



Welcome

From Our Board Chair

The last couple of years may turn out to be a watershed for electrification, deep-sea mining, and Impossible Metals. In 2023, electric vehicles (EVs) sold in the US surpassed 1 million for the first time, and by 2024, this number had increased to 1.3 million, representing a growth rate of more than 30% by the end of the year. This is despite the expected slowing of growth as the market matures.

While not the only driver of demand for undersea minerals, electric vehicles (EVs) are the largest and fastest-growing segment of the market. As a result of this growing demand, governments around the world are recognizing the importance of critical minerals, including nickel, cobalt, manganese, and copper, which are abundant on the ocean floor. At the same time, there is growing concern about the potential environmental impact of deep sea mining (DSM). No less a personage than John Oliver (Last Week Tonight

With John Oliver on HBO) devoted an entire show to the opportunities and risks of DSM. Many of the environmental issues raised by Oliver are addressed by our technology, and his focus on it validates the emerging attention on DSM. All of these developments, along with many more, are creating a unique opportunity for Impossible Metals.

We ocean-tested our underwater robot, Eureka II, at a depth of just under 2 km (over 1 mile) off the Florida coast, achieving a technology readiness level (TRL) of 6. We also invented a new smart launch and recovery system (SLARS), which allows us to fully automate the recovery of the Eureka autonomous underwater vehicles (AUVs) across a wide range of sea states. This technology enables rapid recovery, improving our vehicle utilization and hence our techno-economics. With the updated techno-economic analysis, we are now one-third the cost of the older

dredging with riser systems for the same rate of production and one-tenth the cost of the average nickel mine in 2024.

The Impossible Metals team seized this opportunity in 2024 and has made amazing progress. We conducted initial deep sea trials with Eureka II, recruited some amazing advisors, and much more. In addition, the mineral processing arm of our team has established itself as [Viridian Biometals](#), with our full support for their groundbreaking work utilizing bacterial respiration. Great businesses are built when opportunity intersects with ingenuity and execution. By any measure, Impossible Metals is well-positioned to become a great business. Full speed ahead!

Dan Lankford

Dan Lankford
Board of Directors Chair



From Our CEO/Co-Founder

Impossible Metals delivered massive progress in 2024. We also began our collaboration with a contractor (exploration license holders) to test our technology in the Clarion Clipperton Zone (CCZ) in 2026. This fits into our strategy to partner with contractors to get to market quickly. To date, there are around 22 contractors for polymetallic nodules, 19 from the International Seabed Authority (ISA), and 3 from the Cook Islands Seabed Mineral Authority (SBMA). Many of these contractors have done a decade or more of marine science and now have the data to submit exploitation applications but lack the technology for deep-sea mining. By partnering with the contractor, we can start production mining in just a few years.

In 2025, we plan to start building Eureka III. This is our production-sized collection AUV, which will have a 4-metric-ton payload. Eureka III is the size of a 20-foot shipping container, and can deliver its full payload of nodules to the transport vessel every 3 hours. In addition, we plan to do further deep-ocean testing of Eureka II to build our knowledge and experience.

The political climate for deep-sea mining is changing with the new U.S. administration. Many of President Trump's cabinet appointees are pro-deep sea mining, and we expect the U.S. will start the process to lease minerals within their federal waters (EEZ). The U.S. and China, combined with an expected mining permit application, are now

putting huge pressure on the ISA to finish its mining code.

Finally, I want to again thank our team and their families for their incredible work in 2024 as we look forward to providing the lowest cost, most responsible critical metals.

Oliver Gunasekara

Oliver Gunasekara
CEO & Co-Founder



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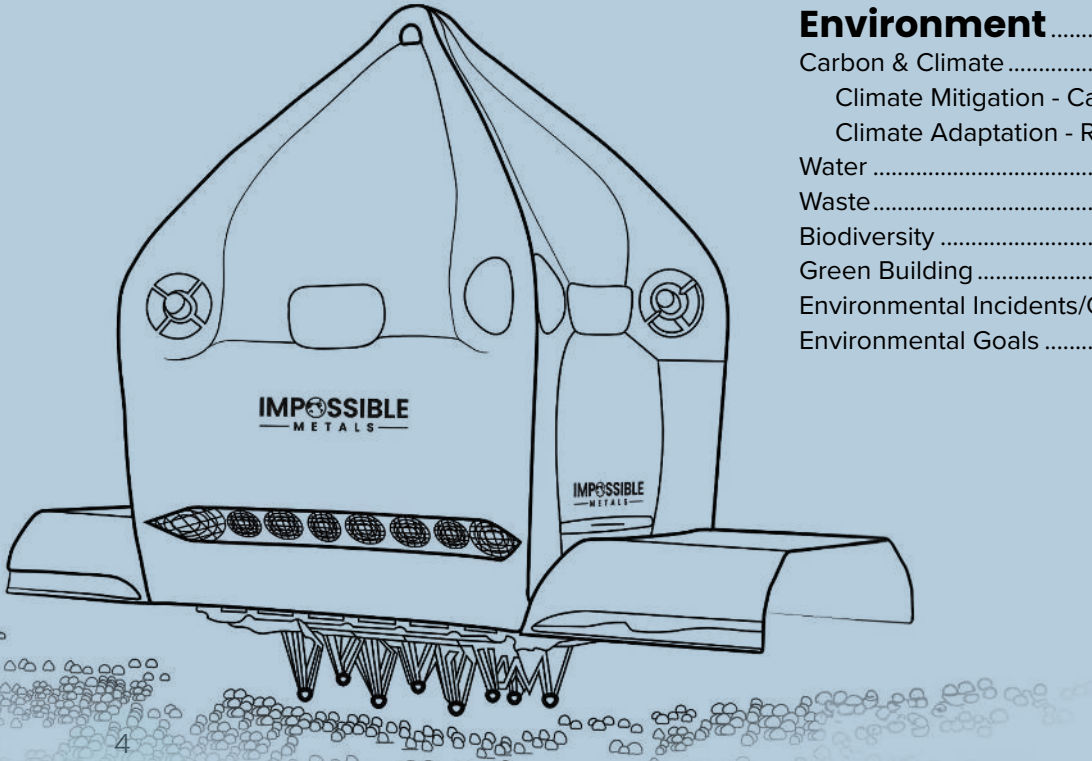
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A Year in Review

2024 marked a breakthrough year for our robotics team, as we turned major milestones into stepping stones toward making selective harvesting a reality. These milestones included a successful ocean deployment of Eureka II in April, a live demo in Collingwood for stakeholders, the publication of the *Eureka III Pilot Collector Plume Modeling Study*, and a collaboration with the German Federal Institute for Geosciences and Natural Resources (BGR) to pilot test Eureka III in the Clarion Clipperton Zone (CCZ).

Seabed harvesting without destroying the habitat.



Introduced to Peter Jantzen at the Future Mineral Forum in Riyadh, Saudi Arabia

Why will deep sea mining be less expensive than traditional land-based mining? (blog post)

JANUARY



IMPOSSIBLE METALS

"Mining for the Climate Crisis Without Destroying the Planet" presentation at South by Southwest

Named one of America's Top 250 Greentech companies of 2024 by TIME and Statista

MARCH



Deep Sea Mining: A Responsible Approach to Resource Extraction with Oliver Gunasekara on the Hardware to Save a Planet Podcast

JUNE



Scientific Roundtable #4 was held to discuss testing and monitoring plans Eureka III test in the eastern CCZ BGR contract area

AUGUST



Eureka III Pilot Collector Plume Modeling Study

OCTOBER

FEBRUARY

First Eureka II ocean deployment via Fort Pierce, Florida

Deep Sea Mining Expert Peter Jantzen joined Impossible Metals as Chief Commercial Officer



APRIL

ISA Workshop on Technology in Porto, Portugal

Second Eureka II fully autonomous deep water ocean deployment via Fort Pierce, Florida

Impossible Metals Welcomes Rear Admiral Hugh Wyman Howard III to Strategic Advisory Board



JULY

Unveiling Our New FAQ: Answering Your Impossible Metals Questions



SEPTEMBER

Presented at the Underwater Minerals Conference (UMC) 2024 in the Cook Islands



NOVEMBER

Impossible Metals successfully demonstrates Eureka II coordinated picks live in a demonstration for contractor, NGO, and regulatory stakeholder audiences.

Impossible Metals is Collaborating with BGR to Test Its Hovering Selective Harvesting Robot for Collecting Critical Metals from the Seabed

How the Environmental Impact Assessment is a Keystone of Decision-Making in Deep Sea Mining



Cover Image: First ocean deployment for Eureka II off the coast of Florida

Introduction

Impossible Metals was established in September 2020, and since then, we have been building our team and rapidly progressing on technical milestones. This report showcases not only our technical progress but also how we are embedding environmental, social, and governance best practices into our technology development. We strive to align with and transparently report our performance against our Core Values at every stage of our technology development and deployment.

Impossible Metals aims to deliver mining solutions that are better for people and the planet than land-based mining and other concept seabed mining approaches. Our solutions will be responsible, ethical, cost-effective, and profitable. In time, it may be possible to stop mining new minerals entirely and rely on recycling. Until then, mining can and should be dramatically different. We aim to demonstrate that raising the bar on environmental and social metrics is achievable while maintaining competitiveness in terms of cost.

Impossible Metals is a public benefit corporation, and our technology development goals are synonymous with our Public Benefit Statement,

“*To deliver responsibly mined and processed battery metals to the market in a manner which promotes sustainability, transparency, and accountability, and to render a public benefit by acceleration of the world’s transition to sustainable energy to mitigate the climate crisis.*”



Vision, Mission & Core Values

Vision: Accelerating clean energy by delivering the most sustainable critical metals.

Mission: To harvest and process critical metals from the seabed, while protecting the environment.

What we do: We are building underwater robotic vehicles for harvesting critical minerals.

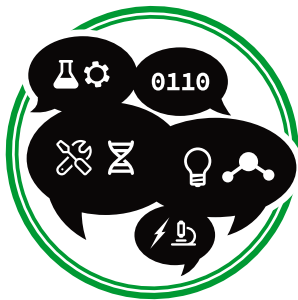
Core Values:



Planet comes first:
environment and
people before profit



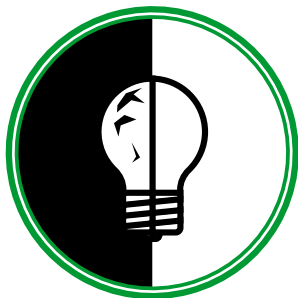
We are determined,
striving to make the
impossible possible



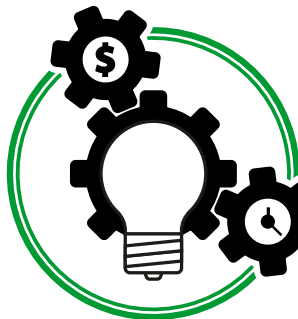
**We encourage, share
and respect all
perspectives**



We move fast,
separating what must
be done now from what
can be improved later



**We embrace and learn
from every success
and failure**



We act as owners,
managing resources
responsibly and
efficiently

Selective Harvesting (Robotics)

Impossible Metals is developing engineering for the selective harvesting of deep sea polymetallic nodules. An Autonomous Underwater Vehicle (AUV) robotics fleet is in development that will use “pick and place” manipulator technology to harvest nodules individually, minimizing disturbance of the sediment and seafloor ecosystems. Image sensing technology will identify megafauna on the nodules and will leave those nodules untouched, allowing for the preservation of nodule-dependent fauna. The system can also leave behind a percentage and pattern of nodules, with an aim of maintaining ecosystem function.

The significant advantages of this system include:

- **Low environmental impacts** – avoidance of nodule fauna, minimal sediment disturbance, no return water/mid-water plume, low noise and light pollution.
- **Scalable** – no single point(s) of failure, ability to start with a low production rate and increase over time.
- **Lower cost** – Significantly less CAPEX and OPEX than dredging with riser pump systems¹.



¹ Based on concept economic modeling, publicly available [here](#).

Responsible Metals

In line with our Core Values and Mission, we aim to deliver Responsible Metals, defined by [BetterEV](#), as meeting the eight criteria set out in **Table 1** (at right).

Our Reporting Commitment

We are committed to reporting on our ESG and technical performance annually. The performance of this report as compared to our reporting policy is described in **Appendix A**. Additionally, this report aims to meet B Labs best practices for transparency as we work toward applying for B Corp certification.

Impossible Metals has stated [our proposed contributions toward the United Nations’ Sustainable Development Goals](#) on our website. These are described in **Appendix B**, as well as how we worked toward those contributions in 2024. We will continue to report our contributions toward these goals in each Annual ESG & Performance Report.

In 2024, [ESG disclosure guidance for the marine minerals industry](#) was finalized. This was an effort undertaken by [DNV](#) to provide a standard format for ESG reporting in the marine minerals industry. Impossible Metals plans to incorporate this guidance into future reports, most likely aligned with the timing of net-zero planning. It is noted that much of the guidance is directed at mining operations reporting. Since mining has not yet begun and Impossible Metals does not currently hold an exploration license area, we will begin incorporating reporting and adding sections as applicable throughout our company’s development.



Responsible Metals Criteria	Impossible Metals Contribution
1. Protects safety and human rights	<p>Impossible Metals will target seafloor resources, which will not displace or affect local communities at the resource location.</p> <p>Impossible Metals will work with host nations and impact assessment processes to ensure that the port, mineral processing, and associated infrastructure are designed, constructed, and operated in a manner that does not negatively impact local communities.</p> <p>Impossible Metals implements its Human Rights Policy and Workplace Health and Safety Policy throughout all its operations. The Impossible Metals Board reviews performance against these policies on an annual basis.</p> <p>As Impossible Metals’ technology is deployed to full-scale operations, Impossible Metals will undertake independent safety and human rights auditing. They will report the outcomes of these independent audits annually in its ESG Report.</p>
2. Is carbon neutral	<p>Impossible Metals is committed to achieving net-zero Scope 1 and 2 emissions at or before reaching full-scale technology production.</p>
3. Maximizes the potential for recycling and circularity	<p>Impossible Metals is following the development of battery passport programs, and supports integrating raw materials tracking into this type of system, in order to track the responsibility of mining practices and support the recycling of materials at end of life.</p>
4. Eliminates toxic waste	<p>In 2024, the biorefining development part of Impossible Metals’ business became a separate entity (Viridian Biometals). Impossible Metals continues to support the development of low-impact mineral processing technology and will seek opportunities to collaborate in its development.</p>
5. Avoids widespread habitat destruction	<p>Impossible Metals is developing technology that hovers over the deep sea floor to selectively harvest mineral resources (polymetallic nodules). This technology avoids the habitat destruction associated with dredge and riser-based technology.</p> <p>Impossible Metals takes into consideration the specific concerns of the scientists who signed the Seabed Mining Science Statement when developing our technology and environmental impact assessment criteria.</p> <p>Impossible Metals engages with the scientific community early and often to gather input on environmental considerations/studies in order to create a robust impact assessment methodology.</p>
6. Avoids water scarcity	<p>Impossible Metals reports its annual freshwater consumption and potential impacts on local water sources.</p>
7. Avoids loss of biodiversity	<p>Impossible Metals is developing technology that hovers over the deep sea floor to selectively harvest mineral resources (polymetallic nodules). This technology avoids the habitat destruction associated with dredging technology and will allow nodules to be selectively excluded from harvesting, where they are identified to host seabed life.</p> <p>Impossible Metals uses the specific concerns of the scientists who signed the Seabed Mining Science Statement to inform the development of our technology and environmental impact assessment criteria.</p> <p>Impossible Metals engages with the scientific community early and often to gather input on environmental considerations/studies to create a robust impact assessment methodology.</p>
8. Avoids displacing Indigenous people or communities	<p>Impossible Metals is committed to developing technology for the seabed minerals industry that will enable mineral extraction without the displacement of any indigenous peoples or communities. At the same time, we recognize the cultural importance of the deep ocean for some indigenous peoples and commit to studying potential impacts as appropriate during regulatory processes, in addition to engaging and learning before such processes begin.</p>

Table 1: Description of how the [Responsible Metals](#) criteria are implemented through Impossible Metals’ technology and processes.

Technical & Strategic Performance

In 2024, the mineral processing part of Impossible Metals officially split into its own entity, Viridian Biometals. Our team continues to collaborate and cheer on our friends at Viridian, who continue to develop a novel mineral processing method using the natural process of bacterial respiration. As a result, the Viridian Biometals operations will no longer be included in Impossible Metals' annual reporting.

As detailed in the Introduction section, each step we take toward our technical goals is another step toward achieving our public benefit statement, *"To deliver responsibly mined and processed battery metals to the market in a manner which promotes sustainability, transparency, and accountability, and to render a public benefit by acceleration of the world's transition to sustainable energy to mitigate the climate crisis."*

The future-looking goals below represent a summary of Impossible Metals' Annual Operating Plan for 2025 and its 5-Year Plan.

Selective Harvesting (Robotics) Development

In 2024, the Impossible Metals robotics team achieved three significant milestones. In Q1 of 2024, the Impossible Metals team deployed Eureka II in the ocean for the first time. Through a series of deployments over two campaigns, the team continued to demonstrate the functionality of the system and make improvements. These deployments culminated with a fully autonomous dive of Eureka II to 1,800m in April. Key learnings from the deployments were an understanding of vehicle dynamics in higher currents and innovation related to the launch and recovery of the AUV. Over the course of 2024, we increased our focus on improving arm speed, reducing arm cycle times from over 4 seconds at the start of the year to under 2 seconds by the end of the year. Meaningful innovation regarding how to launch and recover the AUV was considered, with some initial development planned for 2024, and substantial progress on the launch and recovery solution is anticipated for 2025.

2024 Goals

Goal 1 - Full-depth AUV selective nodule pick-up by Eureka II (partially achieved)

In the first half of 2024, ocean testing was carried out in which Eureka II performed a fully autonomous dive to depths of 1800m.

Goal 2 - Design and initial construction of Eureka III (completed)

- Design of this system commenced.
- Initial construction of components of Eureka III were started, with these components initially developed for integration into Eureka II.

Goal 3 - Establish Component Sourcing, including ESG (deferred to 2025)

- Prior to sourcing parts for Eureka III, establish and implement ESG screening processes for significant suppliers that align with the goals and values of B Labs.
- We will report against the ESG metrics of our significant suppliers annually.

2025 Goals

Goal 1 - Autonomous recovery vehicle development

- Design and build a prototype autonomous recovery vehicle.
- Demonstrate autonomous recovery of Eureka II vehicle from below the wave affected zone.

Goal 2 - Design and initial construction of Eureka III

- Completion of all aspects of Eureka III design.

Goal 3 - Establish Component Sourcing, including ESG

- Prior to sourcing parts for Eureka III, establish and implement ESG screening processes for significant suppliers that align with the goals and values of B Labs.
- We will report against the ESG metrics of our significant suppliers annually.

Beyond 2025

In **Figure 1**, we outline our Technology Readiness Roadmap, which indicates that we plan to conduct test mining in 2026. At that point, we will have a viable and economic nodule harvesting vehicle and will be ready to begin nodule collection and/or further refinement of our vehicle (Eureka IV), and any associated legislative processes.

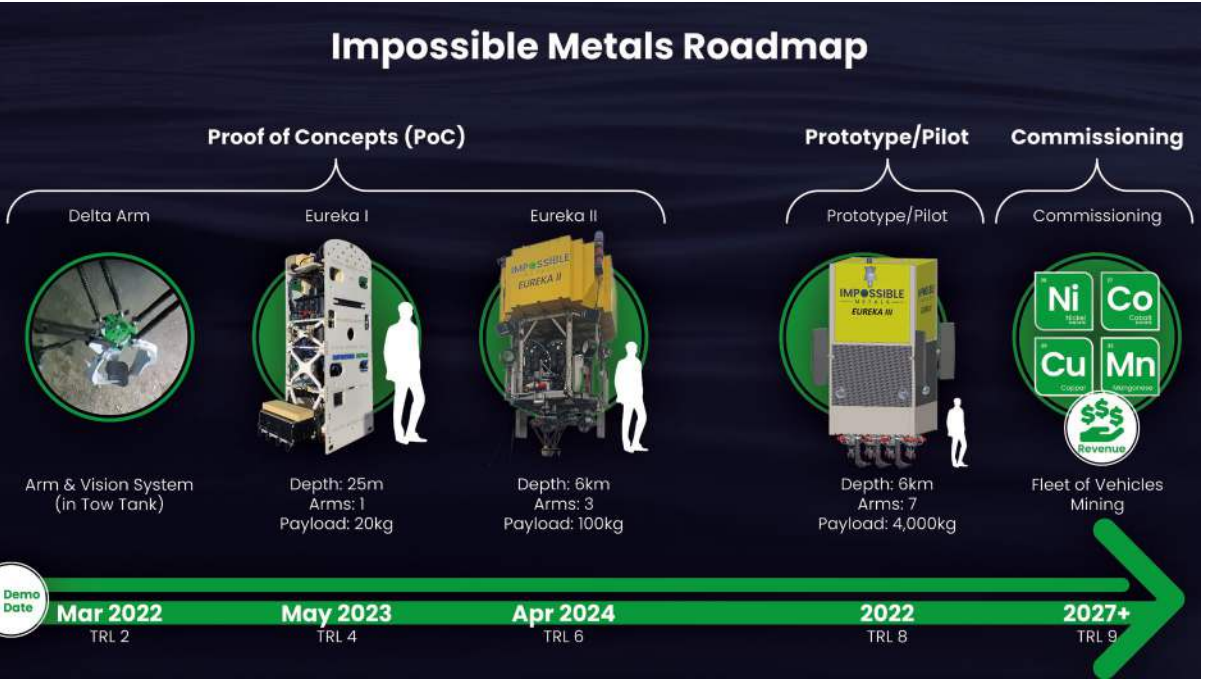
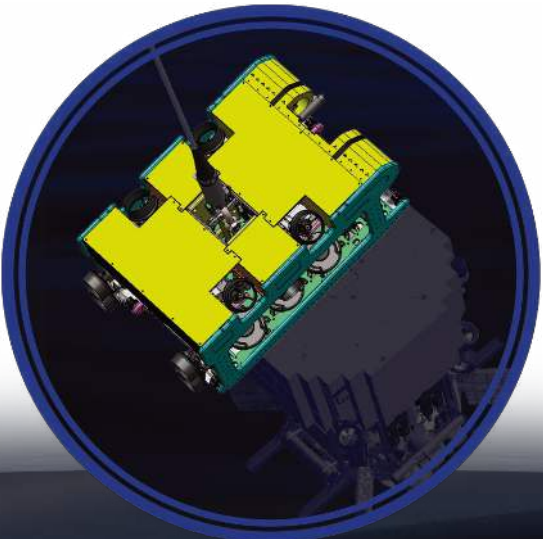


Figure 1: Technology readiness roadmap - Impossible Metals' selective harvesting technology.

Launch & Recovery System – Smart Hook

To achieve the high recovery throughput on the surface, Impossible Metals has developed a smart hook recovery concept that autonomously engages with the Eureka AUVs below the wave affected zone. This technology will allow for increased recovery speeds, operating in increased sea states and operating from vessels with less control.



Eureka II Ocean Testing

On April 8, 2024, while the sun was disappearing behind the moon in a stunning solar eclipse, Eureka II was performing its deepest dive ever, reaching 1800 metres below the ocean surface off the Florida coast. It was an exciting day at Impossible Metals, as updates on the ocean deployment rolled in alongside staff photos of the eclipse. We cheered on our team as Eureka performed its autonomous dive flawlessly, returning to the ship with useful data for the next stage of development.

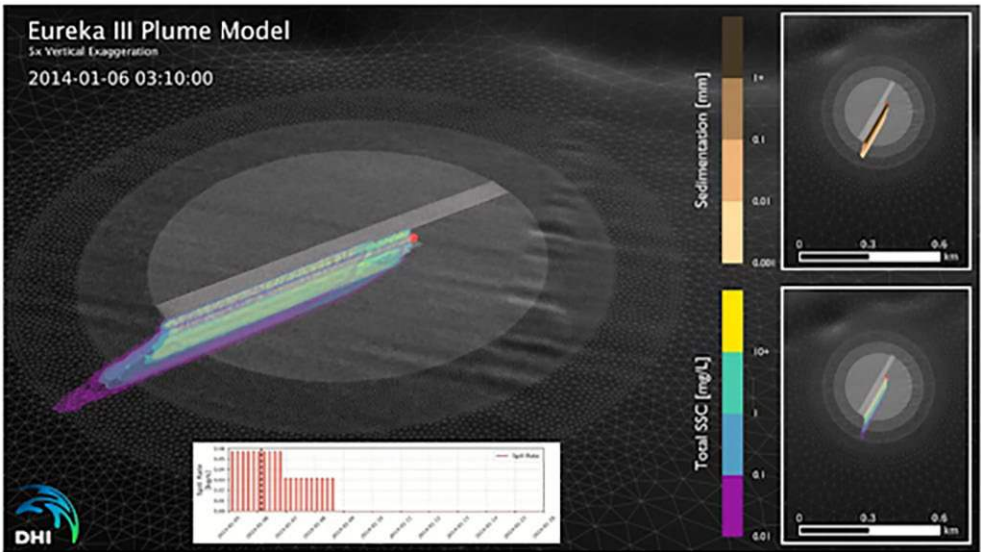
Preliminary Sediment Plume Modeling

In 2024, Impossible Metals carried out planning for a nodule collection test with Eureka III in collaboration with the German Federal Institute for Geosciences and Natural Resources (BGR). To carry out a test in BGR's exploration area in international waters, an environmental impact statement (EIS) must be submitted to the International Seabed Authority (ISA) at least one year in advance. The EIS requires a sediment plume model that models how sediment will be disturbed during the test. This provided our team with a great opportunity to get a first look at sediment modeling for Eureka III.

The [Eureka III test sediment plume model](#), generated by [DHI](#), incorporates baseline environmental information from BGR's previous exploration work, including data about the sediment, nodules, and water column. With the local environment modeled, the planned test can then be incorporated. Since the selective harvesting architecture used by Eureka systems differs significantly from other nodule collection systems, DHI incorporated assumptions about how Eureka III will interact with the seafloor to generate the plume model.

The Eureka III test was initially scheduled for early 2026, but has since been postponed to allow for additional development time. Once the test is carried out, monitoring data from Eureka III and from BGR (who will monitor the test from a separate vessel) will be used to figure out if our assumptions were correct and refine the model for future plume modeling.

To learn more, [download the Eureka III test sediment plume model](#) and [check out a webinar by DHI](#) on the model.



Techno-Economic Model

Throughout 2024, Impossible Metals’ techno-economic model underwent significant updates, reflecting the refinement of our design approach, which ensures that we are not just economically viable but also true to our mission of environmental responsibility. In early 2025 (prior to the publishing of this report), Impossible Metals held a [webinar](#) to transparently report economic model updates to stakeholders.

Key updates to the techno-economic model and associated calculations include:

1. Revised Processing Location Assumption

We have updated our base assumption to use Japan as the primary processing location, which increases the travel distance compared to North America, thereby impacting logistics and associated costs. This change was made to reflect a wider range of possible processing locations.

2. Nodule Sizing and Collection

In alignment with our goal of preserving marine habitats, we now leave 30% of nodules (by mass) undisturbed and over 60% of all nodules undisturbed by collecting larger nodules. Ultimately, the percentage of nodules left behind will be informed by future environmental studies.

3. Ship Type and Maintenance Costs

We transitioned from container vessels to bulk carriers, which significantly increased our capacity. We also removed duplicate maintenance cost assumptions present in earlier versions, leading to more accurate operating expense (OPEX) figures.

4. Fleet Scalability

Our updated model examines various fleet configurations, including Eureka III (2.25 million tonnes per year) and Eureka IV (6.7 million tonnes per year). This shows how capital expenditures, operating expenditures, and production volumes scale up with larger fleets.

5. Competitive Cost Analysis

The slideshow compares Impossible Metals’ selective harvesting approach to terrestrial and deep-sea mining techniques. Our findings continue to show encouraging figures, with a strong Net Present Value (NPV) and competitive all-in sustaining costs (AISC).

6. Representative Project Economics

The slides describe a 30-year project scenario using v6 model assumptions. Highlights included projected revenues, capital requirements, royalty structures, and overall cost of capital. These details help demonstrate the commercial viability of our selective harvesting model.

In 2025, we anticipate that the techno-economic model will continue to be updated and refined through ongoing engineering work, testing data, and stakeholder feedback.

Environment

Environmental stewardship is at the core of our business. Our goal has always been to produce critical minerals from polymetallic nodules in the deep sea in a genuinely responsible manner; which means minimizing disturbance to the ecosystem in all ways and committing to net-zero carbon emissions by the onset of full production. We know these are ambitious goals, but we’ve already made progress, and we’ve a plan in place to achieve them.

Carbon & Climate

Climate Mitigation – Carbon Footprint

Impossible Metals has two development facilities in Collingwood, Ontario, Canada, and [Pasadena Bio Collaborative Incubator](#), California, USA. This section presents the first carbon footprinting exercise for these two facilities. The Collingwood team moved into a new facility in 2023, which is submetered for electricity and natural gas, providing accurate data on which to base carbon footprint calculations. The Collingwood data will be used as a baseline for this facility moving forward. The Pasadena facility is a shared-use space, and as such the carbon footprint is an estimation based on share of facility square footage. It is likely that Impossible Metals will move out of this facility, and therefore the Pasadena carbon footprint estimation is likely to have limited function as a baseline.

The scope 1 and 2 greenhouse gas footprint for Impossible Metals’ 2024 operations was **24.51 tCO₂e**. This total is broken down in the pie chart. This carbon footprint was calculated using the [Greenhouse Gas Protocol](#).

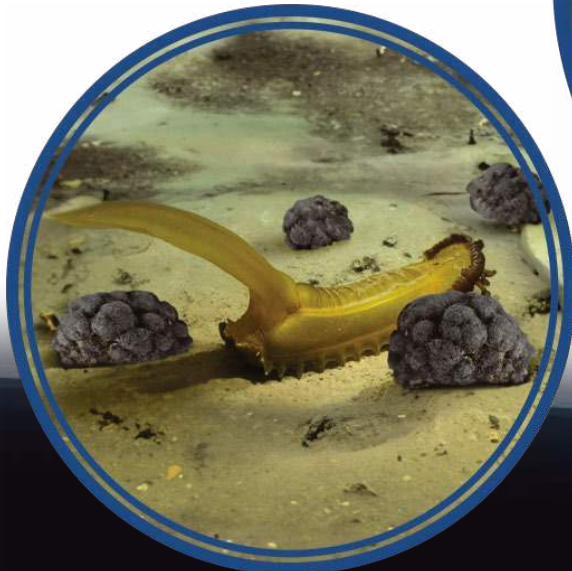


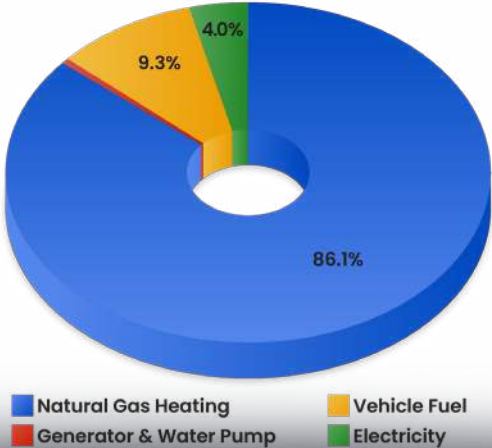
Photo Courtesy:
ROV-TEAM, GEOMAR

Emissions Summary: Impossible Metals GHG Inventory (2024)				
	CO ₂ (tonnes)	CH ₄ (tonnes)	N ₂ O (tonnes)	tCO ₂ e
Scope 1 Direct Emissions				
General Stationary Combustion				
Natural Gas (Ontario)	20.04	0	0	21.12
Gasoline (generator & pump)	0.13	0	0	0.14
Sub-total:	20.18	0	0	21.25
Mobile Combustion (Ontario)				
Gasoline (2010 F-150)	0.76	0	0	0.76
Diesel (2022 F-350)	1.50	0	0	1.52
Sub-total:	2.26	0	0	2.28
Scope 2 Indirect Emissions				
Electricity (Ontario)	0.96	0	0	0.98
Sub-total:	0.96	0	0	0.98
Total Scope 1 + Scope 2	23.40	0	0	24.51

As we grow, we will implement a path to net zero, committed to achieving net-zero Scope 1 and 2 emissions by 2030. This pathway is described in **Table 3: Environmental Goals**.

Climate Adaptation – Risk Assessment

Impossible Metals is committed to implementing its technology solutions in a manner that mitigates, as far as possible, the risks associated with climate change. Impossible Metals is including in its technology development pathway:



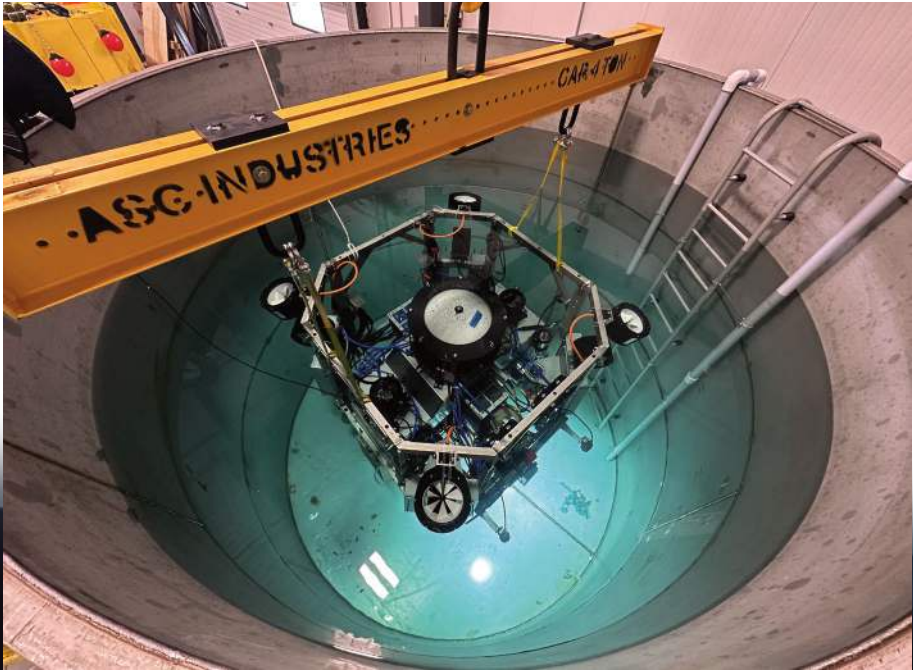
- AUV **launch and recovery technology** that enables safe and effective operation in a wider window of weather variables. Progress on this technology is reported in the section **Technical & Strategic Importance** (Smart Hook);
- Design and construction of **port and mineral processing infrastructure** that considers 1:1000 year rainfall and storm events, and encompasses asset protection and spill/runoff containment infrastructure designed for this magnitude of climatic events;
- Incorporation of green energy and, where appropriate, off-grid energy into its operations to facilitate both the transition to net-zero and the ability to operate and **maintain infrastructure during power outages and/or extreme weather events**;
- Incorporation of **rainfall harvesting infrastructure**, where possible, into its facilities.

We will work with host nations to ensure that all our infrastructure is designed, constructed, and operated in accordance with relevant domestic climate adaptation guidelines and, where in existence, any National Adaptation Plans submitted under the United Nations Framework Convention on Climate Change (UNFCCC) Upon commencement of full-scale technology deployment, we will report transparently the extent to which our operations in host nations align with these domestic climate adaptation guidelines and/or National Adaptation Plans.

Water

At the Collingwood Impossible Metals facility, potable water is used for kitchen/ bathroom sinks, toilets, and showers, as well as filling testing tanks. From March 1 through December 31, the facility used **138 m³** of municipality-treated (potable) water, an increase of 54 m3 from 2023 (84 m3). This difference is primarily due to filling a new testing tank, called the tow tank.

Collingwood’s municipal water is sourced from Georgian Bay (surface water), part of Lake Huron, and is subsequently



treated at the [Collingwood Water Treatment Plant](#). The Town of Collingwood publishes annual water quality reports and has established a Source Water Protection Plan, as required under the Clean Water Act (2006).

Water is delivered to the Impossible Metals facility through municipal water infrastructure, except for 15 m3 delivered by water truck as part of filling one of our test tanks.

Wastewater was directed to the municipal wastewater system for treatment at the [Collingwood Water Treatment Plant](#), which publishes Wastewater Performance Reports annually.

Waste

In 2024, Impossible Metals generated only non-hazardous solid waste. **Table 2** identifies the types of waste streams and how they were managed in 2023.

In our previous report, we committed to an audit of waste types (not quantity) to ensure they are being directed to the appropriate waste management stream. The material types audit was not completed, but signage was created to direct employees to the appropriate waste receptacles for common waste types.

Biodiversity

The most prevalent environmental concern about deep sea mining is impacts to biodiversity and habitat, so in turn, it’s top of mind for our team. To that end, we are considering the specific concerns of the scientists who signed the [Seabed Mining Science Statement](#):

- Loss of species and populations as a result of the destruction or elimination of habitat
- Production of large sediment plumes
- Interruption of ecological processes connecting midwater and benthic ecosystems
- Resuspension and release of sediment and toxins from dewatering discharge
- Noise pollution and impacts on marine species
- Impacts on carbon sequestration dynamics and deep ocean carbon storage.

Additionally, we are committed to engaging with marine scientists early and often to determine how we can best study the potential impacts of our robotics technology on the seafloor ecosystem. Scientists with expertise in benthic ecology and abyssal ecosystems are encouraged to [contact us](#) if they would like to participate in further scoping and subsequent environmental studies related to the selective harvesting methodology proposed by Impossible Metals. Outcomes of engagement with scientists are shared publicly on [our website](#).

Facility	Collingwood
Waste Types	<ul style="list-style-type: none">• Office waste such as paper, office supplies/packaging, food waste/packaging• Robotics workshop waste, such as packaging for parts/materials, and office waste.
Waste Management	<ul style="list-style-type: none">• Wastes are separated on-site by staff into three categories (recyclables, organ-ics, and garbage) that are put into designated bins.• A contracted waste management company collects all three types of waste on a regular basis. This waste collection is managed by the business park where the Impossible Metals facility is located.

Table 2: Waste information for Collingwood, Ontario, Canada facilities.

Engagement with the scientific community is described in the **Stakeholder Engagement** section of this report (under Social).

Green Building

In February of 2023, the Impossible Metals robotics team moved into two units (rented) in a newly constructed building in Collingwood, Ontario. The building meets the Ontario Building Code, which includes up-to-date efficiency elements, but is not green building certified. Our team customized the 9,840 sq ft (914 m2) space for our purposes, including equipment construction and testing, open-concept desk spaces, meeting rooms, kitchen/ lunch room, and bathrooms. Energy-efficient lighting and appliances, as well as water-efficient water fixtures (taps, toilets, shower heads), were installed during the renovation.

As we expand and develop our facilities, they will be designed and constructed according to the Green Building Code(s) relevant to the jurisdiction, which will also contribute to carbon emissions reduction and ultimately, our net-zero strategy.

Environmental Incidents/Complaints

There were no environmental incidents or complaints in 2024.

Environmental Aspect	2024 Goals	Beyond 2024	2024 Performance
Carbon Emissions and Reporting	<ul style="list-style-type: none">• Publish 2024 scope 1 and 2 carbon footprint in 2024 Annual & ESG Report.• Create plan for pathway to net-zero carbon by start of full-scale technology production, integrated into Impossible Metals planning processes.	<ul style="list-style-type: none">• Implement pathway to net-zero plan to achieve net-zero Scope 1 and 2 emissions by start of full-scale technology production.	<ul style="list-style-type: none">• 2024 Scope 1 and 2 carbon footprint calculated (24.51 CO₂e)
Water	<ul style="list-style-type: none">• Publish 2024 water footprint in 2024 Annual & ESG Report.	<ul style="list-style-type: none">• Develop plan for implementation of water recycling and reuse in all Impossible Metals-owned or controlled facilities, with interim targets and pathway to achieving 100% water recycling or reuse by commencement of full-scale technology production.	<ul style="list-style-type: none">• 2024 water footprint achieved (138 m³)
Biodiversity	<ul style="list-style-type: none">• Involve independent scientists in testing selective harvesting robot v4 (Eureka 2), who will then publish findings related to environmental impact, including biodiversity, habitat, ecosystem function.	<ul style="list-style-type: none">• Continue to engage with independent scientists throughout the development of selective harvesting technology.	<ul style="list-style-type: none">• Impossible Metals collaborated with scientists at Temple University to provide nodules for independent study. Unfortunately, due to a variety of factors, no nodules were collected during ocean testing in 2024 (Blake Plateau).• Impossible Metals hosted a scientific round-table, in collaboration with BGR, to receive feedback regarding early testing and monitoring plans for Eureka III testing in the BGR contract area of the CCZ.
Waste	<ul style="list-style-type: none">• Waste types will be cataloged to ensure they are being directed to the appropriate waste stream.	<ul style="list-style-type: none">• Develop a circular resources plan with interim targets and the objective of achieving 80% resource recycling/reuse by the commencement of full-scale technology production.	<ul style="list-style-type: none">• Waste types were not catalogued, but signage was provided to direct employees on appropriate waste separation for common waste types.
Supply Chain Sustainability	<p>Prior to sourcing parts for Eureka III, establish and implement ESG screening processes for significant suppliers¹ that align with the goals and values of B Labs.</p>	<ul style="list-style-type: none">• We will report against the ESG metrics of our significant suppliers annually.	<ul style="list-style-type: none">• Additions were made to supplier screening in 2024, adding environmental questions (human rights factors previously in place).
Environmental Management System (EMS)	<p>Establish an EMS for Impossible Metals, including a continual improvement mechanism so it can grow with the company.</p>	<ul style="list-style-type: none">• Annual internal audit (as described in the EMS) to seek opportunities for improvement in our operations or the EMS itself.	

Table 3: 2024 Performance on Environmental Goals.

Environmental Goals

In the 2023 ESG & Annual Report, we set goals for 2024 and beyond. **Table 3** describes our performance over the past year, and **Table 4** describes our goals for the future.

Environmental Aspect	2025 Goals	Beyond 2025
Carbon Emissions and Reporting	<ul style="list-style-type: none">• Publish 2025 scope 1 and 2 carbon footprint in 2025 Annual & ESG Report.• Upon closing of appropriate fund-raising, create plan for pathway to net zero carbon by start of full-scale technology production, integrated into Impossible Metals planning processes.	<ul style="list-style-type: none">• Implement pathway to net-zero plan to achieve net-zero Scope 1 and 2 emissions by start of full-scale technology production.
Water	<ul style="list-style-type: none">• Publish 2025 water footprint in 2025 Annual & ESG Report.	<ul style="list-style-type: none">• Develop plan for implementation of water recycling and reuse in all Impossible Metals-owned or controlled facilities, with interim targets and pathway to achieving 100% water recycling or reuse by commencement of full-scale technology production. These plans will be reported in the 2025 Annual ESG & Performance Report.
Biodiversity	<ul style="list-style-type: none">• Involve independent scientists in designing, testing, and monitoring plans for any ocean testing of Eureka's selective harvesting AUVs. Results will be published on our website, and a summary will be provided in the 2024 Annual & ESG Report.	<ul style="list-style-type: none">• Continue to engage with independent scientists throughout the development of selective harvesting technology.
Waste	<ul style="list-style-type: none">• Continue to support employees in full utilization of 3-stream waste management at the Collingwood facility (garbage, recyclables, organics)	<ul style="list-style-type: none">• Develop a circular resources plan with interim targets and the objective of achieving 80% resource recycling/reuse by the commencement of full-scale technology production (est. 2026).
Supply Chain Sustainability		<ul style="list-style-type: none">• Develop a mechanism for reporting against the ESG metrics of our significant suppliers annually.
Environmental Management System (EMS)	<ul style="list-style-type: none">• Continue to establish policies and procedures that operationalize sustainability (ESG) in key areas that are most impactful for the current phase in the company's growth.	<ul style="list-style-type: none">• Establish an EMS for Impossible Metals including a continual improvement mechanism so it can grow with the company.

Table 4: 2025 & Beyond Environmental Goals.

1 B Impact Assessment (used for the purpose of B Corporation certification) defines “significant supplier” as “those suppliers who collectively represent approximately 80% of your purchases in currency terms. Significant Suppliers can include both suppliers of physical items and service providers like accountants and web designers. Goods or services sourced through a cooperative should be considered one Significant Supplier.”

Social

As a public benefit corporation, Impossible Metals is committed to social responsibility. We recognize that a low-carbon future is beneficial to everyone worldwide, and we are committed to providing a responsible solution. Additionally, we understand that our social performance must extend beyond our public benefit statement to encompass our employees’ wellness, our role as a positive part of the community, and authentic and transparent stakeholder engagement.

Employees

Health & Safety

Impossible Metals recognizes that the health and safety of all employees, contractors, and directors is of the utmost importance and is vital to the achievement of our mission. We believe that providing a safe working and learning environment is an integral and essential part of our responsibility. As per our Workplace Health & Safety Policy, all employees share a responsibility for a safe work environment to minimize on-the-job accidents and injuries. Additionally, the company leadership team and Board of Directors have specific responsibilities.

In 2024, the Collingwood facility trained an additional health and safety representative, bringing the total to 2. By the end of 2024, one of the health and safety reps had left Impossible Metals. In 2025, an additional person will be added to the health and safety committee. As we grow, Impossible Metals will ensure that the health and safety program meets or exceeds all regulatory requirements, including specific standards and procedures to keep our team safe.

Lost Time Injuries

In 2024, Impossible Metals had no lost-time injuries.

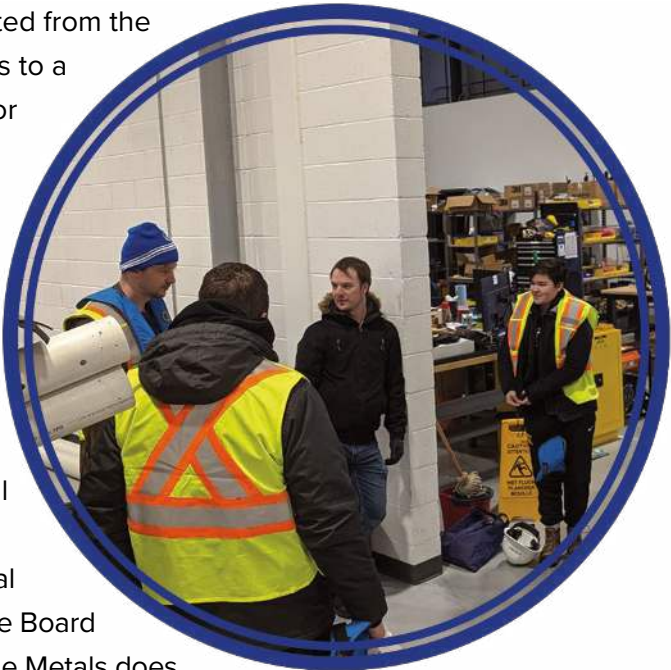
Employee Numbers

The Impossible Metals team decreased in size in 2024 due to the splitting of the mineral processing business into a new entity, Viridian Biometals. At the end of 2024, Impossible Metals had 14 employees, including management, four university interns, and two high school interns. Three new employees joined the Impossible Metals robotics team in 2023, and one employee separated from the company (8% turnover rate). We expanded our internships to a local high school. Employee data is provided in **Table 5** for 2021 through 2024.

Employee Demographics

Impossible Metals provides equal employment opportunities to all applicants, without regard to unlawful considerations of or discrimination against race, religion, creed, color, nationality, sex, sexual orientation, gender identity, age, ancestry, physical or mental disability, medical condition or characteristics, marital status, or any other classification prohibited by applicable local, state, or federal laws. The diversity of Impossible Metals employees and the Board of Directors is disclosed in **Table 6**. We note that Impossible Metals does not compulsorily require its employees or directors to disclose either gender or ethnic origins. As such, we may not always report a full dataset.

Impossible Metals aims to continue its progress in building diversity in the workplace, with the goal of having a diverse range of experiences and knowledge informing our planning and decision-making. At this time, we are not setting specific diversity targets; however, we will continue to track company demographics as a



means of monitoring the diversity of voices across the company, including among employees, senior management, and the Board of Directors.

We acknowledge the current lack of gender diversity in our senior management. As such, senior managers purposefully seek opportunities to incorporate alternative viewpoints into our decision-making processes. One way this is already in place is through monthly company roadmap meetings, which bring together team leads to discuss progress and next steps. This group comprises 43% women, 14% racial or ethnic minorities, and 43% individuals aged 50 or older.

Criteria	2021	2022	2023	2024
Number of full-time employees at end of year	Salary: 6 Hourly: 0	Salary: 18 Hourly: 0	Salary: 20 Hourly: 0	Salary: 14 Hourly: 0
Number of part-time employees at end of year	Salary: 1 Hourly: 0	Salary: 2 Hourly: 0	Salary: 2 Hourly: 0	Salary: 0 Hourly: 0
Number of temporary workers	0	0	0	0
Number of interns	0	4	12	6
Number of promotions	0	5 (25% of employees)	3 (14% of employees)	0
Turnover Rate ¹	-	7%	14%	7%

Table 5: Employee data 2021 through 2024.

Living Wage

A living wage is defined as “The remuneration received for a standard workweek by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his family. Elements of a decent standard of living include food, water, housing, education, health care, transportation, clothing, and other essential needs including provision for unexpected events.” ([Global Living Wage Coalition](#))

100% of Impossible Metals employees earn a living wage (at 100% full time equivalent for part time employees) as identified in **Table 7** (see next page). The

1 Calculated as # employees who separated from the company in 2023 divided by the number of employees, including management, in 2024. Does not include interns or contractors.

calculation of Impossible Metals’ wages include salary only, therefore any other benefits are above and beyond a living wage. Living wages for both Impossible Metals locations, San Jose ([MIT Living Wage Calculator](#)) and Collingwood ([Ontario Living Wage Network](#)), are recognized by B Labs as accepted benchmarks.

Benefits & Wellness

Company Ownership

100% of Impossible Metals’ permanent employees are granted stock options at the start of employment. This includes full-time (30+ hours per week) and part-time, and does not include interns. As of the end of 2024, Impossible Metals was over 60% owned by employees and advisors, with approximately 7.5% ownership (stock options) by non-executive employees.

Employee Retirement Plan

Impossible Metals instituted an Employee Retirement plan in November 2022. Under this plan, Impossible Metals matches employee contributions up to a maximum of 1% of the employee’s annual salary. Full-time and part-time employees are eligible after 3 months of employment.

Employee Healthcare Plan

All permanent full-time employees are enrolled in an Impossible Metals employee healthcare plan. This plan varies for employees in different jurisdictions (California, USA, and Ontario, Canada), as government programs vary widely. All employees have at least base coverage, including varying packages relating to health, dental, prescriptions, eye care, physiotherapy, and other wellness services, including mental health.

	% Racial or Ethnic Minorities ¹	% Gender Diverse ²	% age <24 or >50
Employees ³	33%	17%	44%
Senior Management	33%	0%	67%
Board of Directors (incl. management members)	17%	17%	33%

Table 6: Percentages of racial or ethnic minorities¹, female, and age diversity of Impossible Metals’ employees.

1 Defined by B Labs as follows: “Ethnic minorities are groups that have a distinct cultural tradition that is contrasted with those who traditionally hold the majority of social power”

2 Includes female, non-binary, and transgender

3 Includes full-time employees, part-time employees, and interns. Does not include senior management.

Jurisdiction	Living Wage	Living Family Wage	Percentage of employees ¹ receiving living wage
San Jose, California, USA (Santa Clara County, California) (wage/year based on 40 hr/week, 52 weeks per year)	\$35.44 USD / hour (\$64,501 USD / year)	\$44.66 USD / hour (\$81,281 USD / year)	Living Wage: 100% Family Living Wage: 100%
Collingwood, Ontario, Canada (Grey Bruce Perth Huron Simcoe) (wage/year based on 35 hours per week, 52 weeks per year)	\$22.75 CAD / hr ² (\$41,405 CAD / year)		100%

Table 7: Report on the percentage of Impossible Metals employees’ wages compared to individual living wage and living family wage in three relevant jurisdictions. Note that wage/year is based on different methodologies for San Jose and Collingwood.

Paid Time Off (Vacation, Sickness, and Parental Leave)

Impossible Metals provides more paid time off than required in all jurisdictions where we operate. **Paid days off** (above and beyond statutory holidays) for full-time employees are 21 days per year at the start of employment, increasing by 1 day per year to a maximum of 23 days per year.

Sick leave is unlimited for employees, including days when the employee is unable to perform their duties due to their own illness or to care for a family member.

Impossible Metals understands the importance of supporting a strong work-life balance, and as such, has implemented a strong **parental leave** policy, including:

Salary top-up from government benefits for 12 weeks for birthing parents (including primary caregivers of adopted children) and 8 weeks for non-birthing parents.

Medical benefits will continue to be provided through the parental leave period.

Job retention for 12 months in the United States to accommodate for extended leave (Canadian employees may take up to 18 months leave as per legislative requirements).

This policy exceeds the requirements of both the [Ontario](#) and [California](#) jurisdictions, where our workforces are currently based.

All full-time employees were granted two paid **volunteer days** per year, and part-time employees one paid volunteer day per year.

Other Wellness Initiatives

Employees have flexible working locations, including remote working options where feasible.

Employee Satisfaction

Impossible Metals utilizes [Officevibe](#) to monitor employee satisfaction across various metrics, facilitate both named and anonymous feedback, and support the leadership team in interpreting trends and feedback in a manner that aligns with our values and culture. Average scores for 2022 through 2024 across a variety of metrics are listed in **Table 8**. Impossible Metals aims to maintain an average score of 8/10 for each metric on an ongoing basis.

A substantial change in the sample team composition occurred in 2024 with the removal of the mineral processing team, making it challenging to draw accurate conclusions from overall company average score changes between 2024 and previous years. While, in general, there is a high degree of engagement and satisfaction, a factor in our 2024 scores is the active fundraising that was taking place, as well as the resulting concerns about job security. Strong employee engagement is a priority for senior leadership, who will implement a review process in 2025 that includes anonymous employee feedback in three categories: things to keep, start, and stop. This feedback will allow leadership to take action to support employee engagement and well-being at Impossible Metals.

Annual Feedback

In November, as part of the annual review process, employees provided anonymous feedback in three categories - things to keep, start, and stop. Employees appreciate the supportive, low-ego team environment, as well as the emphasis on innovation and leveraging emerging technologies. Additionally, there was a request to grow the structures within our company, both operationally and related to team cohesion/support. These recommendations will be part of the solution for the last category of feedback, which identified that employees are concerned about mental health impacts and burnout related to our aggressive technology development schedule.

1 Includes full-time and part-time employees. Does not include interns.
2 The Ontario Living Wage Network calculates the living wage as a weighted average of costs for three different household types (family of four, single parent with one child, single adult). [Full report available here.](#)

Annual Review of Working Conditions

Impossible Metals has committed to providing a summary of internal and (where relevant) external auditing of labor conditions and employee benefits according to relevant best practice guidelines and the legislative framework(s) in which we operate. Employee benefits are described in the Benefits and Wellness section above, and a summary of how Impossible Metals complies with basic workers’ rights requirements in both jurisdictions where we operate (Ontario, Canada, and California, USA) is located in **Appendix C**.

Metric	Average Score in 2022 (out of 10)	Average Score in 2023 (out of 10)	Average Score in 2024 (out of 10)
Overall Engagement	8.5	8.3	7.7
Relationship with manager	9.0	8.6	8.1
Alignment	8.8	8.6	7.8
Feedback	8.7	8.2	7.6
Satisfaction	8.4	8.3	7.6
Happiness	8.2	8.2	7.5
Ambassadorship	8.9	8.9	8.2
Relationship with peers	8.8	8.9	8.5
Personal growth	8.7	8.7	8.2
Recognition	8.2	7.7	6.8
Wellness	7.7	7.7	7.0
eNPS**	60.7	59.2	21.0

Table 8: 2022 - 2024 Impossible Metals employee engagement metrics*.

Community

Impossible Metals strives to be a positive member of the communities in which we are part or work with. We are proud to report our community involvement for 2024 and our goals for 2025.

Giving Back

Impossible Metals is a member of Pledge 1%, and we have committed to contribute 1% of our equity, time, and profit to non-profit organizations by becoming a [Pledge 1%](#) member.

1% equity: 1% of our company equity has been officially designated for donation to non–profit organizations via a Tides Capital Warrant.

1% time: Starting in 2023, employees receive 2 paid volunteer days per year (1% of work time per year) that they can use during company-organized volunteer events, or with organizations they are passionate about.

1% profit: 1% of future profits will be donated to non-profit organizations.

In 2024, 1.3% of paid volunteer days were used, as compared to 9.4% in 2023. Impossible Metals plans to encourage more use of paid volunteer days in 2025 by organizing volunteer events.

Local Community

While Impossible Metals’ stakeholders are located around the world, we recognize the importance of engaging with and supporting the community where we work. In 2024, our Collingwood team:

Hosted an open house, inviting the community to see our facility and talk to us about what we’re working on

Provided use of our trailer to Admiral Collingwood Public School for their Santa Claus parade float

Allowed complimentary use of our board room for community meetings, such as the [Georgian Bay Accelerator](#) and the [Nottawasga Lighthouse Preservation Society](#).

Based on the keen interest in our operations from the local community, we plan to encourage more frequent tours of our facility in 2025 for local groups (i.e., educational, industry, retiree, etc.).

Industry

Impossible Metals aims to be an active member and sustainability leader in the industries in which we operate (mining and cleantech) and in which our customers



*Average scores are calculated by averaging the scores from the last day of each month in the subject year.
**eNPS is calculated by asking employees how likely they are to recommend their company as a place to work, on a scale of 0 to 10.
** ** The eNPS score is calculated by subtracting the percentage of low scores (0-6) from the percentage of high scores (9-10).

operate (electric vehicle companies, battery manufacturers, etc.) To that end, we participate in industry cooperation through various working groups and councils, in addition to attending and participating in events such as conferences and trade shows (**Table 9**).

Additionally, Oliver Gunasekara (CEO) leverages his 30+ years of entrepreneurial experience to mentor other start-up companies. He held approximately 10 such meetings in 2024.

In 2024, Impossible Metals participated in and/or was a member of the following:

- [Forbes Technology Council](#) - Oliver Gunasekara ([member profile](#))
- [International Marine Minerals Society](#) (member)
- [NAATBatt International](#) (member)
- [Suppliers Partnership for the Environment](#) (member)
 - [SP Responsible Battery Work Group](#) (participant)
- [Volta Foundation](#) (member)
- Deep Ocean Stewardship Initiative (DOSI) [Minerals Working Group](#)

Events

Our team is excited to spread awareness of our developing technology and the potential for responsibly sourced critical metals. In 2024, we took our message on the road and participated in a wide range of conferences, trade shows, and other events as described in **Table 9** (at right).

Academia

Impossible Metals understands the importance of industry cooperation and partnership with academia. We are fortunate to have strong connections through internships, presentations, and informal mentorship.

Internships

In 2024, we hired four interns through [WaterlooWorks](#) (University of Waterloo) over the year. These hard-working interns have made lasting contributions to our technology and have been an integral part of our fast-paced technology development.



Date(s)	Conference/Trade Show	Type of Participation
February 19-22, 2024	NAATBatt 2024 : Building Capacity	Presentation - Impossible Metals Update
March 8-16, 2024	SXSW (South by Southwest) 2024	Presentation - Mining for the Climate Crisis Without Destroying the Planet (audio recording)
April 17-18, 2024	Deep Sea Mining Summit 2024	Presentation - Selective Harvesting: Reimagining Deep Sea Mining
April 17-18, 2024	DiscoveryX 2024	Booth Fireside Chat - Mining: The Next Frontier
June 11-12, 2024	Benchmark Minerals GIGA USA 2024	Presentation - Mining for the Climate Crisis Without Destroying the Planet
September 15-21, 2024	Underwater Minerals Conference 2024	Presentation - Impossible Metals Roadmap to Full-Scale Testing with Eureka III
October 1-2, 2024	Energy Disruptors: UNITE 2024 Summit	Presentation - Mining for the Climate Crisis Without Destroying the Planet
November 5, 2024	2024 Simcoe County Manufacturers Forum	Expert Panel Participant - Green Manufacturing & Clean Technology
December 10-11, 2024	Inaugural Battery Minerals & Mines Summit	Presentation - Sustainable Deep-Sea Harvesting for Critical Battery Minerals Leveraging Battery-Powered Robots

Table 9: 2024 conferences and tradeshow in which Impossible Metals participated.



To ensure interns have the best possible experience at Impossible Metals, we implemented an Internship Policy in 2023 that outlines onboarding training requirements and provides mechanisms for interns to provide feedback on their experience.

Impossible Metals expanded our internship program in 2024 to include high school students. We enjoyed sharing our passion for robotics and sustainability with them, and hope to welcome more secondary students in the future.

Mentorship

Sharing our expertise and experience through one-on-one student mentorship is both our responsibility and our pleasure. Eager and dedicated students are the future of our industry, and inspire us with their questions and ideas. Our interns receive regular mentorship throughout their work terms with our robotics team, and our team takes the time to meet with students who reach out to our company to discuss the deep sea mining industry and answer questions. We will continue to keep our doors open to students who wish to learn about our industry, what we do, and how they can have an impactful career in their area of interest.

Stakeholder Engagement

Impossible Metals understands the importance and benefits for all parties of genuine and transparent stakeholder engagement. We uphold the [core values of public participation set forth by the International Association of Public Participation](#) (IAP2), identified in **Figure 2** (at right).

Stakeholder Engagement Plan

Impossible Metals maintains a stakeholder engagement plan, which is written in a phased approach. In 2024, we were in Phase 1 of our business development (Series Seed), which has an associated Phase 1 Stakeholder Engagement Plan.


Objectives

The objectives of the Phase 1 Stakeholder Engagement Plan are as follows:

- To establish positive connections and relationships with stakeholders, and raise the profile of Impossible Metals;
- To listen to current concerns and priorities for each stakeholder group, and to capture these concerns and priorities as part of project planning and development;
- To create and maintain a reputation for transparency and information sharing with

stakeholders that fosters trust and builds a positive reputation;

- To obtain input from stakeholders in relation to the sustainability and environmental aspects of technology and engineering to ensure that the outputs reflect the sustainability objectives of Impossible Metals as well as to the greatest extent practicable, the priorities and concerns of stakeholders;
- To develop the pathway for independent, external verification of the ESG performance of Impossible Metals.



CORE VALUES

As an international leader in public participation, IAP2 has developed the "IAP2 Core Values for Public Participation" for use in the development and implementation of public participation processes. These core values were developed over a two year period with broad international input to identify those aspects of public participation which cross national, cultural, and religious boundaries. The purpose of these core values is to help make better decisions which reflect the interests and concerns of potentially affected people and entities.

Core Values for the Practice of Public Participation

1 Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.

2 Public participation includes the promise that the public's contribution will influence the decision.

3 Public participation promotes sustainable decisions by recognizing and communicating the needs and interests of all participants, including decision makers.

4 Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.

5 Public participation seeks input from participants in designing how they participate.

6 Public participation provides participants with the information they need to participate in a meaningful way.

7 Public participation communicates to participants how their input affected the decision.

Figure 2: IAP2 Core Values for Public Participation



1 Request for authorized use in this report submitted to IAP2 in February 2024; request number: 30552102

Identification of Stakeholder Groups

Impossible Metals identified the following stakeholder engagement groups in our stakeholder engagement plan (alphabetical):

- Customers (critical metals users)
- Government agencies/regulators
- Non-government organizations
- Partners/potential partners
- Scientific community
- Standards bodies & market intelligence publishers
- Traditional and community stakeholders
-

Required Consultation

Impossible Metals was not required to undertake any consultation in 2024 (i.e., as the result of regulatory or permitting requirements). However, plans were prepared for the upcoming consultation in 2025 regarding a proposed test of Eureka III in international waters, within an exploration contract area held by the German Federal Institute for Geosciences and Natural Resources (BGR). The consultation plan was described in the Environmental Impact Statement (EIS) submitted to the International Seabed Authority in December 2024.

Summary of Stakeholder Engagement Undertaken in 2024

A summary of stakeholder engagement undertaken in 2024, in accordance with the Stakeholder Engagement Plan, is provided in **Table 10** (page 41).

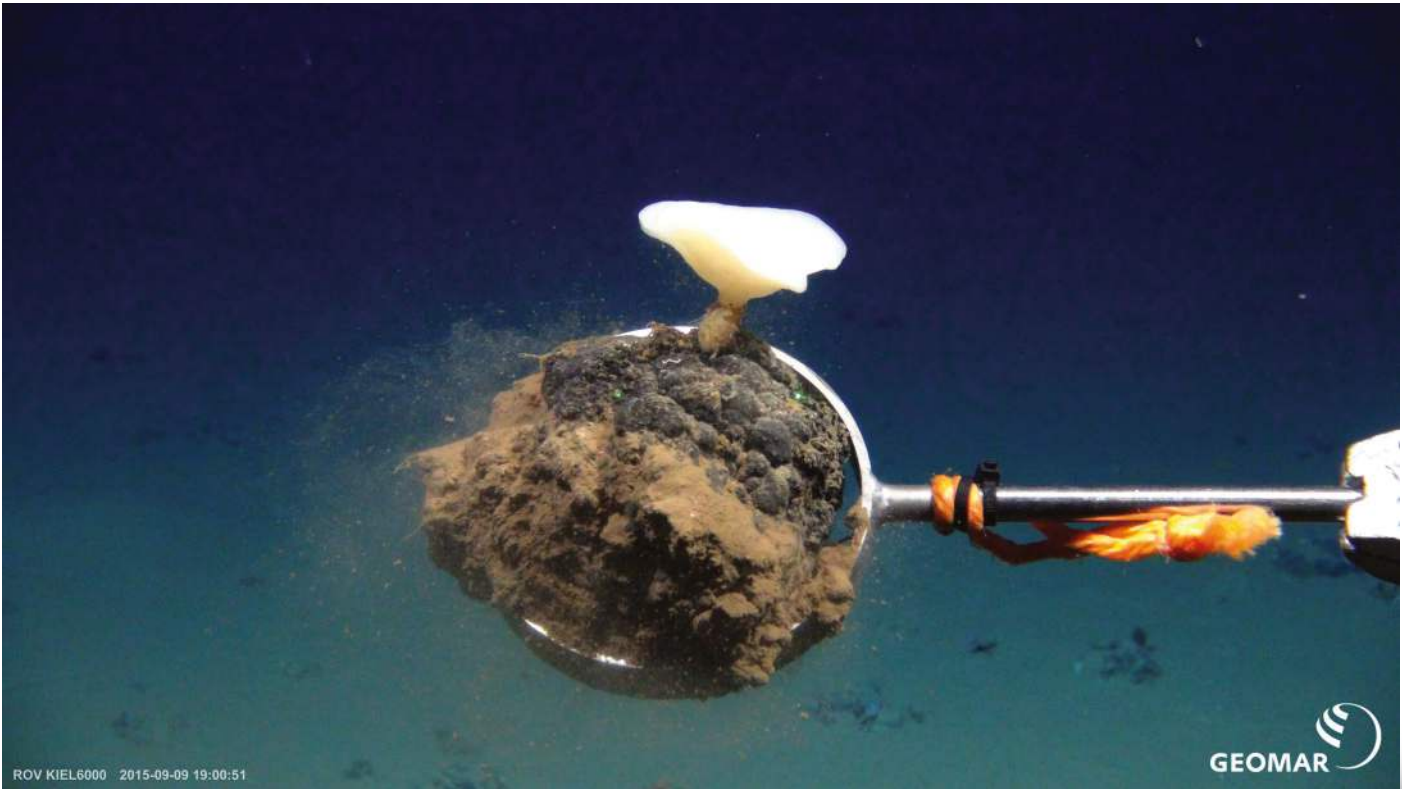
Scientific Community

Impossible Metals is developing the technology to responsibly harvest polymetallic nodules from the deep ocean, which means ocean conservation is an essential part of its values. We have engaged with ocean scientists and non-governmental organizations (NGOs) who focus on ocean health and conservation.



Impossible Metals is committed to designing its selective harvesting system in a way that ensures “serious adverse impacts” and “serious harm” are engineered out, or avoided, from the design phase onwards. In developing its preliminary concept design for selective harvesting of nodules, Impossible Metals has considered the specific concerns of the marine science and policy experts who signed the [Seabed Mining Science Statement](#), as noted in the **Biodiversity** section of this report.

As part of preparing the testing and monitoring plans within the EIS (see **Required Consultation** section above), Impossible Metals and BGR co-hosted a scientific roundtable discussion with deep ocean scientists who have been engaging with Impossible Metals since 2022. Impossible Metals and BGR are grateful to this group for their time and insight, which resulted in significant changes to the testing plan in particular. There was consensus that the testing plan should focus on repetitions of the same “mode” in order to gather a robust dataset. (In this context, “mode” means the percentage/pattern of nodules collected.) A [summary of this discussion](#), including additional feedback, was prepared and made available to attendees for review prior to publishing on the Impossible Metals website. This input was subsequently included within the EIS document.



Stakeholder Group	2024 Engagement	Outcomes
Customers (critical metals users)	Meetings with potential partners to develop both our selective harvesting technology, including regular updates to a variety of companies in the fields of: <ul style="list-style-type: none">Automotive (EV batteries)Battery manufacturing	Users of critical metals recognize the imminent shortage and are interested in a reliable, responsibly sourced supply to achieve their own sustainability objectives and meet customer expectations. Numerous cathode, battery, and automotive manufacturers are actively following Impossible Metals’ progress, and we have signed over \$1 billion in Letters of Intent for the supply of sustainable metals to customers.
Government agencies/regulators	Interacted with regulators and interested government parties in the Cook Islands (SBMA, NES), USA (BOEM, NOAA, elected representatives & staff), ISA, and Canada, including: <ul style="list-style-type: none">Progress updates provided via emailMeetings to discuss progress updatesInvitation to attend the November 2024 demonstration of Eureka II selective harvesting AUV	<ul style="list-style-type: none">Continued interest in receiving progress updatesIn collaboration with BGR, submitted an environmental impact statement (EIS) to ISA for testing Eureka III
Non-government organizations (NGOs), including scientific bodies	An invitation to attend the November 2024 demonstration of Eureka II selective harvesting AUV was extended to several NGOs.	A Greenpeace representative attended the November 2024 demonstration of Eureka II and participated in discussions throughout the event.
Partners/potential partners	Meetings with potential partners, including regular updates and discussions on potential collaborations.	Collaboration with BGR to submit EIS for proposed test of Eureka III in BGR contract area within the Clarion Clipperton Zone (CCZ) in the eastern Pacific Ocean.
Scientific community	<ul style="list-style-type: none">August 2024 Scientific Roundtable with leading experts to discuss testing and monitoring plans for the proposed testing of Eureka III in BGR contract area. (see section Scientific Community below)Informal interactions throughout 2024 at conferences and catch-up/update meetings.Established connections between scientists and the engineering team	<ul style="list-style-type: none">Event summary for November 2024 demonstration of Eureka II, and all presented materials are publicly available (video, presentations, and updated techno-economic model)Event summary includes input from attendees and was circulated for comment prior to finalization.Summary of August 2024 Scientific Roundtable - Scientific Community Input on Eureka III Test in BGR Contract Area (CCZ) with BGR Environmental MonitoringEngineers directly engage with scientists to inform their work on impact minimization in the Eureka III design.
Standards bodies/market intelligence	Invitation to attend the November 2024 demonstration of Eureka II selective harvesting AUV,	Impossible Metals continues to engage with standards bodies (both industry and consumer-facing) to advocate for the development of an independent ESG standard or certification for seabed minerals.
Traditional and community stakeholders	Invitation to attend the November 2024 demonstration of Eureka II selective harvesting AUV. Informal discussions with traditional and community stakeholders in the Cook Islands during the Underwater Minerals Conference.	New lines of communication established.
Local Community		Based on the keen interest in our operations from the local community, we plan to encourage more frequent tours of our facility in 2025 for local groups (i.e., educational, industry, retiree, etc.)

Table 10: Summary of 2024 stakeholder engagement and outcomes by stakeholder group (alphabetical).

Media

While not a stakeholder per se, the media plays an important role in stakeholder engagement. Impossible Metals aims to contribute to meaningful dialogue in the public arena, with the objective of furthering and enhancing public knowledge around both deep sea mining and the issue of critical metals supply. To this end, we engage transparently with the media to answer questions about deep sea mining, provide our viewpoint, and discuss the technologies we are developing.

The following is a selection of media from 2024:

- **January 1** - [There's a Better Way to Mine for Electric Vehicle Batteries](#)
- **February 26** - [Deep-sea mining policy change is coming](#)
- **February 26** - [New mining frontiers: from the ocean floor to space](#)
- **March 20** - [America's Top GreenTech Companies 2024](#)
- **March 25** - [Critics say Biden administration risks losing race to mine resources in international waters](#)
- **March 28** - [The technological race to the ocean floor](#)
- **May 29** - [How Impossible Metals plans to mine the seabed with autonomous robots](#)
- **June 3** - [An Interview with Oliver Gunasekara, Founder and CEO of Impossible Metals](#)
- **June 4** - [A Q&A with Oliver of Impossible Metals](#)
- **June 24** - [Impossible Metals is on a mission to create a greener economy](#)
- **July 7** - [Eco-Friendly Deep-Sea Mining with Impossible Metals' Oliver Gunasekara](#)
- **September 23** - [Climate week talks to include critical minerals and seabed mining debate](#)

In 2024 we also engaged with media and content producers via podcasts and webinars, including:

- **January 31** - [Dig Deep the Mining Podcast: A Conversation with Oliver Gunasekara, CEO of Impossible Metals About Unlocking the Potential of Deep Sea Mining](#)
- **February 19** - [IQT Explains: Challenges & Opportunities in Critical Mineral Supply Chain Security](#)
- **April 7** - [Automating Deep Sea Technology](#)
- **June 4** - [Robotics solutions for deep-sea mining](#)
- **June 10** - [Deep Sea Mining: A Responsible Approach to Resource Extraction with Oliver Gunasekara on the Hardware to Save a Planet Podcast](#)
- **October 15** - [Podcast: How Feasible is Sustainable Ocean Mining?](#)
- **December 2** - [Is Technology Delivering? Evaluating the Real Impact of Innovation on Commodities Markets](#)

Public Outreach

Monthly Webinar Series

The Impossible Metals webinar series was established in 2023 and continued to grow in 2024. In this series, Impossible Metals employees and guest speakers discuss topics related to deep sea mining on a variety of fronts - deep sea technology, international policy, market trends, and Impossible Metals updates. These webinars are open to everyone, and recordings are available as a [YouTube playlist](#).

- **January** - [Subsea Technology 101—A Shallow Dive on a Deep Subject 2024](#) (Justin Manley, President, Just Innovation Inc. & Impossible Metals advisor)
- **February** - [Introducing Eureka II: Exploring Core Technology & Secondary Commercial/Scientific Applications](#) (Jason Gillham, CTO/COO/Co-Founder, Impossible Metals)
- **March** - [Mining for the Climate Crisis Without Destroying the Planet](#) (Oliver Gunasekara, CEO/Co-Founder, Impossible Metals)
- **April** - [Market & Technology Trends in Lithium-Ion Batteries](#) (Wolfgang Bernhart, Senior Partner, Roland Berger)
- **May** - [Eureka II Deep Sea Test Results](#) (Jason Gillham, CTO/COO/Co-Founder, Impossible Metals)
- **June** - [Introduction to the ISA and UNCLOS](#) (Eleanor Martin, Partner, Norton Rose Fulbright)
- **July** - [Fireside Chat: Lessons Learned from Arm: Growing a Multibillion-Dollar Business](#) (Simon Segars, previous CEO of Arm)
- **August** - [AMA \(ask me anything\)](#) with Oliver Gunasekara (CEO/Co-Founder) and Becky Oehler (Sustainability Manager), Impossible Metals
- **October** - [A Norwegian Perspective on Deep Sea Mining](#) (Egil Tjåland, Secretary General, Norwegian Forum for Marine Minerals)
- **December** - [Epistemological Analysis of Criticisms Regarding Deep Sea Mining of Polymetallic Nodules](#) (Juan Ignacio Guzmán, CEO, GEM)

Blogs

Impossible Metals is committed to providing accurate information to stakeholders about our progress and the deep sea mining industry. In addition to webinars, we published several blog posts on a variety of topics in 2024. All Impossible Metals blogs are available on [our website](#).

- **January 3** - [Why will deep sea mining be less expensive than traditional land-based mining?](#)
- **January 4** - [Speaking at the Saudi Green Initiative Forum at COP 28](#)
- **February 2** - [Inconvenient Facts about LFP Batteries](#)
- **February 19** - [Data from the Deep Seabed: What Do We Know?](#)
- **February 27** - [For All Mankind: How Deep Sea Minerals Could Pay Children in Africa to Go to School Instead of Mining](#)
- **March 14** - [The U.S. Needs to Ratify the U.N. Convention on the Law of the Sea](#)
- **March 20** - [Impossible Metals Named as One of America's Top Greentech Companies 2024](#)
- **April 30** - [New Mine Average Lead Time Grows to 18 Years](#)
- **May 31** - [Automotive Companies Prioritize Responsible Materials, Turn Down DSM Moratorium](#)
- **June 20** - [The Simple Case for a DSM Standard](#)
- **June 24** - [Our Take: "Last Week Tonight" Episode on Deep Sea Mining](#)
- **July 29** - [Unveiling Our New FAQ: Answering Your Impossible Metals Questions](#)
- **August 8** - [Brief Summary of Results from ISA 29th Session Part II](#)
- **August 13** - [Impossible Metals' View on the "Dark Oxygen" Paper Published in Nature](#)
- **September 17** - [Prioritizing Reliability: Reducing the Mean Time Between Failures](#)
- **September 23** - [United Nations panel on Critical Energy Transition Minerals Releases Energy Transition Recommendations and Guidelines](#)
- **September 24** - [Sustainable Seabed Mining to Extract \\$100 Trillion Metals Reserves](#)
- **October 3** - [From Obscurity to Hero: How Nickel Will Impact the Energy Transformation](#)
- **October 7** - [Labor Risks in Mineral Supply Chains](#)
- **November 5** - [How the Environmental Impact Assessment is a Keystone of Decision-Making in Deep Sea Mining](#)
- **November 12** - [Scientific Roundtable: Eureka III Testing](#)
- **December 10** - [Illegal Land-Based Mining Consequences and How Deep Sea Minerals Can Help](#)

Videos

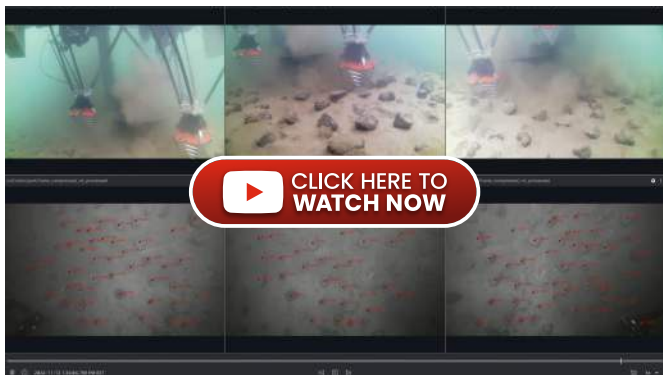
Impossible Metals shared videos on [YouTube](#) in 2024 to describe our technology and progress, as part of our commitment to transparency for all stakeholders. A selection of those videos is shared here:



Animation combined with actual footage of Eureka II in the deep ocean

Video footage of real-world progress of Impossible Metals toward the goal of a mineral harvesting fleet side-by-side with the animation produced in 2023.

[Click here to view video](#)



Eureka II demo in harbor on 13 November 2024

Views from the nodule detection cameras and arm movements during the November demonstration of Eureka II in Collingwood, Ontario.

[Click here to view video](#)



Life Detection Demo in the Tow Tank

Showing in-tank progress of the life detection algorithm, which produces an exclusion area around megafauna, in which nodules are not picked.

[Click here to view video](#)



Video Tour of Our Robotics Lab in Collingwood, Canada

Take a tour with Jason Gillham, CTO/COO and Co-Founder of Impossible Metals.

[Click here to view video](#)

Eureka II Demonstration

May Demo

On November 13-14, 2024, Impossible Metals hosted a demonstration event of the Eureka II selective harvesting technology. Our guests, including industry peers and representatives from the International Seabed Authority and Greenpeace, witnessed Eureka II performing coordinated picks using three arms harborside in Collingwood, Ontario. A summary of the event, as well as videos, presentations, and an updated Techno-Economic Model are [publicly available](#) on our website.

We're grateful for the feedback and advice from our guests, who actively participated in a strong dialogue throughout the event. Input included:

- One attendee identified that the view of their organization is that no deep sea mining should occur.
- One attendee identified that Impossible Metals should consider significant testing time in salt water because it has significant impacts on equipment durability.
- Consensus that training the fauna avoidance software for stalked species will be important.
- One attendee noted that the top of stalked species can act as a "tiny ecosystem" for a variety of fauna.
- Attendees agreed that investing in a good weather prediction system is a priority for working at sea.

- One attendee noted that a processing plant typically needs 3.5 million tonnes of incoming ore per year to be economically viable, and this should be incorporated into economic modeling.
- Attendees agreed that sediment plume modeling assumptions have a high degree of uncertainty and will need to be field tested.
- Attendees agreed that any comparison of plume modeling should incorporate a fleet of Eureka AUVs because this is how the system achieves the same production as other collector technologies.
- Multiple attendees thanked Impossible Metals for a high degree of transparency.

Contractors & Suppliers

At Impossible Metals, we recognize that our impact extends beyond our operations. Our interactions with and the actions of our contractors and suppliers are an essential aspect of our company's social sustainability. In our previous report, we committed to implementing a procurement policy that includes measures to screen the social and environmental sustainability of significant contractors and suppliers. In 2023, we initiated human rights screening and added sustainability metrics to the questionnaire in 2024.

As we proceed with ordering parts and the construction of Eureka III, we commit to implementing an ESG screening process for significant suppliers that aligns with the goals and values of B Labs. We will report our performance toward this goal and its implementation in our 2025 ESG & Annual Report.

Social Incidents/Complaints

There were no social incidents or complaints in 2024.

Social Goals

Each year, we set social goals for our social performance. **Table 11** outlines our performance over the past year and our future goals.

Stakeholder Group	2024 Goal	2024 Performance	2025 Goal
Health & Safety	In 2024, Impossible Metals will update H&S onboarding training.	Impossible Metals updated H&S onboarding training by creating an automation in our onboarding process to ensure all employees complete any mandated training and submit proof of completion.	
Internship Policy & Feedback Mechanism	Provide all interns with an opportunity to provide anonymous feedback on their experience and report results in the 2024 ESG & Annual Report.	Impossible Metals did not implement the internship feedback process in 2024, instead deciding to rely on feedback processes already in place at the educational institutions.	
Stakeholder Engagement Plan	Prepare the Phase 2 Stakeholder Engagement Plan and report on our goals and progress in the 2024 ESG & Annual Report.	In 2024, Impossible Metals remained in Phase 1 of our business development plan, so planning for Phase 2 was pushed forward.	Prepare the Phase 2 Stakeholder Engagement Plan
Contractors & Suppliers	Prior to sourcing parts for Eureka III, establish and implement ESG screening processes for significant suppliers ¹ that align with the goals and values of B Labs.	Supplier screening was updated to include questions regarding some environmental aspects. Remainder of this goal is pushed forward to 2025, to be completed and implemented prior to parts ordering for Eureka III.	Prior to sourcing parts for Eureka III, establish and implement ESG screening processes for significant suppliers that align with the goals and values of B Labs.
Traditional & Community Stakeholders	Impossible Metals will engage with traditional and community stakeholders as part of Eureka II testing as appropriate for the testing location. The engagement activities and input received will be reported in the 2024 ESG & Annual Report.	Eureka II testing was limited to minimally invasive work on the Blake Plateau, and therefore no traditional/community stakeholder engagement was carried out.	
Employee Engagement	In 2024, Impossible Metals will implement more organizational structures to support technical progress and employee well-being as our company grows.	Impossible Metals implemented new organizational structures across its operations in 2024 to prepare for rapid company growth.	Continue implementation of new organizational structures to prepare for rapid company growth.
Local Community Engagement	-	-	Increase local engagement in Collingwood by encouraging tours of our facility in 2025 for local groups.

¹ B Impact Assessment (used for the purpose of B Corporation certification) defines “significant supplier” as “those suppliers who collectively represent approximately 80% of your purchases in currency terms. Significant Suppliers can include both suppliers of physical items and service providers like accountants and web designers. Goods or services sourced through a cooperative should be considered one Significant Supplier.”



Governance

Strong, transparent governance structures are the foundation on which a responsible and ethical company is built. The transparency of governance structures and performance is an integral part of our ESG reporting and commitment to our stakeholders.

Board of Directors

The highest level of oversight at Impossible Metals is the Board of Directors (BOD). Profiles of our Board members are publicly available on [our website](#). The BOD meets quarterly and consists of six individuals, including two independent members and four owner/executive members. The current board consists of one woman and five men. In 2024, one board member departed the company.

Quarterly meetings include a review of financial information, as well as our performance against technical and ESG objectives, strategy, risk, and financial reporting. Additionally, our performance against our policies and procedures is reviewed in detail as part of the annual policy review.

In 2024, we established environmental and social targets, as identified in the preceding sections, and reported our performance against these targets to the Board in December 2024.

Advisors

Impossible Metals benefits from the expertise of a range of [advisors](#). In 2024, we were pleased to welcome Rear Admiral Hugh Wyman Howard III to our strategic advisory board. Hugh is a retired U.S. Navy SEAL with 32 years of special operations experience, has led at all levels, including as Commander of Naval Special Warfare Command. He is known for his expertise in sustainability, disruptive technologies, and strategic security. Howard has a deep understanding of geopolitical risks and technology’s impact on security.

Ethics and Transparency

Ethics

Directors, employees, and contractors of Impossible Metals are expected to conduct themselves to the highest ethical standards, and with integrity, professionalism,

and honesty at all times. We have the following Policies in place to set the standards for ethical conduct at Impossible Metals:

- [Complaints & Disputes Policy](#) - describes steps Impossible Metals takes to ensure the actions and behavior of employees, contractors, and directors are at all times of the highest ethical standard.
- **NEW** - [Diversity, Equity, and Inclusion Policy](#) - describes Impossible Metals’ commitment to the DEI principles and provides a framework for integrating them into all aspects of our operations.
- [Ethical Conduct Policy](#) - describes the steps Impossible Metals takes to ensure the actions and behavior of employees, contractors, and directors is at all times of the highest ethical standard.
- [Human Rights Policy](#) - describes our commitment to ensuring our operations and supply chains comply with the United Nations Guiding Principles on Business and Human Rights.
- [Whistleblower Protection Policy](#) - describes how Impossible Metals protects persons who identify and call out misconduct or harm.

Transparency

- As per our [Transparency & Knowledge Sharing Policy](#), Impossible Metals is committed to transparently sharing knowledge and data for the purposes of:
- Increasing the understanding of the environmental values of the ocean;
- Continuously improving technical engineering and organizational practices to ensure the ongoing sustainable use of ocean resources;
- Being held accountable for our performance;
- Development of capacity in the communities and nations in which we operate.

Table 12 outlines our approach to transparency and knowledge sharing, noting how we have implemented this approach over the last year.

1 An independent Board Member is defined as someone who is: not an employee of the company, not a material investor (i.e. owns less than 5% or represents an investor who owns less than 5%), and not a spouse or immediate family member of a material owner.

Approach	Actions in 2024
All environmental reports, including baseline environmental study reports, modeling reports, and operational environmental monitoring reports, will be made publicly available on our website.	The plume modeling report re: proposed Eureka III testing in BGR contract area of the CCZ is publicly available in our Public Data drive (direct link to report) .
We will collaborate with respected institutions and scientists and encourage independent publishing amongst the scientific community.	To our knowledge, no independent studies have been published using data obtained from Impossible Metals in 2024.
We will share the processes of collaboration we use to ensure that scientific studies inform our project design, operations, and monitoring.	Impossible Metals, in collaboration with BGR, held a scientific roundtable in August 2024 to discuss the test and monitoring plans for the proposed test of Eureka III in the BGR contract area of the CCZ (see section Scientific Community in the Social section of this report.)
We will use independent peer reviewers to review scientific reports and operational environmental data, and we will publish the peer review findings on our website.	There were no independent peer reviews in 2024.
Where appropriate, external standards can be applied to our project (such as the Standards of the Initiative for Responsible Mining Assurance.) We will apply these standards, undertake external auditing of our performance against them, and publish the audit reports on our website.	In 2024, we continued the process of implementing policies and procedures that reflect B Labs' best practices. Our 2024 greenhouse gas footprint was prepared using the GHG Protocol.
We will report our environmental, social, and governance performance with the highest level of transparency, and in collaboration with our stakeholders, to ensure that our reporting data aligns with the expectations, interests, and priorities of our stakeholders.	This Annual ESG & Performance Report document contains our public reporting on environmental, social, and governance performance.

Table 12: Impossible Metals performance against our stated transparency and knowledge-sharing approach.

Policies & Procedures

In 2024, Impossible Metals enacted or updated the following policies after review and approval by our board of directors:

- **NEW - DEI Policy** - describes our commitment to the principles of diversity, equity, and inclusion and provides a framework for integrating these principles into all aspects of our operations.
- **NEW - Workplace Harassment and Violence Policy** - previously covered under the Ethical Conduct Policy, this separate policy was created to ensure that all requirements of Ontario law are explicitly included.
- **UPDATED - Annual Employee Performance Evaluation & Feedback Procedure** - updated to include questions related to sustainability, including how each employee’s role contributes to Impossible Metals’ overall sustainability goals

All policies were reviewed by the Sustainability Manager in Q4 of 2024, and our performance against these policies was presented during the Q4 Board of Directors Meeting in December 2024.

Risk Management

We implement risk management according to our [Risk Policy](#) and Risk Management Procedure. We assess risk based on likelihood and consequence, and document these risks for internal review and board oversight.

In 2024, Impossible Metals reviewed its risk register as part of an annual policy review. The register will be revisited at least annually, or when planning processes are underway.

Governance Goals

In the 2023 ESG & Annual Report, we set governance goals for 2024. **Table 13** outlines our performance over the past year and our objectives for the future.

Topic	2024 Goal	2024 Performance	2025 Goal
B Corp Certification Application	In 2024 and beyond, we will continue to implement best practices for ESG metrics, as recommended by the B Corporation assessment.	In 2024, Impossible Metals implemented best practices as per B Labs' recommendations, including: <ul style="list-style-type: none"> • Addition of the environmental sustainability question to the significant suppliers⁶ screening process • Addition of sustainability questions to the employee annual review process. 	In 2025 and beyond, we will continue to implement best practices for ESG metrics, as recommended by the B Corporation assessment.
Policies & Procedures	In 2024, we will <ul style="list-style-type: none"> • Enact a new Significant Suppliers ESG Policy, including a screening form • Update our Annual Employee Performance Evaluation & Feedback Procedure. 	<ul style="list-style-type: none"> • Significant suppliers screening now includes human rights and environmental performance. • Sustainability questions were added to the annual employee performance evaluation form. 	-
Risk Register	In 2024, Impossible Metals will undertake a review of the risk register as part of planning for Phase 2.	Impossible Metals undertook an annual review of the risk register.	In 2024, Impossible Metals reviewed its risk register as part of an annual policy review. The register will be revisited at least annually, or when planning processes are underway.

Table 13: In 2023, Impossible Metals updated ESG policies and plans to enhance them in 2024.

APPENDIX A

Internal Impossible Metals Annual ESG & Performance Report Requirements Checklist

Technical and Strategic Performance

Requirement	Reference
Summary of the progress towards technical and strategic milestones.	page 14-18
Summary of the progress of engineering design and construction in accordance with the Environmental Basis of Design, including a summary of the aspects of engineering developed to specifically meet environmental or social targets, including those related to end-of-life product/component reclamation.	page 14-18
Summary of our performance in relation to our public benefit statement – “to deliver responsibly mined and processed battery metals to the market in a manner which promotes sustainability, transparency, and accountability and to render a public benefit by acceleration of the world’s transition to sustainable energy to mitigate the climate crisis”.	Technical progress pages 14-18. This report is prepared to promote transparency and accountability for our sustainability performance.

Environmental Performance

Requirement	Reference
Energy use and efficiency measures implemented, including performance against stated targets.	page 23
Water use and efficiency measures implemented, including performance against stated targets.	page 24
Information regarding emissions from our facilities (if any), including performance against stated targets.	page 24
Waste minimization and recycling measures, including performance against stated targets.	page 24
Summary of the measures in place (or planned) for our facilities to meet the requirements of accredited green building programs.	page 23
Summary of Board oversight of environmental performance against stated targets.	page 50
Summary of the most significant environmental risks and management strategies currently in place to manage those risks.	page 53
Summary of environmental incidents and/or complaints, and measures taken to both address those complaints and any underlying causes.	page 24

Social Performance

Requirement	Reference
Summary of the most significant social and community risks, and management strategies currently in place to manage those risks.	page 48
Summary of independent contractor and supplier practices, including the extent of auditing and oversight of supply chain and contractor parties, with performance against stated governance, social, and environmental targets.	page 48
Summary of stakeholder engagement undertaken in accordance with the Stakeholder Engagement Plan, and measures taken to address stakeholder concerns.	page 41
Summary of Board oversight of social performance against stated targets.	page 48
Summary of social incidents and/or complaints, and measures taken to both address those complaints and any underlying causes.	page 48
Summary of demographics of employees and contractors, including performance against targets in relation to gender and cultural diversity, and pay equality.	page 26
Summary of internal and (where relevant) external auditing of labor conditions and employee benefits according to relevant best practice guidelines and the legislative framework(s) in which we operate.	page 62, Appendix C
Summary of employee satisfaction surveys, including reporting of any trends, attrition rates, and performance against targets in relation to employee satisfaction.	page 32
Summary of in-kind or financial contributions to social, environmental, and corporate citizenship programs, including disclosure of organizations and/or institutions supported.	page 33-36

Governance

Requirement	Reference
Governance structures, including the report of the Board of Directors.	page 50
Summary of bonuses and incentives paid to employees, including Leadership Team members, and the metrics used to measure performance.	- company is not yet publicly traded
Composition and representation of the Board of Directors.	page 50
List of Impossible Metals policies and confirmation of annual review process for all policies.	page 53
Summary of governance risks and management strategies currently in place to manage those risks.	page 53
Statement of the independent auditor in relation to company financials, endorsed by the Board of Directors.	- company is not yet publicly traded

APPENDIX B

Impossible Metals Contributions to UN Sustainable Development Goals

All Impossible Metals’ proposed contributions to SDG goals on [our website](#).



SDG 5 – Achieve Gender Equality And Empower All Women And Girls

Proposed Contributions	2024 Performance	Planned Actions
Provide equal opportunities to all genders in regard to hiring, promotion, compensation, schedules, job assignments, discipline, training, working conditions, and all other aspects of employment.	Ethical Conduct Policy describes commitments to equal opportunity, and diversity metrics are reported herein.	Continue to support equal opportunity and purposeful inclusion of a diversity of voices in planning and decision-making. Data will be reported annually.
Clearly communicate expectations for the ethical conduct of our employees, including zero tolerance for gender or other types of discrimination, harassment, or bullying.	Ethical Conduct Policy describes expectations and commitments. In 2024, Workplace Harassment & Violence was separated from the Ethical Conduct Policy as an independent policy in order to ensure compliance with Ontario law.	Continue enforcement of the Ethical Conduct Policy and the Workplace Harassment and Violence Policy and review the policy annually and after a related issue if it should arise.
Provide paid parental leave for both birthing and non-birthing parents that meets or exceeds the requirements of the local jurisdiction.	Parental Leave Policy goes above and beyond legislative requirements in all jurisdictions where we operate.	Continue to support parents, including policy review annually and after a related issue if it should arise.
Measure and report on company diversity (including gender) for employees, management, and board of directors annually, including goal setting and progress reporting.	Company diversity is reported in the Social section of this Annual ESG & Performance Report.	Continue to report on our company diversity and when applicable, goals and related performance.
Work with our host nations to support the development and/or strengthening of gender equality policy and legislation, and the actions that support those policies in the communities where we work.	At present, our teams are located in cities and towns in the United States and Canada, where gender equality legislation is in place.	As we move into broader community settings, we will work with government and community partners to contribute both financially and in-kind to meaningful, effective projects that align with the needs of the community and the relevant government framework.



SDG 6 – Clean Water And Sanitation

Proposed Contributions	2024 Performance	Planned Actions
Access to safe drinking water: <ul style="list-style-type: none">Ensure access at all times for our workforce to safely managed drinking water and sanitationContribute to government and community programs in the communities in which we operate	At present, our teams are located in cities and towns in the United States and Canada, where government-provided infrastructure is already achieving this goal.	As we move into broader community settings, we will work with government and community partners to contribute both financially and in-kind to meaningful, effective projects that align with the needs of the community and the relevant government framework.
Reduce stress on water resources by bringing to market a mineral processing methodology that does not use freshwater, and therefore does not compete with, or place pressure on, freshwater resources. This would be a considerable innovation and step forward for the mining industry as a whole, particularly if it were able to be deployed for terrestrial mineral processing as well as processing of seabed minerals.	In 2024, mineral processing operations were moved into a separate company entity, Viridian Biometals. Impossible Metals continues to support the work of a more responsible mineral processing solution.	-



SDG 7 – Affordable and Clean Energy

Proposed Contributions	2024 Performance	Planned Actions
<ul style="list-style-type: none">Work with our host countries to ensure any energy generation and use by Impossible Metals:Complies with their targetsContributes to the development of renewable energy infrastructure and services in the host countryDoes not impact negatively on the host country’s targets and pathway for achieving carbon neutralityEnergy generation and use by Impossible Metals meets the energy efficiency targets of the host country, or in the absence of targets, the guidance provided by the World Bank	2024 carbon footprint is reported in this document, calculated as per the GHG Protocol.	Begin net-zero planning.



SDG 9 – Innovation, Industry and Infrastructure

Proposed Contributions	2024 Performance	Planned Actions
Work with our host countries to ensure any infrastructure developed by Impossible Metals (such as port and energy generation infrastructure) is developed in consultation with host nations, and to the highest quality of innovation, sustainability, and climate resilience. Further, any infrastructure developed by Impossible Metals in collaboration with host nations and other partners will be developed in accordance with the National Plan(s) of those host countries, with the objective of contributing to economic development, human well-being, equality and sustainable development, both during and following closure of any projects we are involved in.	No infrastructure development in 2024.	Meet our proposed contribution commitment when applicable during our business development.
Apply innovations to the critical metals industry that deliver ground-breaking progress towards sustainable industrialization, making significant contributions to the industrialization of our host nations, particularly any developing nations or small island states with whom we collaborate. We will prioritize the implementation of the technology enabling sustainable industrialization in developing and small island states, in alignment with the National Plans of those nations, and in close collaboration with the host nation governments.	Advancements in selective harvesting for 2024 are reported in the Technical & Strategic Performance section. In 2024, mineral processing operations were transferred to a separate company entity, Viridian Biometals, and therefore their technological and strategic performance is not reported in this document and will not be reported in future versions of this document.	2025 goals are reported in the Technical & Strategic Performance section.
Transparently share any scientific advancements in relation to sustainable development and sustainable industrialization, including the support of and collaboration with host nation educational and research institutions.	Engagement with scientists is described in this report, and documentation can be found on our Scientific Engagement webpage . The publicly published Plume modeling report re: proposed Eureka III testing in BGR contract area of the CCZ is publicly available in our Public Data drive (direct link to report).	We will continue to share scientific engagement, studies, and advances transparently, and encourage the independent publication of environmental monitoring data.



SDG 12 – Responsible Consumption & Production

Proposed Contributions	2024 Performance	Planned Actions
Develop robotics technology to sustainably collect mineral resources from the deep sea floor.	2024 advancements in selective harvesting are reported in the Technical & Strategic Performance section.	2025 goals are reported in the Technical & Strategic Performance section.
Develop biorefining technology to extract metal resources from ore, avoiding the use of harsh chemicals like arsenic, delivering improved energy efficiency, and reducing waste generation.	In 2024, mineral processing operations were moved into a separate company entity, Viridian Biometals. Impossible Metals continues to support the work of a more responsible mineral processing solution.	-



SDG 13 – Climate Action

Proposed Contributions	2024 Performance	Planned Actions
Measure and report our GHG emissions annually.	2024 carbon footprint is reported in this document, calculated as per the GHG Protocol.	Annual carbon footprint reporting, including a baseline for biorefining activities when appropriate. Following delivery of baseline carbon data, development of transition plan to achieve net-zero Scope 1 and 2 emissions by 2030.
Implement a pathway to net-zero by the commencement of production, including the setting and reporting of interim targets to measure our progress.		
Improve education and awareness-raising by transparently publishing our scientific data, encouraging independent publishing by scientists who work together, and, as we expand into other communities, working with educational institutions to further the scientific knowledge of the seabed environment.	Engagement with scientists is described in this report, and documentation can be found on our Scientific Engagement webpage. The publicly published Plume modeling report re: proposed Eureka III testing in BGR contract area of the CCZ is publicly available in our Public Data drive (direct link to report). Impossible Metals collaborated with scientists at Temple University and planned to send nodules from Blake Plateau testing of Eureka II. However, no nodules were retrieved.	We will continue to share scientific engagement, studies, and advances transparently and encourage the independent publication of environmental monitoring data.
Work with our host nations to develop and implement climate-change related infrastructure, including (where relevant) renewable energy infrastructure and climate resilient port infrastructure.	-	Meet our proposed contribution commitment, as applicable, during our business development.





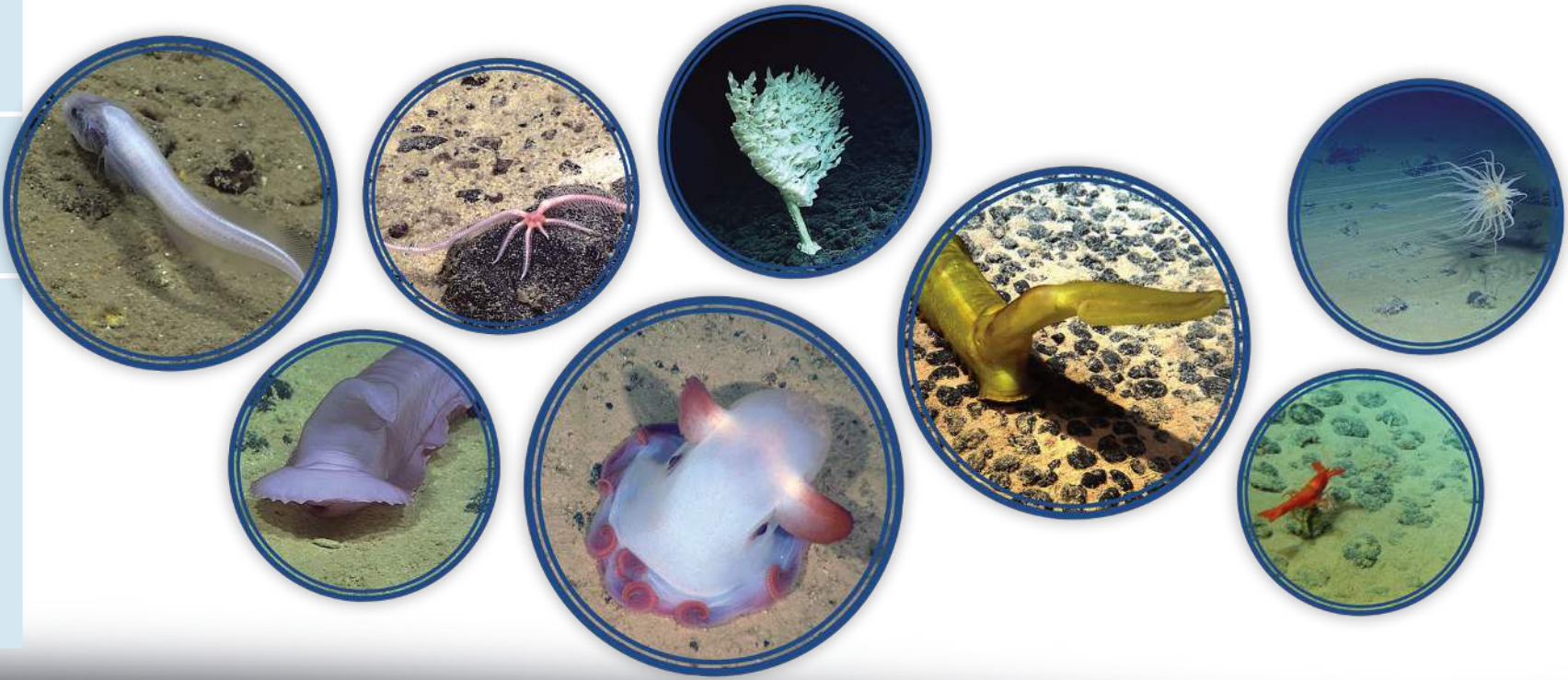
SDG 14 – Life Below Water

Proposed Contributions	2024 Performance	Planned Actions
We are working to develop selective harvesting technology that minimizes impacts to the seafloor ecosystem in a way that is measurable and observable. We will communicate our performance in respect to this objective transparently to all stakeholders.	2024 advancements in selective harvesting are reported in the Technical & Strategic Performance section.	2025 goals are reported in the Technical & Strategic Performance section.
Work with our suppliers to develop technologies that are based on closed-loop supply chains and recyclable materials, to reduce the volume of waste to landfill		
Work to implement technology that does not require the use of large volumes of hydrocarbons in the subsea environment, to minimize the risk of spills to the marine environment.	Robotics technology utilizes batteries rather than hydrocarbon fuels.	Limiting use of hydrocarbons will be considered in all aspects of the development of manufacturing and operations, including support ship fuel and AUV battery charging.
Monitor and report our waste management strategies, and waste volumes, both in our on-shore and off-shore operations, and will ensure all off-shore operations comply with the International Convention on the Prevention of Pollution from Ships (MARPOL).	Rented facility in Collingwood changed from individually to centrally managed waste services. There has been no interruption in services, which include recycling, organics, and garbage.	Impossible Metals will prepare a resource plan with interim targets and the objective of achieving 80% resource recycling/reuse by the commencement of full-scale technology production.
Comply with all domestic and international laws, including the provisions of the United Nations Convention on the Law of the Sea (UNCLOS) at all times, and will transparently report any incidents or breaches of any relevant domestic or international legislation, including the outcome of any investigations.	In 2024, the Workplace Harassment and Violence Policy was separated from the Ethical Conduct Policy as an independent policy to ensure full compliance with Ontario law.	We will continue to comply with all relevant legislation, implement applicable policies and procedures to support compliance, and promptly report any incidents.
Work with our host countries to ensure any infrastructure developed by Impossible Metals (such as port, mineral processing and energy generation infrastructure) is designed to minimize or eliminate waste production and the potential for offsite impacts, spills and pollution.	Not relevant to 2024 operations (no significant infrastructure development).	Meet our proposed contribution commitment when applicable during our business development.
Develop our bioextraction technology, which we believe will minimize or eliminate the generation of waste from mineral processing. In an industry where this waste has historically been disposed of in ocean environments, we aim to deliver mineral processing technology that can not only prevent pollution from our operations, but can be applied to existing terrestrial mining operations to further reduce impacts of pollution to the ocean from the minerals industry.	Advancements in selective harvesting for 2024 are reported in the Technical & Strategic Performance section.	2025 goals are reported in the Technical & Strategic Performance section.
Transparently share any scientific advancements in relation to marine science, ocean health and the ecosystems in which the seabed minerals are located, including the support of, and collaboration with, host nation educational and research institutions.		



SDG 15 – Life on Land

Proposed Contributions	2024 Performance	Planned Actions
We believe the responsible development of seafloor minerals can, and will, replace proposed terrestrial mines in fragile ecosystems in mountain, forest and alpine regions. While it is critical that seafloor mines are developed in a manner that also protects biodiversity and natural habitats, we believe that selective harvesting will make this possible, and will have the added benefit of displacing lower-grade, higher-risk mines in fragile terrestrial ecosystems.	Advancements in selective harvesting for 2024 are reported in the Technical & Strategic Performance section.	2025 goals are reported in the Technical & Strategic Performance section.
Work to develop bioextraction technology for both seabed mining and terrestrial mining to minimize or eliminate the generation of tailings (waste liquid and crushed ore) that results from traditional mineral processing. This would significantly reduce the impact, and future risk of impact, to terrestrial and freshwater ecosystems which is currently occurring as a result of long-term terrestrial tailings liabilities.	In 2024, mineral processing operations were moved into a separate company entity, Viridian Biometals. Impossible Metals continues to support the work of a more responsible mineral processing solution.	-



APPENDIX C

Impossible Metals Compliance with Workers Rights

Worker Rights	Ontario Requirements	California Requirements	Impossible Metals Implementation
Hours of Work Links: <ul style="list-style-type: none">OntarioCalifornia	Unless there is written agreement, Employers can require employees to work a maximum of: Daily: 8 hours Weekly: 48 hours Written agreement does not absolve employer of overtime pay requirements	With some exceptions, there is a maximum of 40 hours per week that employees can be required to work. This can be 8 hours over 5 days, 10 hours over 4 days, or 12 hours over 3 days. Overtime is paid for any hours over this number.	Compliant: Full-time employees are expected to work 8 hours per day, 5 days per week (40 hours) with some flexibility as needed for additional hours, for which lieu time can be taken. Standard bonus rates are applied to employees who partake in overnight deployments. Additionally, Impossible Metals uses OfficeVibe to monitor and measure employee engagement indicators, including work-life balance.
Rest Periods Links: <ul style="list-style-type: none">OntarioCalifornia	Relevant requirements: <ul style="list-style-type: none">30 minute eating period for 5+ hour work periods11 consecutive hours off each 24 hour period24 hours off each week or 48 every 2 weeks8 hours off between shifts	<ul style="list-style-type: none">An uninterrupted 30-minute unpaid meal break when working more than five hours in a day.An additional 30-minute unpaid meal break when working more than 12 hours in a day.A paid 10-minute rest period for every four hours worked.	Compliant: All employees have rest periods meeting the minimum requirements. Typical full-time employees have at least 16 hours off between each work day and have flexibility regarding breaks and lunch periods.
Minimum Wage Links: <ul style="list-style-type: none">OntarioCalifornia	Employers must pay at least the minimum hourly wage. <ul style="list-style-type: none">Jan - Sep 2024: \$16.55/hourSep - Dec 2022: \$17.20/hour	Employers must pay at least the minimum hourly wage. Jan - Dec 2022: <ul style="list-style-type: none">\$16.00/hour for 25 employees or less\$16.00/hour for 26 or more employees	Compliant: All employees make more than the minimum wage <u>and</u> the living wage (see Living Wage section of this report).
Public Holidays Links: <ul style="list-style-type: none">OntarioCalifornia	Employees are entitled to take public holidays off work and be paid public holiday pay (with some alternatives and exceptions). There are 9 public holidays observed in Ontario each year.	No requirement to provide employees with paid holidays, that it closes its business on any holiday, or that employees be given the day off for any particular holiday. Additionally, there is nothing in the law that mandates an employer to pay an employee a special premium for work performed on a holiday, Saturday, or Sunday. There are 11 public holidays observed in California each year.	Compliant: All employees are able to take public holidays off with pay. In some cases, they may decide with their manager to take an alternative day off in lieu of the public holiday, which is agreed to in advance.
Vacation Time Links: <ul style="list-style-type: none">OntarioCalifornia	<ul style="list-style-type: none">< 5 years of work at the organization: 2 weeks (business days)5+ years of work at the organization: 3 weeks (business days)	There is no legal requirement in California that an employer provide its employees with either paid or unpaid vacation time. However, if an employer does have an established policy, practice, or agreement to provide paid vacation, then certain restrictions are placed on the employer as to how it fulfills its obligation to provide vacation pay.	Compliant: Full-time employees receive 21 vacation days per year at the start of employment, increasing by 1 day per year to a maximum of 23 days per year.
Pregnancy & Parental Leave Links: <ul style="list-style-type: none">OntarioCalifornia	<ul style="list-style-type: none">Up to 18 months of maternity/parental leaveContinue company-provided medical benefits for employees during parental leaveCount parental leave into the employee’s length of service at the organizationUpon return from parental leave, provide the same job or a comparable job if the employee’s previous role no longer exists (including equal or higher salary and benefits)	<ul style="list-style-type: none">Up to 12 weeks of bonding time with new childContinue company-provided medical benefits for employees during parental leaveUpon return from parental leave, provide the same job or a comparable job if the employee’s previous role no longer exists (including equal or higher salary and benefits)	Compliant: Impossible Metals complies with all requirements for pregnancy and parental leave in the jurisdictions where it operates. A Parental Leave Policy was enacted in 2024 that extends parental leave benefits beyond legislative requirements, including: <ul style="list-style-type: none">Salary top-up from government benefits for 12 weeks for birthing parents (including primary caregivers of adopted children) and 8 weeks for non-birthing parents.Medical benefits will continue to be provided through the parental leave periodJob retention for 12 months in United States to accommodate for extended leave (Canadian employees may take up to 18 months leave as per legislative requirements)
Paid Sick Days Links: <ul style="list-style-type: none">OntarioCalifornia	Employees are entitled to 10 days of personal emergency leave per year with pay (with some alternatives and exceptions).	Employees are entitled to 24 hours (3 days) of Paid Sick Leave (PSL) per year with pay (with some alternatives and exceptions).	Compliant: Employees have unlimited sick leave. This includes days when the employee cannot perform their duties due to their own sickness or to care for a member of their immediate family.
Health and Safety Links: <ul style="list-style-type: none">OntarioCalifornia	Employees have the right to: <ul style="list-style-type: none">Know about dangerous materials or equipment used in your work. Your employer is required to provide you with this information.Say no to work that is not safe. They do not have to do that work until it is safe. You must tell your boss right away. They cannot be suspended, fired, or not get paid for saying no to work that is not safe.	Employees have the right to: <ul style="list-style-type: none">Be trained in the company’s injury and illness prevention program (IIPP)that includes instruction on safe work practices and the system for effective communication about health & safety with co-workers and the employer.Right to refuse hazardous work without retaliation from the employer in any form.	Compliant: Employees receive training after employment regarding dangerous materials or equipment used in their work. Employees may say no to unsafe work without repercussions. Impossible Metals has a Workplace Health & Safety Policy and will implement health & safety procedures as needed during company growth/development. The Collingwood, Ontario facility has a health & safety representative, as required by the Ontario Occupational Health and Safety Act.
Anti-discrimination Links: <ul style="list-style-type: none">OntarioCalifornia	Employers cannot treat you unfairly or discriminate against you because of your race, ancestry, place of origin, ethnic origin, citizenship, religion, sex, sexual orientation, gender expression, gender identity, age, family status or marital status, disability.	It is illegal for employers of 5 or more employees to discriminate against job applicants and employees because of a protected category , or retaliate against them because they have asserted their rights under the law.	Compliant: Impossible Metals has an Ethical Conduct Policy that includes equal opportunity commitments.

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