

# IperionX Earns International Recognition With R&D 100 Award

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[IperionX Ltd.](#) (NASDAQ: IPX, ASX: IPX) is pleased to announce that it has won the prestigious R&D 100 award for its innovative Hydrogen Assisted Metallothermic Reduction (HAMR) titanium production process.

IperionX and the inventor of the technology, Dr. Zak Fang, have been recognized for HAMR - a low cost and sustainable process for producing titanium metal powder used for both additive manufacturing and traditional powder metallurgy manufacturing methods.

Titanium is a superior metal in many applications to both steel and aluminum, but its cost often limits its use to high performance applications. The breakthrough discovery made by Dr. Fang and the team at the University of Utah - that hydrogen can destabilize the bond between titanium and oxygen - led to the development of the innovative HAMR process.

The patented HAMR technology can produce titanium metal from either 100% recycled titanium scrap or from titanium minerals. The resulting high quality titanium powder can be used in additive manufacturing or powder metallurgy to deliver products in a broad range of demanding applications, including aerospace, defense, and biomedical, with dramatically lower costs and increased sustainability.

For more than 50 years, a large amount of effort has been applied to develop a new technology to replace the incumbent Kroll process in order to lower the cost and environmental impacts associated with the production of titanium metal. To date, these efforts have failed to meet quality requirements, cost reduction needs or commercial scalability.

In contrast to the Kroll process, the HAMR process uses low-temperature processing, cuts direct carbon emissions and substantially reduces the cost of producing titanium metal. When using 100% titanium scrap as feedstock, the HAMR process can create a circular supply chain for this advanced metal that is critical to America's economic future and national security.

Commercialization of the HAMR process has been successfully proven, with high-quality titanium powder currently being produced at IperionX's Industrial Pilot Facility in Salt Lake City, UT. To meet the increasing demand for sustainable and lower cost titanium metal, IperionX has advanced plans to build a larger titanium production facility in Halifax County, Virginia. Once commissioned, IperionX has well-defined plans to rapidly scale the capacity of this innovative titanium production facility in a low risk, modular fashion.

## R&D 100 Awards

The R&D 100 Awards is the only global science and technology awards competition that recognizes new commercial products, technologies and materials for their technological significance.

The R&D 100 Awards are recognized in industry, government, and academia as a mark of excellence for the most innovative ideas of the year. Awards are based on the technology's technical significance, uniqueness, and effectiveness when compared to competing technologies.

Since 1963, R&D 100 awards have been granted for breakthrough technologies including Polacolor film, the flashcube, the digital wristwatch, antilock brakes, the automated teller machine, the liquid crystal display, the halogen lamp, the fax machine and HDTV.

Anastasios (Taso) Arima, IperionX CEO said:

"It is pleasing that Dr. Zak Fang, his team at the University of Utah, and IperionX have been recognized for the development and commercialization of the HAMR technology to produce low cost, sustainable titanium metal powders, highlighting an important contribution to innovation and the significant progress made to develop and commercialize this truly revolutionary titanium technology."

#### 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.

#### 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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