# IPERIONX TO PRODUCE TITANIUM PLATE FOR U.S. ARMY TESTING

**IperionX Limited (NASDAQ: IPX, ASX: IPX)** has executed a Test Services Agreement and Statement of Work with the U.S. Army Combat Capabilities Development Command Ground Vehicle Systems Center (DEVCOM GVSC). This agreement will focus on the metal characterization and ballistic testing properties of IperionX's high-strength titanium plate components.

DEVCOM GVSC may relay the results to select U.S. DoD contractors who are original equipment manufacturers (OEMs) of U.S. Army ground vehicles for consideration in future ground vehicle designs. Known U.S. Army ground vehicle contractor OEMs include:

- General Dynamics Land Systems, an arm of General Dynamics Corporation (*NYSE: GD*)
- BAE Systems, Inc., the U.S. subsidiary of BAE Systems PLC (*LON: BA*)
- American Rheinmetall Defense, Inc., the U.S. counterpart of Rheinmetall AG (*FRA: RHM*)
- Oshkosh Corporation (*NYSE: OSK)*
- AM General, a privately held firm based in South Bend, Indiana

The titanium plate for U.S Army ballistic testing will be manufactured using powder metallurgy production methods with IperionX's advanced titanium angular powder. To deliver higher performance and durability, IperionX will also employ its patented Hydrogen Sintering and Phase Transformation (HSPT) technologies, a cutting-edge technique to enhance the microstructure of titanium to deliver strength and fatigue properties that are comparable to wrought titanium alloys.

Titanium is prized for its high strength-to-weight ratio, resistance to high temperatures and corrosion. Titanium is a critical material for many U.S. defense systems, including military fighter aircraft and engines, naval platforms and military ground vehicles. Titanium's superior strength-to-weight and corrosion resistance offers scope for future U.S. Army ground vehicles to be lighter, more mobile and with enhanced range and durability in the field.

The United States has very limited domestic primary titanium metal (titanium sponge) capacity and currently imports over 95% of the titanium sponge required for the U.S. defense sector. IperionX plans to re-shore a fully integrated titanium supply chain to the U.S., reduce the acute reliance on titanium imports from foreign nations, and strengthen the domestic titanium supply chain for critical defence systems.

The U.S. Department of Defense (DoD) is actively pursuing alternatives to the current import-dependent supply chain for titanium metal and alloys. The DoD aims to establish domestic operations from mining, processing, and refining of ore, as well as the recycling of scrap titanium. The optimal domestic titanium supply chain will provide a wide range of products - including titanium powder, ingots, bars, and plate – at higher energy efficiency, lower costs, and lower environmental impacts[1].

**Brandon Pender, Associate Director GVME, GVSC Head of Materials and Manufacturing said:**

"We look at the combination of advanced manufacturing and titanium to help us improve both corrosion mitigation and light-weighting in Army ground vehicles. Any relationship that we can pursue to make titanium more affordable as IperionX can potentially do, is valuable to us. The potential to produce titanium plate, with all of its capabilities, that is cost-competitive with aluminium and steel only helps us improve the operational performance and readiness of Army ground systems."

**Anastasios (Taso) Arima, IperionX CEO said:**

"We are honored to collaborate with DEVCOM GVSC to evaluate our titanium products for U.S. Army ground vehicles. Titanium for the U.S. defense sector is currently sourced over long distances from foreign nations.

[1] https://sam.gov/opp/8f7fc94a12fd459186366c09d9bea565/view

IperionX plans to re-shore a lower cost and more sustainable fully integrated U.S. titanium supply chain that is critical to America's economic future and national security."

This announcement has been authorized for release by the CEO and Managing Director.

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**Appendix I**

**Key terms of the TSA**

The purpose of the Test Services Agreement is to establish a test services effort between DEVCOM GVSC and IperionX, including:

1. Characterization of IperionX's titanium metal plate made via its HSPT process
2. Ballistic testing of IperionX's titanium metal plate for ballistic strength specifications and other properties required for U.S Army Ground Vehicle Systems

IperionX will pay DEVCOM GVSC standard market rates to conduct the test services under the TSA, with work to begin in Q3 2023.

**About U.S. Army Ground Vehicle Systems Center**

The U.S. Army Combat Capabilities Development Command (DEVCOM) Ground Vehicle Systems Center (GVSC), located in Warren, Michigan, is the U.S.'s Armed Forces' research and development facility for advanced technology in ground systems.

The U.S. Army DEVCOM is a major subordinate command of the U.S. Army Futures Command (AFC). GVSC shares its facilities with the U.S. Army Tank-automotive and Armaments Command (TACOM). Current technology focus areas include Power and Mobility, Autonomous Systems, Force Projection, Survivability, Electronics and Architecture, Cyber Engineering and Software Integration. The U.S. Army Ground Vehicle Materials Engineering Directorate (GVME) of GVSC has several technology initiatives including advance manufacturing, corrosion resistance, and light-weighting of Army Ground Systems.

**About IperionX**

IperionX aims to become a leading American titanium metal and critical materials company – using patented metal technologies to produce high performance titanium alloys, from titanium minerals or scrap titanium, at lower energy, cost and carbon emissions.

Our Titan critical minerals project is the largest JORC-compliant mineral resource of titanium, rare earth and zircon minerals sands in the U.S.A.

IperionX's titanium metal and critical minerals are essential for advanced U.S. industries including space, aerospace, defense, consumer electronics, hydrogen, electric vehicles and additive manufacturing.

**About HSPT**

Hydrogen Sintering and Phase Transformation (HSPT) is a proprietary technology that forms part of IperionX's extensive titanium technologies patent portfolio. The HSPT process was developed as a low-cost titanium powder metallurgy process to produce high performance titanium alloys with wrought-like microstructures and mechanical properties.

*Zhigang Zak Fang, James D. Paramore, Pei Sun, K. S. Ravi Chandran, Ying Zhang, Yang Xia, Fei Cao, Mark Koopman & Michael Free Powder metallurgy of titanium – Past, present, and future, International Materials Reviews, 63:7, 407-459, DOI: 10.1080/09506608.2017.1366003 (2018)*

*James D. Paramore, Zhigang Zak Fang, Matthew Dunstan, Pei Sun & Brady G. Butler, Hydrogen-enabled microstructure and fatigue strength engineering of titanium alloys. Sci. Rep. 7, 41444; DOI: 10.1038/srep41444 (2017)*

***Forward Looking Statements***

*Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.*

*Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance, and achievements to differ materially from any future results, performance, or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, the Company's ability to comply with the relevant contractual terms to access the technologies, commercially scale its closed-loop titanium production processes, or protect its intellectual property rights, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.*

*Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.*

*Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements, or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.*