IPERIONX RELEASES LIFE CYCLE ASSESSMENT OF 100% RECYCLED TITANIUM POWDER

CONFIRMS POTENTIAL FOR MARKET-LEADING LOW-CARBON TITANIUM POWDER PRODUCTION

- IperionX has completed a life cycle assessment ("LCA") for the production of 100% recycled, low carbon titanium metal using its patented technologies.
- The LCA highlights that titanium powder from IperionX's planned Titanium Demonstration Facility in Virginia, U.S. has the potential for a life cycle carbon footprint of just 7.8 kg of carbon dioxide equivalents ("CO2e") per kg.
- This estimated carbon footprint is over 90% lower than competing titanium powders from plasma atomization, 80% lower than from titanium ingot produced from the Kroll process, more than 50% lower than aluminum ingot and near equal to stainless steel (refer to Figure 1).
- The LCA confirms the class-leading sustainability of IperionX's titanium technologies, with the lowest quantified life cycle carbon footprint for titanium powders in the market today, and represents the first known critically-reviewed, ISO-compliant LCA focused on titanium metal powder.
- The LCA is an important step in validating IperionX's patented titanium technologies, which provide the only commercially available fully circular, low-carbon titanium using 100% recycled titanium scrap as feedstock.
- The LCA was conducted by EarthShift Global, an independent expert LCA consultancy, and adhered to international environmental management standards of ISO 14040 and 14044, including independent third-party critical review.

IperionX Limited ("IperionX") (NASDAQ: IPX, ASX: IPX), a leader in the development of sustainable and circular titanium metal, is pleased to announce the release of its life cycle assessment for its unique 100% recycled, low carbon titanium metal powder.

IperionX's LCA, titled *"Life Cycle Assessment of 100% Recycled Titanium Ti64 Powder for Additive Manufacturing"* highlights that titanium powder produced at IperionX's planned Titanium Demonstration Facility ("TDF") in Virginia has the potential for a life cycle carbon footprint of as little as 7.8 kg of carbon dioxide equivalents ("CO2e") per kg.

Titanium metal produced by the current "Kroll Process" is high carbon, energy intensive, expensive and has low levels of circularity. Leading companies across the defense, automotive, bicycle, consumer electronics, luxury goods and green hydrogen sectors want to source low carbon, affordable titanium from traceable recycled sources. IperionX's patented technologies offer a pathway to deliver significantly lower cost, and lower carbon, recycled titanium metal powders for titanium components across these industries.

The LCA confirms the compelling sustainability advantages for companies that design and manufacture products with IperionX titanium. Although titanium is strong, lightweight and offers superior corrosion resistance - it has been hindered by its historically higher cost, high carbon footprint and limited recyclability. IperionX titanium offers leading companies an opportunity to reduce their impact on the environment with a superior low carbon metal, with greater durability and strength, and that can be sustainably recycled at the end of the product life.

The LCA was conducted by EarthShift Global, an independent expert LCA consultancy, in compliance with international environmental management standards of ISO 14040 and 14044, and included independent third-party critical review.

IperionX has subsequently commissioned a critically-reviewed, ISO-compliant comparative LCA to quantify the benefits of its 100% recycled titanium powder against other metal powders for additive manufacturing, including titanium, stainless steel and aluminum, and this is anticipated for release in Q3 2023.

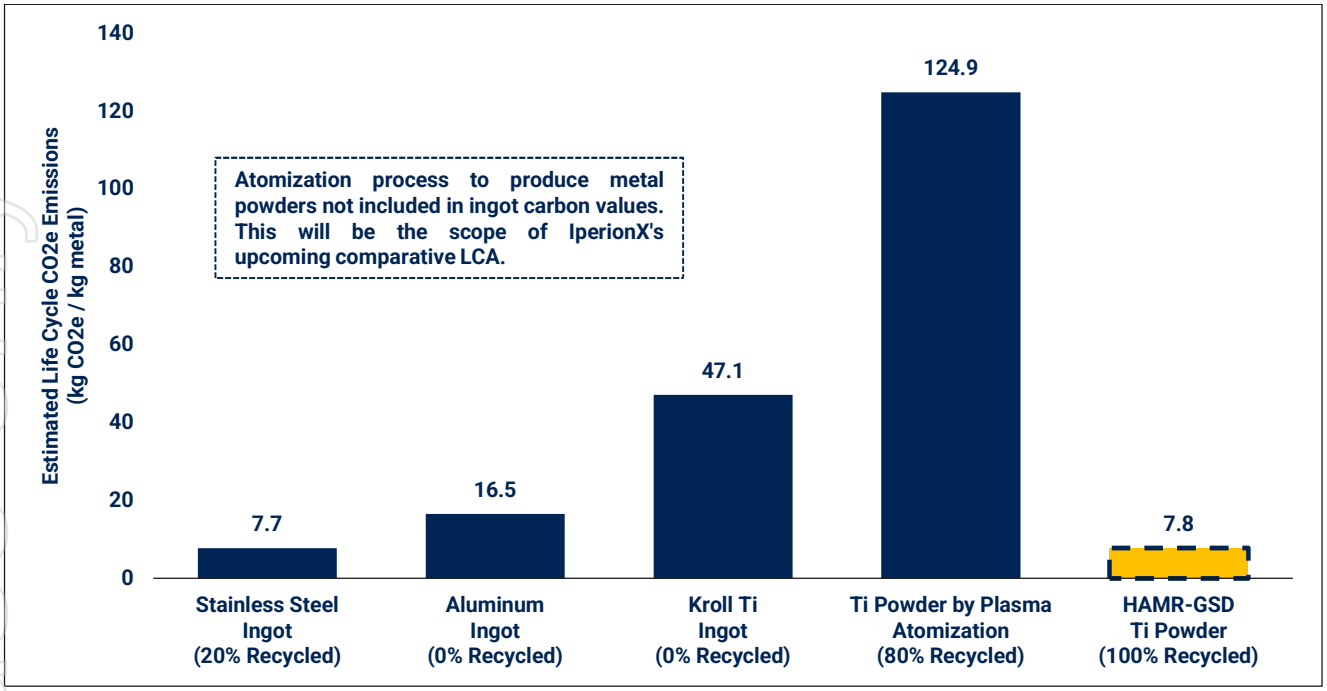

Figure 1. Comparison of HAMR-GSD Ti powder LCA results to other published LCA studies[i]

Dr. Nathan Ayer, Director of Analytical Services at EarthShift Global said:

"IperionX has shown a commitment to using the results of the anticipatory life cycle analysis of their recycled titanium powder process to focus on ways to perform better on environmental metrics, especially related to climate change. It is fulfilling to work with a company who utilized the results of the LCA study to immediately improve upon their process, even before the LCA study was fully complete. By publicly releasing their critically-reviewed LCA on metal powders used for additive manufacturing, IperionX has shown real leadership in this industry. We look forward to continuing our collaboration with IperionX as we start the comparative LCA of their titanium powder and other metal powders used in additive manufacturing."

Anastasios (Taso) Arima, co-founder and CEO of IperionX said:

"We are very pleased to release the critically-reviewed LCA results of our 100% recycled titanium powder. This independent verification of the lowest quantified life cycle carbon footprint for titanium powders in the market today is an important milestone for IperionX and for our customers who want an affordable, low carbon and circular domestic titanium supply chain."

A summary of the LCA on IperionX's recycled titanium powder to be produced at the TDF is available via IperionX's website: http://iperionx.com/lca/

This announcement has been authorized for release by the CEO.

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Appendix 1 – Life Cycle Analysis Detail and Discussion

LCA Scope and Underlying Technologies

The objectives of the LCA study were to quantify the life cycle environmental impacts of producing recycled spherical titanium powder from scrap titanium using the GSD process to identify environmental hot spots in the life cycle up to the production gate, and to explore potential process improvement scenarios to reduce the environmental impacts of the GSD process. The impact categories considered in this LCA were climate change, human health, ecosystems, cumulative energy demand, resources, and water use.

The GSD and HAMR technologies were initially developed by Dr. Zak Fang and his research team at the University of Utah, and successfully demonstrated at both lab and industrial pilot scale over an intensive R&D period of more than 10 years. The current method for producing titanium metal (the Kroll Process) is an expensive and high-emission process, which has limited the widespread use of titanium. Unlike the Kroll Process, which uses a toxic chlorination process step, HAMR uses hydrogen to destabilize Ti-O bonds, reducing titanium more readily, and thus significantly reducing process cost and emissions.

In contrast to the industry standard Kroll Titanium Process, IperionX's GSD and HAMR technologies can accept 100% scrap feedstock and produce titanium powders without the need for toxic chlorination or multiple high-intensity melting and re-melting steps, giving it inherently lower carbon intensity. To IperionX's knowledge, no other commercial process exists that can produce titanium metal from 100% recycled, high-oxygen (>0.2 by weight percent oxygen) titanium scrap feedstock.

LCA Results and Environmental Performance Scenario Analysis

The LCA study indicated that the select impacts of IperionX's 100% recycled spherical titanium powder production were driven primarily by electricity source and the argon and magnesium inputs inherent in the GSD process. The LCA therefore focused on environmental improvement scenario analyses to determine the sustainability opportunities made available by using a renewable electricity source at the TDF and by optimizing IperionX's supply chain for argon and magnesium.

The results of the scenario analysis indicated that by sourcing 100% renewable energy at the TDF instead of using the average VA grid electrical mix, the lifecycle carbon impacts of IperionX's 100% recycled spherical titanium powder could be reduced by over 30%, by reducing Scope 2 indirect carbon emissions associated with process electricity use to zero. Additionally, and important to reducing Scope 3 supply chain emissions associated with the GSD process, by procuring green argon produced using 100% renewable energy, and sourcing magnesium from suppliers that use the more sustainable electrolysis production process in areas of the world with greener electrical grids, the lifecycle carbon impacts of IperionX's recycled titanium powder can be further reduced by over 60%, resulting in estimated life cycle carbon emissions of 7.8 kg of carbon dioxide equivalents (CO_2e) per kg of recycled titanium powder. Importantly, because there is no direct fuel consumed by the GSD process or greenhouse gas emissions produced, there are no Scope 1 carbon emissions associated with the GSD process.

Comparison of IperionX's LCA to other published LCA Studies

The data from IperionX's single-product LCA results were compared to life cycle carbon emissions from other published LCA studies. This preliminary comparison indicates that per kg, IperionX's recycled titanium powder using renewable electrical sources and green argon and magnesium has lower lifecycle carbon emissions than the ingot of other metals including aluminum and titanium produced via the Kroll process. A full comparative LCA has been subsequently initiated to better compare IperionX's 100% recycled spherical titanium powder to other metal powders used in additive manufacturing.

Comparative LCA

The results of IperionX's single-product LCA form the foundation of a full critically-reviewed, ISO-compliant comparative LCA that will compare the environmental performance of spherical titanium powders produced via the GSD process against other production methods for spherical metal powders. This comparative LCA will quantify the sustainability benefits of IperionX's 100% recycled titanium spherical powder compared to the three other metal powders for additive manufacturing: conventional titanium powder, stainless steel powder, and aluminum powder. This upcoming comparative LCA is anticipated to be complete in Q3 2023 and will be

the first known study to compare and provide critically reviewed ISO-compliant LCA data for conventionally atomized titanium, aluminum, and stainless-steel powders.

About EarthShift Global

EarthShift Global helps top-level executives, front-line practitioners, academic researchers and policymakers worldwide achieve their objectives by providing life cycle oriented software, consulting services, and training that de-mystify the path to sustainability. EarthShift Global's proven approach emphasizes engagement, adaptability, and credible, measurable results, and the incorporation of performance-enhancing sustainable thinking (including life cycle assessment, or LCA) into everyday business decisions.

About IperionX

IperionX's mission is to be the leading developer of low carbon titanium for advanced industries including space, aerospace, electric vehicles and 3D printing. IperionX's breakthrough titanium technologies can produce titanium products that are low carbon and fully circular. IperionX is producing titanium metal powders from titanium scrap at its operational pilot facility in Utah, and intends to scale production at a Titanium Demonstration Facility in Virginia. IperionX holds a 100% interest in the critical minerals Titan Project, which has the largest JORC resource of titanium, rare earth and zircon rich mineral sands in the U.S.A.

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.

[i] Source for Stainless Steel ingot emissions, assuming 20% recycled content: https://www.worldstainless.org/files/issf/non-image-files/PDF/ISSF_Stainless_Steel_and_CO2.pdf
Source for Aluminum ingot emissions: https://link.springer.com/article/10.1007/s11367-015-1003-7
Source for Kroll ingot emissions: Gao, F., Nie, Z., Yang, D., Sun, B., Liu, Y., Gong, X., & Wang, Z. (2018). Environmental impacts analysis of titanium sponge production using Kroll process in China. Journal of Cleaner Production, 174, 771-779. doi: https://doi.org/10.1016/j.jclepro.2017.09.240. and https://ecoinvent.org/the-ecoinvent-database/data-releases/ecoinvent-3-8/
Source for titanium powder emissions (80% recycled by plasma atomization method): https://go.6kinc.com/lca_6kadditive_report