacturing technology in the growing advanced manufacturing and space sector.

CEO of Titomic, Mr. Herbert Koeck, stated: *"This $2.325 million Federal Government MMI grant awarded to Titomic showcases our ability to seamlessly integrate our custom Cold Spray Additive Manufacturing (CSAM) technology systems into partner supply chains, and Joint Venture partners in aerospace with shared risk and reward. This project allows us to show our unique capability to use industrial scale additive manufacturing to create world leading "low carbon footprint" green titanium and high-performance coatings for satellites and space vehicles. Our supply of a TKF1000 System to Swinburne University of Technology with its Industry 4.0 additive manufacturing platform to drive high-value technological and material developments, will also accelerate space and manufacturing sector growth in Australia, creating high-value jobs, and attracting local investment.*

Professor Alan Duffy, Director of the Institute for Space Technology and Industry at Swinburne University of Technology stated: *"This MMI space-based applications grant is a huge step forward for Australia's manufacturing sector. This takes the longstanding collaboration between Titomic and Swinburne University of Technology to a new level, building Australia's reputation as an innovative and high-value space manufacturing nation and we welcome companies and researchers to access this national space manufacturing facility in Victoria. We can build lighter, stronger and more capable structures of incredible complexity that will allow Australian companies to leapfrog ahead of the competition in building for space."*

Professor Pascale Quester, Vice-Chancellor and President Swinburne University of Technology stated: *"We welcome this MMI space-based applications grant and hail both its educational potential and the economic value to Australia. Having the TKF1000 additive manufacturing system in the heart of Swinburne's Hawthorn campus offers our students direct access to a world-leading technology facility in the growing advanced manufacturing and space sector – it's a learning experience you cannot find anywhere else in Australia. We're proud to be partnering with Titomic on this exciting new facility, and grateful to the Commonwealth Government for their foresight in funding a collaboration that will help shape our future economy."*

Name of project	Space Vehicle Manufacturing Capability for Australian Export
Maximum grant funding amount	A$2,325,000
Capped amounts per financial year	2021/22, A$1,743,750 2022/23, A$581,250
Grant percentage	Up to 50 per cent
Total eligible project expenditure	A$4,650,000

(1) www.minister.industry.gov.au/ministers/porter/media-releases/launching-australian-space-manufacturers-new-local-and-global-heights

This announcement has been authorised for release by the board of Titomic Limited.

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ABOUT TIOMIC LIMITED

Titomic Limited (ASX: TTT) is an Australian public company specialising in large integrated solutions for industrial-scale metal additive manufacturing, using its patented cold spray additive manufacturing (CSAM) technology. Titomic provides CSAM solutions, OEM production and R&D services from its Melbourne Bureau to the global Aerospace, Defence, Shipbuilding, Oil & Gas, Mining and Automotive industries. Titomic also offers global sales and support for all of its CSAM activities from its Melbourne Head Office. Titomic delivers competitive advantages in metal additive manufacturing at every stage in the product value chain. For more information, please visit www.titomic.com

ABOUT SWINBURNE UNIVERSITY OF TECHNOLOGY

Swinburne is a world-ranked university leading the way in innovation, industry engagement and social inclusion. Our education, high-quality research and industry partnerships create positive change for students, staff and the community. Over 110 years ago Swinburne opened its doors with a driving focus in mind: to offer education to a section of society otherwise denied further education. Today, we continue our commitment to provide and transform education through strong industry engagement, social inclusion, a desire to innovate and, above all, a determination to create positive change. We have an international reputation for quality research that connects science and technology with business and the community. www.swinburne.edu.au

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 commercializing 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.