IPERIONX

A U.S. Critical Materials Company

June 2022

IperionX Limited
ABN 84 618 935 372

Disclaimer

Forward Looking Statements
Information included in these materials 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, 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, as well as other uncertainties and risks set out in filings made by the Company from time to time with the Australian Securities Exchange and the U.S. Securities and Exchange Commission (“SEC”).

Forward looking statements are based on the Company’s and its management’s 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.

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. Except as required by applicable law or stock exchange listing rules, 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.

Cautionary Statements and Important Information
This presentation has been prepared by the Company as a summary only and does not contain all information about assets and liabilities, financial position and performance, profits and losses, prospects, and the rights and liabilities attaching to securities. Any investment in the Company should be considered speculative and there is no guarantee that they will make a return on capital invested, that dividends would be paid, or that there will be an increase in the value of the investment in the future.

The Company does not purport to give financial or investment advice. No account has been taken of the objectives, financial situation or needs of any recipient of this presentation. Recipients of this presentation should carefully consider whether the securities issued by the Company are an appropriate investment for them in light of their personal circumstances, including their financial and taxation position.

Competent Persons Statements
The information in this document that relates to Exploration Results and Mineral Resources is extracted from IperionX’s ASX Announcement dated October 6, 2021 (“Original ASX Announcement”) which is available to view at IperionX’s website at www.IperionX.com.

The Company confirms that a) it is not aware of any new information or data that materially affects the information included in the Original ASX Announcement; b) all material assumptions included in the Original ASX Announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons’ findings are presented in this report have not been materially changed from the Original ASX Announcement.

Critical metals and their mineral feedstocks are key to our advanced industries

66 Dy Dysprosium 162.50
60 Nd Neodymium 144.24
65 Tb Terbium 158.93
59 Pr Praseodymium 140.91

Electric Vehicles

66 Dy Dysprosium 162.50
60 Nd Neodymium 144.24
65 Tb Terbium 158.93
59 Pr Praseodymium 140.91

Renewable Power

66 Dy Dysprosium 162.50
60 Nd Neodymium 144.24
65 Tb Terbium 158.93
59 Pr Praseodymium 140.91

Consumer Electronics

22 Ti Titanium 47.867

3D Printing

66 Dy Dysprosium 162.50
60 Nd Neodymium 144.24
65 Tb Terbium 158.93
59 Pr Praseodymium 140.91

Robotics

22 Ti Titanium 47.867
66 Dy Dysprosium 162.50
60 Nd Neodymium 144.24
65 Tb Terbium 158.93
59 Pr Praseodymium 140.91

Space Exploration

22 Ti Titanium 47.867

Aerospace

22 Ti Titanium 47.867
40 Zr Zirconium 91.224
66 Dy Dysprosium 162.50
60 Nd Neodymium 144.24
65 Tb Terbium 158.93
59 Pr Praseodymium 140.91

Defense

Titanium metal is extensively used in U.S. defense applications

Higher strength to weight than steel & aluminum

Lighter than steel (~45% lighter)

Superior corrosion resistance / longevity

High temperature applications

Current Defense Applications

U.S. Airforce

F-35 Lighting

V-22 Osprey

U.S. Army

M777 Howitzer

M1 Abrams

U.S. Navy

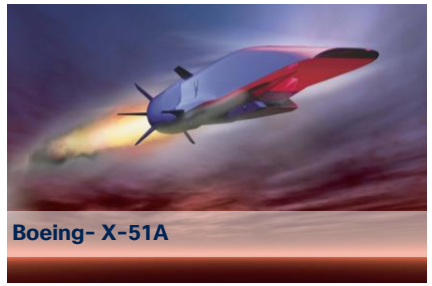
SSN774 Virginia Class

LPD17 San Antonio Class

Future Defense Applications

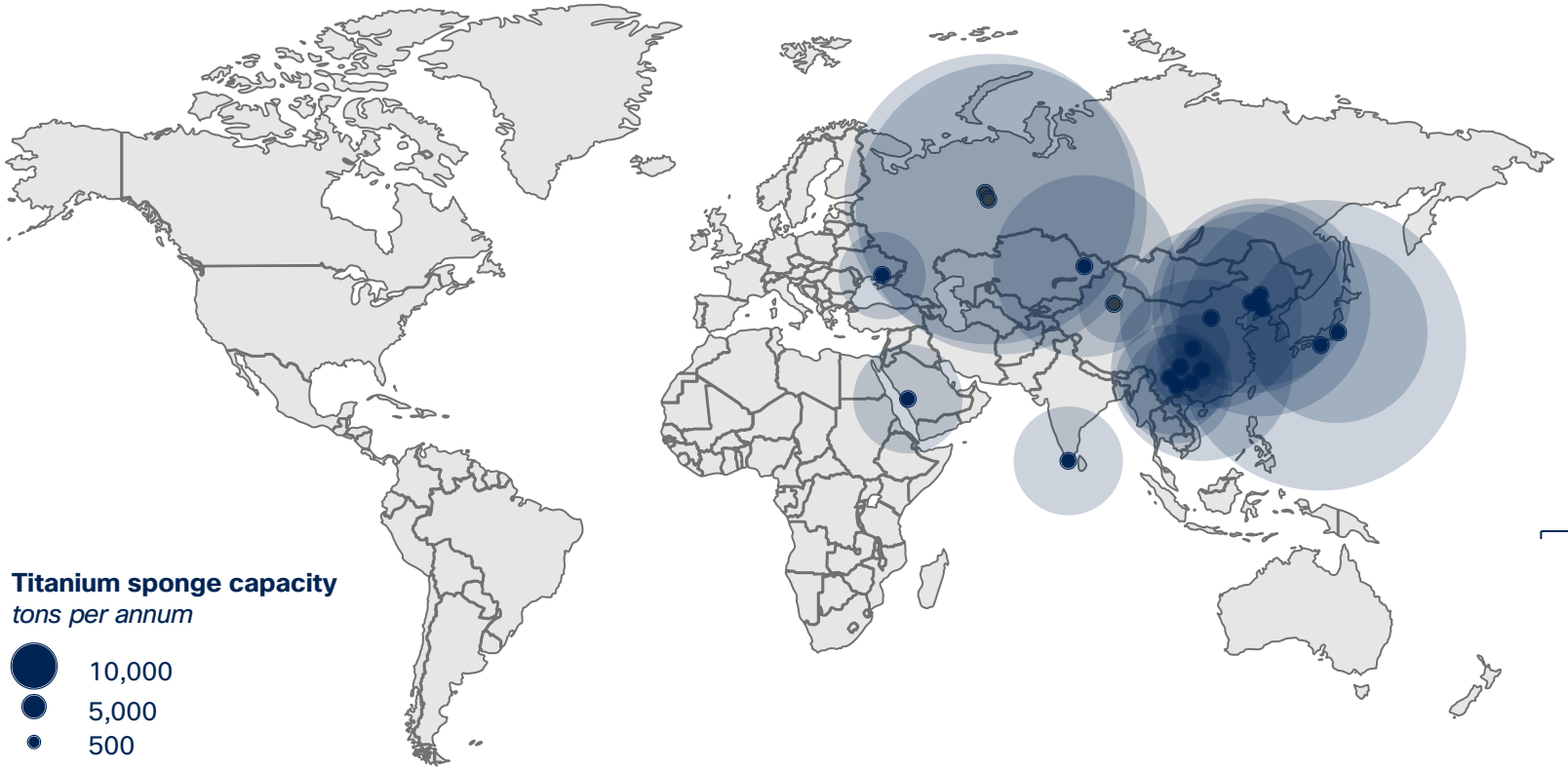
Hypersonics

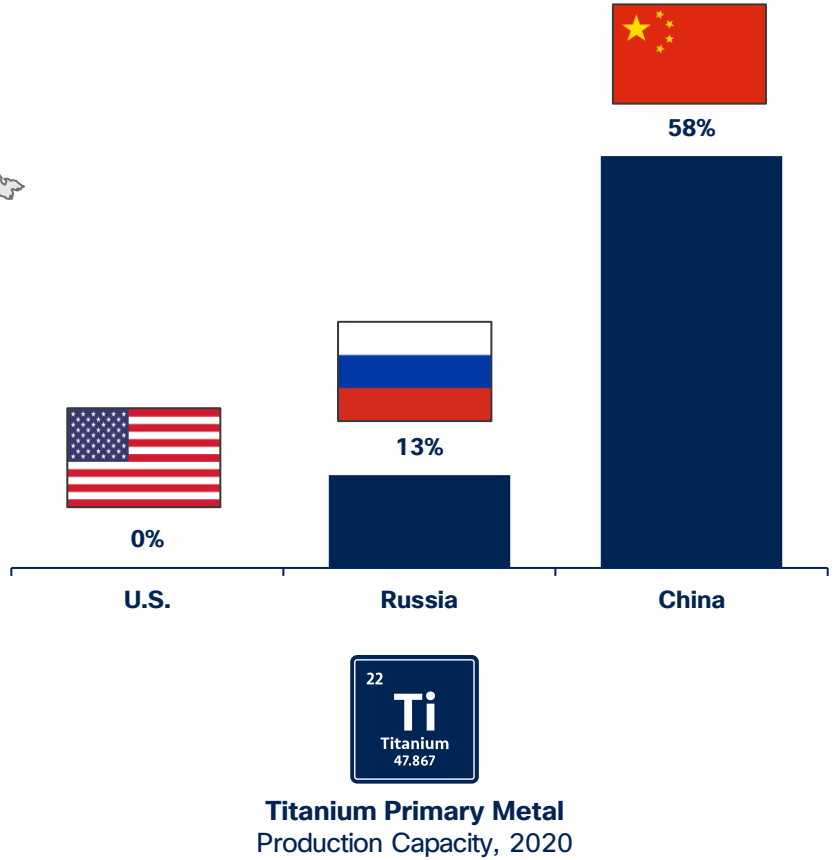
Lockheed Martin - SR72



Boeing- X-51A

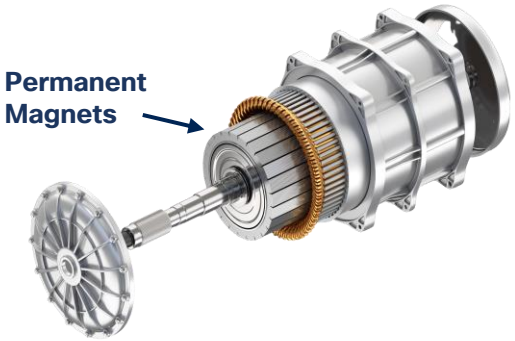
But the U.S. titanium metal sector is 100% import reliant





Titanium Primary Metal
Production Capacity, 2020

Source: US Geological Survey. Locations shown are approximate.



*Generators & Electric Motors require **Permanent Magnets***

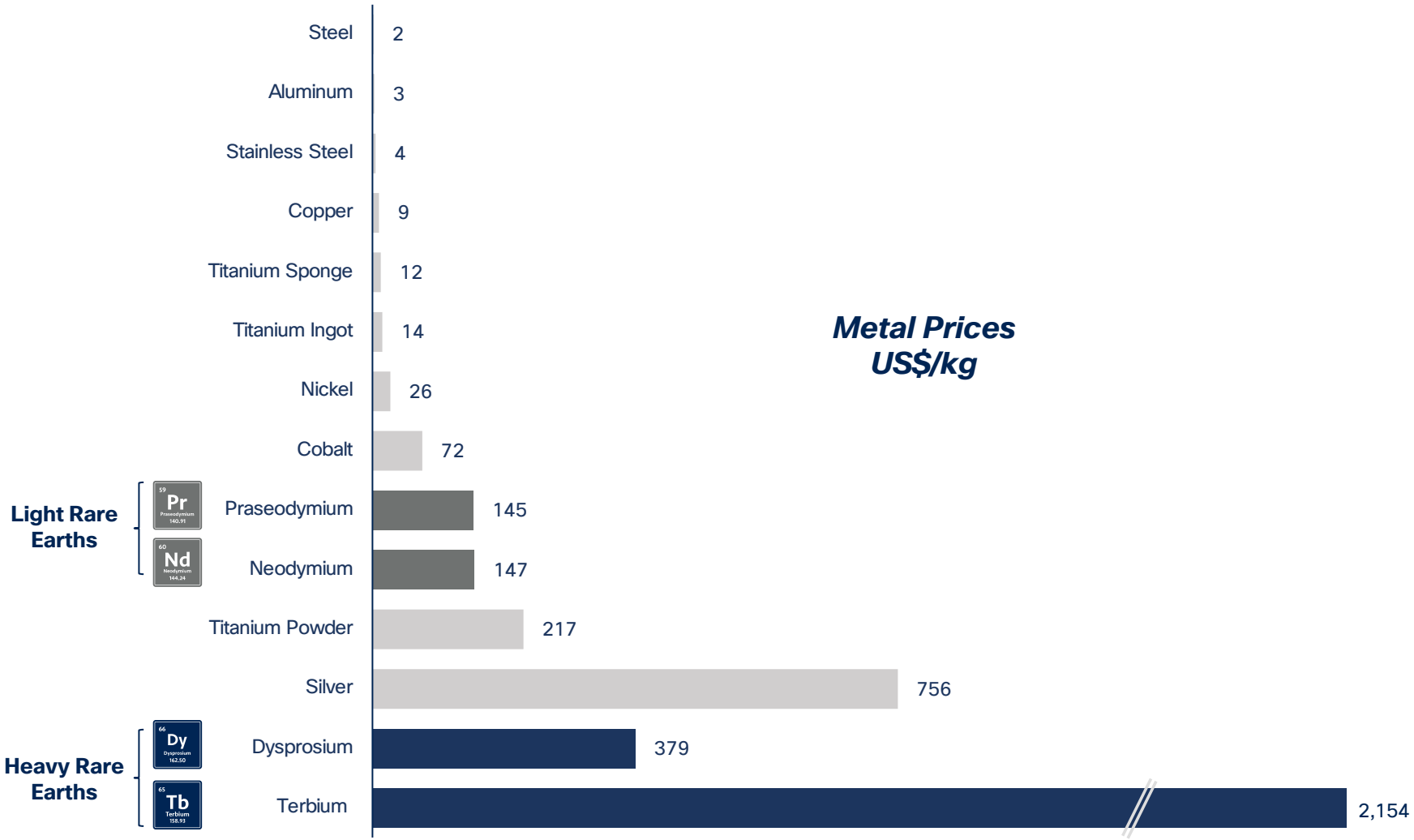
Rare earths are a crucial component of high-performance permanent magnets, which underpin the electrification of everything

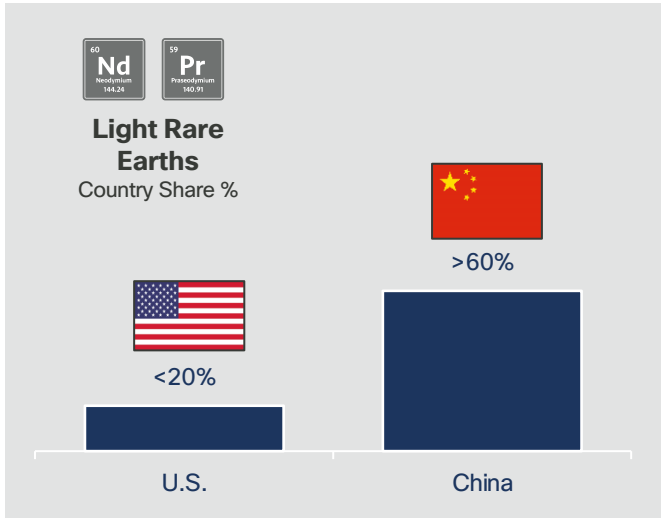
*Electric Vehicles require **Electric Motors***

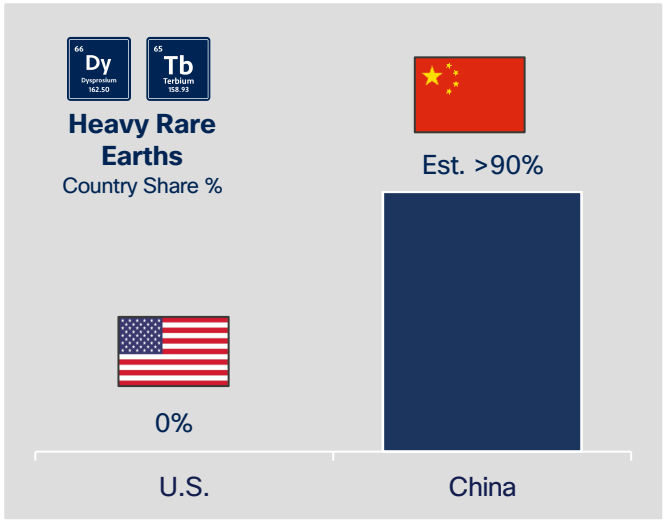
*Wind Turbines require **Generators***

***Light & Heavy Rare Earths** are required by permanent magnet to allow for high temperature, high performance applications*

The true “rare” earths are the heavies, but are dominated by China

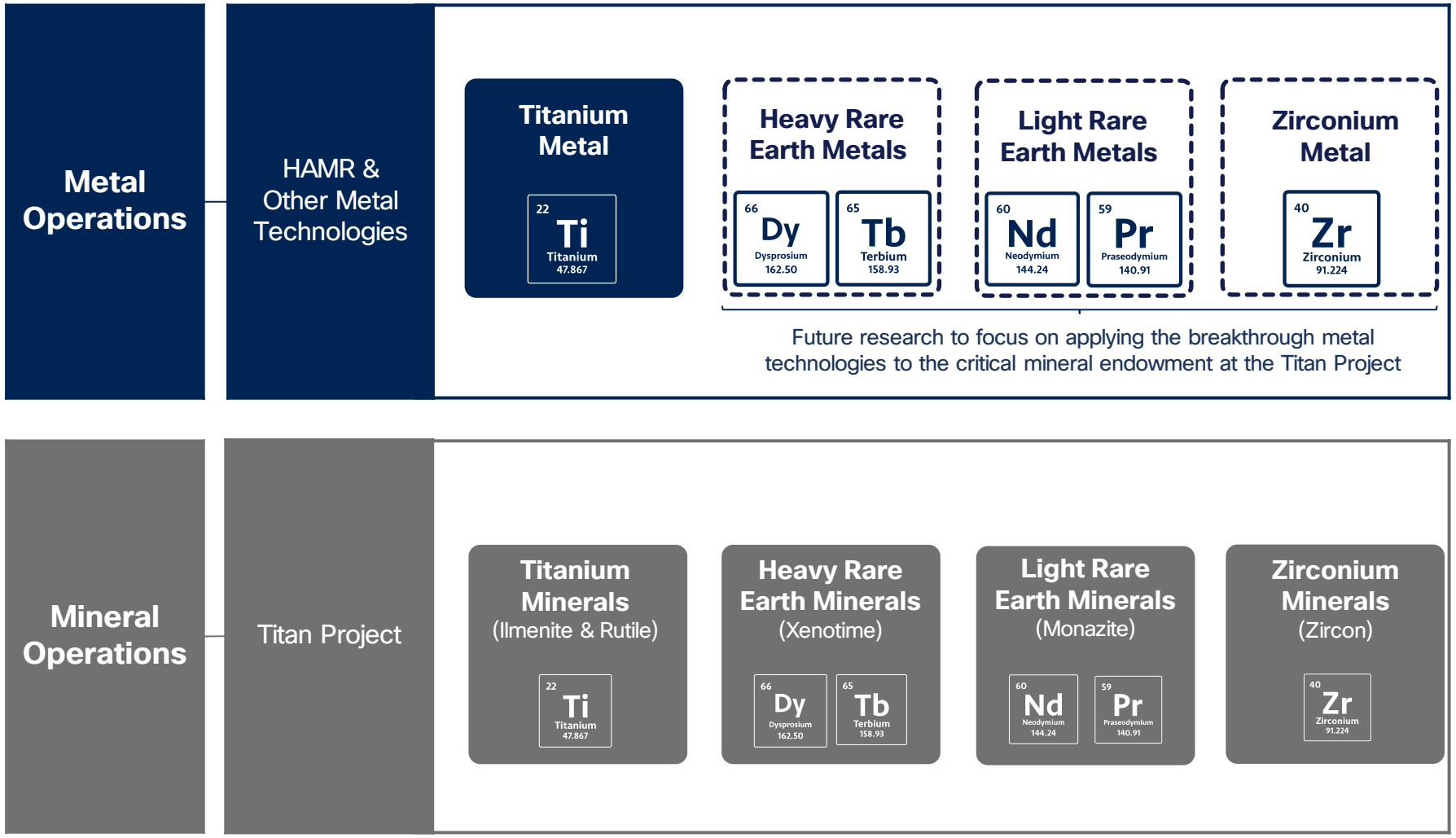






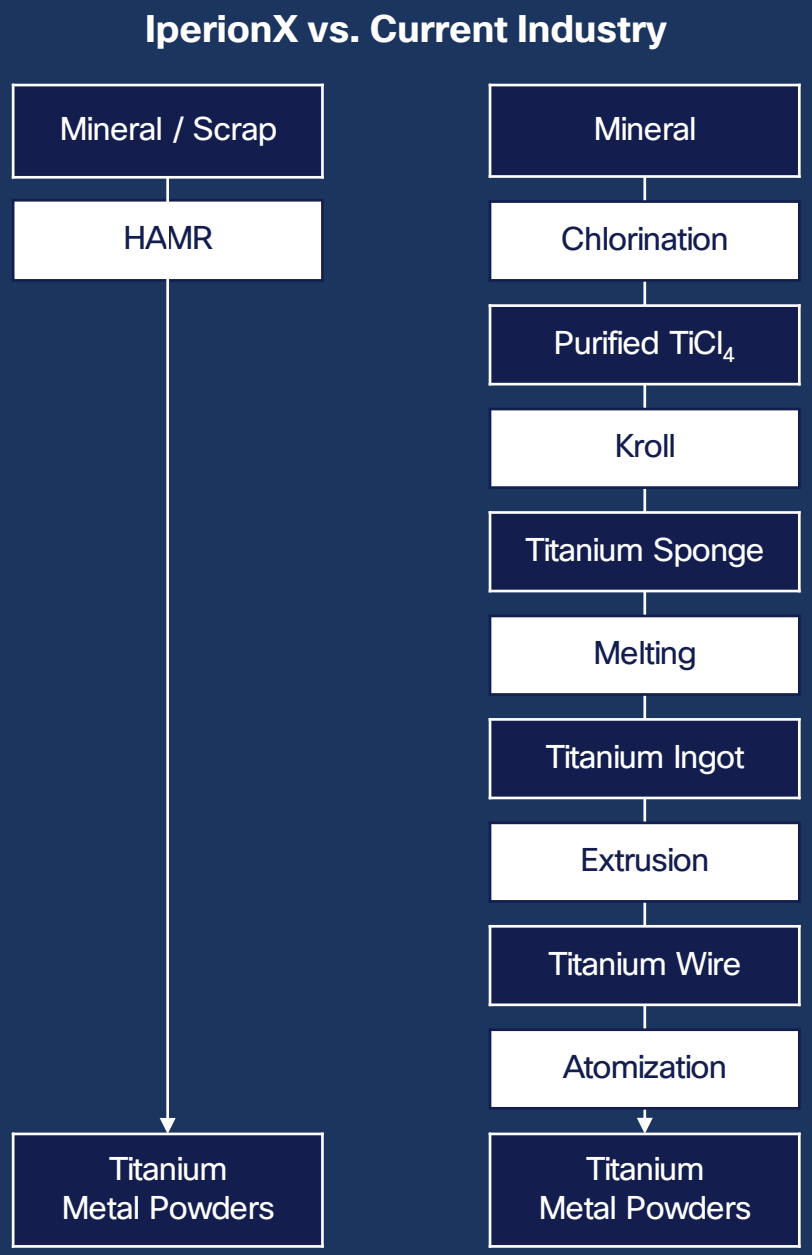
Source: Roskill, LME, Metal.com, AgMetalMiner Macquarie Research, Adamas Intelligence, USGS, Reuters, Public Company Documents. Mined production figures shown. Chinese heavy share assumed to include Myanmar production.

We have the solution



IPERIONX

Metal Operations

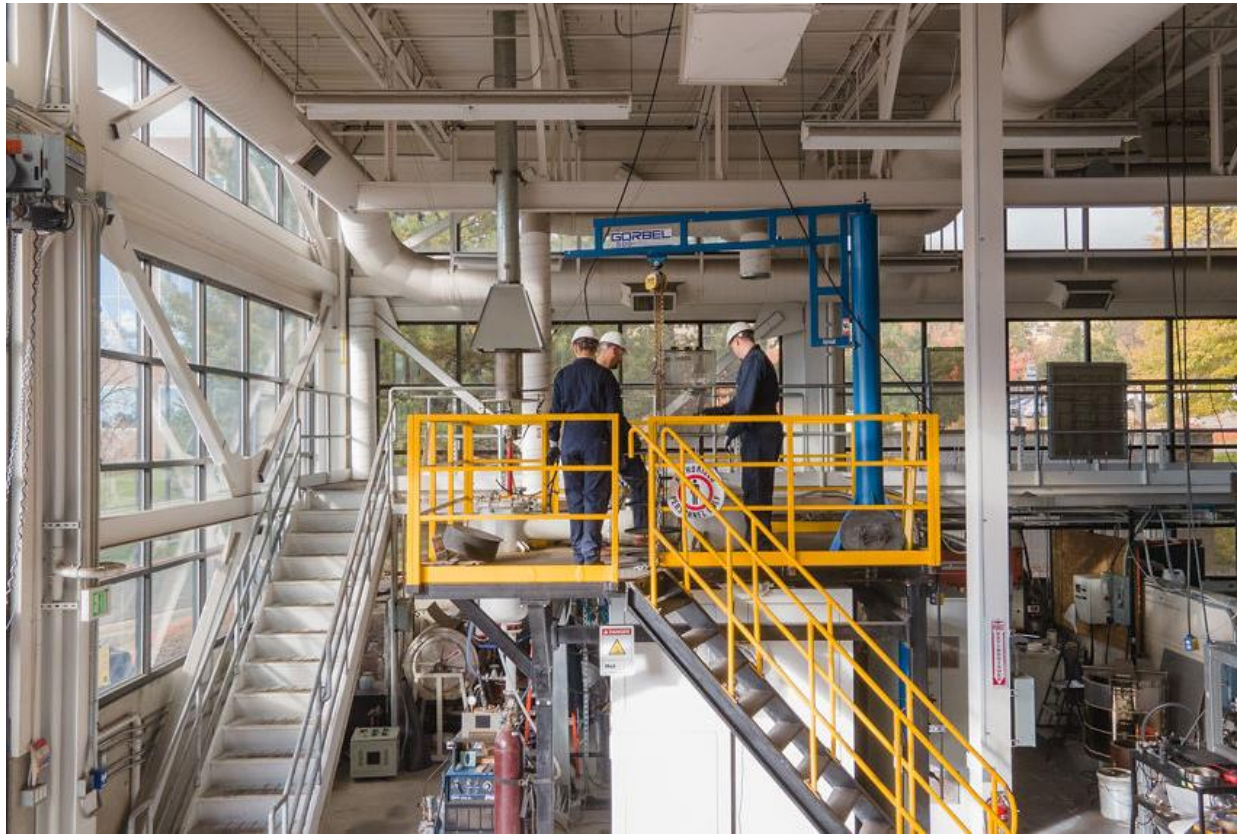


The HAMR technology can revolutionize the titanium manufacturing process

The patented metal technologies, centered around Hydrogen Assisted Metallothermic Reduction ("HAMR"), were invented by world-renowned metallurgist, Dr. Zak Fang, Professor of Metallurgical Engineering at the University of Utah. IperionX holds an exclusive option to acquire the HAMR technology and other associated technologies.

- Lower cost
- Reduced energy consumption
- Potential for zero carbon
- 100% recycling potential

We are already producing titanium powder and parts for customer prototyping



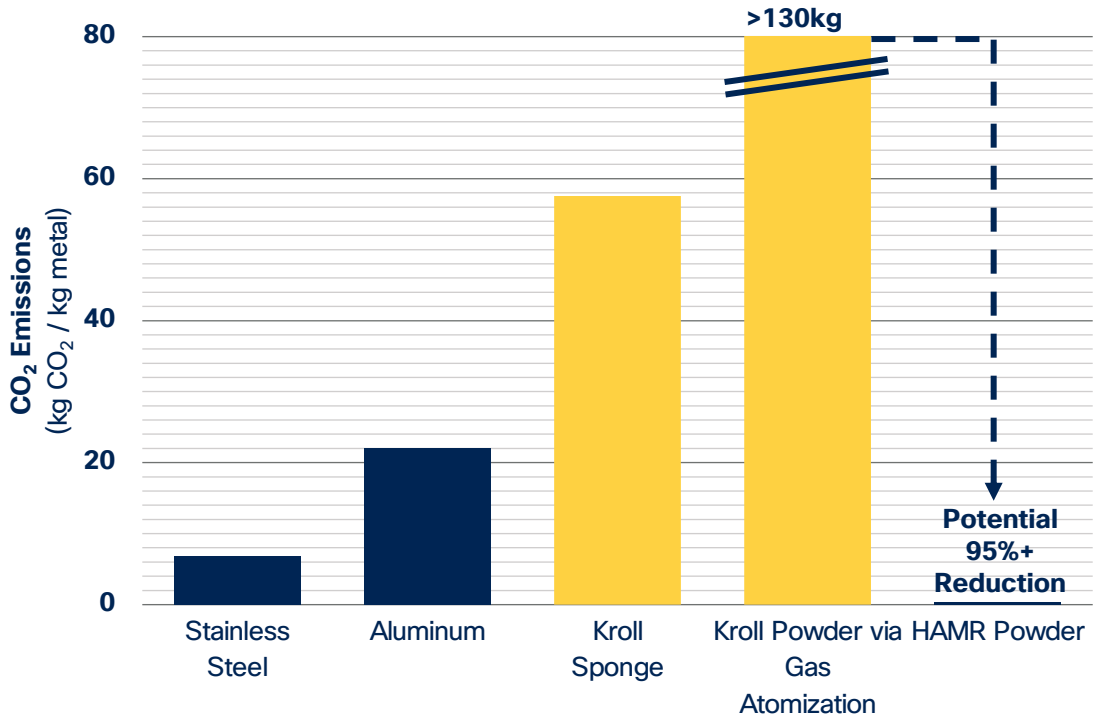
We have a pilot facility operating in Salt Lake City, Utah – built with funding from the U.S. Department of Energy's ARPA-E

- Development of a larger Titanium Demonstration Facility ("TDF") currently underway with targeted production capacity of 125tpa

- The TDF will serve a dual purpose of demonstrating scale while allowing for the commencement of powder production for commercial sales

And providing for long term sustainability of supply

Lower Carbon Emissions



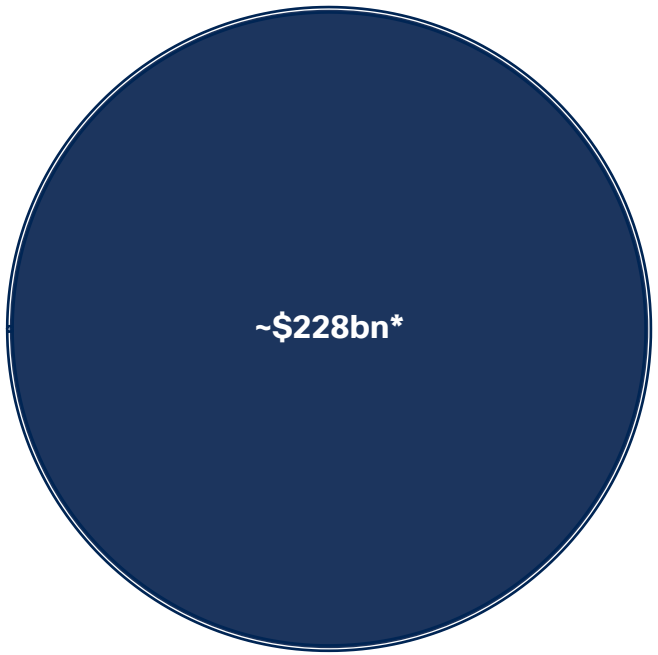
100% Recycled Product

Manufacturing of our titanium metal powders today is 100% fed by scrap titanium and in the future we envision an ore-metal supply chain with full recycling of manufacturing scrap and end-of-life products

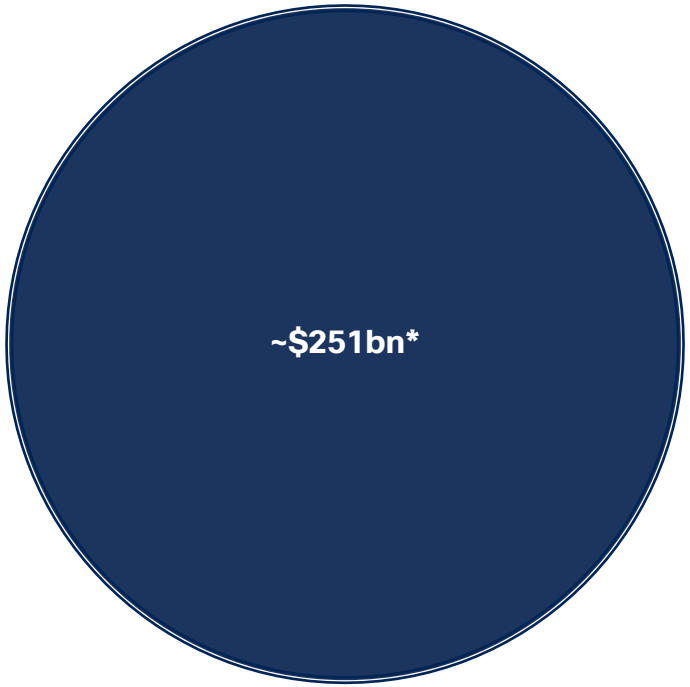
Source: ARPA-E METALS Program, Feng Gao et al (Journal of Cleaner Production), IperionX Estimates for HAMR.
Assumes renewable power sourced for IPX Facility, and 100% scrap feedstock for HAMR spherical powder. Figures shown are targets at 10,000tpa capacity.

We have potential to disrupt existing stainless steel and aluminum markets

Titanium Market
2019 Ingot Production ~283kt
2019 Av. Price ~$15,100/t



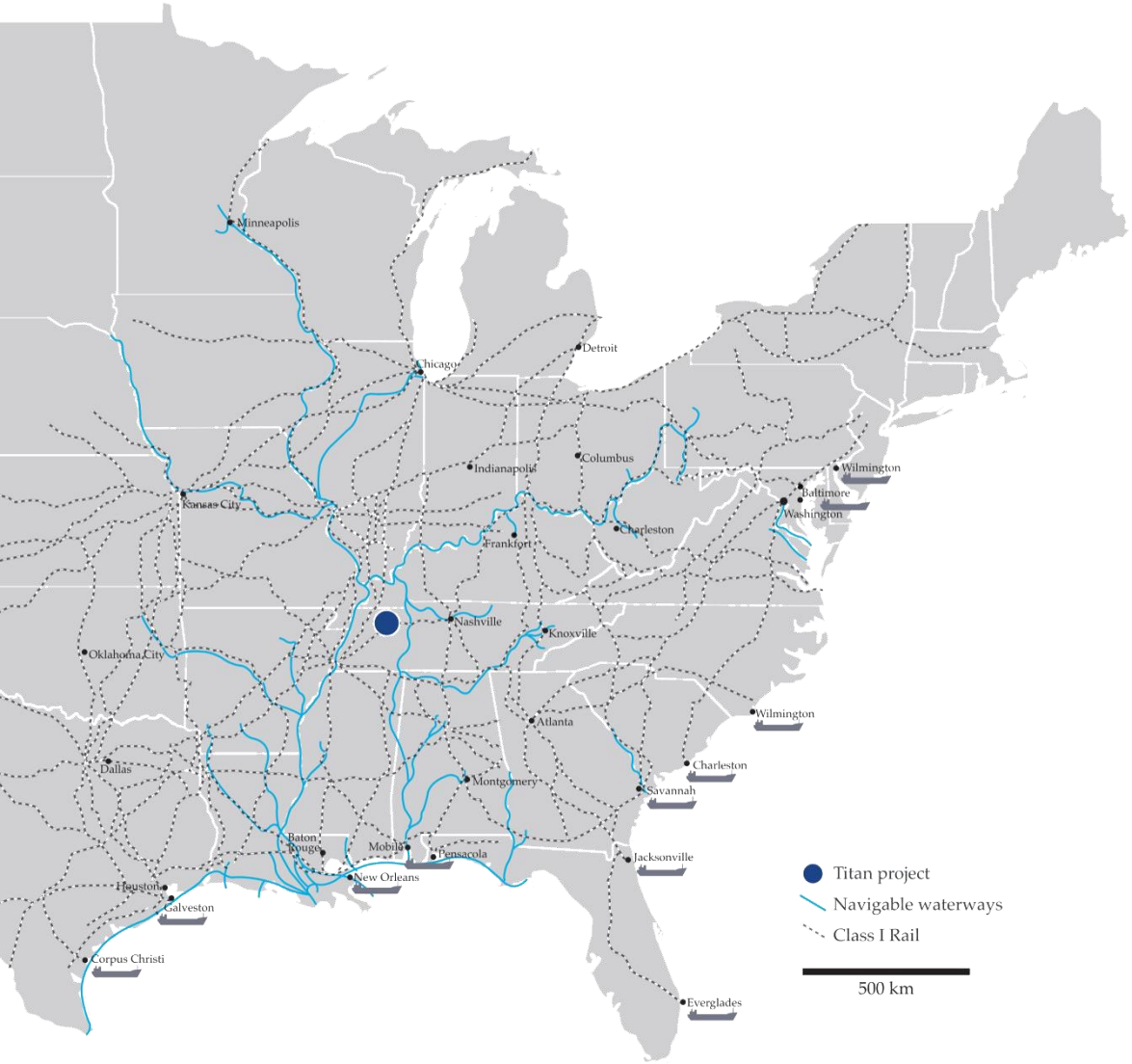
Aluminum Market
2021 Production ~67Mt
Q1-2022 Price ~$3,400/t



Stainless Steel Market
2021 Production ~56Mt
Q1-2022 Price ~$4,450/t

* Estimated Global Market Summary in USD
Sources: Roskill, International Stainless Steel Forum, Jefferies Equity Research, LME, Metal Miner. Pricing as of Q1-2022.

Mineral Operations

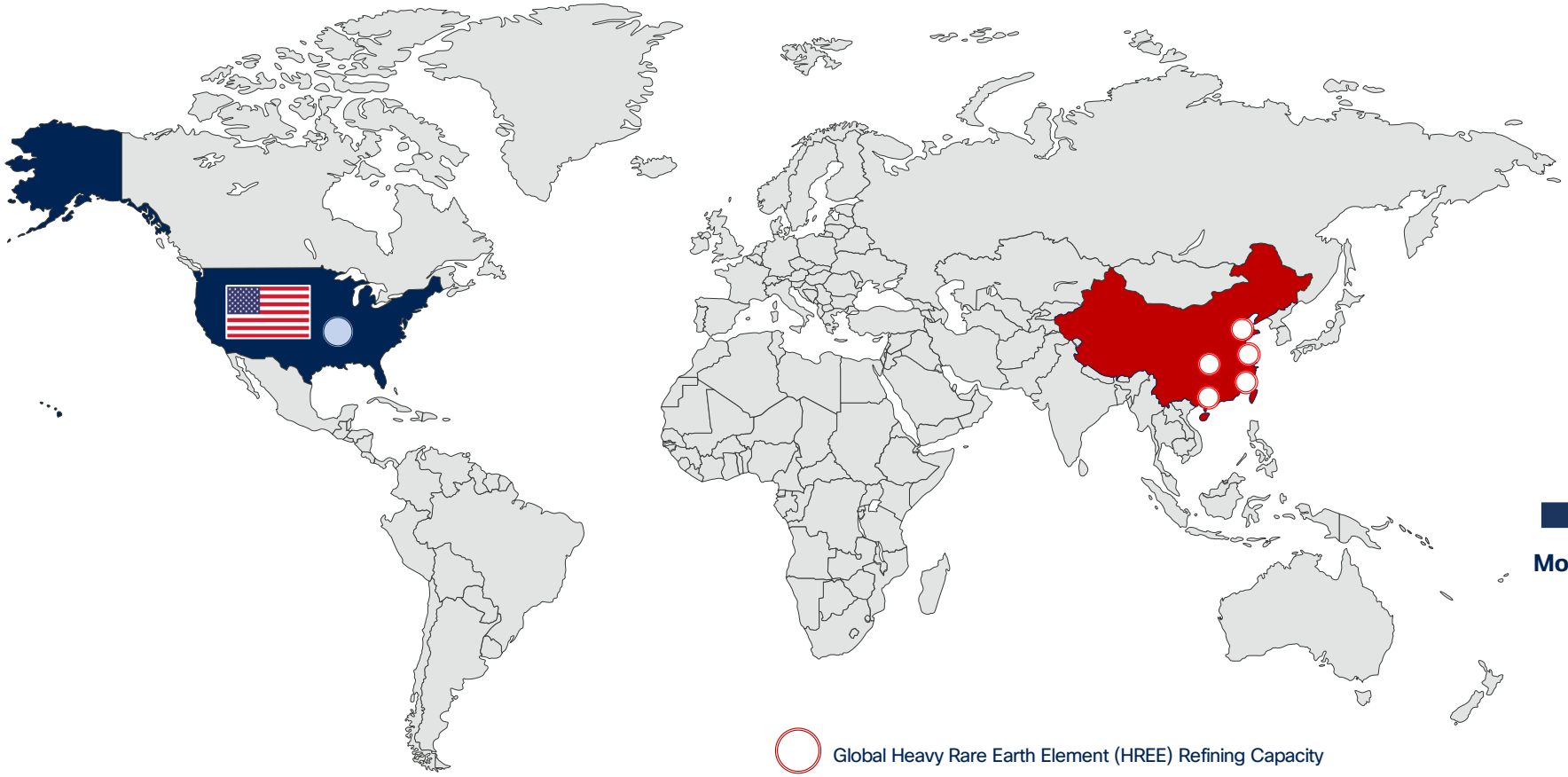


Our Titan Project is the large scale, simple & sustainable answer to U.S. critical mineral supply chain concerns

100% owned by IperionX, our Titan Project covers 11,000+ acres of titanium & rare earth rich heavy mineral sands in west Tennessee

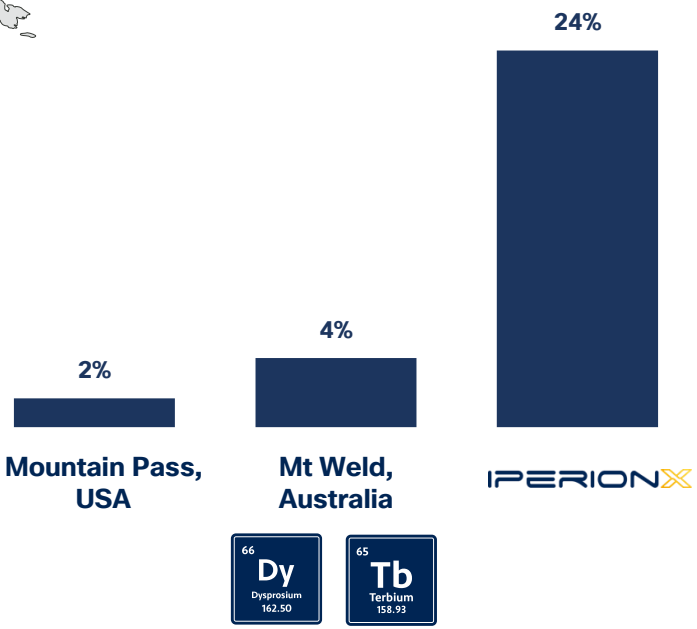
- Infrastructure rich location in the heartland of the U.S.
- Largest U.S. titanium & monazite / xenotime resource
- Simple, low-cost extraction & processing operations
- Sustainable operations with active reclamation

With potential to be a significant source of U.S. heavy rare earth minerals



Global Heavy Rare Earth Element (HREE) Refining Capacity

IperionX's Titan Project (HREE-rich deposit)



Heavy Rare Earths
In-Situ REO Basket %[1]

Source: Public reports and documents. Locations shown are approximate.

1. Mountain Pass and Mt. Weld values are product basket values shown as heavy rare earth oxide % of total rare earth oxide in product mix. IperionX values are based on metallurgical testwork of Benton material from Titan project – see ASX announcement dated August 9th 2021 for details. Heavy rare earths include Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y.

Low-cost pathway to production and established downstream rare earth processing

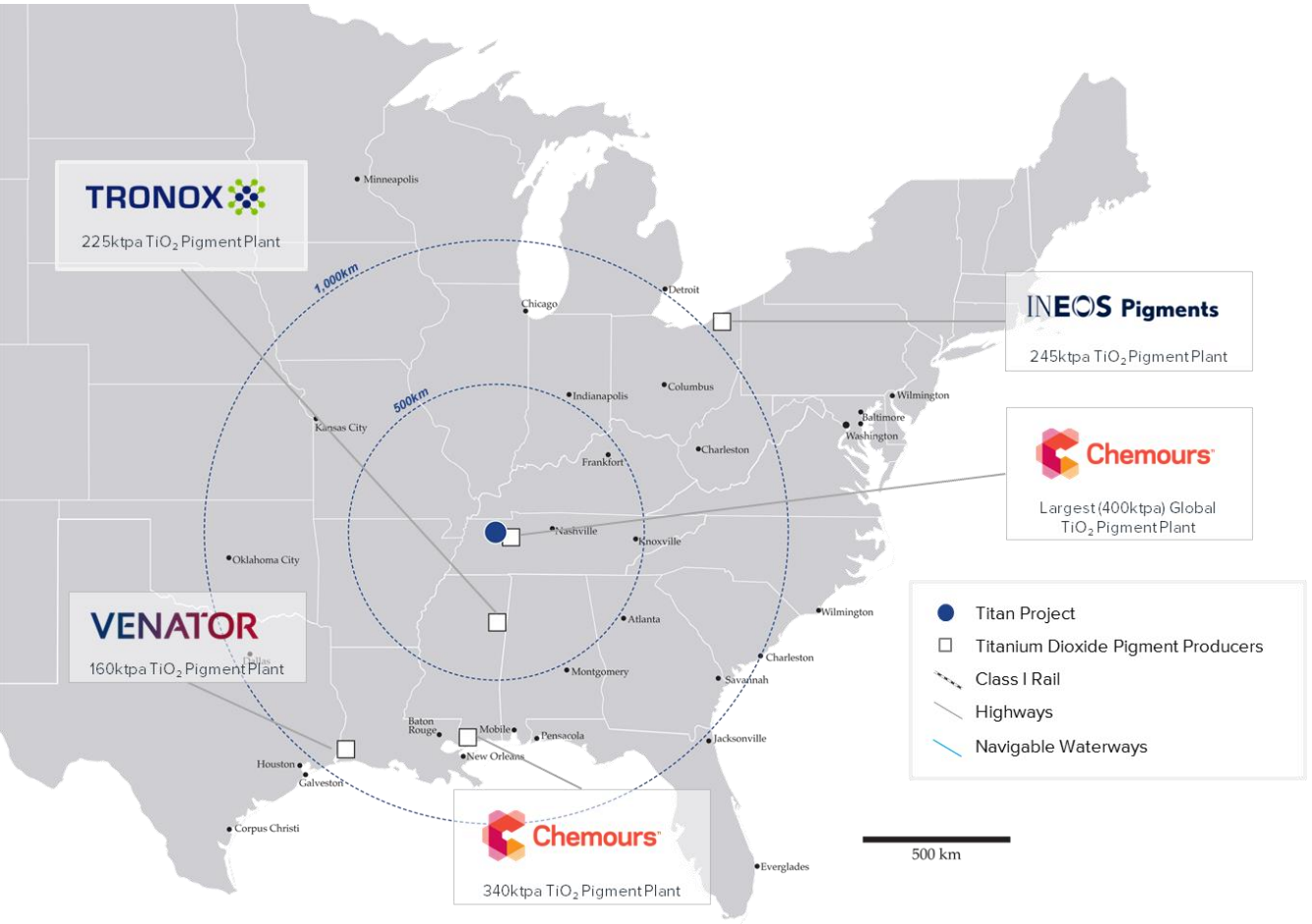
Partnership with Energy Fuels[1] provides a rapid, low-capital pathway to production of the rare earth products needed to re-shore the permanent magnet supply chain

Mineral resource and development of facility for rare earth mineral concentrate production

Existing facility with significant replacement value[2], and development of additional separation capacity

U.S. & European downstream industry is rapidly developing but will need non-Chinese oxide supply

1. See ASX announcements dated April 22nd, 2021, and update announcement dated March 8th, 2022 for details.
2. Iluka Resources' 2022 capital cost estimate for a 55ktpa feed rare earth cracking, leaching separation and finishing refinery is $700M – $850M at an AUD:USD rate of 0.70. See Iluka's ASX announcement dated April 3rd, 2022 for more details.

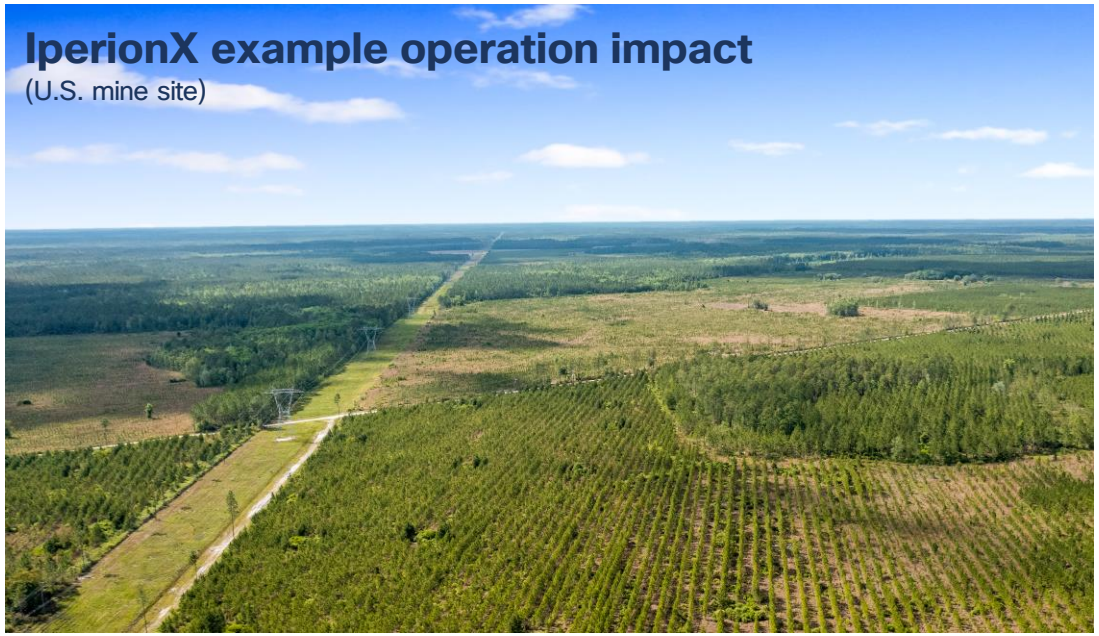


We are also a major potential source of titanium minerals for the paint & pigment industry

- U.S. paint & pigment industry is 90+% import dependent on titanium minerals
- U.S. domestic consumption of TiO_2 pigment in 2021 was estimated to be ~1.1 million tons
- Ukraine was a major source of supply of titanium minerals

Source: US Geological Survey. Locations shown are approximate.

We aim to develop one of the most environmentally sustainable mineral operations



- No drilling, blasting or hazardous chemicals used for extraction
- Active reclamation

- Drilling, blasting, grinding and often leaching required
- Process typically results in tailing ponds or piles

We aim to be a good corporate citizen in all our activities

ESG Strategy & Life-cycle Analysis

PGS CONSULTS

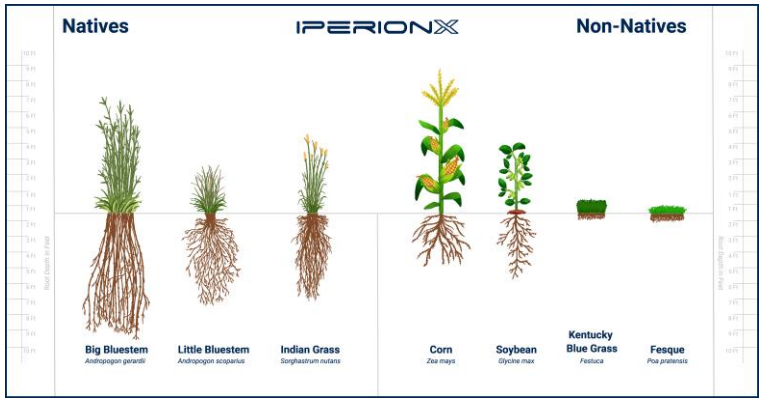
EarthShift Global
ADVANCING YOUR SUSTAINABILITY

Committed to be a leader in incorporating ESG principles into our corporate values

Community Outreach & Education

Dedicated to being a good corporate neighbor in the communities where are operations are located

Leading Industry Relevant Sustainability Programs



UTIA INSTITUTE OF AGRICULTURE
THE UNIVERSITY OF TENNESSEE

Passionate about being at the forefront of improving our industry's sustainability profile

IperionX's vision is to re-shore a U.S. sustainable critical material supply chain – our near-term milestones will help drive our success

- *NASDAQ Listing*
- *Release of the Scoping Study outlining the economics on the Titan Project*
- *Continued work to get the Titan Project "construction ready"*
- *Commercial discussions with potential Titanium metal strategic customers*
- *Scale-up of our titanium metal powder production capacity*

Website

www.iperionx.com

Headquarters

129 W Trade St, Ste. 1405
Charlotte, NC,. 28202

E-mail

investorrelations@iperionx.com

Phone

+1-980-213-2290