

# IPERIONX

## SUSTAINABILITY REPORT 2023

IperionX Limited ABN 84 618 935 372



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# Introduction to IperionX





# Sharing Our Progress as We Usher in the Titanium Age

Welcome to our second annual IperionX Sustainability Report – taking you with us on our continuing journey to revolutionize the metals and minerals industry and create a circular domestic titanium supply chain in the U.S.

IperionX was founded upon the goal to sustainably usher in the Titanium Age, and to that end, we continue to intentionally embed sustainability into our culture, business planning, and operations.

Titanium can help us create a better future. Low-carbon and low-cost titanium is fundamental to a sustainable future for our planet, whether it's used in consumer electronics, transportation, green hydrogen production, or in luxury goods. We plan to disrupt the metals supply chain with proprietary technologies and accelerate the adoption of titanium in more industries by reducing barriers to use.

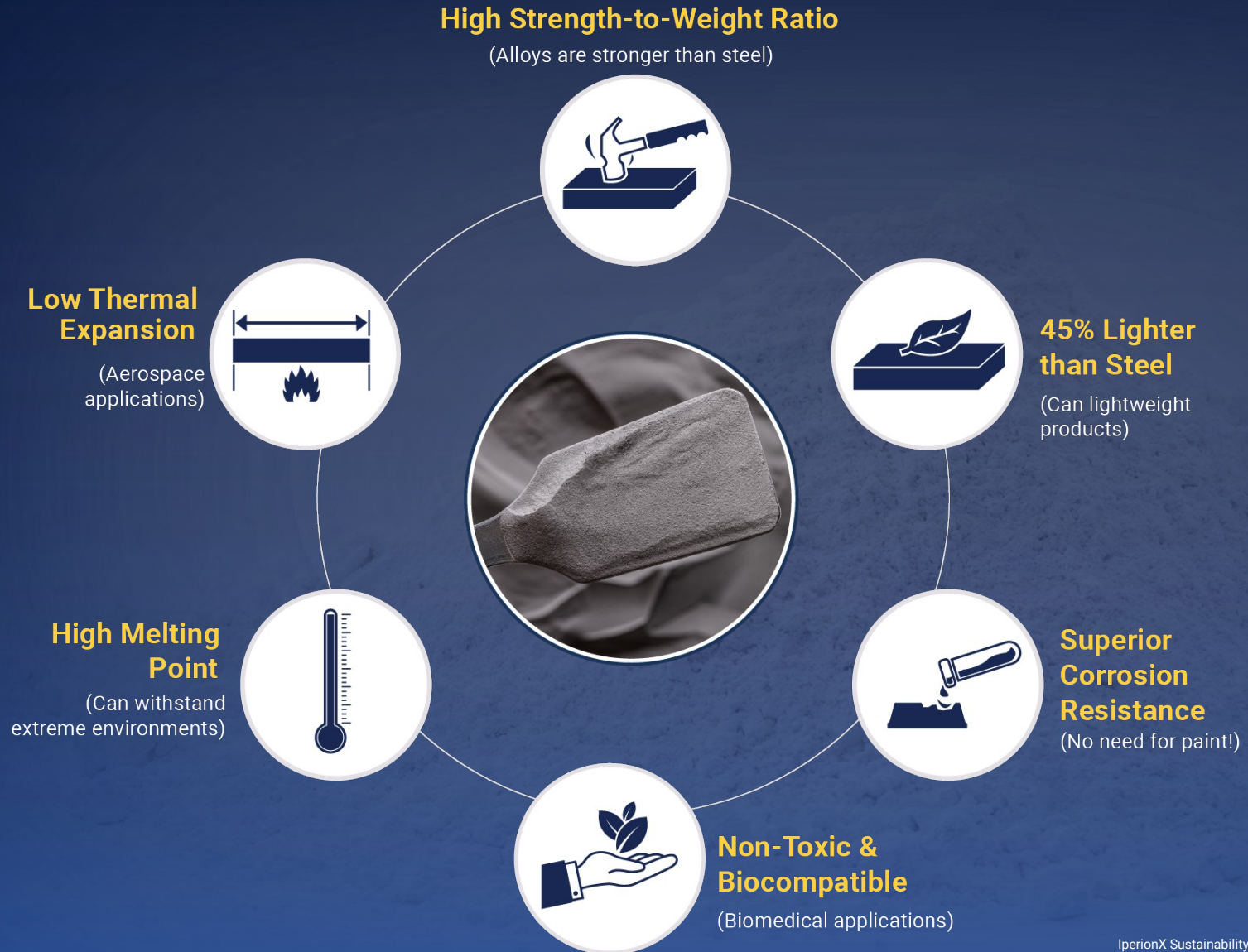
We made significant progress in fiscal year 2023, scaling up proprietary technologies at the IperionX Industrial Pilot Facility in Utah and in Virginia, where our Titanium Demonstration Facility will become the world's largest titanium recycling facility. Substantial progress was also made on our Titan Project in West Tennessee, crucial to developing a long term sustainable domestic supply chain for titanium and other critical minerals.

Our commitments to transparency and continued engagement with stakeholders, investors, customers, and the communities in which we operate, are paramount to achieving our mission. Thank you for traveling with us on the IperionX journey, as we continue to set our sights on sustainably changing the world through titanium.

**Taso Arima**  
Chief Executive Officer

## WHY TITANIUM?

# Titanium is a superior metal due to its material properties



# The current Kroll process for titanium is energy, carbon, and cost intensive

The Kroll process, while a breakthrough in the 1940s, has limited titanium's wide-scale adoption and potential, largely due to its high economic and environmental price tags.

**High Carbon Emissions**  
(Petroleum coke as direct carbon source)



**Recycling Limited**  
(Kroll process relies on virgin minerals)



**Chemical Intensive**  
(Hazardous chemicals used)



**High Cost**  
(Has historically limited Ti applications)



**High Melt Temperatures**  
(Increases energy use)



**High Energy Use**  
(Increases carbon emissions and cost)



# IperionX's 100% recycled low-cost titanium can provide a sustainable solution for wider adoption

Proprietary sustainable technologies provide IperionX with the potential to disrupt the global titanium supply chain, help companies meet their sustainability objectives while cutting carbon emissions and costs, and bring a fully circular titanium supply to the U.S. market.

These technologies can take 100% titanium scrap – including scrap previously destined for landfill – and fully recycle it into titanium powder for additive manufacturing or traditional powder metallurgy applications suitable for a wide variety of industries including consumer electronics, luxury goods, transportation, and aerospace.



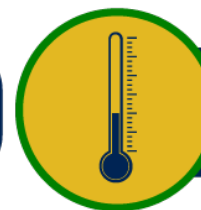
**Low-Carbon**  
(Zero Scope 1 and 2 emissions)



**Low Cost**  
(Competitive with stainless steel)



**100% Recycled**  
(UL Validated, infinitely recyclable)



**No Melt Process**  
(Lowers energy use)



**Circular Supply Chain**  
(Scrap and end-of-life recycling)



**U.S. Mineral Supply**  
(Vertically integrated)



# IPERIONX

We are creating the world's first low-carbon and low-cost titanium metal U.S. supply chain

— WELCOME TO IPERIONX



At IperionX, we are on a mission to be the leading developer of U.S.-sourced low-carbon, low-cost sustainable titanium. IperionX is a public company with its U.S. head office in North Carolina, listed on both the Australian Stock Exchange (ASX:IPX) and on the Nasdaq (Nasdaq:IPX).

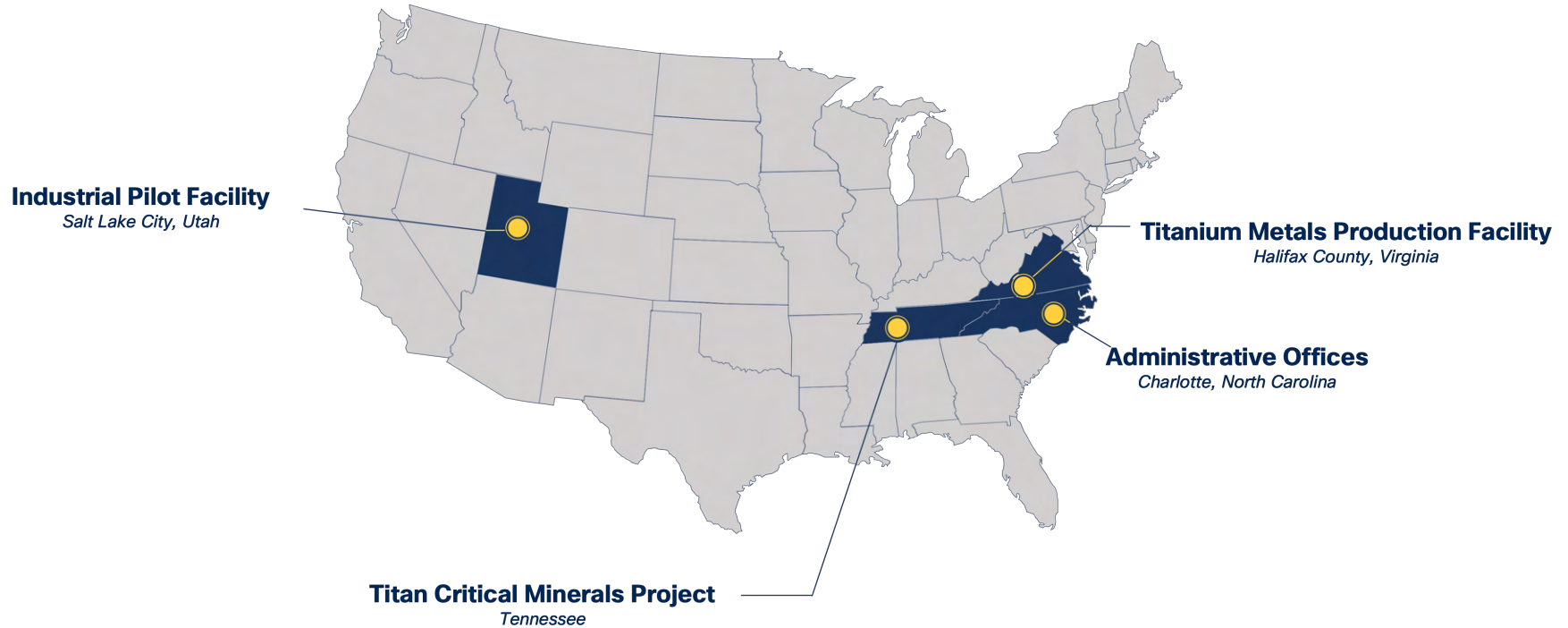
Sustainability guides everything that we do. We are working to facilitate the transition towards a low-carbon, circular titanium supply chain for advanced industries such as transportation, consumer electronics, aerospace, and the luxury goods market.

For IperionX, our commitment to sustainability isn't limited to the production of titanium. Sustainability is built into every aspect of our business, from early planning through operation, and beyond. Through the vertical integration of our operations including both the proprietary recycling technology and our Titan Project, we are able to produce titanium metal powders from both scrap titanium and domestic titanium minerals.



At IperionX we are creating the future of titanium — today.

## OUR OPERATING LOCATIONS



In addition to our Industrial Pilot Facility in Utah and our Titan Critical Minerals Project in West Tennessee, this year we selected a site in Halifax County, Virginia, where we intend to scale up our titanium production at our Titanium Metals Production Facility, using 100% scrap titanium as an input. We will also perform ongoing research and development (R&D) efforts in Virginia.

Over the past year, we have forged collaborations with a diverse set of partners in industries ranging from transportation to luxury goods to defense contractors, who share our values of sustainability and high performance. These collaborations have enabled us to prove the commercial value in use of our high quality, 100% recycled titanium.

As our operations expand, we intend to create collaborations with leading organizations in other advanced sectors such as consumer electronics and green hydrogen, as well as large scale industrial and infrastructure applications. Opportunities to expand the use of IperionX's sustainable, low-cost titanium, while harnessing its superior properties are unlimited.

# Our FY23 in Numbers

IPERIONX SUSTAINABILITY REPORT 2023

## Environment



**~70%**

Renewable Energy Percentage of Total Operational Electricity Demand

**<8**

Forecast Carbon Intensity in Kilograms CO<sub>2</sub>e of a Kilogram of Recycled Titanium Powder per Our LCA

**100%**

Recycled Content Percentage Validated by UL for Our Titanium Powder Produced in Utah

## Social



**62**

Number of Community Events We Participated in

**124**

Number of Volunteer Hours Supporting Our Communities

**\$18,000**

Dollar Amount of Scholarships Awarded Supporting STEM Education

**\$17,000**

Dollar Amount of Community Donations Supporting Local Initiatives

**0**

Recordable Safety Incidents

**\$25,000**

Dollar Amount Donated to University of Utah "IperionX Sustainability Legacy Endowment"

## Governance



**8**

Meetings of the ESG Committee of the Board of Directors to Oversee Our Sustainability Strategy and Implementation

# Groundbreaking titanium technologies that can revolutionize the global titanium industry



Groundbreaking titanium metal technologies have the potential to substantially decarbonize the global titanium industry, facilitate the growth of a green economy, and re-shore a U.S. titanium supply chain for national security interests.

These technologies, developed by Dr. Zak Fang at the University of Utah, can produce titanium products that are low carbon and fully circular. The core patented technologies are the **Hydrogen Assisted Metallothermic Reduction (HAMR) process**, and the **Granulation Sintering Hydrogen Assisted Deoxygenation (GSD) process**, the latter of which is the application of HAMR's deoxygenation capabilities to produce spherical titanium powders. Using the HAMR-GSD process, IperionX can recycle scrap titanium to produce 100% recycled titanium powders – spherical powder for use in additive manufacturing or angular powder for use in powder metallurgy.

# Technologies that make sustainable titanium production possible

The energy and carbon intensity of the traditional “Kroll Process” have limited titanium’s widespread application due to its resulting high economic and environmental costs for titanium and has historically hindered titanium’s ability to be fully circular.

The GSD and HAMR processes being commercialized by IperionX address these historic challenges. By leveraging these innovative technologies, IperionX offers a market shaping solution for the expanded use and cost competitiveness of titanium. Our methods can utilize almost all types of titanium scrap feedstock, including high oxygen scrap, resulting in lower costs and reduced carbon footprint. **No other known commercial process exists that can produce high quality titanium metal from 100% recycled titanium sources.**

Notably, GSD and HAMR use no direct carbon sources and therefore produce no direct carbon emissions during the process, unlike Kroll. Low temperature processing results in much lower energy use than the Kroll process, which greatly reduces the electrical requirements and associated indirect carbon emissions of the GSD and HAMR processes.

## Fully Circular Process



Today, IperionX successfully operates the GSD and HAMR processes to produce 100% recycled titanium metal powders and metal products using titanium scrap as feedstock at our Industrial Pilot Facility near Salt Lake City, Utah. We will be scaling up these processes at our Titanium Metals Production Facility in Virginia with commissioning expected in Q1 2024. With these advancements, we are revolutionizing the titanium industry by expanding the use of titanium to a broader range of applications in a more sustainable and economically viable way.

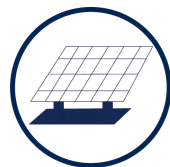
# IperionX is developing the world's first and largest 100% recycled titanium metal powder facility



IperionX chose Halifax County, Virginia as the site for our Titanium Metals Production Facility after a 48- state search. Development of the facility will facilitate IperionX's production of 100% recycled titanium powder on a commercial scale, exclusively from recycled titanium scrap feedstocks using breakthrough titanium technologies. The Titanium Metals Production Facility represents an important step forward in our mission to build a sustainable domestic titanium supply chain in the U.S.

Production is targeted to commence at the facility in Q1 2024. Once successfully in operation, there are plans for a simple modular expansion of the facility into the Titanium Commercial Facility. The development of the facilities will position IperionX as the largest global supplier of 100% recycled, low-cost and low-carbon titanium metal powders.

Our commitment to sustainability extends beyond our proprietary titanium production process. As part of the IperionX sustainable vision at the Titanium Metals Production Facility, we plan to:



— Utilize 100% renewable energy on site.



— Build and support a diverse local workforce



— Support local biodiversity



## Our Titan Project in West Tennessee provides vertical integration for IperionX operations

IperionX's Titan Critical Minerals Project in west Tennessee is one of the largest potential sources of titanium and rare earth elements (REE) in the U.S. The Titan Project is 100% owned by IperionX, enabling the potential to both vertically integrate with proprietary titanium metals technologies, and provide a U.S. source of titanium minerals to our customers.

**The Titan Project provides both the opportunity to re-shore a U.S. titanium supply chain, as well as providing a domestic source of REE widely used in permanent magnets in electric vehicles, wind turbines, as well as in military applications.**

The Titan Project will serve as a global model of sustainability and land stewardship throughout its life cycle. Once operating as an active mineral extraction site, mineral extraction activities at the Titan Project will require no drilling or blasting and will be completed in a phased approach with progressive backfill to minimize our active operations to a small footprint at any given time.



# Our Governance

5 GENDER EQUALITY

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

# Creating lasting impact through our sustainability leadership and governance

## Our Approach to Sustainability

IperionX was founded with sustainability as a core tenet of our mission to revolutionize the U.S. titanium supply chain. Our goal is to set the standard of sustainability practices in the metals and minerals industries. We strive to embed sustainability into every level of the organization, our operations, and our products as we grow.

## The Board of Directors

The IperionX Board of Directors determines the company strategy and oversees its implementation. Comprising six members, the board meets quarterly to monitor and assess significant business opportunities as well as risks. Its goal is to ensure the company is equipped with the resources and tools needed to accelerate a domestic titanium circular economy. The board adopted its charter in 2021, which was designed around a commitment to build shareholder value, and an emphasis on responsible governance and ethical leadership.



### Committee Membership:

- = ESG Committee
- ▲ = Audit Committee
- = Remuneration and Nomination Committee
- ★ = Committee Chair

The Board of Directors has established three standing committees and their charters are available on our website:

1. **Audit Committee:** Oversees financial reporting integrity and compliance risks.
2. **Remuneration and Nomination Committee:** Oversees compensation design, attracting and retaining key employees, and other human capital risks. Works with independent remuneration consultants.
3. **ESG Committee:** Oversees the company's ESG strategy and initiatives and reviews the annual sustainability report.



# Sustainability is a priority at all levels

50%

Female Board  
Representation

67%

Independent  
Directors

## Diversity Starts at the Top

As an industry leader, IperionX takes pride in achieving 50% female representation on our board, showcasing our commitment to diversity and inclusion. By fostering an inclusive environment and starting with diversity at the top, we believe that diverse perspectives will drive innovation and excellence across all levels of the company.

## ESG Committee of the Board

IperionX sets an example by establishing an ESG Committee of the board. This dedicated committee reflects our unwavering commitment to sustainability and responsible business practices throughout the organization. By holding ourselves accountable through the ESG Committee, we prioritize long-term sustainable strategies that benefit our business, the environment, and society at large.

## Our New VP of Sustainability

During FY23 we built onto our leadership structure by hiring a vice president of sustainability who oversees management of our sustainability initiatives and updates the ESG Committee on a quarterly basis.



“At IperionX, we’re helping our partners meet the low carbon and sustainability mandates that investors, consumers, and more recently, regulators are demanding.”

Mari Gilmore,  
VP of Sustainability



“The ESG Committee ensures that we have the policies and practices in place to meet the IperionX vision of being sustainable from day one.”

Beverly Wyse,  
Non-Executive Director

## Progressing Sustainability Reporting Standards

Our ESG Committee Chair, Melissa Waller, was honored to be selected by the Global Sustainability Standards Board to be a member of the multi-stakeholder expert working group tasked with developing a new sector standard for the mining and minerals industry. This global group of 20 members brought diverse perspectives and expertise to help GRI (Global Reporting Initiative), the global standard setter for impact reporting, ensure that the new sector standard enables organizations to transparently disclose how they contribute, or aim to contribute, to sustainable development.

“It has been an honor to be part of the diverse stakeholder expert working group for the Mining Sector Standard. As critical mineral mining standards, supply chain issues, and the circular economy impacts of mining continue to be at the forefront for this sector, the Working Group has sought to identify additional sector-specific standards to allow organizations to identify and transparently report meaningful data.”

Melissa Waller,  
ESG Committee Chair



## DRIVEN BY OUR VALUES

# Our Commitment to Ethics and Compliance

IperionX sets the highest standards of business ethics and legal compliance on our mission to become the leading developer of a low carbon, sustainable, fully circular U.S. titanium supply chain. As an industry leader, we know that the value we produce for shareholders, customers, and other stakeholders depends upon our employees' dedication to taking care of each other, and the communities in which we work and operate.

At IperionX, we know that our success comes not only from *what* we do, but also from *how* we do it.

Our Code of Conduct was developed to guide the standards of conduct for all IperionX officers and employees. In addition, IperionX carefully complies with the laws and regulations that apply to its business as a publicly listed company in both the U.S. and Australia. Compliance with these standards is overseen by our Chief Legal Officer, the Company Secretary, and the various committees of the Board. During FY23, we had no incidents of non-compliance, corruption, ethical violations, fines, sanctions, or legal actions taken against us.

This is the IperionX way — and we intend to continually raise the bar.



# Our Material Topics

## Our stakeholders help guide our sustainability strategy and focus our efforts

The IperionX baseline materiality assessment completed in FY22 was an important early milestone in our sustainability journey, setting the framework for our initial sustainability strategy. This materiality assessment identified the most important economic, environmental, governance, and social topics to the company and our stakeholders, and where we are positioned to have the most significant impacts.

In fiscal year 2023 IperionX prioritized commercialization of proprietary titanium metal technologies alongside our continued focus on the Titan Project, which was the focus of our baseline materiality assessment. These two important aspects of our business provide the vertical integration necessary to bring forth a domestic circular supply chain for titanium.



## Our Materiality Assessment Process

### Research

55 potential material topics were narrowed down to 24 that IperionX has the potential to impact at this stage of its operations.

### Engage

58 stakeholder interviews were conducted to best understand what topics are most material to our company and our stakeholders.

### Prioritize

Material topic scores were averaged, resulting in the final materiality matrix that illustrated the relative importance of each topic.

# Ensuring the continued alignment of our **priority material topics**

The rapid evolution associated with a quickly growing company necessitates vigilance to identify and address the shifting landscape of our material topics and ensure continued alignment of our priorities with those of our valued stakeholders. In fiscal year 2024 we will continue quarterly review of our materiality assessment at ESG Committee meetings, while focusing on the following priority material topics:

Our Priority Material Topics for FY24				
 Product	 Environment	 Community	 Governance	 Workforce
<ul style="list-style-type: none"> <li>• Technology</li> <li>• Research and Innovation</li> </ul>	<ul style="list-style-type: none"> <li>• GHG Emissions</li> <li>• Energy Management</li> <li>• Water</li> <li>• Biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>• Community Relations</li> <li>• Community Health and Safety</li> </ul>	<ul style="list-style-type: none"> <li>• Business Conduct and Ethics</li> <li>• Regulatory Compliance</li> </ul>	<ul style="list-style-type: none"> <li>• Health and Safety</li> <li>• Diversity and Equal Opportunity</li> </ul>

## OUR SUSTAINABILITY GOALS

# Sharing our FY23 progress and looking ahead to **lead sustainably in FY24**

In our inaugural sustainability report, IperionX set initial goals for FY23, making commitments aligned with key focus areas identified through our baseline materiality assessment. These goals and commitments were reviewed on a quarterly basis by management and the ESG Committee of the Board to confirm continued business alignment. We made progress towards each of our FY23 goals and have updated our FY24 goals to reflect our and next steps as we grow and evolve to become a leader in sustainable practices in the metals industry.

FY23 Goal Category	FY23 Goal	FY23 Progress	FY24 Goal Category	FY24 Updated Goals
Business Conduct & Ethics, and Regulatory Compliance	Maintain board oversight and accountability of ESG strategy	The ESG Committee established twice a quarter meeting cadence during FY23 to review progress towards ESG goals and commitments	Governance	Provide Business Code of Conduct & Ethics training to all employees and Board
	Implement Business Code of Conduct & Ethics training for all employees	The IperionX Employee Handbook was finalized  All employees and Board received training on Insider Trading		Develop Supplier Code of Conduct
Health & Safety – Community & Employees	Implement an Environmental Health & Safety (EHS) Management System following ISO standards	Completed an initial set of Global EHS polices  Provided Health and Safety trainings including CPR, First Aid, and MSHA trainings	Health & Safety	Train all employees on Global EHS Policies  Initiate online training and EHS document management software

OUR SUSTAINABILITY GOALS

FY23 Goal Category	FY23 Goal	FY23 Progress	FY24 Goal Category	FY24 Updated Goals
<b>Environmental Management: GHG Emissions, Air Quality, Water, Energy, Waste, Biodiversity</b>	Hire a vice president of Sustainability  Measure and offset our initial carbon footprint  Establish relationships with local environmental groups	VP of Sustainability hired  Initial carbon footprint measured and shared in FY22 Sustainability Report  Renewable energy procured for our current UT and TN operations  Completed and shared single product LCA on IperionX Ti powder  Continued ongoing work to form relationships in our communities	<b>Environment</b>	Provide sustainability internship opportunities  Complete comparative LCA on IperionX powder and other metal powders for additive manufacturing  Implement centralized travel management to better track business travel for carbon footprint  Develop corporate climate statement on sustainable development
	Work with leading institutions to develop sustainable operating and rehabilitation plans for our mineral extraction operations  Share our end-state vision with community stakeholders	University of Tennessee Institute of Agriculture (UTIA) partnership and research continued in West Tennessee  Held 3 Community Meetings in West Tennessee to discuss our planning process with the local community		Progress work on rehabilitation studies with UTIA, including planting native grass test plots  Develop end-state vision drawings to show possible post-extraction land use options
<b>Community &amp; Labor Relations: Employment &amp; DEI</b>	Continue our efforts to build and support a diverse and inclusive workforce  Continue to nurture relationships and partnerships in our communities	Grew our full time IperionX staff from 28 to 38  Developed a DEI strategy  Awarded \$18,000 in STEM scholarships to 9 high school and college students  Donated a total of \$17,000 to our communities  Established the "IperionX Sustainability Legacy Endowment" with a \$25,000 donation to the University of Utah  Our employees volunteered a total of 124 hours	<b>Our People and Communities</b>	Develop corporate responsible business policy  Implement company-wide annual performance reviews  Continue to support the next generation through STEM scholarships  Continue to support to our communities in TN, UT, NC, and VA through donations  Volunteer in FY24 in our communities of TN, UT, NC, and VA



# Our People and Communities

**4** QUALITY EDUCATION

**5** GENDER EQUALITY

**8** DECENT WORK AND ECONOMIC GROWTH

**10** REDUCED INEQUALITIES

# Building a culture of inclusion and belonging is foundational to our ability to lead through innovation and sustainability.

## OUR PEOPLE

At IperionX we aim to foster a culture of inclusivity by recognizing the uniqueness of every member of our team. As a company that is innovating and growing, we ensure the alignment of our employees by valuing how everyone is contributing and advancing our shared mission.

We know that diversity accelerates innovation and are committed to building a diverse team within our management and workforce. IperionX hiring practices aim to align with the demographics represented in the diverse regions where we operate.

Our growth strategy to achieve our mission relies on empowered IperionX employees and the culture we build together.

Between FY22 and the end of FY23, we grew from 28 to 38 full-time team members, including employees, independent contractors, and temporary workers. Today, 31% of our senior leadership is female and 45% of our remaining full-time workers are female. As we continue to grow, diversity, equity, and inclusion (DEI) policies and practices are being developed to help us create the inclusive work environment needed to usher in the Titanium Age.



## OUR COMMITMENT TO SAFETY

We embed safety in our culture as a core corporate value

Protecting the health and safety of all our stakeholders, including our employees, contractors, visitors, and communities, is a core value of IperionX and fundamental to our future success. We take providing a safe place to work for employees seriously, ensuring that we are in compliance with applicable occupational and environmental health and safety laws and regulations governing our operations.

In FY23, we continued our journey of establishing an Environmental Health and Safety Management System to identify, assess, and control risks that can negatively impact the health and safety of workers. Ongoing improvements to this system are made with oversight by our chief operating officer and the ESG Committee of the board.



We are proud to continue to report zero recordable health and safety incidents involving our employees or communities to date.



## Our commitment to safety

In FY23 we made the following progress in Environmental Health and Safety (EHS) policy development, hazard assessments, and training:

- **EHS Committee** — This is an internal group of management and staff that meets once a month to oversee our corporate EHS program.
- **Global Corporate EHS Policies** — This included the drafting of a complete set of corporate global policies to govern all work at our sites nationwide.
- **EHS Trainings** — This year our staff participated in CPR, First Aid, AED Training, and MHSA training as applicable to their roles.
- **Process Hazard Analysis** — This included multiple PHAs on our future operations at the TDF in Virginia as part of our proactive planning for safety.
- **EHS Policy Trainings** — This will be the focus of efforts in FY24 as we implement the EHS policies developed in FY23 and ensure all staff are trained and aware.

IperionX fosters a culture of workplace empowerment where employees have the training, knowledge and tools they need to safely complete their work, as well as to identify, assess, and control risks of occupational illness or injury. We have created a work environment where it is safe to speak up or pause work in order to assess potential workplace hazards. Our commitment is to continually improve our practices to attain the highest possible levels of safety for all.

“At IperionX, safety is regarded as a fundamental value of the organization and without exception, is the responsibility of every employee at all levels.”

— Scott Sparks, Co-Founder and Chief Operating Officer

## OUR COMMITMENT TO COMMUNITY

We are building relationships of trust and a legacy for good

At IperionX, we aim to build meaningful relationships within the communities where we operate to foster sustainable environments and thriving local economies. Operating in distinct regions of the U.S., our community support is tailored to meet the specific demographics, needs and opportunities within each place. We are proud to be based in the following communities:

- Benton, Carroll, and Henry Counties, Tennessee
- Salt Lake City, Utah
- Halifax County, Virginia
- Charlotte, North Carolina

Our commitment to community is focused in three areas:

- Resources for and access to STEM education
- Community Outreach and Engagement
- Service and Volunteering



### IperionX invests in STEM education

We believe that access to education will power the innovation needed to ensure a sustainable and economically vibrant future. Creating pathways for the next generation to develop skills in science, technology, engineering and mathematics (STEM), results in a pipeline of leaders positioned to advance our work, and our industry.

In FY23, IperionX awarded **\$18,000** in scholarships to support access to STEM education for West Tennessee high school students, and engineering students at the University of Utah and Boise State University. IperionX is also honored to have partnered with the Society of Hispanic Professional Engineers (SHPE), a national leader promoting STEM awareness and access to career development opportunities with scholarship resources.

### STUDENT 3D DESIGN COMPETITION

IperionX hosted a student 3D design competition to teach college-level engineering students the benefits of titanium in 3D printing applications. Our winner, John Flaacke, designed a custom titanium motor guard to protect his battlebot "Kilobyte" with greater strength and durability than polylactic acid (PLA) or other materials.

## OUR CHILDREN'S BOOK

This year, we proudly announced the launch of our children's book "From Tennessee to Mars" written by IperionX Co-Founder and CEO, Taso Arima, and VP of Geology and Land, Jonathon Lord. Dedicated to the children of West Tennessee, this book helps children understand the critical role of the Titan Project in supporting domestic aerospace and national security needs. Through community readings at local schools and libraries, IperionX has donated nearly 1,000 copies of the book, inspiring the next generation of scientists and engineers.



## SERVING OUR COMMUNITIES

We see IperionX as a part of the community fabric



Fostering relationships of trust and mutuality are at the core of our community engagement efforts. We host regular open forums and have an open-door policy at our offices to promote a culture of transparency.

IperionX can be found giving back throughout the year in each of the communities where we operate. From the county fair to sponsoring uniforms for local sports teams, we meet people where they gather, and invest in community needs that matter most to our stakeholders. In FY23, we were proud to donate \$17,000 to local community events and our employees devoted over 120 hours to volunteer efforts and community outreach events in our local communities.

IperionX is proud to partner with the Native American Indian Association (NAIA) of Tennessee, which provides social services, access to education, and resources for promoting cultural celebrations of Native American heritage. This year, IperionX was pleased to sponsor the NAIA's 41st Annual Education Pow Wow, and donated picnic tables to the Circle of Life Cultural Center's community gathering grounds.

## SERVING OUR COMMUNITIES

IperionX is committed to helping those who served our country

Our team commemorates those who have served our country by volunteering on Veteran's Day and Memorial Day in our local communities. In Charlotte, North Carolina, we worked with the Veterans Bridge Home to beautify Veterans' memorials, cemeteries, and parks. In Salt Lake City, Utah, we assisted the Fisher House with landscaping and serving meals to veterans during their temporary stay. In Camden, Tennessee, IperionX team members worked with various American Legion Auxiliary Posts to serve dinner to veterans in the community.



At IperionX, we believe that taking good care of the people, places, and future of our communities creates reciprocity of trust and support needed for healthy on-going relationships with them.

We are proud members of the business community in both our industry and our local communities

IperionX participates in both industry associations and in local chambers of commerce and economic development organizations in the communities where we operate. We are members of global and regional organizations that advance our industry.



#### Chamber Memberships:

- Tennessee Chamber of Commerce
- Halifax County Chamber of Commerce, VA
- Carroll County Chamber of Commerce, TN
- Paris-Henry County Chamber of Commerce, TN
- McKenzie Chamber of Commerce and Industry, TN
- Benton County – Camden Chamber of Commerce, TN



# Our Environment

**6** CLEAN WATER AND SANITATION



**7** AFFORDABLE AND CLEAN ENERGY



**8** DECENT WORK AND ECONOMIC GROWTH



**12** RESPONSIBLE CONSUMPTION AND PRODUCTION



**13** CLIMATE ACTION



**15** LIFE ON LAND





# We are committed to ensuring a net positive impact on the environment

## OUR ENVIRONMENTAL RESPONSIBILITY

IperionX cares deeply about the environment – not only for the communities in which we operate – but for the planet too. This is central to our mission to be the leading developer of low carbon, sustainable, critical material supply chains here in the U.S.

The proprietary titanium technologies reflect our environmental responsibility, fundamentally reducing energy requirements and chemical and carbon intensity, and enabling full circularity and 100% recycled content. We aim to lead the decarbonization of the metals supply chain and help meet our global and national climate goals.

Our commitment to environmental responsibility has been at the forefront of our business from the beginning. We are passionate about the diverse ecosystems of the

communities where we operate, and proactively plan our future operations to minimize our impacts. We evaluate our operations' potential impacts on the air, land, and water critical to the biodiversity of the environments in which we work.

We aim to create the least invasive and most sustainable processes and operations by performing life cycle assessments and environmental studies. We validate our environmental claims with independent reviews and third-party certifications.

Every aspect of our work in FY23 at IperionX reflected in this report is aligned with one key intention: to have a net positive impact at the global, national, and local level, in all environments in which we operate.



## We support global and national climate goals through **decarbonization of the metals industry**

In 2015 the U.S. and other world leaders signed the Paris Agreement, an international treaty aimed at tackling climate change by substantially reducing greenhouse gas emissions. To reach this goal on a global scale, all industries, especially emissions-intensive industries like metals, must undergo deep decarbonization, starting now.

IperionX recognizes that climate change requires U.S. leadership with coordinated commitments of the global business community and is compelled by this responsibility to help meet urgent climate goals. Proprietary technologies can decarbonize the titanium metals industry at scale. By making titanium cost competitive with other metals like stainless steel, we can do even more by leveraging its superior properties for expanded applications.

At the national level, the U.S. National Climate Task Force set a goal to achieve a net-zero emissions economy by 2050. The Bipartisan Infrastructure Law and the Inflation Reduction Act signed into law in 2021 and 2022, represent landmark legislation to accelerate American clean energy manufacturing, grow the U.S. workforce, and secure domestic supply chains. IperionX's low-carbon and low-cost production of titanium aligns with U.S. government priorities to reduce emissions, support clean energy, and expand domestic production of critical minerals.

"IperionX is uniquely positioned at a critical juncture to leverage federal incentives to re-shore the supply chain for titanium and meet U.S. needs."

— Christopher Lydon, Director of Government Relations, IperionX

# Technologies that enable a titanium circular economy

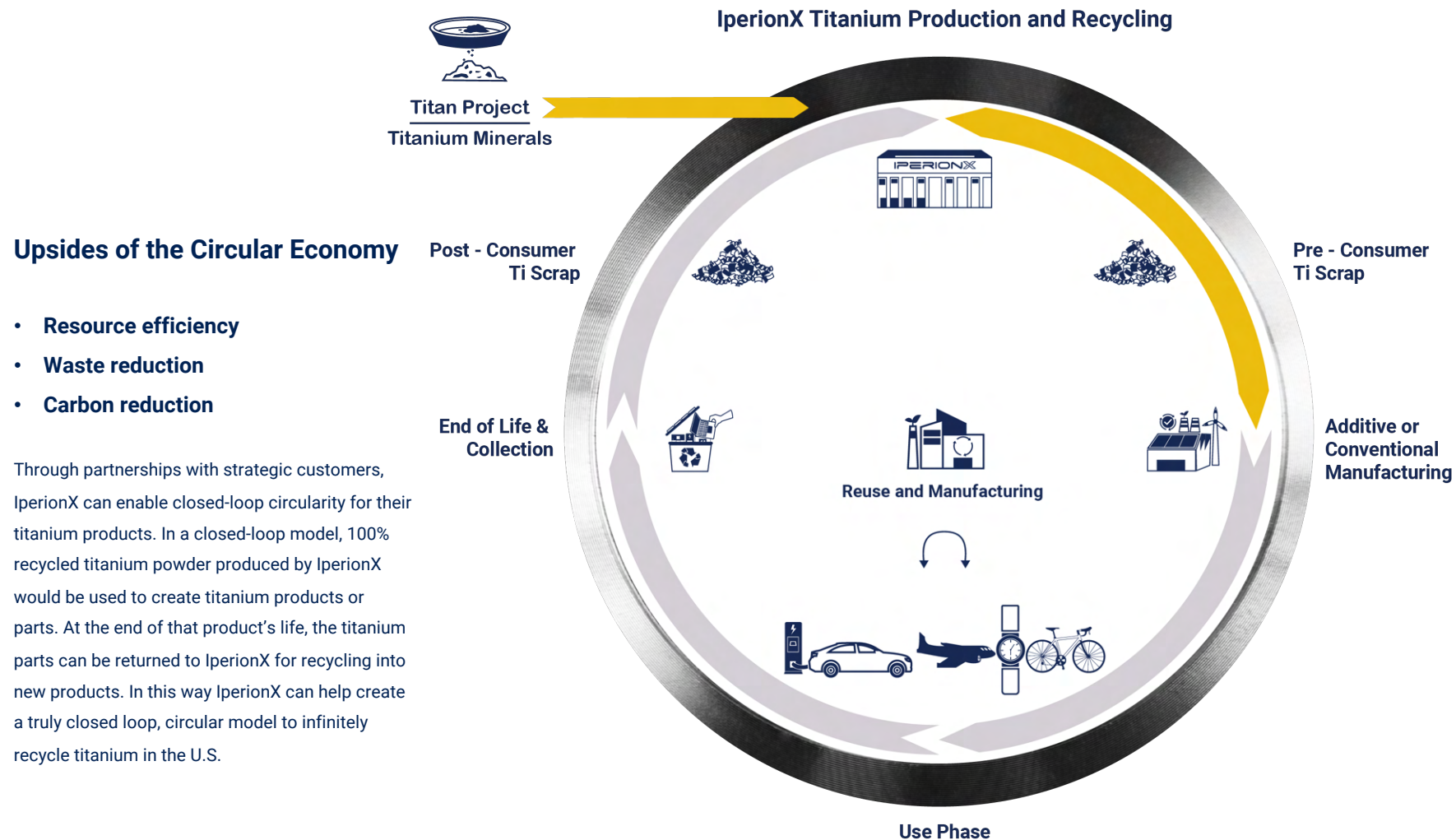
Proprietary technologies enable a titanium circular economy in which economic growth and sustainability goals can both be achieved. We are revolutionizing the titanium industry by using titanium scrap to produce 100% recycled titanium powder for the fabrication of new products needed today.

These proprietary technologies can utilize 100% titanium scrap, including types of scrap that other processes cannot recycle and are usually destined for downcycling or landfill. Our 100% recycled titanium powder can be used for a wide variety of applications and industries. No other known titanium metal manufacturing process, including the incumbent Kroll process, can utilize 100% scrap as a feedstock. These technologies are key to transitioning the titanium supply chain to circularity at scale.

By diverting valuable titanium from downcycling – or from yesterday’s waste stream – and upcycling it for new titanium products, we help meet today’s critical needs for domestically sourced materials and help our customers achieve their product circularity and sustainability goals.



# The future of titanium circularity at IperionX is closed loop



# Sustainable Partnership with Canyon Bicycles

Partnerships are at the center of our titanium circular economy model. We give companies a solution to help meet their supply chain sustainability goals, by providing a 100% recycled titanium product, and enabling 100% product recyclability at the end of life back into their supply chain.

IperionX is working closely with Canyon to produce bicycle components using our low-carbon, recycled titanium to develop a more sustainable supply chain.

Canyon has a strong reputation for true innovation, implementing leading technologies, clean and clear design as well as the highest standards in quality and service. The potential to develop bicycle components utilizing IperionX's 100% recycled titanium is aligned to its ambitions to drive the use of innovative material in the production process, and to match that with its environmental goals.



CANYON

# IperionX produces the first validated 100% recycled titanium powder

## Our UL Validation

IperionX recognizes that third party certifications provide important independent validation of the sustainability benefits of our products and showcase our unique product benefits to our customers.

UL Solutions (UL) is one of the world's most trusted names in third-party product safety and standards development. In FY23, we were proud to achieve UL Environmental Claim Validation Procedure (UL ECVP 2809) for our unique 100% recycled, low carbon titanium metal powder.

IperionX 100% recycled titanium metal powders produced at our Industrial Pilot Facility can now showcase the globally recognized UL Environmental Claim Validation Mark. This represents the first known metal powder to have achieved UL certification for 100% recycled content.

This UL validation of IperionX titanium powders confirms the compelling sustainability advantages for companies that design and manufacture products using them.



# Our Partners Value 3rd Party Certification

During FY23 IperionX announced a strategic partnership to produce 3D-printed watches with high recycled content using our titanium powder with Panerai, a Swiss luxury watch brand of Richemont. Panerai and Richemont International SA are first movers in the sustainable luxury goods market and IperionX provides the only commercially available circular and low-carbon titanium. Panerai values independent third-party verification of all sustainability claims in their supply chain. UL Validation of the 100% recycled content of titanium powder produced by IperionX was an important milestone in our ongoing partnership to help Panerai meet its sustainable metal sourcing goals.

## PANERAI

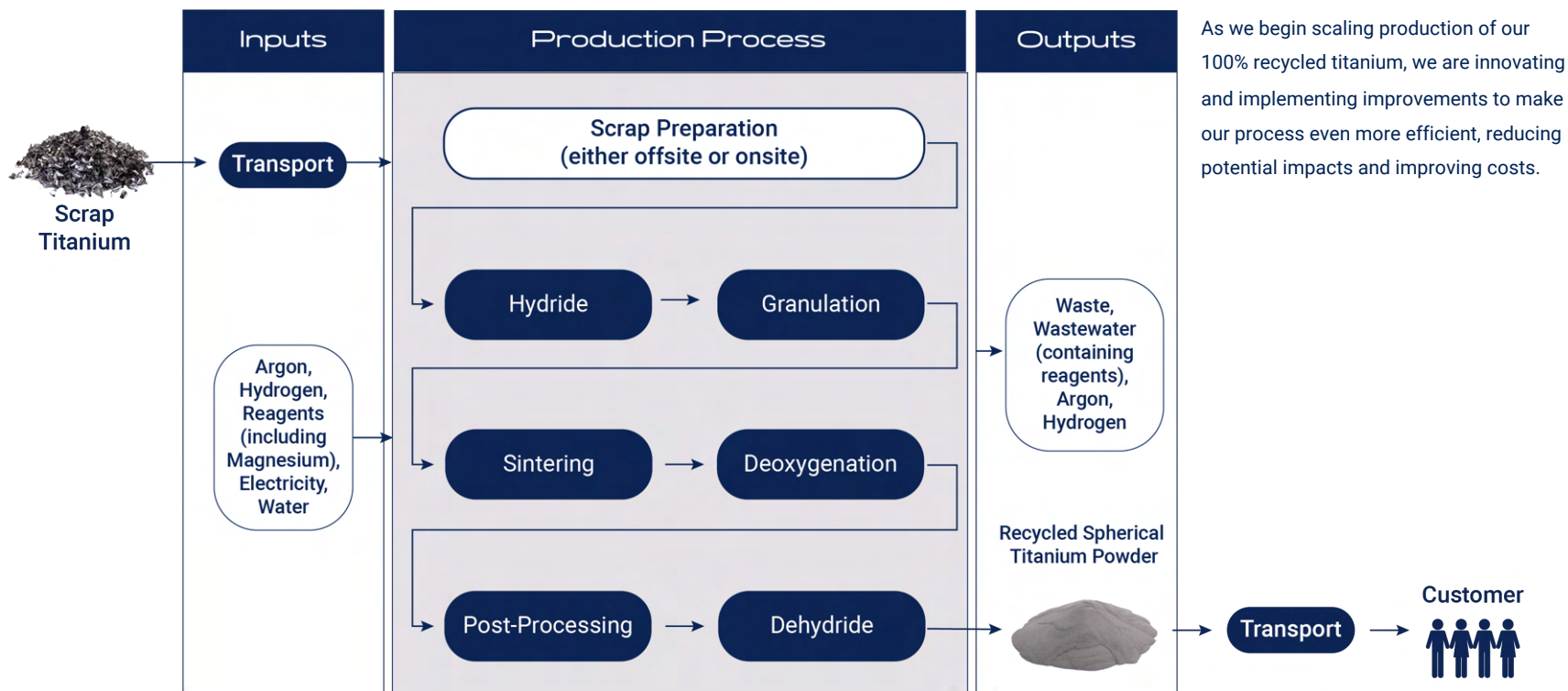


# Sustainability is a guiding pillar when developing our products and technologies

## OUR LIFE CYCLE ASSESSMENT SCOPE

To be a leader in sustainable titanium manufacturing, IperionX must consider all potential impacts of our processes and products. A Life Cycle Assessment (LCA) is a systematic analysis of the potential environmental impacts of products during their entire life cycle. In FY23 we completed an LCA on the proprietary titanium recycling technology, the innovative Granulation Sintering Deoxygenation (GSD) process. 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.

The objective of the LCA was to quantify the environmental impacts throughout the entire life cycle of producing 100% recycled spherical titanium powder from scrap titanium utilizing the GSD process. Throughout the life cycle assessment, we focused on multiple impact categories including climate change, human health, ecosystems, cumulative energy demand, resources, and water use. By delving into these factors, we gained valuable insights into the process steps or inputs that had the greatest opportunities for improvement.





## IperionX provides the **lowest life cycle carbon footprint** for 100% recycled titanium powder commercially available

The IperionX Life Cycle Assessment (LCA) highlights the spherical titanium powder produced at the planned Titanium Demonstration Facility in Halifax County, Virginia has the potential for a life cycle carbon footprint of as little as 7.8 kilograms (kg) of carbon dioxide equivalents (“CO<sub>2</sub>e”) per kg of powder.

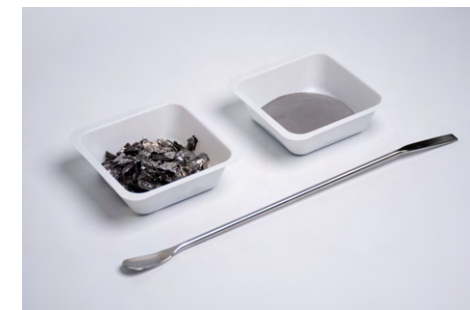
This low carbon footprint is achieved by utilizing renewable energy for the GSD process, and sourcing from low-carbon suppliers of argon and magnesium. As the LCA results indicate, these energy and supply chain inputs had the most significant impacts on the GSD process. Renewable energy procurement allows for the complete elimination of scope 1 and 2 carbon emissions in the GSD process associated with fuel use and electricity, therefore our remaining life cycle carbon emissions associated with our recycled powder production are associated with our Scope 3 supply chain. A white paper version of the full LCA report is shared on our website.

The LCA confirms the promising potential for IperionX to yield significant sustainability benefits to the titanium supply chain, and represents the first known critically reviewed, ISO-compliant LCA focused on metal powder production for additive manufacturing. Notably, IperionX can provide the lowest published life cycle carbon footprint for 100% recycled spherical titanium powder commercially available for use in additive manufacturing.

The results of the LCA further reaffirm the significance of the GSD process. In a time when titanium faces cost challenges and limited circularity, the GSD technology is a transformative force, enabling the upcycling of Ti-64 scrap into a valuable metal powder once again. By offering companies a low-cost and low-carbon titanium solution, IperionX empowers them to fulfill their sustainability goals while advancing circularity in the industry.

## ANTICIPATED FOR RELEASE IN Q1 2024

IperionX has commissioned a critically reviewed, ISO-compliant comparative LCA to quantify the benefits of our 100% recycled titanium powder compared to other commonly used metal powders for additive manufacturing, including titanium, stainless steel, and aluminum.



# We are focused on decarbonizing our energy supply for all sources

IperionX strives to help enable the shift to a clean-energy economy and lower the energy required to process titanium via transformative technologies. The patented GSD and HAMR technologies substantially reduce the energy required to process titanium metal.

As a growing company we know our energy demand will increase as our operations expand. We are committed to ensuring we monitor and limit the growth of our energy use and our corresponding Scope 1 (direct fuel use) and Scope 2 (indirect electrical use) carbon impacts by using alternative energy sources and designing our operations to use energy efficiently.

## Our Fiscal Year 2023 Energy Use

Energy Source	Energy Use	Type of Associated Carbon Emissions	Total Quantity in FY23	Equivalent GJ of Energy	Data Source
Gasoline	Company Fleet of 3 Vehicles	Scope 1 – Direct Fuel Use	<b>720 gallons</b>	94.8 GJ	Estimate based on miles driven
Diesel	Generator	Scope 1 – Direct Fuel Use	<b>165 gallons</b>	24.2 GJ	Data from supplier bills
Natural Gas	Heating for leased spaces	Scope 1 – Direct Fuel Use	<b>3,893 therms</b>	412.7 GJ	Data from utility bills
Electricity	Power for all operational locations and leased spaces	Scope 2 – Indirect Electricity Generation	<b>186,152 kWh</b>	670.1 GJ	Data from utility bills and estimated for equipment



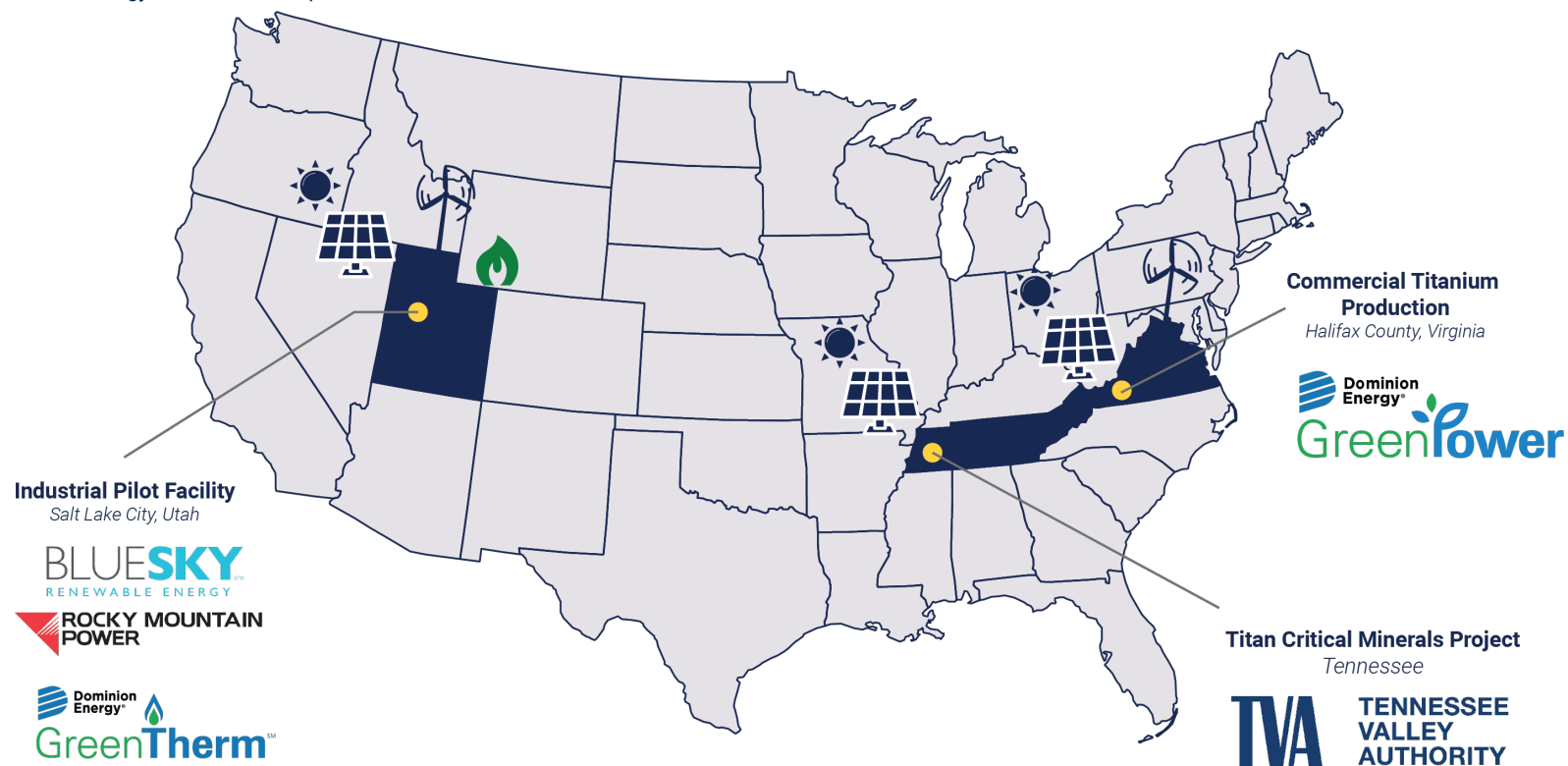
### Looking ahead:

- At our Titanium Demonstration Facility in Virginia we are exploring options to generate a portion of our future energy demand onsite through the installation of solar panels.
- For future operation of the Titan Project in Tennessee we will continue to work with the local utilities and the Tennessee Valley Authority to procure renewable energy sources to power our operations.

# IperionX initiated use of renewable energy programs for FY23 operations

## RENEWABLE ENERGY INITIATIVES

Our goal is to power all IperionX operations using renewable energy to reduce our Scope 1 and Scope 2 carbon emission impact. In FY23 we made important progress towards this goal. We are working with our utility providers to procure only Green-e® Energy certified renewable energy certificates (RECs) to match our current electrical use in our main operational locations with wind and/or solar energy. In Utah we are also supporting the production of renewable natural gas (RNG). Through participation in these voluntary programs, IperionX is supporting the development of future growth and production of new clean energy facilities in our operational areas.



66% of the electricity and 27% of the natural gas procured by IperionX in FY23 came from renewable sources.

## OUR GHG EMISSIONS

### Limiting our carbon footprint growth as we expand operations

At IperionX, we view climate change as an urgent global challenge that demands solutions from our company. To support our mission to be the leading developer of low carbon, sustainable titanium, we measured our greenhouse gas (GHG) emissions for FY23, our third fiscal year of operation and third year of carbon accounting. Following the GHG Protocol, we calculated, in units of metric tons of carbon dioxide equivalents (mt CO<sub>2</sub>e), our:

- **Scope 1 direct emissions** from our use of fuels (natural gas, diesel, and gasoline)
- **Scope 2 indirect emissions** related to our facility electricity use
- **Certain Scope 3 indirect emissions** related to our employees and supply chain

Consistent with our goal of expanding our carbon footprinting efforts into additional categories, for FY23 we quantified our Scope 3 impacts related to:

- Fuel- and energy-related emissions not included in Scopes 1 or 2 (new for FY23)
- Upstream transportation and distribution (new for FY23)
- Business travel (comprehensive for FY23)
- Waste generated in operations (new for FY23)
- Employee commuting and telework

As IperionX scales its operations, we will limit the growth of our GHG emissions as much as possible. We will also continue to focus on expansion of our footprinting efforts into additional categories as they become relevant to our business practices.

We plan to baseline our operational carbon footprint once our metals production and Titan Project are in commercial operation, and will set science-based emission reduction goals relative to our initial commercial production baseline. We plan to set future reduction targets based on an emissions intensity basis (e.g., tons GHG per ton of titanium powder produced).

To further our mission of developing a low carbon titanium supply chain, carbon footprint data guides our development of internal policies around climate change and management of our operations and our supply chain.

Scope	Category	FY23 (mt CO <sub>2</sub> e)	FY23 (mt CO <sub>2</sub> e) % of Total
Scope 1	Stationary fuel	16.8	2%
	Mobile fuel (fleet vehicles)	7.0	1%
Scope 2	Location Based Electricity	58.6	NA
	Market Based Electricity	18.4	3%
Scope 3	Fuel- and Energy-Related Emissions not included in Scopes 1 or 2	7.2	1%
	Upstream Transportation and Distribution	114.6	16%
	Business Travel	453.5	64%
	Waste Generated in Operations	56.9	8%
	Employee Commuting & Telework	36.1	5%
Scope 1 Emissions total (mt CO <sub>2</sub> e)		23.8	3%
Scope 2 Emissions total – Market based (mt CO <sub>2</sub> e)		18.4	8%
Scope 3 Emissions total (mt CO <sub>2</sub> e)		668.3	3%
<b>FY23 TOTAL EMISSIONS (mt CO<sub>2</sub>e)</b>		<b>710.5</b>	

## OUR COMMITMENT TO THE LAND

# We are building a legacy of sustainable land use

IperionX is deeply committed to caring for the land on which we work. Our vision as a global leader in the sustainable titanium metals industry includes building a legacy of land stewardship that plans for future generations.

In West Tennessee at our Titan Project, we aim to protect the health of the land and the communities in the region, through rigorous environmental studies and end use planning that ensure we leave the land better than when we found it.

To ensure a positive outcome for the land, IperionX is:

- Performing baseline environmental studies.
- Employing hydrological modeling to ensure water used and returned on site meets the highest standards of safety for the community and ecosystem.
- Partnering with University of Tennessee Institute of Agriculture to research rehabilitation plans including testing usage of native grasses to sequester carbon and rebuild the soil.
- Supporting pollinators with our local beehives and native bee hotels.

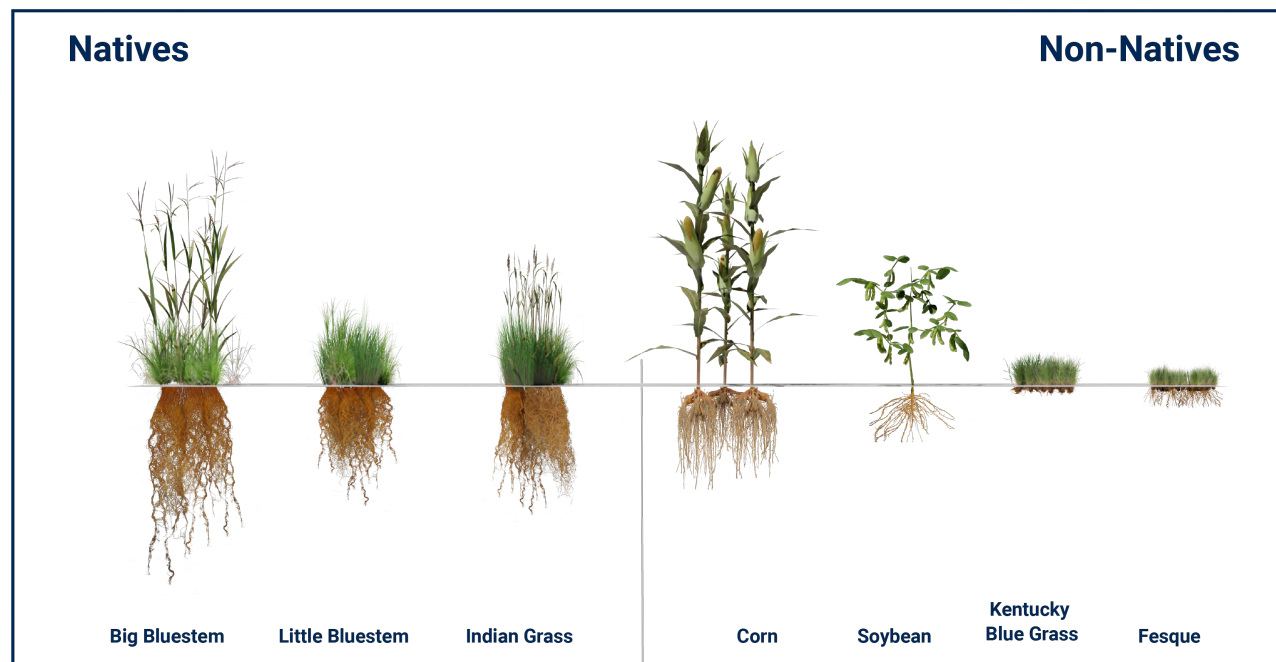
# Stewarding the land for future generations

Our vision of the Titan Project for when our operations are complete is to be a model of sustainable land use and productive restoration.

The land upon which we operate the Titan Project is privately owned. We intend to work with local landowners to return the land to them based upon their desired end use – whether that is farming, timber, or open pasture or grassland.

IperionX is working with its partners at the University of Tennessee Institute of Agriculture to research methods of restoring the land in ways that will improve soil fertility and benefit a biodiverse ecosystem. Through this research we envision the land having the capacity for meaningful carbon sequestration through the use of beneficial soil amendments like biochar and gypsum. Additionally, we are testing the use of returning native grasses, naturally conditioned to thrive in the hot, dry summers of West Tennessee. These native grasses prevent erosion, and have the ability through their extensive root systems, to sequester carbon deep beneath the soil.

At IperionX, our commitment to sustainability envisions healthy lands that support communities and their environments for future generations.



“IperionX is being proactive and planning for land use and restoration even before beginning any extraction. This tells me that they are intending to do the right thing. IperionX is seeking not only to leave the place as they found it, they're attempting to leave it better than the way they found it.”

– Dr. Forbes Walker, Professor and Environmental Soils Specialist, University of Tennessee Extension

## OUR COMMITMENT TO BIODIVERSITY

We aim to have big impacts by starting small

“Our legacy is to leave the land in a better place than how we found it, and bees are a part of that legacy.” – Taso Arima, CEO and Founder, IperionX

At IperionX, sustainability begins with attention to the smallest details. As a company embedded in our communities and with a culture focused on long-term planning, IperionX is invested in fostering a thriving ecosystem in West Tennessee. To address declining honeybee populations that threaten the economic viability of agricultural communities that depend on successful farm yields for food, we installed three beehives to support the biodiversity of the land on which we work in August 2022.

Engaging community in this effort was central to its design. In addition to working with a local beekeeper and soil and insect specialists from the University of Tennessee, the beehives were decorated by celebrated West Tennessee artist, Chelsea Lodge. Ms. Lodge is known for her vibrant public murals and downtown beautification projects that capture the welcoming West Tennessee spirit of community and service.



## We are committed to enhancing biodiversity

In addition to hardworking honeybees, the state of Tennessee is known to have at least 186 species of native bees – some that live together in colonies, and others that are solitary dwellers. Solitary dwellers make their homes under bark and in small cracks and crevices in wooded areas. To support this diverse ecosystem of native bees in the region, IperionX also installed a series of “bee hotels”, man-made structures that simulate naturally occurring holes that provide shelter for solitary bees.



According to agriculturalist Dr. Eleanor Lopez, “Bees fill a lot of ecological niches in our ecosystem,” and play a critical role by pollinating native plants. Providing stable pollination for crop plants throughout the growing season results in stable yields over time. Close to 75% of the world’s crops that produce fruits and seeds for human use depend, at least in part, on pollinators. Establishing a network of thriving bee colonies and habitat for healthy and diverse pollinator species will promote sustainable lands for generations to come in West Tennessee.

As IperionX plans for land reclamation and improvements after mineral extraction at the Titan Project, we intend to restore the earth to better condition than we found it while incorporating native species – our best opportunity to increase the biodiversity of flora and fauna, including bees and other pollinating insects.

While our efforts toward sustainability are focused on the longterm, sustainable practices provide benefits now. For instance, in our June 2023 honey harvest, we gathered and packaged more than 60 pounds of IperionX honey – our largest harvest to date – to share with our neighbors in the Camden, Tennessee community.





# Our water use

At IperionX, we know that water is a finite resource requiring diligent management and use. We are focused on planning our operations in a way that uses water efficiently with as little impact as possible. FY23 was the first year that IperionX measured our water consumption based on utility bills for our operational locations. In FY23 we used approximately 4.6 million gallons of water in our operational locations.

At our Industrial Pilot Facility in Utah, water is used in proprietary titanium technologies to both cool the furnaces and clean the final powder. We recycle water in our cooling tower and use only what is necessary in our final powder leaching step to ensure our titanium powder quality.

In our offices and leased residential spaces, water is used for general purposes including sanitation and landscaping.

# IperionX plans for sustainable water management

As we plan for the scale up of our metals production operations in Virginia, we have made rigorous calculations in our design to ensure that we use only the amount of water necessary in our production. We are choosing equipment that reduces water requirements and developing water recycling options for some process steps to minimize the water needed in our overall process. Our Virginia location is the only one of our three main operational locations in an area considered to have High Baseline Water Stress per the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct. Our Utah and Tennessee locations are in areas of Low to Low-Medium Baseline Water Stress

At our Titan Project in Tennessee, we have completed preliminary proactive hydrologic studies conducted by an independent consulting firm to evaluate the potential impacts of our future water use on the local water system including streams, wetlands, and wells. The plans for our process include recycling water from our extraction locations as process water and then returning it under permit to nearby streams. The effects from the planned water use noted in the hydrologic studies were found to be mostly minimal, transient, and short lived. The study results indicate that our future operations should not have any lasting impacts on local water supply or quality in Tennessee.

We will continue to proactively manage our current and future operational water use to protect the water quality and quantity in our communities.



"We are committed to ensuring a sustainable future for all communities in which we operate, and we are conducting ongoing studies and careful planning to ensure our operations will have no lasting impact on the land or water."

— Jonathon Lord, VP of Geology and Land, IperionX

# Appendices



# REPORTING GUIDANCE AND STANDARDS

Building a sustainable business means being transparent and sharing IperionX ESG policies, goals, and metrics. Our voluntary ESG disclosures and sustainability reporting are informed by guidance and standards from the organizations highlighted here:



**The United Nation Sustainable Development Goals (UN SDGs)** were adopted by all UN Member states in 2015 and included in the 2030 Agenda for Sustainable Development. These 17 goals provide a framework for organizations to address environmental and social issues, such as climate change and gender equality. At IperionX, we strive to help advance the achievement of these SDG goals through our business actions and initiatives. In this year's report we've mapped how IperionX activities contribute to the 17 UN SDGs as highlighted throughout the report.  
<https://sdgs.un.org/goals>

**The Global Reporting Initiative (GRI)** is the independent international organization – headquartered in Amsterdam with regional offices around the world – that helps businesses, governments, and other organizations understand and communicate their sustainability impacts. GRI provides the world's most widely used standards for sustainability reporting – the GRI Standards. Our GRI Content Index included herein references the 2021 Universal Standards and the GRI G4 Sector Disclosures: Mining and Metals 2013 that is relevant to IperionX.  
<https://www.globalreporting.org/>

**The Sustainability Accounting Standards Board (SASB)**, now part of the International Financial Reporting Standards [IFRS] Foundation's International Sustainability Standards Board's [ISSB]), is a global nonprofit organization that offers resources designed to help businesses and investors develop a shared understanding of enterprise value—how it is created, preserved and eroded. Our SASB Content Index included herein references the Metals & Mining Standard (EM-MM) that is relevant to IperionX, which is defined by SASB's Sustainable Industry Classification System® (SICS®). <https://www.sasb.org/>

**The Task Force on Climate-Related Financial Disclosures (TCFD)** is a reporting framework established by the Financial Stability Board (FSB) to develop recommendations on the types of information that companies should disclose to support financial markets in appropriately assessing and pricing a specific set of risks and opportunities related to climate change. Our TCFD reporting included herein is based on recommended disclosures on governance, strategy, risk management, metrics, and targets. <https://www.fsb-tcfd.org/>

# IperionX GRI Content Index FY23

Statement of use	IperionX has reported the information cited in this GRI content index for the period July 1, 2022 through June 30, 2023 with reference to the GRI Standards.
GRI 1 used	GRI 1: Foundation 2021

GRI STANDARD	DISCLOSURE	LOCATION and/or DIRECT RESPONSE FY23
<b>GRI 2: General Disclosures 2021</b>	2-1 Organizational details	Corporate Office: 129 West Trade St., Suite 1405 Charlotte, NC 28202 Welcome to IperionX Section, P. 8
	2-2 Entities included in the organization's sustainability reporting	IperionX Limited, including subsidiaries of IperionX Critical Minerals, LLC and IperionX Technology LLC
	2-3 Reporting period, frequency and contact point	Reporting period: July 1, 2022 through June 30, 2023; Reporting frequency: Annual; Contact Point: <a href="mailto:esg@iperionx.com">esg@iperionx.com</a>
	2-4 Restatements of information	Not applicable
	2-5 External assurance	Not applicable
	2-6 Activities, value chain and other business relationships	Annual Report 2023, available at <a href="http://www.iperionx.com">www.iperionx.com</a>
	2-7 Employees	Our People Section, P. 24
	2-8 Workers who are not employees	At the end of FY23 IperionX had 3 workers who are independent contractors and this number did not change significantly from FY22.
	2-9 Governance structure and composition	Governance Approach Section, P. 16 - 17
	2-10 Nomination and selection of the highest governance body	Corporate Governance Statement 2023, available at <a href="http://www.iperionx.com">www.iperionx.com</a>
	2-11 Chair of the highest governance body	Todd Hannigan is the Executive Chairman Governance Approach Section, P. 16
	2-12 Role of the highest governance body in overseeing the management of impacts	Governance Approach Section, P. 16 - 17
	2-13 Delegation of responsibility for managing impacts	Governance Approach Section, P. 16 - 17
	2-14 Role of the highest governance body in sustainability reporting	Governance Approach Section, P. 16 - 17
	2-15 Conflicts of interest	Business Ethics Section, P. 18
	2-16 Communication of critical concerns	Business Ethics Section, P. 18
	2-17 Collective knowledge of the highest governance body	Corporate Governance Statement 2023, available at <a href="http://www.iperionx.com">www.iperionx.com</a>
	2-18 Evaluation of the performance of the highest governance body	Corporate Governance Statement 2023, available at <a href="http://www.iperionx.com">www.iperionx.com</a>
	2-19 Remuneration policies	Remuneration and Nomination Committee Charter, 2023, available at <a href="http://www.iperionx.com">www.iperionx.com</a>
	2-20 Process to determine remuneration	Remuneration and Nomination Committee Charter, 2023, available at <a href="http://www.iperionx.com">www.iperionx.com</a>
2-22 Statement on sustainable development strategy	Reporting Guidance and Standards, P. 52	
2-27 Compliance with laws and regulations	Business Ethics Section, P. 18	
2-28 Membership associations	Our Memberships Section, P. 31	
2-29 Approach to stakeholder engagement	Our Material Topics Section, P. 19	
2-30 Collective bargaining agreements	No employees are covered by collective bargaining agreements.	
<b>GRI G4 Sector Disclosures: Mining and Metals 2013: Compliance</b>	G4-SO8 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	There were no (0) fines or non-monetary sanctions in FY23. Business Ethics Section, P. 18

# IperionX GRI Content Index FY23

<b>Statement of use</b>	IperionX has reported the information cited in this GRI content index for the period July 1, 2022 through June 30, 2023 with reference to the GRI Standards.
<b>GRI 1 used</b>	GRI 1: Foundation 2021

<b>GRI STANDARD</b>	<b>DISCLOSURE</b>	<b>LOCATION and/or DIRECT RESPONSE FY23</b>
<b>GRI 3: Material Topics Section 2021</b>	3-1 Process to determine material topics	Our Material Topics Section, P. 19
	3-2 List of material topics	Our Material Topics Section, P. 20
	3-3 Management of material topics	Our Material Topics Section, P. 19 - 20
<b>GRI 201: Economic Performance 2016</b>	201-2 Financial implications and other risks and opportunities due to climate change	TCFD Disclosure Table - Appendix
<b>GRI G4 Sector Disclosures: Mining and Metals 2013: Economic Performance</b>	G4-EC1 Countries of operation that are either candidates to or compliant with the Extractive Industries Transparency Initiative (EITI)	IperionX has operations in the United States only, which is a supporting country to the EITI
<b>GRI 205: Anti-corruption 2016</b>	205-2 Communication and training about anti-corruption policies and procedures	Business Ethics Section, P. 18
	205-3 Confirmed incidents of corruption and actions taken	There were no (0) confirmed incidents of corruption in FY23. Business Ethics Section, P. 18
<b>GRI 206: Anti-competitive Behavior 2016</b>	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	There were no (0) legal actions for anti-competitive behavior, anti-trust, or monopoly practices in FY23. Business Ethics Section, P. 18
<b>GRI 301: Materials 2016</b>	301-2 Recycled input materials used	100% of the input titanium used to create IperionX titanium powder came from recycled feedstock in FY23, as validated by UL. Our UL Validation Section, P. 38
<b>GRI G4 Sector Disclosures: Mining and Metals 2013: Materials</b>	G4-EN2 Percentage of materials used that are recycled input materials	100% of the input titanium used to create IperionX titanium powder came from recycled feedstock in FY23, as validated by UL. Our UL Validation Section, P. 38
<b>GRI G4 Sector Disclosures: Mining and Metals 2013: Materials Stewardship</b>	G4-DMA Programs and progress relating to materials and stewardship	IperionX aims to enable a fully circular titanium supply chain by actively managing materials stewardship through the use of proprietary technologies, the commissioning of life cycle assessments of our processes, and third-party validations and certifications. Circular Economy Section, P. 35 - 36 Our UL Validation Section, P. 38 Our Life Cycle Assessment Section, P. 40 - 41
<b>GRI 302: Energy 2016</b>	302-1 Energy consumption within the organization	Our Energy Use Section, P. 42 - 43
<b>GRI 303: Water and Effluents 2018</b>	303-1 Interactions with water as a shared resource	Our Water Use Section, P. 49 - 50
	303-2 Management of water discharge-related impacts	Our Water Use Section, P. 49 - 50
	303-3 Water withdrawal	Our Water Use Section, P. 49
<b>GRI 304: Biodiversity 2016</b>	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	No operational sites are in or adjacent to protected areas or areas of high biodiversity value.
	304-2 Significant impacts of activities, products and services on biodiversity	No current operations have the potential to significantly impact biodiversity.
	304-3 Habitats protected or restored	No operations have affected habitats that yet require protection or restoration.
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	No current operations have the potential to affect habitats.
<b>GRI 305: Emissions 2016</b>	305-1 Direct (Scope 1) GHG emissions	Scope 1 direct emissions in FY23 totaled 23.8 metric tons of carbon dioxide equivalents (mt CO2e). Our Carbon Footprint Section, P. 44
	305-2 Energy indirect (Scope 2) GHG emissions	Scope 2 market-based indirect emissions in FY23 totaled 18.4 metric tons of carbon dioxide equivalents (mt CO2e). Our Carbon Footprint Section, P. 44
	305-3 Other indirect (Scope 3) GHG emissions	Relevant scope 3 indirect emissions in FY23 totaled 668.3 metric tons of carbon dioxide equivalents (mt CO2e). Our Carbon Footprint Section, P. 44

# IperionX GRI Content Index FY23

<b>Statement of use</b>	IperionX has reported the information cited in this GRI content index for the period July 1, 2022 through June 30, 2023 with reference to the GRI Standards.
<b>GRI 1 used</b>	GRI 1: Foundation 2021

<b>GRI STANDARD</b>	<b>DISCLOSURE</b>	<b>LOCATION and/or DIRECT RESPONSE FY23</b>	
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1 Occupational health and safety management system	Health and Safety Section, P. 25 - 26	
	403-2 Hazard identification, risk assessment, and incident investigation	Health and Safety Section, P. 25 - 26	
	403-4 Worker participation, consultation, and communication on occupational health and safety	Health and Safety Section, P. 25 - 26	
	403-5 Worker training on occupational health and safety	Health and Safety Section, P. 25 - 26	
	403-6 Promotion of worker health	Health and Safety Section, P. 25 - 26	
	403-8 Workers covered by an occupational health and safety management system	Health and Safety Section, P. 25 - 26	
	403-9 Work-related injuries	There were zero (0) recordable injuries in FY23. Health and Safety Section, P. 25 - 26	
	403-10 Work-related ill health	There were zero (0) work-related ill health occurrences in FY23. Health and Safety Section, P. 25 - 26	
	<b>GRI 406: Non-discrimination 2016</b>	406-1 Incidents of discrimination and corrective actions taken	There were no (0) incidents of discrimination in FY23 at IperionX
	<b>GRI 411: Rights of Indigenous Peoples 2016</b>	411-1 Incidents of violations involving rights of indigenous peoples	There were no (0) incidents of violations involving the rights of indigenous peoples in FY23
<b>GRI 413: Local Communities 2016</b>	413-1 Operations with local community engagement, impact assessments, and development programs	Our Community Section, P. 27 - 30	
<b>GRI 415: Public Policy 2016</b>	415-1 Political contributions	IperionX made no (0) political contributions in FY23.	
<b>GRI G4 Sector Disclosures: Mining and Metals 2013: Artisanal and small-scale mining</b>	MM8 Number (and percentage) of company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to the site; the associated risks and the actions taken to manage and mitigate these risks	Artisanal and small-scale mining is not applicable to IperionX operations.	
<b>GRI G4 Sector Disclosures: Mining and Metals 2013: Resettlement</b>	MM9 Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	Resettlements are not applicable to IperionX operations.	
<b>GRI G4 Sector Disclosures: Mining and Metals 2013: Closure Planning</b>	G4-DMA Report the scope of closure planning, its associated financial provision, and its coverage of health, safety, social, environmental, legal, governance, and human resource aspects	Our Commitment to the Land Section, P. 45 - 46	

# IperionX SASB Content Index FY23

Table 1. Sustainability Disclosure Topics & Accounting Metrics

Topic	Code	Accounting Metric	Category	Unit of Measure	FY23 Response
<b>Greenhouse Gas Emissions</b>	EM-MM-110a.1	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO <sub>2</sub> e, Percentage (%)	Gross global Scope 1 emissions for FY23 equaled 23.8 metric tons of CO <sub>2</sub> e. Zero percent (0%) of emissions are covered under emissions-limiting regulations. Carbon Footprint Section, P. 44
	EM-MM-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	NA	Carbon Footprint Section, P. 44
<b>Air Quality</b>	EM-MM-120a.1	Air emissions of the following pollutants: (1) CO, (2) NOx (excluding N <sub>2</sub> O), (3) SOx, (4) particulate matter (PM <sub>10</sub> ), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs)	Quantitative	Metric tons (t)	Not yet applicable or measured for IperionX operations
<b>Energy Management</b>	EM-MM-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percentage (%)	The total energy consumed in FY23 was 1,202 GJ, with 56% of total energy use from grid electricity, and 46% of total energy use was renewable. Our Energy Use Section, P. 42 - 43
<b>Water Management</b>	EM-MM-140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m <sup>3</sup> ), Percentage (%)	The total water withdrawn for FY23 was approximately 17.4 thousand cubic meters. The total water consumed was not yet measured. No water withdrawals happened in regions with High or Extremely High Baseline Water Stress. Our Water Use Section, P. 49 - 50
	EM-MM-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Quantitative	Number	Zero (0) incidents in FY23 of non-compliance associated with water quality permits, standards, and regulations
<b>Waste &amp; Hazardous Materials Management</b>	EM-MM-150a.4	Total weight of non-mineral waste generated	Quantitative	Metric tons (t)	Not yet applicable to IperionX operations
	EM-MM-150a.5	Total weight of tailings produced	Quantitative	Metric tons (t)	Not yet applicable to IperionX operations
	EM-MM-150a.6	Total weight of waste rock generated	Quantitative	Metric tons (t)	Not yet applicable to IperionX operations
	EM-MM-150a.7	Total weight of hazardous waste generated	Quantitative	Metric tons (t)	Zero (0) metric tons of hazardous waste was generated during FY23
	EM-MM-150a.8	Total weight of hazardous waste recycled	Quantitative	Metric tons (t)	Not applicable to IperionX operations as no hazardous waste was generated in FY23
	EM-MM-150a.9	Number of significant incidents associated with hazardous materials and waste management	Quantitative	Number	Zero (0) incidents in FY23 associated with hazardous materials and waste management
	EM-MM-150a.10	Description of waste and hazardous materials management policies and procedures for active and inactive operations	Discussion and Analysis	NA	Not yet applicable to IperionX operations
<b>Biodiversity Impacts</b>	EM-MM-160a.1	Description of environmental management policies and practices for active sites	Discussion and Analysis	NA	Our Environmental Responsibility Section, P. 33 Our Commitment to the Land Section, P. 45 - 46 Biodiversity Section, P. 47 - 48
	EM-MM-160a.2	Percentage of mine sites where acid rock drainage is: (1) predicted to occur, (2) actively mitigated, and (3) under treatment or remediation	Quantitative	Percentage (%)	Not applicable to IperionX operations
	EM-MM-160a.3	Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	Quantitative	Percentage (%)	Not applicable to IperionX operations



# IperionX SASB Content Index FY23

**Table 1. Sustainability Disclosure Topics & Accounting Metrics (continued)**

Topic	Code	Accounting Metric	Category	Unit of Measure	FY23 Response
<b>Security, Human Rights &amp; Rights of Indigenous Peoples</b>	EM-MM-210a.1	Percentage of (1) proved and (2) probable reserves in or near areas of conflict	Quantitative	Percentage (%)	Not applicable to IperionX operations
	EM-MM-210a.2	Percentage of (1) proved and (2) probable reserves in or near indigenous land	Quantitative	Percentage (%)	Not applicable to IperionX operations
	EM-MM-210a.3	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	Discussion and Analysis	NA	Introductory meeting held with the Native American Indian Association (NAIA) of Tennessee in June 2022 and ongoing communications and support in FY23
<b>Community Relations</b>	EM-MM-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	Discussion and Analysis	NA	Our Community Section, P. 27 - 30
	EM-MM-210b.2	Number and duration of non-technical delays	Quantitative	Number, Days	Zero (0) days of non-technical delays in FY23
<b>Labor Relations</b>	EM-MM-310a.1	Percentage of active workforce covered under collective bargaining agreements, broken down by U.S. and foreign employees	Quantitative	Percentage (%)	Zero percent (0%) of IperionX workforce in FY23 were covered under collective bargaining agreements
	EM-MM-310a.2	Number and duration of strikes and lockouts	Quantitative	Number, Days	Zero (0) days of strikes or lockouts in FY23
<b>Workforce Health &amp; Safety</b>	EM-MM-320a.1	(1) MSHA all-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for (a) full-time employees and (b) contract employees	Quantitative	Rate	1) Zero (0); 2) Zero (0); 3) Not yet quantified for IperionX operations; 4) Not yet quantified for IperionX operations
<b>Business Ethics &amp; Transparency</b>	EM-MM-510a.1	Description of the management system for prevention of corruption and bribery throughout the value chain	Discussion and Analysis	NA	Business Ethics Section, P. 18
	EM-MM-510a.2	Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Quantitative	Metric tons (t) saleable	Zero (0) - No production outside of the U.S.
<b>Tailings Storage Facilities Management</b>	EM-MM-540a.1	Tailings storage facility inventory table: (1) facility name, (2) location, (3) ownership status, (4) operational status, (5) construction method, (6) maximum permitted storage capacity, (7) current amount of tailings stored, (8) consequence classification, (9) date of most recent independent technical review, (10) material findings, (11) mitigation measures, (12) site-specific EPRP	Quantitative	Various	Not applicable to IperionX operations as no tailing storage facilities in operation in FY23
	EM-MM-540a.2	Summary of tailings management systems and governance structure used to monitor and maintain the stability of tailings storage facilities	Discussion and Analysis	NA	Not applicable to IperionX operations as no tailing storage facilities in operation in FY23
	EM-MM-540a.3	Approach to development of Emergency Preparedness and Response Plans (EPRPs) for tailings storage facilities	Discussion and Analysis	NA	Not applicable to IperionX operations as no tailing storage facilities in operation in FY23

**Table 2. Activity Metrics**

Topic	Code	Accounting Metric	Category	Unit of Measure	FY23 Response
<b>Activity Metric</b>	EM-MM-000.A	Production of (1) metal ores and (2) finished metal products	Quantitative	Metric tons (t) saleable	1) Zero (0) metric tons of metal ores were produced in FY23; and 2) less than one (<1) metric ton of finished metal products was produced in FY23
	EM-MM-000.B	Total number of employees, percentage contractors	Quantitative	Number, Percentage (%)	IperionX ended FY23 with 38 employees, with 8% being independent contractors. Our People Section, P. 24

Note: These tables of Sustainability Standards & Metrics and Activity Metrics is from the SASB Standards (now part of IFRS Foundation), Metals and Mining Sustainability Accounting Standard, Extractives & Minerals Processing Sector, Sustainable Industry Classification System® (SICS®) EM-MM, Under Stewardship of the International Sustainability Standards Board, Industry Standard Version 2023-06.

# IperionX TCFD Response FY23

## Climate Change and IperionX

We see climate change as a significant challenge which poses risks to, and demands solutions from, our company. Numerous economic and societal comments about climate change were voiced during interviews in 2021 with 58 of the key stakeholders of IperionX as part of the independently conducted Materiality Assessment.

Using the guidelines of the Task Force on Climate-related Financial Disclosures (TCFD), we have considered both the risks and opportunities that a changing climate can have on IperionX. We will actively govern the identified risks, and aim to mitigate aspects of climate change for our stakeholders, and by extension all of society. We will also keep focused on the opportunities afforded by the transition to a low-carbon economy, as our sustainable low-carbon domestic supply of titanium can help reduce and mitigate the effects of climate change by offering alternatives to higher emission metals and by helping to decarbonize industries that use titanium and other critical minerals.

Area	TCFD Disclosure Topic (Note 1)	IperionX FY23 Response																																				
Governance	a) Describe the board's oversight of climate-related risks and opportunities.	Our ESG Committee includes members of the board directors, including those who are subject matter experts in ESG, health and safety, and risk management. Each quarter, the ESG Committee will review our progress along with the IperionX ESG goals, and will update our climate change risk strategy as needed. The board and executives will leverage both internal and external experts to understand new threats to the business from climate change, plan to mitigate these threats, and hone the company's products and processes to help reduce the impacts of climate change. Our ESG Committee Charter details the committee's roles, duties, responsibility, authority, and reporting lines. The overall Board of Directors will continue to review and guide strategy and provide oversight of future risks and opportunities for the Company related to transition to a lower-carbon economy and where IperionX can leverage its low-carbon critical mineral offerings to meet those emerging needs.																																				
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	Management executives continue to engage with key stakeholders to predict and position IperionX for the opportunities that a transition to a lower-carbon economy offers. In FY23, the company hired a Vice President of Sustainability who has the responsibility to advise upon climate-related risks and opportunities and report quarterly to company executives and the ESG Committee.																																				
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	<table border="1"> <thead> <tr> <th>Risk or Opportunity Category</th> <th>Potential Impacts</th> <th>Timeframe (Note 2)</th> <th>Possible Interventions to Avoid Risks or Maximize Opportunities</th> </tr> </thead> <tbody> <tr> <td></td> <td>POLICY: Policies or regulations limiting commercial activities in which IperionX is engaged due to future climate change policies</td> <td>All terms</td> <td>Leveraging IperionX internal and external expert legal counsel and government affairs professionals to predict and prepare for such legislation. IperionX supply of critical-to-the nation materials should allow for exemptions to commercial-only restrictions.</td> </tr> <tr> <td></td> <td>TRANSPARENCY: Customers or regulators increasing demand for suppliers' transparency about and reductions in greenhouse gas (GHG) emissions</td> <td>All terms</td> <td>Continue to measure and report on IperionX GHG Scope 1, 2, and 3 emissions annually. Continue to prepare life cycle assessments for major business processes and products.</td> </tr> <tr> <td>TRANSITION RISKS: Risks related to policy, regulatory, or public perception changes due to climate change</td> <td>CARBON REGULATIONS: Future carbon tax or cap and trade type system implemented in U.S. or in areas of global operations</td> <td>Middle and long terms</td> <td>Forecast risk of future carbon pricing or capping scenarios into long-term financial planning.</td> </tr> <tr> <td></td> <td>COMMUNICATIONS: Reputation erosion from misrepresenting our product or company's environmental attributes, aka "greenwashing".</td> <td>All terms</td> <td>Clearly and transparently communicate the sustainable attributes of our products and processes using third party verification services like critically-reviewed life cycle assessments and third-party validations. Collaborate and internally review all communications materials to ensure our communications are accurate and transparent.</td> </tr> <tr> <td></td> <td>REPUTATION: Reputation erosion owing to changing perceptions of the mining sector due to ESG and climate factors</td> <td>All terms</td> <td>Communicate clearly that IperionX is a vertically-integrated company that creates a circular economy for titanium metal and products, in addition to extracting titanium minerals. Communicate that mineral extraction processes will be sustainable and low carbon, with an end state plan for not only restoration but enhancement of the local ecosystems.</td> </tr> <tr> <td>ACUTE PHYSICAL RISKS: Risks related to the acute physical impacts of climate change</td> <td>EXTREME WEATHER EVENTS: Damage to facilities from extreme weather (storms, floods, wildfires, etc.) that impacts operations and/or generates significant costs due to insurance deductibles and damage not covered by insurance</td> <td>All terms</td> <td>Design buildings and grounds to mitigate flooding and protect employees and operations from wind, fire, and other extreme weather events. Currently, none of the IperionX facilities are at risk of flooding owing to sea-level rise.</td> </tr> <tr> <td></td> <td>TRANSPORTATION: Employees' inability to get to work, owing to breakdown of ground transportation or other causes</td> <td>All terms</td> <td>Training for employees in safe and effective work from home as possible. Selection of production sites that are least vulnerable to impassible routes (public and private transportation). Business continuity planning.</td> </tr> <tr> <td></td> <td>SUPPLY CHAIN: Impacts to supply chain owing to extreme-weather transportation failures/delays and/or global pandemics</td> <td>All terms</td> <td>Source scrap titanium and other critical supplies from within 1,000 miles of Salt Lake City and Southern Virginia, when possible, for recycled-powder production. Use reliable rail transportation when possible when shipping titanium minerals to facility and/or Ti products to customers. Diversify suppliers as possible.</td> </tr> </tbody> </table>	Risk or Opportunity Category	Potential Impacts	Timeframe (Note 2)	Possible Interventions to Avoid Risks or Maximize Opportunities		POLICY: Policies or regulations limiting commercial activities in which IperionX is engaged due to future climate change policies	All terms	Leveraging IperionX internal and external expert legal counsel and government affairs professionals to predict and prepare for such legislation. IperionX supply of critical-to-the nation materials should allow for exemptions to commercial-only restrictions.		TRANSPARENCY: Customers or regulators increasing demand for suppliers' transparency about and reductions in greenhouse gas (GHG) emissions	All terms	Continue to measure and report on IperionX GHG Scope 1, 2, and 3 emissions annually. Continue to prepare life cycle assessments for major business processes and products.	TRANSITION RISKS: Risks related to policy, regulatory, or public perception changes due to climate change	CARBON REGULATIONS: Future carbon tax or cap and trade type system implemented in U.S. or in areas of global operations	Middle and long terms	Forecast risk of future carbon pricing or capping scenarios into long-term financial planning.		COMMUNICATIONS: Reputation erosion from misrepresenting our product or company's environmental attributes, aka "greenwashing".	All terms	Clearly and transparently communicate the sustainable attributes of our products and processes using third party verification services like critically-reviewed life cycle assessments and third-party validations. Collaborate and internally review all communications materials to ensure our communications are accurate and transparent.		REPUTATION: Reputation erosion owing to changing perceptions of the mining sector due to ESG and climate factors	All terms	Communicate clearly that IperionX is a vertically-integrated company that creates a circular economy for titanium metal and products, in addition to extracting titanium minerals. Communicate that mineral extraction processes will be sustainable and low carbon, with an end state plan for not only restoration but enhancement of the local ecosystems.	ACUTE PHYSICAL RISKS: Risks related to the acute physical impacts of climate change	EXTREME WEATHER EVENTS: Damage to facilities from extreme weather (storms, floods, wildfires, etc.) that impacts operations and/or generates significant costs due to insurance deductibles and damage not covered by insurance	All terms	Design buildings and grounds to mitigate flooding and protect employees and operations from wind, fire, and other extreme weather events. Currently, none of the IperionX facilities are at risk of flooding owing to sea-level rise.		TRANSPORTATION: Employees' inability to get to work, owing to breakdown of ground transportation or other causes	All terms	Training for employees in safe and effective work from home as possible. Selection of production sites that are least vulnerable to impassible routes (public and private transportation). Business continuity planning.		SUPPLY CHAIN: Impacts to supply chain owing to extreme-weather transportation failures/delays and/or global pandemics	All terms	Source scrap titanium and other critical supplies from within 1,000 miles of Salt Lake City and Southern Virginia, when possible, for recycled-powder production. Use reliable rail transportation when possible when shipping titanium minerals to facility and/or Ti products to customers. Diversify suppliers as possible.
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# IperionX TCFD Response FY23

Area	TCFD Disclosure Topic (Note 1)	IperionX FY23 Response			
		Risk or Opportunity Category	Potential Impacts	Timeframe (Note 2)	Possible Interventions to Avoid Risks or Maximize Opportunities
<p><b>Strategy</b></p> <p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</p> <p>b) Describe the impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning.</p> <p>c) Describe the resilience of the climate-related risks and opportunities to account different climate scenarios, including 2°C or lower scenario.</p>	<p><b>CHRONIC PHYSICAL RISKS:</b> Risks related to the longer-term physical impacts of climate change</p>	<p>CHANGING PRECIPITATION: Changes in precipitation patterns and extreme variability in weather patterns that impacts operations</p>	<p>Middle and long terms</p>	<p>Have contingency plans in place for how to operate titanium extraction process in TN with potential increased precipitation and how to quickly recover operations after extreme weather events.</p>	
	<p>EXTREME HEAT: Impacts to facilities and employees due to extreme heat events</p>	<p>Middle and long terms</p>	<p>Locate facilities in areas where temperature peaks are still relatively livable, as global temperatures increase. Include clear guidelines for safely working in heat in corporate health and safety policies.</p>		
	<p>WATER SUPPLY: Increased water scarcity</p>	<p>Middle and long terms</p>	<p>Minimize water use and maximize water recycling in titanium extraction and recycling processes. Consideration of rain-capture systems for rooftop and grounds.</p>		
	<p>FOSSIL FUEL SUPPLY: Petroleum fuel availability and cost</p>	<p>Middle and long terms</p>	<p>Consider use of electric vehicles or hydrogen fuel cell as available in all operations. Consider electrifying all facilities rather than relying on natural gas or diesel equipment.</p>		
	<p>ELECTRICITY SUPPLY: Energy-grid blackouts and brownouts</p>	<p>Middle and long terms</p>	<p>Consideration of micro-grid installations for larger operations and leveraging on site renewable energy generation and storage.</p>		
	<p>ENERGY RESILIENCE: Use of lower-emission sources of energy</p>	<p>All terms</p>	<p>IperionX's low-carbon mission includes the procurement of renewable energy for our operations. IperionX supports renewable energy projects, with 66% of the company's energy from renewable sources in FY23, and has opportunities to grow this to 100% renewable energy in the coming years.</p>		
	<p>MARKETS: Access to new and emerging markets via increased demand for lightweighting of transportation and other sectors and renewable energy production</p>	<p>All terms</p>	<p>As the world electrifies its transportation and other sectors the demand for lightweighting of vehicle components will increase while still needing high strength materials. As green hydrogen production increases more electrolyzers will be required. Titanium's unique material properties make it a prime material for these applications.</p>		
	<p><b>TRANSITION OPPORTUNITIES:</b> Opportunities related to the transition to a lower-carbon economy</p> <p>PRODUCTS &amp; SERVICES: Development and/or expansion of low carbon goods and services</p>	<p>All terms</p>	<p>Increasing demands from customers and regulations for companies to decrease their carbon emissions poses an opportunity for IperionX in the development and expansion of its low-carbon circular titanium offerings. Providing a sustainable domestic low-carbon titanium supply will help customers meet their own sustainability goals and mandates while complying with stricter regulations for low-carbon products and supply chains.</p>		
	<p>CONSUMER DEMAND: Shift in consumer preferences to more sustainable products</p>	<p>All terms</p>	<p>Shifts in consumer preferences to more sustainable and circular products poses an opportunity for IPX as it will likely increase demand for sustainable mineral extraction and low-carbon circular titanium products for consumer goods (sports equipment, consumer electronics, luxury goods, etc.).</p>		
	<p>DIVERSIFICATION OF MATERIALS: Resource substitutes and diversification</p>	<p>All terms</p>	<p>IperionX's proprietary technologies allow for the adoption of low-cost sustainable titanium to serve as a substitute for other higher carbon-emission metals. IperionX offers the only low-carbon 100% recycled circular titanium powder on the market today and the vertical integration of our business with the Titan project will provide an ongoing source of titanium minerals as demand increases.</p>		
<p>As with long-standing corporate risks and opportunities, climate change risks and opportunities must be continuously identified, communicated, and managed. IperionX evaluates and includes the potential impact of climate-related risks and opportunities in our business, strategy, and financial planning on an ongoing basis through our governance structure. Given our mission to be the leading developer of low-carbon, sustainable, critical material supply chains focused on advanced industries including aerospace, electric vehicles, and 3D printing, we see a great opportunity to help mitigate climate-related risks through our unique technology and product offerings.</p>					
<p>IperionX will consider a qualitative and quantitative scenario analysis in the future as it pertains to our business strategy. In the future we plan to explore the financial impact of the most material climate-related risks and opportunities to our business. Our Titan project in Tennessee has an expected lifetime of 25 to 30 years, therefore climate scenarios that indicate changes in precipitation patterns and extreme variability in weather during that time would have an impact on our Titan project operations. We will account for the possible effects of different climate scenarios during the project lifetime in all our planning activities and engineering design. IperionX will include certain provisions in our contractual agreements to help lessen the impacts of major weather events or other climate-related events on our operations.</p>					

# IperionX TCFD Response FY23

Area	TCFD Disclosure Topic (Note 1)	IperionX FY23 Response
<b>Risk Management</b>	<p>a) Describe the organization's process for identifying and assessing climate-related risks.</p> <p>b) Describe the organization's processes for managing climate-related risks.</p> <p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</p>	<p>As with long-standing corporate risks, climate change risks must be continuously identified, communicated, and managed internally. The materiality of climate-related risks is identified alongside our other ESG risks through our materiality assessment, which considers the insights from various internal and external stakeholders to help prioritize our ESG topics. IperionX's ESG Committee includes members of the board directors, including those who are subject matter experts in ESG, health and safety, and risk management. Each quarter, the ESG Committee reviews IperionX progress against its ESG strategies and goals, and updates our climate change risk strategy as needed. The board and executives will tap both internal and external experts to understand new threats to the business from climate-related risks, will plan to mitigate these threats, and hone the company's products and processes to help reduce the impacts of climate change. Management strategies to reduce climate change risks to meet our ESG goals toward mitigating climate change.</p>
<b>Metrics and Targets</b>	<p>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</p> <p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p> <p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</p>	<p>The first metric we will use to assess climate-related risks and opportunities will be our own corporate carbon footprint (Scope 1, 2, and 3 GHG emissions) which we will track and report on an annual basis. We will also determine the embodied life cycle carbon footprint of our products and processes by performing life cycle assessments following ISO standards. As of FY23 we are additionally tracking and reporting on the metrics of our corporate energy, fuel, and water consumption in our annual sustainability report. As we ramp up our titanium extraction operations in TN and titanium recycling and processing at our titanium demonstration and commercial facilities in VA, we will incorporate additional metrics as relevant to assess climate-related risks and opportunities (e.g., tracking waste management, tracking any potential downtime due to extreme weather delays or loss of power due to extreme climate events, tracking investment in low-carbon alternatives, etc.).</p> <p>In the inaugural IperionX Sustainability Report for fiscal year 2022 we released our first GHG footprint for our first two fiscal years of operation, 2021 and 2022. In this year's Sustainability report for fiscal year 2023 we released our third GHG footprint, which includes accounting for Scope 1, 2, and material Scope 3 GHG emissions related to our business operations following the GHG Protocol methodology. We will continue to track and report our carbon-equivalent emissions on an annual basis and report them in our annual sustainability reports. As our operations scale and expand, we will institute climate change policies in line with our business objectives, and will forecast future financial impacts from the risk of future potential carbon pricing or trading regulations.</p> <p>In line with IperionX's mission to produce a domestic low-carbon sustainable titanium supply chain, we will endeavor to decarbonize our business operations to the maximum extent practicable as we continue to grow. We have started this endeavor by quantifying our own corporate carbon footprint annually and working to minimize the growth of our corporate footprint as our operations expand. Once we have baselined our full production-level carbon footprint, we will set emission reduction targets and carbon offset strategies and will report annually on performance against those targets in our sustainability reports. We will complete life cycle assessments (LCAs) to help us continue to reduce the impacts of our own products and processes. We are developing internal policies around climate change for our own operations and for our supply chain.</p>

## Notes

1. This table follows the June 2017 "Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures", including the supplemental disclosures recommended for the Metals and Mining industry as included in the "Materials and Building Group", as summarized in the June 2017 "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures".

2. Short term risk is defined in these disclosures as risks relevant in 0 to 5 years. Medium term risk is defined as risks relevant in 5 to 30 years. Long term risk is defined as risks relevant in over 30 years.

# Forward Looking Statements

Information included in this report 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. Forward-looking statements in this report may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates, expected costs or production outputs, our sustainability strategy, and our short- term and long-term sustainability goals. 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.

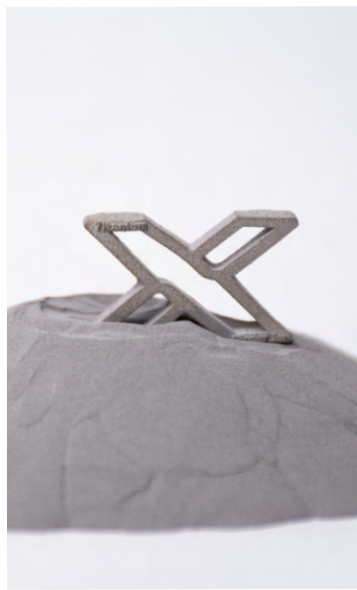
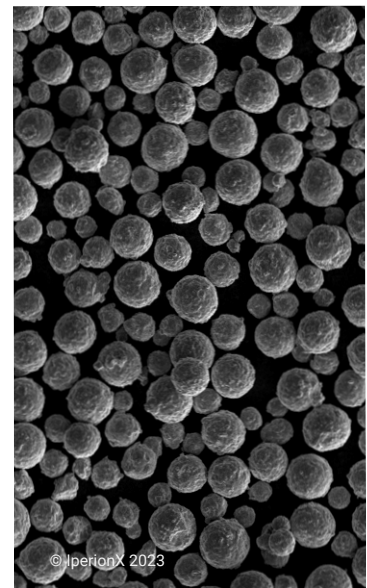
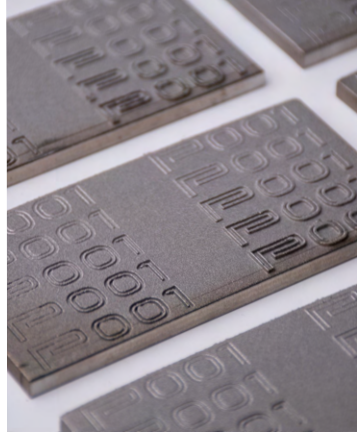
Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary 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 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 this reportspeak 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.

## Competent Persons Statement

The information in this report that relates to Exploration Results, Mineral Resources, Production Targets, Process Design, Mine Design, Cost Estimates, and Financial Analysis is extracted from IperionX’s ASX announcement dated June 30, 2022 (“Original ASX Announcement”) which is available to view at IperionX’s website at [www.iperionx.com](http://www.iperionx.com). IperionX 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 and technical parameters underpinning the Production Target, and related forecast financial information derived from the Production Target 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.



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