

# IPERIONX

## Sustainability Report 2022



IperionX Limited  
ABN 84 618 935 372



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# GREETINGS FROM THE CEO



**Welcome to the inaugural IperionX Sustainability Report, which shares our Environment, Social, and Governance (ESG) vision and execution.**

**Our goal at IperionX is to sustainably usher in the Titanium Age.** Being a young company in the US critical minerals industry, we can embed sustainability – right from the start – into our culture and in every aspect of our operations.

We truly believe in being a part of protecting our planet while providing prosperity for its people, whether it be by tackling climate change with our decarbonized technologies or improving the lives of people in our communities. This is at the core of all aspects of our operations, and reflects the legacy we want to leave behind

**Fiscal year 2022 was a big year for IperionX.** We launched into the scale up of proprietary technology that creates titanium metal for advanced applications including for the additive manufacturing industry. We have shown that we have the feedstocks to feed this technology, whether from titanium minerals sourced from our Titan Project in Tennessee, or titanium scrap previously destined for landfill. We believe this technology can deliver titanium for the countless applications driving the Titanium Age and enables titanium recycling for the circular economy.

**Our Titan Project in Tennessee** is one of the largest potential sources of titanium minerals in the US, as well as a large potential source for rare earth elements important for North American industry. This project, combined with our proprietary metal technology, demonstrates that the development of a sustainable and low-cost supply chain to support the Titanium Age is possible.

This first annual sustainability report leverages science and technology, stakeholder engagement, and rigorous strategic planning to ensure that ESG and the health and safety of our employees and communities are at the core of our activities.

**These initiatives have created a strong foundation for our ESG intentions moving forward.** We will continue to commercialize our technology as we build our amazing IperionX team. We will foster relationships with our customers and our stakeholders, sharing the possibilities of using titanium in applications never before thought possible. All of this will be done while supporting the communities in which we live

## In fiscal year 2022 we:

- Formed an ESG Committee of the Board and developed an internal sustainability strategy playbook to guide our efforts.
- Conducted a materiality assessment to receive the input of our stakeholders – all of whom are crucial partners on our sustainability journey.
- Began development of a world-class health and safety management system.
- Conducted a life cycle assessment to understand the overall potential impact of our technology and provide insights for further improvement as the technology is commercialized.
- Measured our carbon footprint for our first two fiscal years of operation.
- Engaged in on-going community relationship-building with local government, individuals, businesses, and educational institutions.

and work – targeting the development of new jobs and life-changing economic opportunity.

**This report is just one more step toward bringing sustainable critical minerals to the US,** and we know there is much work to be done. I look forward to engaging and transparently sharing the IperionX sustainability journey with you, as we continuously learn and improve along the way.

**Please come with us into the Titanium Age.**

Taso Arima  
Chief Executive Officer

# WELCOME TO IPERIONX

## You may not know us yet. But you will.

At IperionX, our mission is to be the leading developer of low- to net-zero carbon, sustainable, critical material supply chains for advanced industries including space, aerospace, electric vehicles, and 3D printing in the US. Although the US is the largest consumer of high quality titanium in the world, it doesn't currently produce any of the titanium metal that it needs. It is our mission to change that, and to re-shore a low-cost, sustainable, end-to-end titanium supply chain in the US.

IperionX is a public company headquartered in the US in North Carolina, with operations currently in Tennessee (IperionX Critical Minerals) and Utah (IperionX Technology). IperionX is currently listed on the Australian Stock Exchange (ASX: IPX) and on the Nasdaq (Nasdaq: IPX).

We hold a 100% interest in the Titan Project in West Tennessee, site of one of the largest deposits of titanium and rare earth minerals in North America. We also hold exclusive rights to world-leading titanium metal production technologies.

Our vision for sustainability is not just for decarbonization or sustainable material production practices. We aim to create a culture that supports new sustainable economies of scale in all industries that require titanium and other critical metals.

## Looking Ahead to 100% Recycled Titanium

With patented ground-breaking metal technologies, titanium can finally be 100% recyclable. These breakthrough technologies have demonstrated the potential to sustainably

produce titanium products that are 100% recyclable, low- to net-zero carbon, and high quality. Using these proprietary technologies, we can create a circular economy for titanium that encompasses the full titanium supply chain, including production and end of life, full cradle to cradle.

In the next year, IperionX plans to select a site to scale up our current Titanium Pilot Facility to a demonstration-scale facility capable of producing significant quantities of titanium powder for advanced applications. We intend to further scale up the titanium demonstration facility to a full commercial facility.

**At IperionX, the Titanium Age has just begun, and the future of titanium is now.**



# OUR APPROACH TO SUSTAINABILITY

Sustainability is a core tenet of the IperionX mission. We employ cutting-edge technologies and industry-leading practices to ensure positive impacts for our people, communities, and our planet. As a young company we have the advantage of embedding sustainability in our culture – not just relative to decarbonization or sustainable mineral extraction practices – but in full consideration of ESG and the kind of legacy we want to create.

**Our goal is to lead sustainability practices not only in the metals and mineral extraction industries, but across other industries as well.**

IperionX advancements in critical material extraction, processing, and recycling are paving the way for a closed-loop, low- to net-zero carbon, and resource efficient, titanium supply chain in the US. With breakthrough technology we believe we can produce titanium powders for the additive manufacturing industry from 100% titanium scrap metal, enabling a shift toward circularity in the domestic supply chain. Through our plans for land reclamation at the Titan Project and community engagement in Camden, Tennessee, we will tap into the country's largest potential source of titanium minerals while leaving the local community with a net-positive overall benefit.

## Governance at IperionX

The highly experienced IperionX Board of Directors is responsible for guiding and monitoring IperionX on behalf of shareholders by whom they are elected and to whom they are accountable. The board is composed of six members that meet regularly to monitor and assess significant business opportunities as well as risks. Todd Hannigan is our Executive Chairman of the Board. The IperionX board charter which, describes our nomination and selection process, is available on our [website](#).

**The Board of Directors has established the following three standing committees that also oversee board governance:**

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. Oversees independent remuneration consultants
3. **ESG Committee:** Oversees the company's ESG strategy and initiatives and reviews the annual sustainability report prepared by a third party independent consultant

## BOARD OF DIRECTORS

ESG Committee of the Board \*  
ESG Committee Chair \*\*

**Anastasios (Taso) Arima \***  
*Managing Director*

**Todd Hannigan**  
*Executive Chairman*

**Melissa Waller \*\***  
*Non-Executive Director*

**Beverly Wyse \***  
*Non-Executive Director*

**Lorraine Martin \***  
*Non-Executive Director*

**Vaughn Taylor**  
*Non-Executive Director*

## Board of Directors Composition



Female 50%



Male 50%

## About our ESG Committee Chair



*Melissa Waller chairs our board's ESG Committee and is liaison with senior management on sustainability leadership. An expert in institutional investing and governance, and champion at integrating ESG and sustainability into multi-sector organizations, she is president of the AIF Institute. In March 2022 Melissa was recognized by Nasdaq for advancing diversity, equity, and inclusion (DEI) within the asset management industry.*

# OUR APPROACH TO SUSTAINABILITY

## Diversity Starts at the Top

IperionX recognizes that a diverse and inclusive culture is integral to our business success and creates value for our stakeholders. The diverse backgrounds of our board members are key to providing effective governance and assessment of business risks and opportunities.

## ESG Governance

Sustainability and ESG matters are integral to the strategic planning process at IperionX. The ESG Committee ensures consistent integration with our overall business strategy and engagement with all stakeholders regarding ESG policies, practices, and values. The charter for the ESG Committee is available [here](#). Under guidance from the board and chairperson Melissa Waller, the ESG Committee develops, reviews, and assesses IperionX ESG policies, practices, and goals including:

- Social responsibility efforts
- Environmental and sustainability efforts
- Philanthropic activities
- Community engagement
- Environmental Health and Safety (EHS)
- Review and approval of the annual sustainability report

IperionX plans to build on our ESG governance structure by hiring a vice president of sustainability/ESG in FY23 to imbed ESG leadership in all aspects of our company, reporting to the board of directors ESG Committee each quarter.

## ADVISORY BOARDS

- **Dr. Eliana Fu**  
*Scientific & Tech. Advisory Board*
- **Tom Witheford**  
*Scientific & Tech. Advisory Board*
- **Dr. Ali Yousefiani**  
*Scientific & Tech. Advisory Board*
- **Dr. Kesh Keshavan**  
*Scientific & Tech. Advisory Board*
- **Ray Nimrod**  
*Scientific & Tech. Advisory Board*
- **Todd Ruppert**  
*Capital Markets Advisory Board*
- **Andy Stewart**  
*Capital Markets Advisory Board*

Our board of directors is supported in its governance with sound advice from our advisory board members.

# CONDUCTING OUR BUSINESS ETHICALLY AND IN COMPLIANCE WITH THE LAW AND OUR POLICIES

We believe that a commitment to our values and a high standard of conduct will create lasting value for our shareholders. To achieve our mission in an environmentally sustainable, socially conscious, and ethically responsible way requires that IperionX employees take care of each other, obey the law, and respect our local communities, customers, and suppliers. Directors at IperionX are additionally responsible for informing shareholders of all material matters that require disclosure and avoiding or fully disclosing conflicts or potential conflicts of interest. During FY22 we had no incidents of non-compliance, corruption, ethical violations, fines, sanctions, or legal actions taken against us.

IperionX has developed a [Code of Conduct](#) to encourage appropriate standards of conduct and behavior for all officers and employees. This document defines general principles regarding employee conduct in a variety of contexts, and outlines the minimum standards of behavior, including to:

- **Act honestly, in good faith, and in the best interests of the company as a whole.**
- **Exercise due care and diligence in fulfilling the functions of their position.**
- **Recognize that one of their primary responsibilities is to the company's shareholders.**
- **Refrain from taking advantage of their position for personal gain or that of their associates.**
- **Preserve the privacy of confidential, proprietary and otherwise sensitive company information.**

While the IperionX Board of Directors considers its shareholders to be primary stakeholders, it also recognizes the importance of IperionX employees, customers, suppliers, and local community members. IperionX is committed to conducting all operations in a manner that:

- **Protects the health and safety of all employees, contractors, and community members.**
- **Recognizes, values, and rewards the individual contributions of each employee.**
- **Achieves a balance between economic development, environmental sustainability, and social responsibility.**
- **Maintains good, respectful relationships with suppliers and local communities.**
- **Is honest and lawful.**



# OUR MATERIALITY ASSESSMENT

In FY22, IperionX conducted our first materiality assessment to identify the ESG issues of most material importance to our business and our stakeholders, both internal and external. This was the first step towards developing ESG goals aligned with our overall business strategy. PGS Consults, an expert sustainability consultancy, conducted the assessment by interviewing 58 individual stakeholders representing over 30 companies and organizations identified by our management team. Ten interviewees were IperionX executives, board members or employees, and the remaining 48 represented external stakeholders including:

- Elected officials from West Tennessee
- Citizens of West Tennessee
- Industry collaborators
- Government and non-profit industry groups
- Environmental non-profits
- Academics
- Consultants
- Suppliers
- Potential customers

Stakeholder interviews included an introduction to IperionX, our mission, and definitions of ESG and materiality. PGS Consults used the [Global Reporting Initiative \(GRI\)](#) definition of material topics as “topics that represent the organization’s most significant impacts on the economy, environment, and people, including impacts on their human rights.” Drawing upon sector-specific guidance from GRI, the [Sustainability Accounting Standards Board \(SASB\)](#), and other industry peers, 55 potential material topics were identified and narrowed down to the 24 material topics that IperionX has potential impact on at this stage in its operations. The 24 material topics were then organized into five categories: Economic, Environmental, Governance, Social, and Workforce.

During stakeholder interviews, participants answered open-ended questions and scored all 24 potential material topics from 1 (least

important) to 3 (most important). Material topic scores were averaged, and the resulting [materiality matrix](#) showed that 23 of the 24 potential material topics were identified to be of “medium” to “high” concern to the stakeholders interviewed. The 23 material topics identified during the Materiality Assessment process guide the identification and prioritization of actionable ESG goals for IperionX.

These material topics and their ranking will be reviewed quarterly by management and the ESG Committee of the Board as we grow to always ensure that we focus and report on topics that matter most to our business and stakeholders.



## Economic

- Indirect Economic Impacts
- Tech & Innovation
- Economic Performance
- Market Presence



## Environmental

- Tailings Management
- GHG Emissions
- Water
- Effluents & Waste Management
- Biodiversity
- Energy Management
- Closure Planning
- Air Quality
- Materials



## Governance

- Business Conduct & Ethics
- Emergency Preparedness
- Compliance



## Social

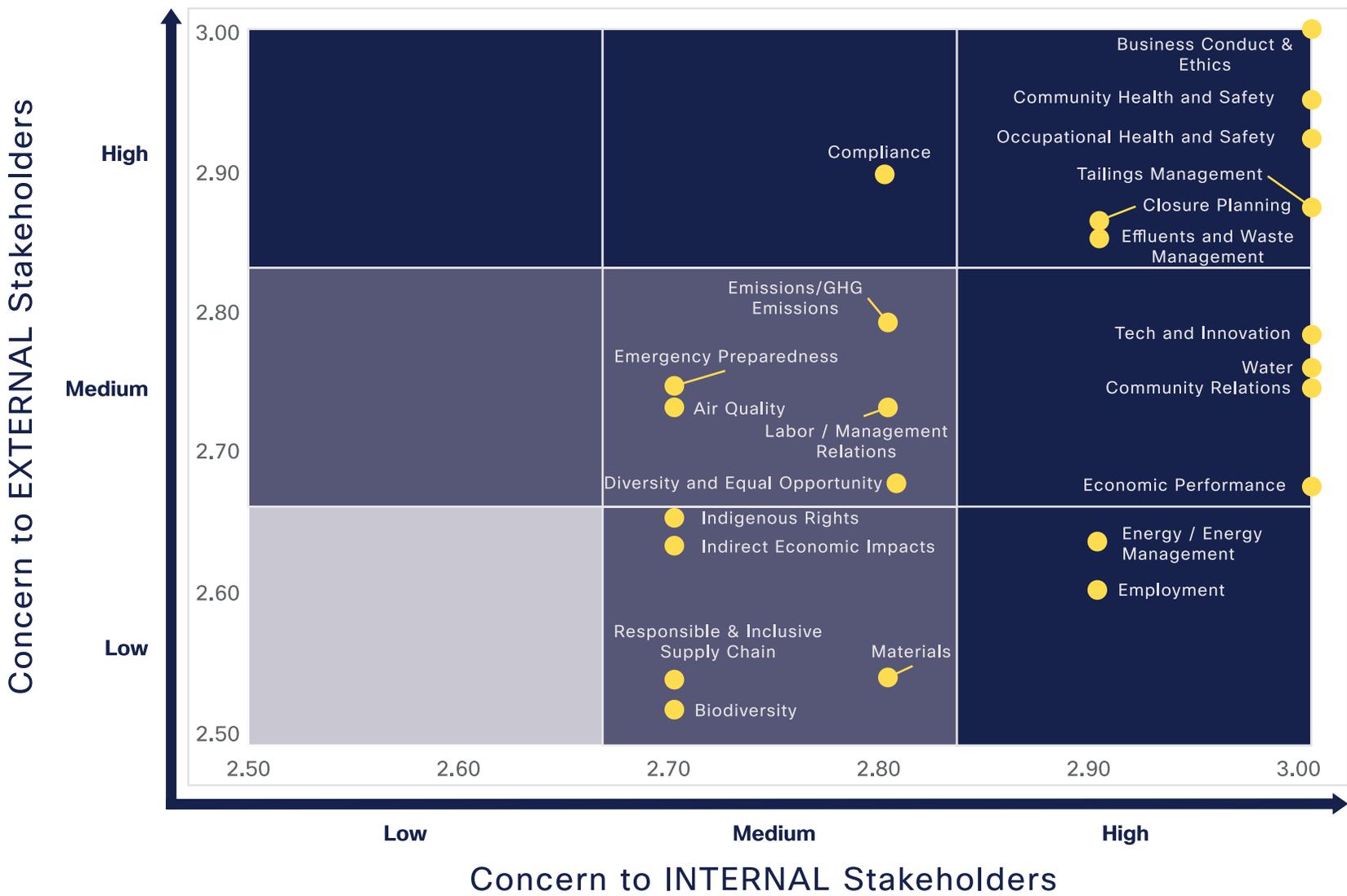
- Local Communities / Community Relations
- Human & Indigenous Rights
- Responsible & Inclusive Supply Chain
- Community Health and Safety



## Workforce

- Labor & Management Relations
- Occupational Health and Safety
- Diversity & Equal Opportunity
- Employment

# IPERIONX MATERIALITY MATRIX



**“I will know that IperionX is truly one of the world’s most sustainable companies when...”**

*“... the land they have touched is better than when they stepped foot on it.” – Ryan Hall, Benton County Tax Assessor*

*“... the annual report leaves one with a sense of respect and a knowledge that the community with whom they interact are partners, respected...”  
– Dr. Anthony Hodge, Adjunct Professor, Department of Mining Engineering, Queen’s University Ontario*

*“... we have continuously improved over an extended period of time, recycling minerals and reusing them in second projects.” – Todd Hannigan, Board of Directors*

# OUR SUSTAINABILITY GOALS

At IperionX, we aim to develop low- to net-zero carbon, socially responsible critical materials supply chains in the US. **Our commitment to sustainability began from day one, and goes beyond decarbonization and sustainable mineral extraction.** We are striving to create positive legacies in the communities where we operate, and lead sustainable practices in the mineral extraction and metals industry as well as other sectors. Our development and pre-production phases

present an opportunity to embed sustainability into every part of our operations and our culture at IperionX. Effective ESG leadership and strategic planning will create lasting value for IperionX and our shareholders, in addition to local communities and the environment where we operate.

As we look to the future and pave the way for a sustainable titanium supply chain, **we have aligned our initial ESG goals with five key focus areas** identified through our [materiality assessment](#).

**As IperionX grows and evolves, so too will our ESG goals.** Ongoing ESG initiatives will be reviewed on a quarterly basis by management and the ESG Committee of the Board to confirm continued business alignment. We will update these goals as needed to be a leader in sustainable practices.



# OUR SUSTAINABILITY GOALS



<b>Business Conduct &amp; Ethics and Regulatory Compliance</b>	<ul style="list-style-type: none"> <li>▪ Maintain board oversight and accountability of ESG strategy</li> <li>▪ Implement Business Code of Conduct &amp; Ethics training for all employees</li> </ul>
<b>Health &amp; Safety–Community &amp; Employees</b>	<ul style="list-style-type: none"> <li>▪ Implement an Environmental Health &amp; Safety Management System following ISO standards</li> </ul>
<b>End-State Vision: Closure Planning</b>	<ul style="list-style-type: none"> <li>▪ Work with leading institutions, including the University of Tennessee Institute of Agriculture, to develop sustainable operating and rehabilitation plans for our mineral extraction operations</li> <li>▪ Share our end-state vision with community stakeholders</li> </ul>
<b>Community &amp; Labor Relations: Employment &amp; DEI</b>	<ul style="list-style-type: none"> <li>▪ Build and support a diverse and inclusive workforce</li> <li>▪ Nurture relationships and partnerships in our communities</li> </ul>
<b>Environmental Management: GHG Emissions, Air Quality, Water, Energy, Waste, Biodiversity</b>	<ul style="list-style-type: none"> <li>▪ Hire a vice president of Sustainability/ESG</li> <li>▪ Measure our company’s initial carbon footprint</li> <li>▪ Establish relationships with local environmental groups</li> </ul>

## CREATING A CULTURE OF INCLUSION AND INNOVATION

Being inclusive is at our core, respecting and embracing diversity of thought, and diversity of backgrounds. We are continuously evolving our culture to encourage people to bring their whole selves to work where we actively encourage freedom of expression and practice active listening so the best strategies, tactics, and ideas are heard and incorporated into our mission to usher in the Titanium Age.

IperionX embraces ground-breaking technologies and sustainable practices to make the world a better place. **We aim to do things differently—and this includes centering our workplace on employee-positive values and policies that reflect our deep respect and gratitude for our IperionX community.** We are committed to building and fostering an extraordinary culture of community, diversity, equity, and inclusion (DEI), where everyone does their best work and serves our mission. Our growth strategy for ushering in the Titanium Age is reliant on the strength of IperionX employees and the culture we build together. As of the end of FY22, our team has grown from approximately 11 to 28 full-time, permanent employees, and two full-time contractors working primarily in North Carolina, Tennessee, and Utah.

**Today, half of our employees (50%) are female and our board of directors is also 50% female.** As we continue to grow, DEI strategies and policies are being developed to help us achieve the multi-dimensional and inclusive work environment needed to foster the innovation we plan to bring to the US market.



# OUR COMMITMENT TO THE COMMUNITY



INTRODUCTION

GOVERNANCE

SOCIAL

ENVIRONMENT

APPENDICES



At IperionX, sustainably ushering in the Titanium Age means more than becoming the leading developer of low carbon, sustainable critical materials supply chains for the US. **To change the world, we have to start by making it a better place for the communities in which we operate our business.** Meeting that goal begins by forging relationships based on trust, transparency, and accountability.

In Salt Lake City, Utah, IperionX partners with scientists and engineers from the University of Utah to develop proprietary technology for the sustainable production of titanium metal powder using 100% recycled titanium.

Since the doors of the IperionX Titan Project office first opened in March 2021, the people of Benton, Henry, and Carroll County, Tennessee, where one of the largest sources of titanium mineral and rare earth elements is located, have been welcomed at any time to ask questions, share their concerns, and express their hopes for the future.

Our West Tennessee community engagement manager plays a critical role in initiating relationships, building trust, maintaining on-going communications, and developing opportunities for the local community to learn about our mission and what the Titanium Age might mean for them and their families.

Critical components of our [materiality assessment](#) stakeholder interviews performed in 2021 were two focus groups with stakeholder members of Benton, Henry, and Carroll Counties.



When asked what it would take for IperionX to be considered a leader in ESG, we heard them clearly: “Be transparent. Take care of our environment. Bring us good job opportunities. Do what you say you are going to do.”



***“IperionX is building the foundation and setting quintessential standards that will make lasting, generational differences between industries and the communities in which they reside.”***

*- Stephanie Harclerod, Tennessee Community Engagement Manager*

# COMMUNITY ENGAGEMENT



## Impact in Action

In FY 2022, IperionX made a difference in the lives of people of all ages who live and work in the communities where we operate. We strive to create a positive impact on the community, through support for training and education, community giving, and creation of future opportunities.



A **STEM Outdoor Classroom** for Camden Elementary School, partially funded by IperionX, will bring a unique educational experience through outdoor learning for Pre-Kindergarten through 2nd grade classrooms. A Tennessee Rural STEM Collaborative Project, the outdoor classroom will create a special area for learning about science, nature, agriculture, soil conservation, and for other outdoor activities.



IperionX made a gift of \$31,500 to the **University of Utah College of Mines and Earth Sciences for undergraduate scholarships**. These scholarships will support undergraduate students pursuing degrees in Metallurgical Engineering or Materials Science and Engineering and will help defray the costs of higher education. This has set the stage for an additional fall of 2022 gift to encourage participation by other parties to sustain scholarship funding.



IperionX is poised to help fill the critical need for jobs in Benton County, TN and keep young people from leaving the area for better job opportunities. **Career Day at Scotts Hill High School** was an opportunity for Jonathon Lord, Senior Project Geologist at IperionX, to share with students what the future might look like with a career in geology. Presenting interesting and lucrative employment opportunities in a burgeoning field inspired hope for youth seeking good jobs in order to stay local.



Over 100 youth in the **Camden minor football league** received new equipment and uniforms, thanks to funding from IperionX. In addition to outfitting participants, we were able to help children attend who wouldn't have normally had the funds to do so.

# KEEPING OUR EMPLOYEES AND COMMUNITIES SAFE



At IperionX protecting the health and safety of our employees and the communities in which we operate is a core value of our company and fundamental to our future success.

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

We have a responsibility to provide our employees with a safe place to work and in FY22 we started the journey to establish an Environmental Health and Safety Management System following the international guidelines of ISO 45001. Such a management system includes the objectives and policies used by an organization to identify, assess, and control risks that can negatively impact the health and safety of workers, the environment, and corporate reputation. Our Environmental Health and Safety Management System will ensure that we are in compliance with all applicable environmental and occupational health and safety laws and regulations governing our operations, and that we proactively manage and improve our health and safety system on a continual basis.

The work completed to date and planned moving forward for our Environmental Health and Safety Management system includes:

- **Gap Assessment** - This assessment proactively identified the level of conformance of our operations to the critical elements of an Environmental Health and Safety Management System.
- **Implementation Plan** - This provided a high-level plan to build an Environmental Health and Safety Management System for our operations.
- **Compliance Obligations** - This effort is focused on identifying all the environmental, health and safety legal requirements with which our operations need to comply both currently and as our business grows and evolves.
- **Development and Implementation** - This will be the focus of efforts in FY23 as we develop and implement the elements of our Management System as identified in our Implementation Plan.

We aim to create an empowering workplace culture where IperionX employees lead the way in creating a safe work environment. We will do this by ensuring our employees

have the training, knowledge, and tools they need to safely complete their work tasks and identify, assess, and control risks to reduce the potential for occupational illness or injury.

At IperionX we strive to ensure our employees feel safe – both physically and psychologically – and are empowered to speak up and bring their authentic selves to work.



**Lorraine Martin:**  
*“IperionX is baking safety and wellbeing into every aspect of the organization from day one. The journey has just begun”.*

- Lorraine Martin,  
 IperionX Board Director,  
 and President and CEO  
 of the National Safety  
 Council



**Kahlilah Guyah:**  
*“I’ve enjoyed working with IperionX, a forward thinking company that is driving sustainability through all aspects of its operations, from how materials are extracted from natural resources to how safe workers are at their locations.”*

- Kahlilah Guyah, EHS  
 Compliance Services Inc.

# OUR ENVIRONMENTAL RESPONSIBILITY

IperionX cares deeply about the environment – not only for the communities in which we operate – but also for the planet as a whole. This is fundamental to our mission to be the leading developer of low- to net-zero carbon, sustainable, critical material supply chains here in the US.

In West Tennessee our Titan Project will source titanium and other rare earth minerals from one of the richest deposits in the US. Before any ground is disturbed, we are conducting studies to determine the current environmental condition of the land, including groundwater, habitat, and protected species studies. We value and aim to protect the natural biodiversity and ecosystem value in all areas of our operation.

The [Life Cycle Assessment \(LCA\)](#) we are conducting on our proposed mineral extraction operations in Tennessee will inform us of opportunities to improve our planned process in the impact categories of ecosystem

impacts, resource depletion, energy demand, climate change impacts, and water usage.

We intend to minimize our water usage in the mineral extraction and ore processing stages, and will recycle our process water to the maximum extent practical to promote a sustainable water supply.

At our Metals Technology pilot scale facility in Utah, the LCA we conducted on our proprietary titanium recycling process is helping us improve energy demand and climate change impacts.

Our partnership with the University of Tennessee Institute of Agriculture will help us develop sustainable operating and rehabilitation plans focusing on the elimination of invasive vegetation and subsequent improved ecological revegetation.

**Our intention is to leave the land and all environments in which we operate in better condition than before we started.**



*“It’s very important to me and very important to the company that we maintain the integrity of the land. **We want to leave it better than we found it.**”*  
- Ashley Little, Exploration Geologist at IperionX

# OUR COMMITMENT TO A NET POSITIVE IMPACT ON THE LAND

**Our goal at IperionX is to leave the land we will use for titanium mineral extraction in West Tennessee better than we found it.** We are doing this through careful planning for closure and rehabilitation that began during the scoping phase of our Titan Project. We have partnered with the University of Tennessee Institute of Agriculture (UTIA) to research implementing sustainable operating and rehabilitation plans that will focus on eliminating invasive vegetation and subsequent improved ecological revegetation using native warm season grasses. This first scope of research will be undertaken on a 10-acre demonstration site on IperionX-owned properties.

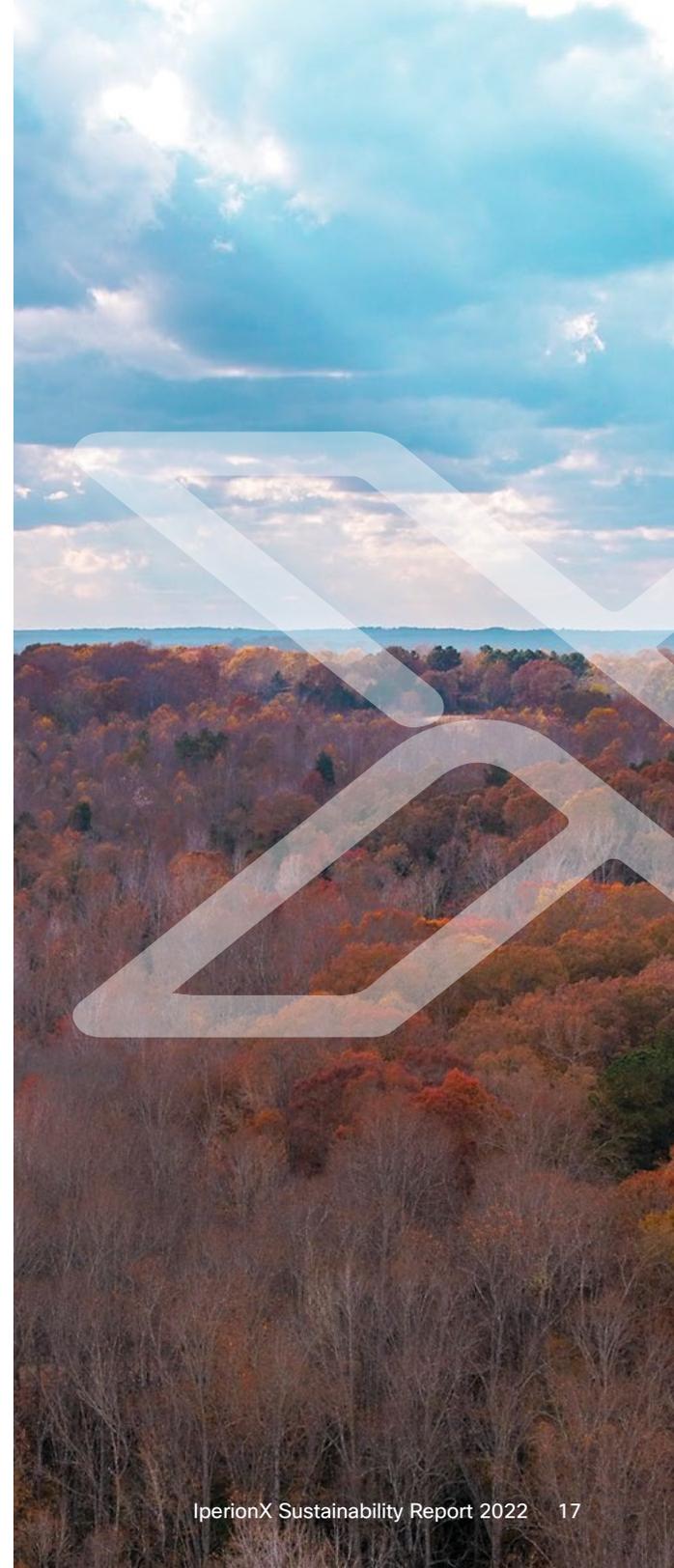
By planning for a phased mineral extraction approach, within a matter of months from when we start with a certain plot of land, we expect it will be completely reclaimed, with the topsoil pushed back, leaving very little evidence that we were ever there.

By incorporating innovative rehabilitation practices like the addition of biochar (charcoal produced from plant matter and stored in the soil as a means of removing carbon dioxide from the atmosphere) and gypsum (which improves soil aeration and water percolation through the soil profile) amendments, we can aid in sequestering carbon in the soil and higher crop yields for generational land-use benefits for local landowners. We are working with each individual landowner so that they can choose how they would like their land returned to them – for farming, timber, or recreational use.

We will continue to modify and improve our closure planning as we move into the pre-

feasibility phase of the Titan Project in FY23, aiming for a net positive impact on the land of West Tennessee.

- ***“Our county’s going to remain as beautiful as it ever was, and by having this titanium put into good use, it may help strengthen our economy and ultimately our nation.”***  
– Randy Shannon, Benton County Interim Mayor
- ***“I feel like the land will be better after they get through with it. You know, this is something that as a landowner, I’m getting a little more excited about it every day—not just for the financial benefits that it brings, but just for the community and everything else.”***  
– Tim Sanders, Henry County Business Owner
- ***“We are excited to be working with IperionX, a company that is taking a proactive look at the reclamation, rehabilitation and post mine land use of leased and owned lands here in Tennessee. Through the addition of soil amendments such as biochar and the establishment of native warm season grasses we are aiming to improve soil health that is as productive, if not more productive than it was pre-mining.”***  
– Dr. Forbes Walker, Professor and UT Extension Environmental Soils Specialist



# ENABLING A TITANIUM CIRCULAR ECONOMY

## From Industrial Revolution to the Circular Economy

Ever since the Industrial Revolution, most manufacturers have extracted material from the earth, fabricated advanced products via mass production methods, and encouraged customers to use these products until end of life, dispose of them, and then want more. This “Linear Economy” model worked well for economic growth but poorly for ensuring that the world’s resources would sustain generations to come.

By taking titanium scrap and recycling it into titanium powder for the fabrication of new products needed today, IperionX is participating in the “Circular Economy”, in which economic growth and a sustainable future both succeed. We hold exclusive rights to the proprietary HAMR-Deoxygenation process which is successfully producing low oxygen content spherical titanium powder at a pilot scale for advanced industries, including additive manufacturing, from 100% titanium scrap metal. No other incumbent titanium metal manufacturing process, including the Kroll process, can utilize 100% scrap metal as a feedstock. IperionX technologies are key to transitioning the US domestic titanium supply chain to a more circular model.

Increasingly, titanium is the metal of choice for critical applications and advanced industries, including air and ground transportation, electronics, construction, and industrial, medical, and consumer goods. By diverting valuable titanium from yesterday’s waste stream and recycling the metal for new

titanium products, we are helping meet today’s critical needs for North American-sourced materials. IperionX will be adding value to the economy and enabling current and future generations to access the materials they need.

## Environmental Benefits of Our Circular Model

By conducting [Life Cycle Assessments](#) (LCAs) on the IperionX innovative titanium-recycling (circular) process and comparing the environmental impacts with those of typical linear titanium processes, we continue to optimize our processes’ environmental stewardship, as supply-chain needs for titanium increase.

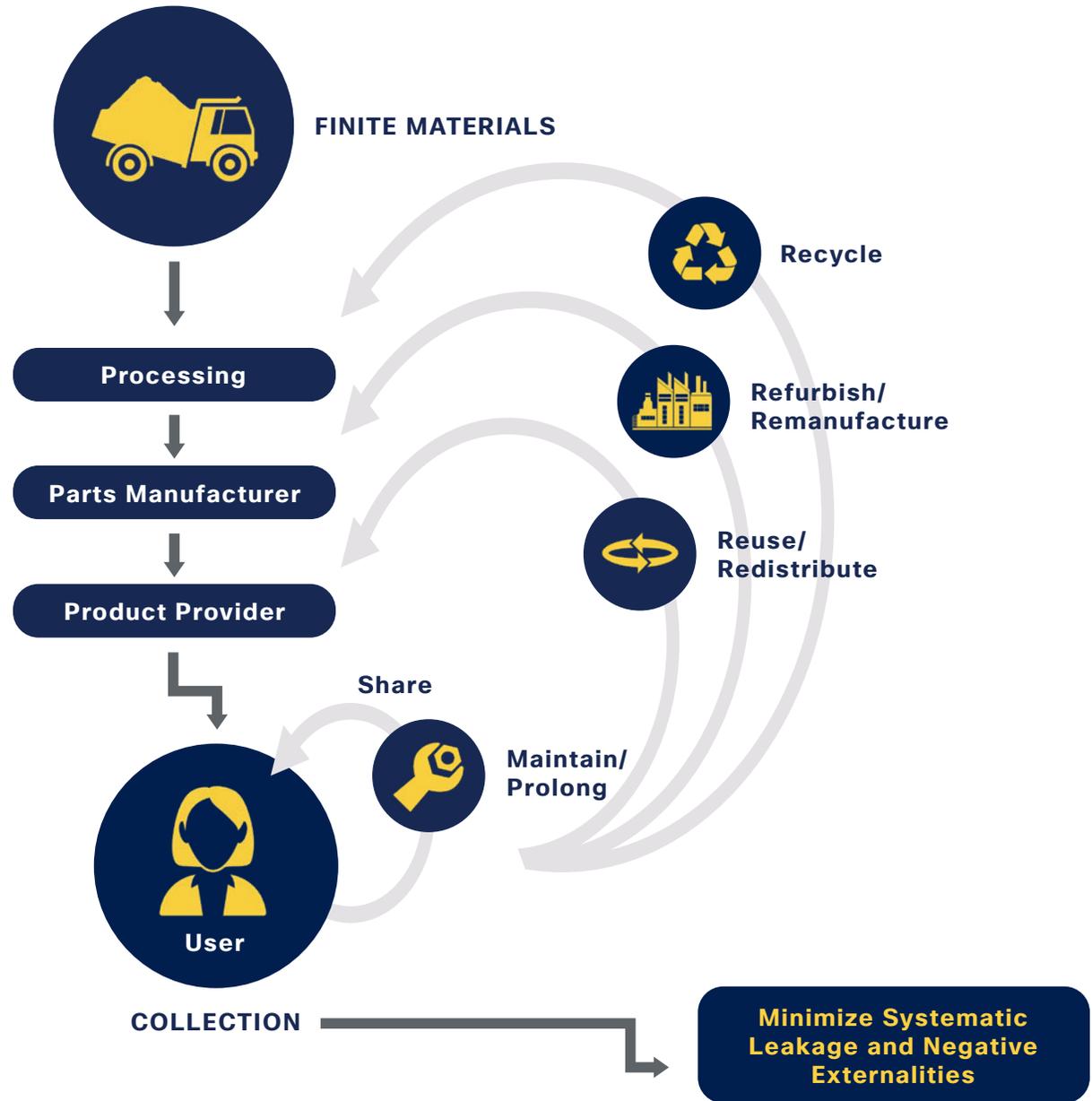
Further, additive manufacturing processes of 3D printing with titanium metal produce far less waste materials than traditional manufacturing. Even better, what little waste is produced may be recycled into titanium powder again and printed into usable products.

## The Journey to Circularity at IperionX

As delineated in the [“About Us”](#) section of this report, we are optimizing our Titanium Pilot Facility in Salt Lake City, at which we are using 100% recycled titanium scrap to produce titanium metal powder. We will demonstrate this powder – the core of our Circular Economy offering – in a scaled-up Titanium Demonstration Facility (“TDF”), and will assess larger scale expansions beyond that.

**The Economic Value of Circularity at IperionX**

In the IperionX circular economy diagram (derived from one developed by the MacArthur Foundation) is the collection of used materials for recycling into new products, minimizing “leakage” of materials into the waste stream. A large proportion of the titanium-based products we are collecting for recycling are otherwise headed to lower value steel markets, inactive storage, or landfilling, leaking out of economic value.



# PRODUCT LIFE CYCLE OPTIMIZATION FROM THE START

To meet our commitment to provide titanium metal powder produced with low- to net-zero carbon emissions, IperionX must objectively measure our products' environmental impacts over their life cycle. To this end, **in FY22 we commissioned EarthShift Global, an independent LCA expert consultancy, to objectively conduct our first anticipatory screening-level life cycle assessment (LCA)** following the international environmental management standards of ISO 14040 and 14044.

**IperionX started with the proprietary HAMR-Deoxygenation process that produces spherical titanium powder** for the additive manufacturing and metal injection molding (MIM) industry from 100% titanium scrap metal. This process is one way we are helping to transition the US domestic titanium supply chain to a more circular model.

The screening-level LCA conducted on our proprietary HAMR-Deoxygenation process was compared to an LCA of the more conventional Kroll titanium process coupled with gas atomization to create spherical titanium powder. Considering indicators such as human health impacts, ecosystem impacts, resource depletion, energy demand, climate change impacts, and water usage, this anticipatory LCA process helps us identify environmental hotspots in the HAMR-Deoxygenation life cycle and explore potential process improvements for reducing the impacts of producing titanium powder using this process.

**The LCA found that production of spherical titanium powder at all three anticipated production scales of the HAMR-Deoxygenation process may result in lower environmental impacts than the conventional Kroll and atomization process.** While electricity use and consumption of magnesium and argon gas were found to be hotspots in our HAMR-Deoxygenation process, making process improvements for these inputs can help us reduce our impacts for several indicators, including water scarcity.

IperionX is using the results of this screening-level LCA to further advance the proprietary HAMR-Deoxygenation process as we transition from pilot scale to demonstration scale, to reduce its overall life cycle impacts and bring a truly circular and sustainable source of spherical titanium powder to the US market.



**Looking Forward:** To further decarbonize and reduce the overall impact of our processes, IperionX is conducting an LCA on our proposed mineral extraction process in Tennessee in FY23.

# OUR INITIAL CARBON FOOTPRINT

At IperionX, we see climate change as a generational challenge. We know that it poses risks to, and demands solutions from, our company. Numerous economic and societal comments on climate change were voiced by our stakeholders during our Materiality Assessment. To support our commitment to be the leading developer of low- to net-zero carbon, sustainable critical material supply chains, we measured our greenhouse gas emissions for our first two full fiscal years of operation (FY21 and FY22). Following the [Greenhouse Gas \(GHG\) Protocol](#), we calculated, in units of metric tons of carbon dioxide equivalents (mt CO<sub>2</sub>e), our:

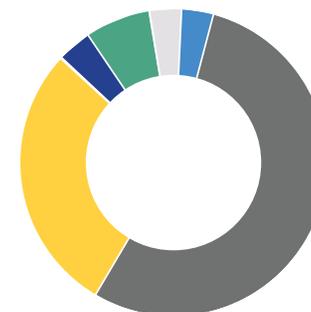
- **Scope 1 direct emissions** from our use of fuels (natural gas, diesel, and gasoline).
- **Scope 2 indirect emissions** related to our facility electricity use.
- **Certain Scope 3 indirect emissions** related to our employees and supply chain (specifically our purchased drilling services).

Our carbon emission footprint is small, and we are working to ensure that as our company grows, we will limit the growth of our emissions. We will also focus on expanding our footprinting efforts into additional categories.

To further our mission of developing low- to net-zero carbon critical material supply chains, the carbon footprint from our first two full fiscal years of operation will guide our development of internal policies around climate change, carbon reduction goals, and carbon offset strategies for our own operations and for our supply chain.

	Category	FY21 (mt CO <sub>2</sub> e)	FY22 (mt CO <sub>2</sub> e)
Scope 1	Natural Gas & Diesel Use	0.5	14.4
	Fleet Gasoline	0.0	16.2
	<b>Total Scope 1</b>	<b>0.5</b>	<b>30.6</b>
Scope 2	Location Based Electricity	72.8	309.6
	<b>Total Scope 2</b>	<b>72.8</b>	<b>309.6</b>
Scope 3	Purchased Drilling Services	113.3	130.5
	Business Travel	2.8	24.9
	Employee Commuting & Telework	18.1	41.3
	<b>Total Scope 3</b>	<b>134.2</b>	<b>196.7</b>
<b>TOTAL EMISSIONS (mt CO<sub>2</sub>e)</b>		<b>207.5</b>	<b>536.9</b>

## FY22 Carbon Footprint



# ESG GUIDANCE AND STANDARDS

## Sustainably Ushering in the Titanium Age

Building a sustainable business means being transparent and encouraging stakeholder participation in IperionX ESG policies, goals, and metrics. Our voluntary ESG efforts and reporting are informed by ESG guidance and standards including the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-Related Financial Disclosures (TCFD).



**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 a comprehensive suite of resources designed to help businesses and investors develop a shared understanding of enterprise value—how it is created, preserved and eroded. SASB is dedicated to enhancing the efficiency of the capital markets by setting standards that foster high-quality disclosure of material sustainability information that meets investor needs. 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 investors, lenders, and insurance underwriters in appropriately assessing and pricing a specific set of risks—risks 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/>

# GRI CONTENT INDEX FY22

<b>Statement of Use</b>	IperionX has reported the information cited in this GRI content index for the period July 1, 2021 through June 30, 2022 with reference to the GRI Standards.	
<b>GRI 1 Used</b>	GRI 1: Foundation 2021	
<b>GRI Standard</b>	<b>Disclosure</b>	<b>Location or Direct Response</b>
<b>GRI 2: General Disclosures 2021</b>	2-1 Organizational details	Welcome to IperionX Section - P. 4
	2-2 Entities included in the organization's sustainability reporting	Welcome to IperionX Section - P. 4
	2-3 Reporting period, frequency and contact point	Reporting period: July 1, 2021 through June 30, 2022; Annual; Back Cover for contact details
	2-7 Employees	Culture Section - P. 12
	2-9 Governance structure and composition	ESG Governance Section - P. 5 - 6
	2-10 Nomination and selection of the highest governance body	ESG Governance Section - P. 5 - 6
	2-11 Chair of the highest governance body	ESG Governance Section - P. 5 - 6
	2-12 Role of the highest governance body in overseeing the management of	ESG Governance Section - P. 5 - 6
	2-13 Delegation of responsibility for managing impacts	ESG Governance Section - P. 5 - 6
	2-14 Role of the highest governance body in sustainability reporting	ESG Governance Section - P. 5 - 6
	2-15 Conflicts of interest	Business Ethics & Compliance Section - P. 7
	2-17 Collective knowledge of the highest governance body	ESG Governance Section - P. 5
	2-20 Process to determine remuneration	ESG Governance Section - P. 5
	2-26 Mechanisms for seeking advice and raising concerns	Business Ethics & Compliance Section - P. 7
	2-27 Compliance with laws and regulations	Business Ethics & Compliance Section - P. 7
	2-28 Membership associations	ESG Governance Section - P. 5
2-29 Approach to stakeholder engagement	Materiality Assessment Section - P. 8 - 9	
<b>GRI G4 Sector Disclosures: Mining and Metals 2013</b>	G4-S08 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	Business Ethics & Compliance Section - P. 7
<b>GRI 3: Material Topics 2021</b>	3-1 Process to determine material topics	Materiality Assessment Section - P. 8 - 9
	3-2 List of material topics	Materiality Assessment Section - P. 8 - 9
<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</b>	G4-EC1 Countries of operation that are either candidates to or compliant with the Extractive Industries Transparency Initiative (EITI)	IperionX has operations only in the US, which is a supporting country to the EITI
<b>GRI 205: Anti-corruption 2016</b>	205-3 Confirmed incidents of corruption and actions taken	Business Ethics & Compliance Section - P. 7
<b>GRI 206: Anti-competitive Behavior 2016</b>	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Business Ethics & Compliance Section - P. 7
<b>GRI 302: Energy 2016</b>	302-1 Energy consumption within the organization	Carbon Footprint Section - P. 21
<b>GRI 303: Water and Effluents 2018</b>	303-1 Interactions with water as a shared resource	Environmental Responsibility Section - P. 16
<b>GRI 305: Emissions 2016</b>	305-1 Direct (Scope 1) GHG emissions	Carbon Footprint Section - P. 21
	305-2 Energy indirect (Scope 2) GHG emissions	Carbon Footprint Section - P. 21
	305-3 Other indirect (Scope 3) GHG emissions	Carbon Footprint Section - P. 21
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1 Occupational health and safety management system	Employee & Community Safety Section - P. 15 - 16
	403-9 Work-related injuries	Employee & Community Safety Section - P. 15 - 16
	403-10 Work-related ill health	Employee & Community Safety Section - P. 15 - 16
<b>GRI 406: Non-discrimination 2016</b>	406-1 Incidents of discrimination and corrective actions taken	There were no incidents of discrimination in FY22 at IperionX
<b>GRI 411: Rights of Indigenous Peoples 2016</b>	411-1 Incidents of violations involving rights of indigenous peoples	There were no incidents of violations involving the rights of indigenous peoples in FY22
<b>GRI 413: Local Communities 2016</b>	413-1 Operations with local community engagement, impact assessments, and development programs	Community Section - P. 13 - 14
<b>GRI G4 Sector Disclosures: Mining and Metals 2013</b>	G4-DMA Scope of closure planning, its associated financial provision, and its coverage of health, safety, social, environmental, legal, governance, and human resource aspects	Commitment to the Land - P. 17

# SASB CONTENT INDEX FY22

**Table 1. Sustainability Disclosure Topics & Accounting Metrics**

Topic	Code	Accounting Metric	Category	Unit of Measure	FY22 Response
Greenhouse Gas Emissions	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 (%)	Carbon Footprint Section - P. 21
	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. 21
Air Quality	EM-MM-120a.1	Air emissions of the following pollutants: (1) CO, (2) NO <sub>x</sub> (excluding N <sub>2</sub> O), (3) SO <sub>x</sub> , (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
Energy Management	EM-MM-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percentage (%)	Carbon Footprint Section - P. 21
Water Management	EM-MM-140a.1	(1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m <sup>3</sup> ), Percentage (%)	Not yet applicable to IperionX operations; No operations in regions with High or Extremely High Baseline Water Stress
	EM-MM-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Quantitative	Number	Zero
Waste & Hazardous Materials Management	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)	Not yet applicable to IperionX operations
	EM-MM-150a.8	Total weight of hazardous waste recycled	Quantitative	Metric tons (t)	Not yet applicable to IperionX operations
	EM-MM-150a.9	Number of significant incidents associated with hazardous materials and waste management	Quantitative	Number	Zero
	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
Biodiversity Impacts	EM-MM-160a.1	Description of environmental management policies and practices for active sites	Discussion and Analysis	NA	Not yet applicable to IperionX operations; No active sites under operation yet with potential for biodiversity impacts
	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 (%)	Zero - Not applicable to future 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 yet quantified for IperionX future operations
Security, Human Rights & Rights of Indigenous Peoples	EM-MM-210a.1	Percentage of (1) proved and (2) probable reserves in or near areas of conflict	Quantitative	Percentage (%)	Zero
	EM-MM-210a.2	Percentage of (1) proved and (2) probable reserves in or near indigenous land	Quantitative	Percentage (%)	Zero
	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 of Tennessee in June 2022 and ongoing meetings with nearby indigenous groups in Tennessee to be held in FY23

# SASB CONTENT INDEX FY22

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

Topic	Code	Accounting Metric	Category	Unit of Measure	FY22 Response
Community Relations	EM-MM-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	Discussion and Analysis	NA	Community Section - P. 13 - 14
	EM-MM-210b.2	Number and duration of non-technical delays	Quantitative	Number, Days	Zero
Labor Relations	EM-MM-310a.1	Percentage of active workforce covered under collective bargaining agreements, broken down by US and foreign employees	Quantitative	Percentage (%)	Zero
	EM-MM-310a.2	Number and duration of strikes and lockouts	Quantitative	Number, Days	Zero
Workforce Health & Safety	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, 2) Zero, 3) Not yet quantified for IperionX operations, 4) Not yet quantified for IperionX operations
Business Ethics & Transparency	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 & Compliance Section - P. 7
	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
Tailings Storage Facilities Management	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; No tailing storage facilities in operation
	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; No tailing storage facilities in operation
	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; No tailing storage facilities in operation

**Table 2. Activity Metrics**

Topic	Code	Accounting Metric	Category	Unit of Measure	FY22 Response
Activity Metric	EM-MM-000.A	Production of (1) metal ores and (2) finished metal products	Quantitative	Metric tons (t) saleable	Zero
	EM-MM-000.B	Total number of employees, percentage contractors	Quantitative	Number, Percentage (%)	Culture Section - P. 12

# DISCLOSURES PER TCFD FY22

## Climate Change and IperionX

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. We see climate change as a generational challenge whose wins and losses will critically affect every generation ahead. We also know that climate change poses risks to and demands solutions from our company. We have considered the climate-change-sparked risks facing IperionX, will actively govern the identified risks, and aim to mitigate aspects of climate change for our stakeholders, and by extension all of society.

## Risks of a Warming Climate that Most Affect IperionX

Summarized in the Task Force on Climate-related Financial Disclosures table below are the risks to our business in the presence of escalating climate change, along with these risks' relative timeframes and sample risk-mitigation interventions.

Area	TCFD Disclosure Topic (Note 1)	IperionX Response				
Governance	a) Describe the board's oversight of climate-related risks and opportunities.	Our board of director's ESG Committee includes the CEO and board directors who are subject matter experts in environment, social, and governance (ESG), health and safety, and risk management. Each quarter, the ESG Committee will review our progress along the IperionX ESG roadmap of goals, and will update our climate change risk strategy. The board and executives will tap 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.				
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	Each functional executive – operations, finance, legal, human resources, R&D, and sustainability – will execute their strategies to reduce climate change risks to meet our ESG goals toward mitigating climate change. Additionally, IperionX plans to hire a vice president of Sustainability in FY23 who will have the responsibility to oversee climate-related risks and report quarterly to the board ESG Committee.				
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	Risks related to the physical impacts of climate change	Risk Category	Potential Impacts	Timeframe (Note 2)	Possible Interventions
			Damage to facilities from floods and wind		All terms	Designing buildings and grounds to mitigate flooding and protect employees and operations from wind. (Currently, none of the IperionX facilities are subject to flooding owing to sea-level rise).
			Changes in precipitation patterns and extreme variability in weather patterns		Middle and long terms	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.
			Employees' inability to get to work, owing to breakdown of ground transportation		All terms	Training for employees in safe and effective work from home. Selection of sites that are least vulnerable to impassible routes (public and private transportation). Business continuity planning.
			Delayed shipments of incoming and outgoing materials owing to extreme-weather transportation failures/delays		Middle and long terms	Source scrap titanium from within 1,000 miles of Salt Lake City and future demonstration/commercial facility location, when possible, for recycled powder production. Use reliable rail transportation when possible when shipping titanium minerals to facility and/or powders to customers.

## DISCLOSURES PER TCFD FY22

Area	TCFD Disclosure Topic (Note 1)	IperionX Response		
		Risk Category	Potential Impacts	Timeframe (Note 2) Possible Interventions
Strategy (cont.)	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.		Inaccessible facilities owing to extreme heat	Middle and long terms Locate facilities in areas where temperature peaks are still relatively livable, as global temperatures increase.
		Risks related to the physical impacts of climate change	Limited availability of water	Middle and long terms Minimizing water use in titanium extraction and recycling processes. Consideration of rain-capture systems for rooftop and grounds.
			Petroleum fuel shortages	Middle and long terms Use of hydrogen fuel-cell and/or electric vehicles in the Tennessee operation. Electrifying all facilities rather than relying on natural gas or diesel equipment.
			Energy-grid blackouts and brownouts	Middle and long terms Consideration of micro-grid installations in Tennessee, leveraging renewable energy sources.
			Policies limiting commercial activities in which IperionX is engaged	All terms Leveraging IperionX internal and external expert legal counsel to predict and prepare for such legislation. IperionX supply of critical-to-the nation materials should allow for exemptions to commercial-only restrictions.
		Risks related to the transition to a lower-carbon economy	Customers or regulators increasing demand for suppliers' transparency about and reductions in greenhouse gas emissions.	All terms Continuing to measure and report on IperionX GHG Scope 1, 2, and 3 emissions annually [see page 21 for carbon footprint reporting]. IperionX business was founded with low- to net-zero carbon emission goals.
			Reputation erosion owing to changing perceptions of the mining sector	All terms Communicating clearly that IperionX recycles existing titanium as an alternative to extracting titanium, and that its extraction processes will be low- to net-zero carbon with an end state plan for not only restoration but enhancement of the local ecosystems.
b) Describe the impact of climate-related risks and opportunities on the organization's business, strategy, and financial planning.	As with long-standing corporate risks, climate change risks 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 space, aerospace, electric vehicles, and 3D printing, we see a great opportunity to help mitigate climate-related risks through our unique technology and product offerings.			
c) Describe the resilience of the organization's strategy, taking into account different climate scenarios, including 2°C or lower scenario.	Our Titan Project in Tennessee (which is expected to start extracting titanium ore in approximately 2024) 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.			

# DISCLOSURES PER TCFD FY22

Area	TCFD Disclosure Topic (Note 1)	IperionX Response
Risk Management	a) Describe the organization's process for identifying and assessing climate-related risks.	As with long-standing corporate risks, climate change risks must be continuously identified, communicated, and managed. Our board ESG Committee includes the CEO and board directors who are subject matter experts in ESG, health and safety, and risk management. Each quarter, the ESG Committee will review IperionX progress along its ESG roadmap of goals, and will update our climate change risk strategy. The board and executives will tap 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. Each functional executive – operations, finance, legal, human resources, R&D, and sustainability – will execute their strategies to reduce climate change risks to meet our ESG goals toward mitigating climate change.
	b) Describe the organization's processes for managing climate-related risks.	
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	
Metrics and Targets	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	Our mission at IperionX is to be the leading developer of low- to net-zero carbon, sustainable, critical material supply chains focused on advanced industries including space, aerospace, electric vehicles, and 3D printing. The first metric we will use to assess climate-related risks and opportunities will be our own company carbon footprint which we will track and report on an annual basis. As we ramp up our titanium extraction operations in TN and titanium recycling at our titanium demonstration and commercial facility, we will incorporate additional metrics as relevant to assess climate-related risks and opportunities (e.g., tracking water usage, energy and fuel usage, 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).
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	In the inaugural IperionX Sustainability Report for fiscal year 2022 we released our first GHG footprint for fiscal years 2021 and 2022. This GHG footprint included accounting for Scope 1, 2, and material Scope 3 carbon-equivalent 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.
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	In line with our mission to produce low- to net-zero carbon titanium, we will endeavor to decarbonize our business operations to the maximum extent practical. We have started this endeavor by initiating life cycle assessments (LCA) of our main operational functions. We will offset our carbon emissions as necessary to reach our goal of producing low- to net-zero carbon titanium for the US supply chain.

## 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, our short-term and long-term sustainability goals, including, but not limited to, our low- to net-zero carbon 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 US 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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