

# GKN AEROSPACE PARTNERS WITH IPERIONX TO ADVANCE SUSTAINABLE TITANIUM MANUFACTURING

**IperionX Limited (NASDAQ: IPX, ASX: IPX)** has agreed an order with GKN Aerospace for the delivery of titanium plate test components manufactured with IperionX’s advanced titanium technologies.

GKN Aerospace is the world’s leading multi-technology ‘Tier-1’ aerospace supplier and serves over 90% of the world’s aircraft and engine manufacturers, designing and manufacturing innovative smart aerospace systems and components. Titanium is a critical material for many aerospace systems and GKN Aerospace is a world leader in manufacturing complex titanium components for civil aerospace, space and military markets, including the Airbus A320/A330, Boeing B777/B787, Lockheed Martin F-16 and F-35 Lightning, and the Ariane 6 rocket engine.

The collaboration with GKN Aerospace builds on the successful testing and validation of IperionX 100% recycled titanium powder made from GKN scrap titanium feedstocks. This latest commercial partnership focuses on the manufacturing of high-performance titanium plate for testing by GKN Aerospace, which may also form part of further collaboration efforts between GKN Aerospace and IperionX – including projects linked to the U.S. Department of Defense.

## **Innovative Manufacturing Technology**

GKN Aerospace’s titanium plate components will be manufactured with IperionX’s advanced titanium angular powder and powder metallurgy techniques.

To deliver titanium components with higher performance and durability, IperionX will employ its patented Hydrogen Sintering and Phase Transformation (HSPT) technologies, a cutting-edge process to enhance the microstructure of titanium to deliver strength and fatigue properties that are comparable to wrought titanium alloys.

IperionX offers a wide range of high-performance titanium powder and products that can be tailored to meet the exacting demands of the aerospace, defense, space, hydrogen, automotive and consumer electronics sectors. These advanced manufacturing capabilities include traditional titanium plate, bar and rod products and high-performance ‘near-net shape’ titanium components to improve manufacturing productivity and sustainability.

## **A Sustainable U.S. Titanium Supply Chain**

Titanium is prized for its high strength-to-weight ratio and its resistance to high temperatures and corrosion. Titanium has been mass produced in the same way since the 1940’s when the existing ‘Kroll Process’ was developed. Titanium produced from the Kroll Process is energy and cost-intensive and produces high levels of greenhouse gas emissions.

IperionX’s patented titanium production and manufacturing technologies can produce high-strength titanium products, with lower energy and costs, and at zero Scope 1 and 2 emissions<sup>1</sup>.

The United States has limited domestic primary titanium metal production capacity, and the U.S. currently imports over 95% of the primary titanium metal required for its advanced industries. IperionX intends to re-shore titanium mineral and metal production in the U.S., reduce the acute reliance on primary titanium imports from foreign nations and strengthen the supply chain with lower cost and more sustainable titanium products.

“GKN Aerospace is a leader in sustainability and the precision manufacturing of titanium components for the aerospace, space and military markets” said Taso Arima, CEO of IperionX. “We are very proud to be working with GKN Aerospace to commercialize our market leading high-performance and sustainable titanium products.”

<sup>1</sup> Zero Scope 1 and 2 emissions: Low-temperature HAMR patented process technology combined with 100% renewable electricity

**North Carolina**

129 W Trade Street, Suite 1405  
Charlotte, NC 28202

**Tennessee**

279 West Main Street  
Camden, TN 38320

**Virginia**

1080 Confroy Drive  
South Boston, VA 24592

**Utah**

1782 W 2300 S  
West Valley City, UT 84119

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

For further information and enquiries please contact:

**info@iperionx.com**  
**+1 704 461 8000**

### **Key terms of the order**

The GKN Aerospace order is priced on precedent open market transactions for the provision of similar products and technology services, and the total value of the order is not material to IperionX's cash position or balance sheet. IperionX expects the initial work program to be completed in early 2024.

### **About GKN Aerospace**

GKN Aerospace is the world's leading multi-technology Tier-1 aerospace supplier. With 38 manufacturing locations in 12 countries, GKN Aerospace serves over 90% of the world's aircraft and engine manufacturers, designing and manufacturing innovative smart aerospace systems and components. GKN Aerospace's technologies are used in aircraft ranging from the most used single aisle aircraft and the largest passenger planes in the world to business jets and the world's advanced 5th generation fighter aircraft.

### **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 known titanium, rare earth and zircon JORC compliant mineral resource in the United States.

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

### **About HSPT**

The HSPT process uses low-cost titanium powder metallurgy techniques to produce high performance titanium alloys with wrought-like microstructures and mechanical properties. The HSPT process can produce titanium alloy with strength and ductility well beyond the ASTM standards for wrought Ti-6Al-4V. These material properties can be enhanced with heat treatments to increase strength to over 1,100 MPa or with ductility beyond 20% EL. IperionX has exclusive rights over HSPT and a range of other award-winning titanium technologies.

*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)*

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### **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.*

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