

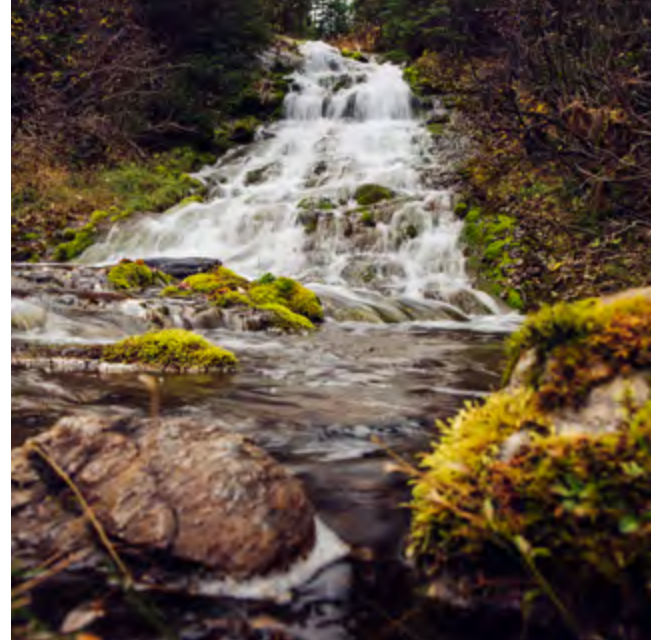
An aerial photograph of a train traveling through a lush green forest. The train consists of an orange and black locomotive pulling a long line of dark-colored freight cars. To the left of the train, there is a calm lake reflecting the sky. In the background, there are rolling hills and mountains under a cloudy sky. The overall scene is a mix of natural beauty and industrial activity.

IRON ORE COMPANY  
OF CANADA

RioTinto



**2021 —  
Sustainable  
Development Report**



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## About this report

### **Integrity and transparency**

Produced jointly by IOC's Environment and Communications and External Relations departments, the 2021 Sustainable Development Report is intended as a tool for sharing our sustainable development initiatives and results. Our teams make sure to produce a publication containing information that faithfully reflects our achievements, with integrity and transparency.

### **We want to hear from you**

Please feel free to email us at [00.IOCfeedback@riotinto.com](mailto:00.IOCfeedback@riotinto.com) to provide us with feedback about our social, economic and environmental performance. Your ideas, questions and comments will help us improve our practices.

## A message from our President and CEO



More than ever, protecting the planet and fighting climate change are top priorities for companies, and the Iron Ore Company of Canada (IOC) is no exception. Guided by Rio Tinto's targets, we are undertaking a major shift in an effort to respond to the new environmental requirements and contribute to reducing greenhouse gas emissions. Collaboration is key to responding to climate change, and we continue to seek opportunities to work with our employees, customers, suppliers, governments and other partners to achieve our shared vision of reducing CO<sub>2</sub> emissions.

Outstanding efforts in various areas allowed us to make our company even better in 2021, from both a human and operational standpoint. To do so, we took into account the three pillars of sustainable development, namely economic, environmental and social, while recognizing that more efforts have to be made in that regard.

### **Health and safety**

It was a challenging year, especially from a health and safety perspective, where specific issues arose for our teams. Safety remains our top priority, and we have to ensure that the status quo is not an option. Many co-workers still get injured, and we have to reverse that trend. Through a daily commitment to upholding our safety protocols and improving risk awareness, which is well underway with Courage to Care and the new Rio Tinto Safe Production System (RTSPS), we are able to do better.

## Commitment

Since my arrival at IOC in September 2021, I have seen the work that all our employees are doing. In 2021, we embarked and delivered on many projects and initiatives. I would be remiss not to mention these successes:

- Achievement of 100 million tonnes of material moved by the mine teams
- Launch of the Rio Tinto Safe Production System (RTSPS) in the Concentrator that takes into account best practices across the group and other industries to define how we work safely
- Successful replacement of all culverts planned for the 2021 season as part of our railway maintenance program
- Restart of reclaimer no. 2 after the March 2021 fire through hard work despite pandemic restrictions
- More than \$500,000 in community investments in our various communities (Labrador City, Sept-Îles, Montreal and St-John) and the Indigenous communities from the five groups that we engage with on a regular basis

IOC has a bright future. In 2022, we will be rolling out our strategic plan for the next 10 years, which will allow us to take IOC to the next level. It is not about reinventing the wheel, but about determining what will help us reach our goals and achieve our ambitions.

We anticipate continued demand for our products in a world where our customers are looking for ways to produce steel with the lowest possible carbon footprint. To remain agile and able to meet their needs, and to stay on track to meet our greenhouse gas reduction goals, we will need to address several challenges, including energy supply and reaching our full production capacity.

I am optimistic about our ability to meet the challenges in store for IOC by relying on the commitment and unrelenting hard work of our employees and contractors.

With your safety and well-being in mind,

**Mike McCann**  
**President and CEO**



**Iron Ore Company  
of Canada**



## The company

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The Iron Ore Company of Canada (IOC) includes:

- **A mine in Labrador City**  
with five operational pits and significant deposits for the supply of high-grade iron ore products
- **A processing centre**  
with a Concentrator and a Pellet Plant, allowing us to transform our ore into high-grade iron ore products
- **A wholly owned 418-km railway,**  
the Quebec North Shore and Labrador Railway (QNS&L), which links our Labrador operations to our port facility in Sept-Îles
- **A port facility in Sept-Îles,**  
from which our products are shipped to customers around the world
- **A hydroelectric power plant**  
Sainte-Marguerite-2 (SM-2) generating 17.6 MW of power connected to the port facility in Sept-Îles

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### Annual nominal production capacity



**23 Mt**  
of high-grade  
iron ore



**including 12.5 Mt**  
that can be pelletized to  
superior-quality pellets



**Labrador City**  
Mine

Railway  
418 km



**Sept-Îles**  
Port



**Montréal**  
Corporate office

## Governance

The Iron Ore Company of Canada (IOC) is owned by three shareholders:

Rio Tinto

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**58.7 %**

Mitsubishi Corporation

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**26.2 %**

Labrador Iron Ore Royalty Corporation

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**15.1 %**

The Board of Directors is composed of six members of Rio Tinto, three members of Mitsubishi and two members of Labrador Iron Ore Royalty Corporation.

### To learn more about the annual reports:

#### Rio Tinto

[www.riotinto.com](http://www.riotinto.com)

#### Mitsubishi Corporation

[www.mitsubishicorp.com](http://www.mitsubishicorp.com)

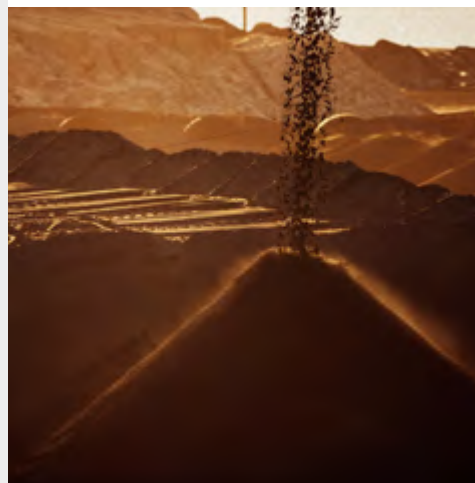
#### Labrador Iron Ore Royalty Corporation

[www.labradorironore.com](http://www.labradorironore.com)

## Our facilities

### Labrador City

- Mine
- Concentrator
- Pellet Plant



### Sept-Îles

- QNS&L Railway
- Terminal
- SM-2 hydroelectric power plant



## Our approach

At IOC, we are committed to becoming the premier high-grade pellet and concentrate producer in the world. In pursuing this goal, the way we perform our work every day is just as important as the results that we deliver. Our commitment to health, safety, environment and communities (HSEC) is fundamental to *The Way We Work*.

## Our values

In fall 2021, we announced three new values that guide our decisions and actions on a daily basis. They reflect the fundamental principles governing our approach to work, the conditions for collaboration among colleagues and the well-being of our employees and contractors, taking into account our various stakeholders.

## Care

We act with care by prioritising the physical and emotional safety and wellbeing of those around us.

## Courage

We act with courage by showing integrity, speaking up when something is not right and taking decisive action when needed

## Curiosity

We act with curiosity by inviting diverse ideas and collaborating to achieve more together than can be done alone.



## Our Stakeholders

Our success depends on the trust we have in one another and in our partners, including host communities, governments, unions, educational institutions, business partners and suppliers, and our customers. We build this trust and set ourselves apart from our competitors through our daily actions. Our HSEC commitments provide a clear framework for how we should conduct our business, as well as clear standards by which we hold ourselves accountable and make smart decisions.





Employees



IOC is a major employer in the Labrador West and Sept-Îles communities. Armed with the expertise of hundreds of men and women, we are well positioned to achieve our goals. We are proud that we can count on a team of over 2,700 employees in Labrador West, Sept-Îles and Montreal to keep our operations running smoothly.

**Number of employees**  
**2,723**

**Labrador City**

Hourly employees

**1,521**

Staff employees

**523**

**Sept-Îles**

Hourly employees

**422**

Staff employees

**231**

**Montreal**

Staff employees

**26**

**Where our employees come from**

**Distribution of new employees**

Newfoundland and Labrador

**65.9%**

Quebec

**22.3%**

Other Canadian provinces

**10.6%**

Outside Canada

**1.2%**

Of the new employees from Newfoundland and Labrador, 70% are from Labrador West. Of the new employees from Quebec, 73.8% are from the Sept-Îles region.

**Positions held by women**

In all

**20.7%**

Labrador City

**23.3%**

Sept-Îles

**12.7%**

## Career opportunities

In 2021, there were a number of possibilities to join the company, and existing employees were given the opportunity to take on new roles or pursue their professional development.

The pandemic continued to pose challenges with regard to in-person events such as career fairs and job interviews. However, despite that, more than 250 people were hired for new or replacement positions.

We reiterate our commitment to hiring people from communities in which we have operations, with special emphasis on women and members of Indigenous communities, since we value diversity as a strength. Inclusion and diversity are imperative for the long-term sustainable success of our company.

## Salaries and benefits

IOC offers a full range of wage conditions and benefits, including a pension plan, a health plan and short- and long-term incentive programs.

## Summer Student Employment Program

In the summer of 2021, IOC welcomed some 100 students to the Labrador City and Sept-Îles sites. These students performed a variety of tasks in different areas, from driving haul trucks to supporting operations in the plants and port facilities.

In addition, students were hired to assist our efforts in preventing COVID-19 transmission by checking body temperature at both sites throughout the summer and part time during the spring.

Hiring students also helps us continue production safely during the peak vacation period.

### Number of students in the summer employment program

Labrador City

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**105**

Sept-Îles

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**29**







## Skills development program

The Supervisor Development Training Program continued in 2021. The company's leadership considers this program to be an excellent way of training supervisors and preparing them for their new role. A first cohort completed the program.

We also continued developing the skills needed for the future through two partnerships with educational institutions in Newfoundland and Labrador and Quebec.

- The launch of the Hyperspectral Scanning Unit (HSU) of the College of the North Atlantic (CNA) took place in 2021. The Hyperspectral Imaging technology has the potential to add significant value for IOC and other mining companies within through the increase our knowledge of ore quality characteristics on downstream processing operations.
- IOC has announced that it will invest \$750,000 over three years to support research and training at the Cégep de Sept-Îles' RAIL Centre of Expertise. This new partnership aims to strengthen the position of Sept-Îles as a hub for railway training by tailoring the program to the needs of the rail transport industry, which is already well established on Quebec's North Shore. The investment will enable students and employees of IOC and other companies in the region to improve their technical skills in various fields, including rolling stock and railway maintenance. IOC and the RAIL Centre of Expertise are also working together in the areas of technical assistance and applied research. These projects involve developing innovative technologies for heavy transportation and preventive maintenance protocols designed to make railways safer and more efficient.



## Training

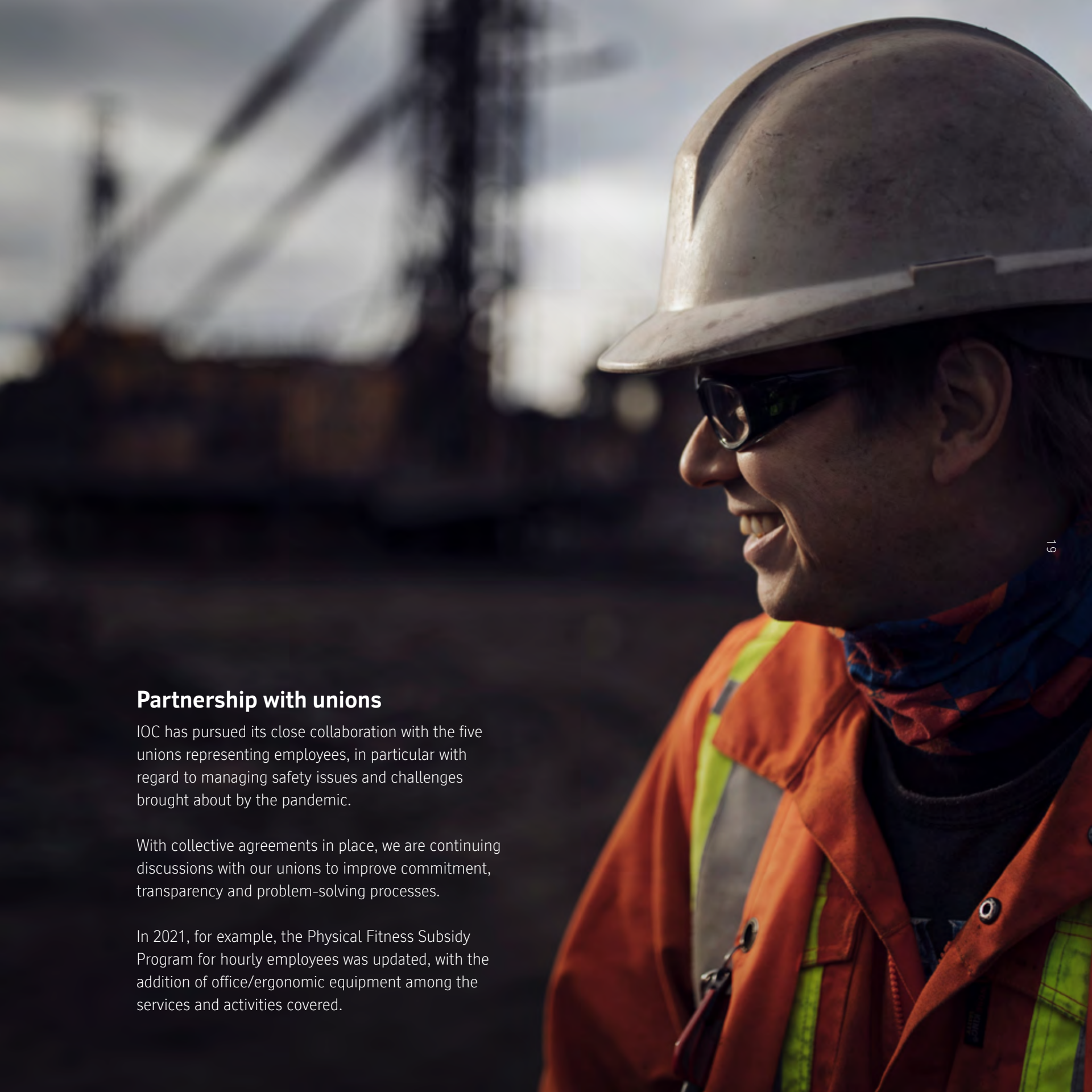
Employee training fosters the development of the skills that we need to make steady progress towards the mining industry of tomorrow.

### Training hours in 2021

Total	Labrador City
<b>92,375</b>	<b>69,940</b>
Sept-Îles	Other
<b>22,055</b>	<b>380</b>

### Highlights

- **Use of pronto form**  
for Labrador City contractors
- **Launch of first responder**  
training for all railway employees
- **Winter driving simulation**  
training in Labrador City
- **Appointment of mentors**  
for haul trucks
- **Creation of an Rio Tinto Safety Production System**  
team in the Concentrator

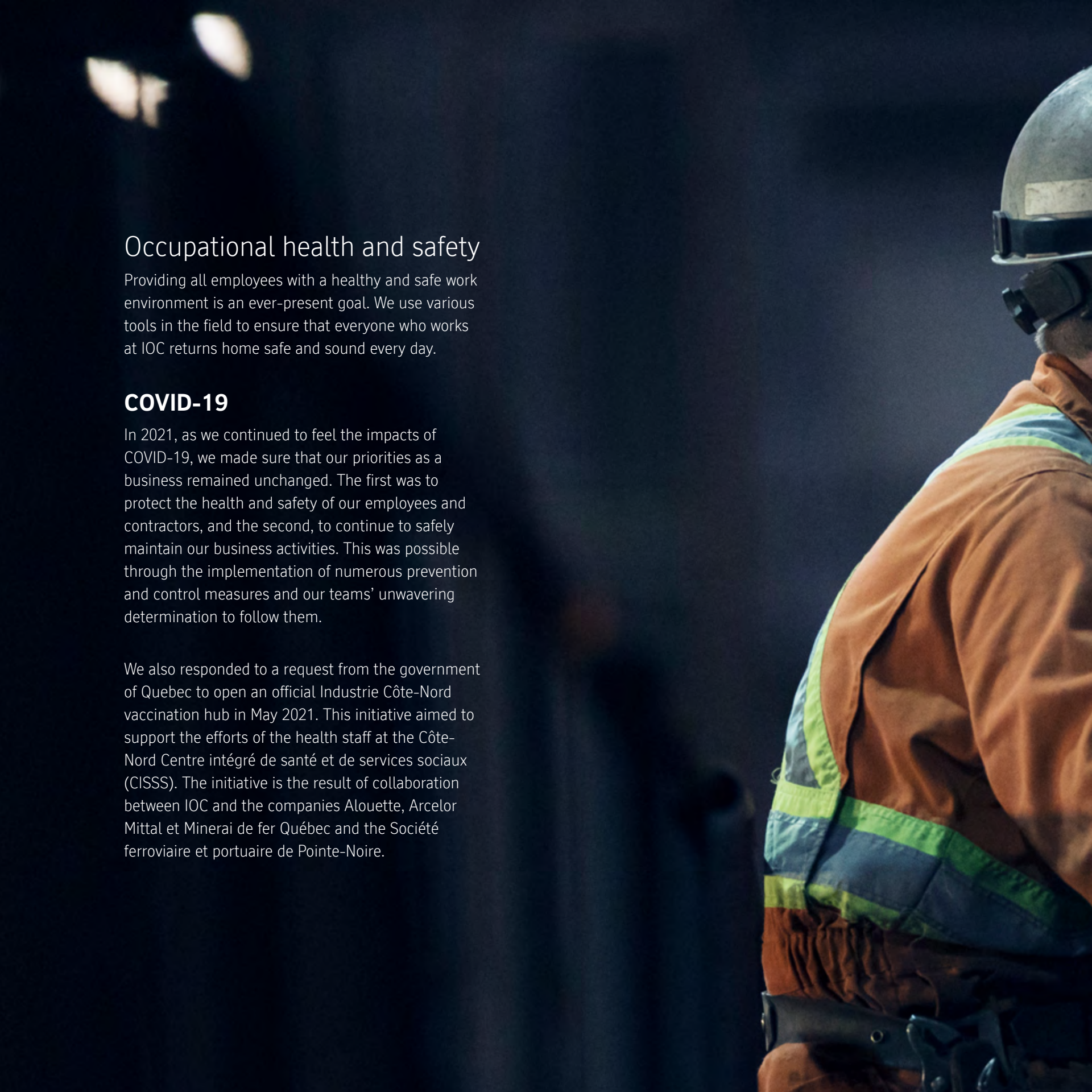


## Partnership with unions

IOC has pursued its close collaboration with the five unions representing employees, in particular with regard to managing safety issues and challenges brought about by the pandemic.

With collective agreements in place, we are continuing discussions with our unions to improve commitment, transparency and problem-solving processes.

In 2021, for example, the Physical Fitness Subsidy Program for hourly employees was updated, with the addition of office/ergonomic equipment among the services and activities covered.



## Occupational health and safety

Providing all employees with a healthy and safe work environment is an ever-present goal. We use various tools in the field to ensure that everyone who works at IOC returns home safe and sound every day.

### **COVID-19**

In 2021, as we continued to feel the impacts of COVID-19, we made sure that our priorities as a business remained unchanged. The first was to protect the health and safety of our employees and contractors, and the second, to continue to safely maintain our business activities. This was possible through the implementation of numerous prevention and control measures and our teams' unwavering determination to follow them.

We also responded to a request from the government of Quebec to open an official Industrie Côte-Nord vaccination hub in May 2021. This initiative aimed to support the efforts of the health staff at the Côte-Nord Centre intégré de santé et de services sociaux (CISSS). The initiative is the result of collaboration between IOC and the companies Alouette, Arcelor Mittal et Minerai de fer Québec and the Société ferroviaire et portuaire de Pointe-Noire.



## Courage to Care

Since 2019, we have enhanced our health and safety culture by implementing the Courage to Care program.

The aim of this initiative is to improve our safety culture by getting workers more involved in prevention, risk awareness and the decision-making processes involving risk reduction in their sector, across the business.

A number of achievements have been made since 2021, making it possible to eliminate and reduce risks, while having an impact on the engagement of our workforce.



- **Mine:** Design and fabrication of a deep well skid to facilitate the safe and rapid change out and installation of deep well pumps. Reduced risk of falling objects, pinching or crushing, and correction of several productivity deficiencies
- **Concentrator:** Preparation of a rescue plan and a standard operating procedure for all future work to be performed in the BM105 ball mill pit to eliminate the risk of drowning in the event of a sump pump shutdown during a power failure
- **Crusher:** Safe replacement of the 85T mantle through the use of magnetic cameras that eliminate the risk of crushing
- **Pellet plant:** Installation of fixed and collapsible skids to access the lubricating pumps of mills 1-8
- **Automatic Train Operation (ATO):** Implementation of a standard operating procedure, creation of a proximity permit, addition of a supervisor and improvement of loader equipment to improve visibility during snow removal and collaboration among operators
- **Locomotive shop:** Modernisation of crane no. 7, reducing the risk of pinching
- **Laboratory:** Implementation of a naturally ventilated outdoor gas park, reducing the risk of gas exposure
- **Terminal:** Reduced exposure to fall from height risk through the acquisition of a bucket truck, allowing electric utility workers to access the equipment bucket from the ground



## Fatigue management

Fatigue management is an important aspect for employees who work in safety sensitive jobs. It is also a required component of our Safety Maturity Model (SMM). In March, we implemented a fatigue management procedure aimed at ensuring a 48-hour minimum rest after 21 consecutive days of work.

## Mental Health Committee

In 2021, committee members focused on the well-being of employees, including special leave related to the pandemic, expanded wellness-related benefits and support for community initiatives related to physical and mental wellness. We also launched mental health training and created the Sept-Îles Mental Health Committee, based on the one implemented in Labrador City in 2020.



A person wearing a white button-down shirt is seated at a desk. Their right hand is on a black calculator, and their left hand is on a document with a blue bar chart. The background is a bright, out-of-focus window. A semi-transparent white rectangle is centered over the image, containing the word "Economics" in bold black text, flanked by two vertical lines.

# Economics



## Financial overview

In 2021, IOC contributed C\$753 million in total payments to federal, provincial and local governments, mainly through corporate income tax, municipal taxes, social security taxes and custom duties.

## Economic breakdown for 2021

Wages and salaries  
(including benefits)

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**C\$502 million**

Net ore  
sales revenue

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**C\$3,937 million**

Total revenue

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**C\$4,147 million**





## Projects and initiatives of our different areas

### Mine and Ore Delivery

#### **Ore delivery system feasibility study**

In November 2021, IOC began a study to assess the technical and commercial feasibility of further automating the ore delivery system (ODS) and moving the ODS controllers to the operations centre in Labrador City. In addition to the technical improvement options, the study will provide an overview of the benefits and risks of all potential changes.

This work is part of our strategy to modernise critical assets and to consolidate the process controllers at the Colby building. The process controllers in the Concentrator and the Pellet Plant have already been successfully relocated in the past two years. We are now trying to determine whether this is possible for the ODS.

We think the feasibility of the project is largely based on the available automation technology and the potential benefits that it could provide.

The progress of remote operations is a positive step in our journey towards modernisation. It will allow IOC to align with what is taking place in the mining industry worldwide, which will ensure a strong future for our company and our communities.

## Processing Operations

### **ISO/IEC 17025 accreditation for Sept-Îles lab**

An March 2021, the Standards Council of Canada (SCC) mandated the Bureau de normalisation du Québec (BNQ) to review the quality system and procedures in effect at the Sept-Îles lab. Based on this assessment, the accreditation for the Sept-Îles lab was recommended for two more years.

The ISO/IEC 17025 standard enables accredited laboratories to demonstrate that they operate competently and generate accurate results, thereby promoting confidence in their work internationally.



This accreditation is recognised by IOC customers as a commitment to quality for the certification of products that they receive.

To achieve ISO/IEC 17025 accreditation, a laboratory's quality management and technical competency system must be rigorously assessed by a recognised third party. A comprehensive review of the accreditation file is carried out every two years.

This achievement was possible through the collaboration of the lab team.



## Integrated Operations

### **Automated drills**

Although we have been using automated drills since well before 2021, we continue to improve related safety and productivity. We have kicked off the development of a new generation autonomous drill technology.

### **Work shift made up entirely of women**

In 2021, one work shift in the control room of the Pellet Plant was made up entirely of female operators.

A first that highlights we are fortunate to have incredible women working with us who break the standards of our industry every day and demonstrate that passion and excellence have no gender.

## Rail, Port and Energy

### **A greener locomotive fleet**

Various initiatives were taken in recent years to improve the environmental performance of the locomotives on the QNS&L Railway:

### **Leak test program for air brake systems**

We implemented a leak test program for the locomotive air brake systems. These systems are needed to apply the train brakes. Since we eliminated air losses in the systems, the engines are not required to work as hard, which reduces operating hours. This reduces diesel consumption and, consequently, GHG emissions. It also decreases the necessary equipment maintenance.

### **Mechanical upgrade of equipment**

Transport Canada's regulatory requirements (*Locomotive Emissions Regulations, Railway Safety Act*) applicable since 2017 and aimed at reducing polluting atmospheric emissions required a mechanical upgrade of our equipment. To obtain a certificate of compliance with the new requirements, we had to modernise our various locomotive models. The program, launched in 2015, is ongoing.

### **Automated engine system**

All QNS&L locomotives are equipped with a stop/start engine system to limit idling. These automated systems allow locomotive engines to run only when necessary, reducing fuel consumption, GHG emissions and atmospheric pollutants, and limiting equipment wear. Since the locomotives are water cooled, and given the harsh winter conditions on Quebec's North Shore and in Labrador, the stop/start system is not activated a great portion of the year as the engines must be maintained at a specific temperature to ensure that they run smoothly, prevent breakdowns resulting from freezing and ensure train safety.

To further limit engine idling, we installed auxiliary heating units on some models of locomotives, allowing the engines to be turned off while maintaining an appropriate temperature. Efforts are being made to equip the entire locomotive fleet with these auxiliary heating units.

### **New locomotives**

Our fleet of 75 locomotives is able to effectively transport thousands of tonnes of ore each year to meet our needs and those of our customers. In 2021, we purchased 19 new locomotives that meet the highest environmental standards in order to further modernise our rail fleet and break the annual record for tonnes transported, namely 30,181 kt, a figure that employees working on the railway can be proud of.



### **SM2 dam – maintenance work**

As part of its maintenance program and under an agreement with Dam Safety following the presentation of the corrective measures and the implementation schedule, IOC refurbished the dam riprap in the summer of 2021 for safety and regulatory reasons. The work involved repairing part of the rockfill on either side of the dam, which is located 35 km west of Sept-Îles. Consultations were held with local stakeholders to limit the impacts for users. IOC also helped finance the extension of the boat ramp at Zec Matimek, which took advantage of low water levels to carry out the project.

The extensive collaboration among the various teams taking part in the project helped minimise the impacts and duration of the work.

### **Raven deterrent – reduction of power outages**

In an effort to respond to the issue of ravens building nests in IOC's 46-kV powerline towers, a situation that sometimes results in bird mortalities and power outages, power distribution employees developed a simple deterrent composed of a guy wire and a series of clamps installed throughout multiple levels in the towers. The device was a huge success. It was installed in four structures identified during daily inspections of raven activity. The new device will now be installed proactively on our towers. This simple in-house design prevents bird mortalities and lost production related to power outages



# Environment

IOC's Environment team, composed of some 15 people divided between the Labrador City and Sept-Îles facilities, oversees the environmental compliance of the company's operations and projects. It implements strict environmental monitoring programs that focus primarily on groundwater quality, effluents, atmospheric emissions, GHG emissions and biodiversity, and manages projects involving soil and groundwater remediation, the restoration of degraded sites and shoreline protection.

Lastly, the team ensures that the company includes sustainable development principles in its business plans and decision-making processes.

## Water management

### **Fish Habitat Compensation Agreement – Wabush Lake**

Under the Fish Habitat Compensation Agreement reached with the Department of Fisheries and Oceans (DFO), IOC must demonstrate that the measures put in place will allow Wabush Lake fish and aquatic habitats to regenerate and improve over time.

The 2021 lake study was the last phase of the monitoring program planned as part of the Fish Habitat Compensation Agreement that was signed with the DFO in 2006. In order to reduce the mortality rates of fish captured during these studies, IOC conducted tests in 2018 and 2019 and adapted a commercial fishing technique for scientific purposes. IOC modified two Silver Dolphin vessels to conduct the paired trawling and, in 2021, installed a new high-tech electronic system for real-time monitoring (e.g., trawl mouth, depth, speed).

The paired trawling was accompanied by a hydroacoustic study to target representative samples of fish species and populations. Improving the effectiveness for capture methods, installing high-tech electronics and the trialling over the past three years to perfect the method proved successful and have generated the best monitoring results to date.

### **Mine water balance**

IOC generated a mine water balance for its mining operations in Labrador City in 2021.

The water balance uses precipitation and pumping data to determine how much water is coming into and out of the pits.

This will help IOC plan for future dewatering and protect neighbouring watersheds.

## **2021 results**

- Young of the year (YOY) of many species caught with a good distribution of size classes
- Paired trawling resulted very high success rates regarding live release of recreational fish species, achieving a 89% live release rate
- The abundance of small fish – very good recruitment in the lake
- Trawling efforts captured two additional species – burbot and sculpin
- Two large year classes of lake whitefish identified



## Waste management

### Clean-up of orphaned sites

For a second consecutive year, IOC/QNS&L partnered with First Nations of Quebec and Labrador Sustainable Development Institute and some members of the Uashat mak Mani-Utenam community as part of its mission to rehabilitate abandoned sites along the QNS&L Railway. Three sites were targeted for work this year:

- a former illegal dumpsite at mile 142.5
- the former outfitter *Les portes du Labrador* at mile 142
- the former outfitter *Messnak* at mile 40

To support the organisation, a number of IOC/QNS&L employees assisted in planning the work, the transportation of heavy equipment by train and providing containers for the safe management of hazardous waste. IOC/QNS&L will ensure that waste generated from work along the track is recovered, transported to Sept-Îles by train and properly managed once it has been unloaded in the yard at Sept-Îles.



## Land management planning

### **New geographic information system**

In preparing the Land Management Plan, the geospatial data available, including cultural, socioeconomic and environment datasets for Labrador City, QNS&L Railway and Sept-Îles, were compiled and incorporated into a database linked to a Geographical Information System (GIS).



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This new integrated tool will simplify the land management and provide useful information for planning our operations and projects, and engaging with our external stakeholders (governments, communities and Indigenous groups).

The aim of this program is to ensure the responsible and sustainable management of IOC properties and reduce disturbances in areas that require further consideration (e.g., sensitive habitats, work requiring permits and authorisations, cultural heritage sites).

## Tailings management

### Monitoring of tailings

In addition to IOC's regulated monitoring program in Wabush Lake, IOC conducted surveys over the ice during winter 2021. Ground Penetrating Radar (GPR), a tool used primarily to assess underground conditions, was used over the ice to see what the current sediment conditions are at the bottom of the lake and any changes from last summer.



Typically, bathymetry is used in the summer to see the bottom of the lake. However, we must wait a full year to see what changes have taken place in tailings deposition. During the winter, we also carried out sediment coring. This technique involves pulling up a column of sediments from the bottom of the lake. Because the core goes deep into the sediments, it will represent years of settling and sediment transport in the lake and help IOC understand how much dispersion of the sediments has taken place since the beginning of its operations.

# Rehabilitation of mining sites

## Progressive mine rehabilitation

A total of 29 hectares were rehabilitated at several mine sites, 21.5 of which were allocated to phase I of the progressive closure of the Spooks waste rock dump. Slopes were reduced to no more than 20 degrees where possible and covered with till or topsoil in preparation for the ecological restoration phase using hydroseeding or broadcast seeding applications. A new trial was completed on slope and flat land using broadcast seeding directly on limonitic waste.

## Progressive rehabilitation of the tailings site and the Orica site

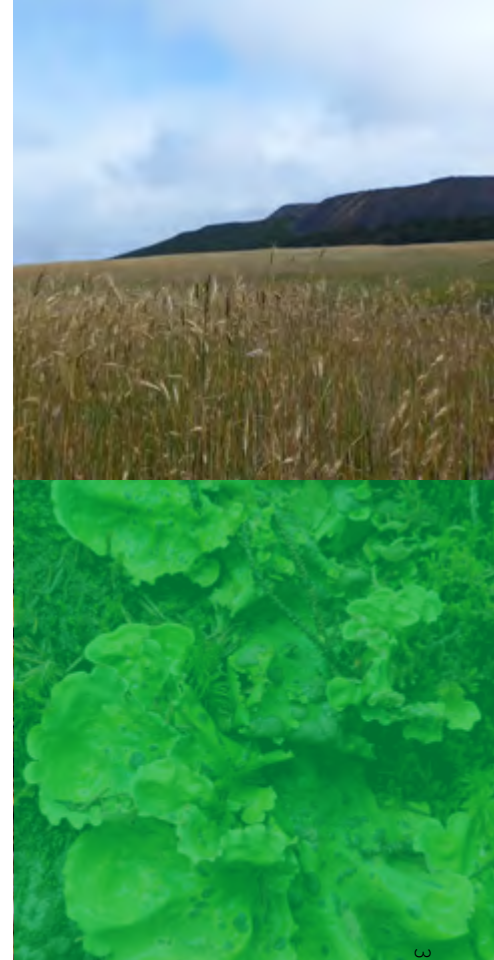
A total of 27 hectares at our tailing's facility and 2.0 hectares at the Orica Explosives Facility were rehabilitated. On 4.5 hectares of previously revegetated tailings, three different plant species were introduced on a trial basis: two alfalfa species and one buckwheat species. Monitoring over the next year will determine whether they are viable species, with the aim of enhancing the biodiversity on our tailings.

## Waste dump rehabilitation trials

Steven's Lake Waste Rock Dump trials were carried out in 2018 to assess and test various options for revegetation of rill slopes at natural angles of repose (15 to 20 degrees) on waste dumps using various thicknesses (20 to 40 cm) of overburden. A total of 29 hectares was completed using broadcast seeding with selected seed mixtures after a poultry manure medium was laid down using farming equipment.

In 2021, IOC conducted an agronomic assessment of the work completed at the Steven's Lake Waste Dump. The aim of the assessment was to document how the vegetation reinstalled on various thicknesses of overburden using the applied seeding techniques is evolving based on our success criteria developed specifically for the IOC site and its soil conditions.

The results show that the restoration is successful and that it allows for plant diversity that will continue to develop in the coming years without further intervention. These results will guide future rehabilitation practices with a view to reducing the cost of restructuring/reshaping slopes and transporting and laying down overburden, and using the most effective seeding technique to ensure increased biodiversity.





## Biodiversity conservation

### Strategy

IOC finalised its Biodiversity Conservation Strategy (BCS). The initiative entailed a comprehensive compilation of biodiversity information from the past decade for the Iron Ore Company of Canada's operations in three study areas. Biodiversity information was analysed to identify important species and communities of flora and fauna, and potentially significant habitats on IOC and QNS&L properties and adjacent areas. These significant biotic elements were titled Priority Biodiversity Features (PBFs), and their collective status will serve as an indicator of biodiversity health.

The BCS is integrated into IOC's business strategy so that PBFs are prioritized, managed and protected. This new approach will incorporate the quantification of PBFs wherever possible, as well as their spatial representation, into a Geographical Information System (GIS) database. This approach brings biodiversity from the anecdotal and qualitative into the realm of measurable indicators and statistical analysis.

### Five-year plan

A five-year plan was developed to support the goals and targets set out in the Biodiversity Conservation Strategy (BCS). This plan brings together the various actions, projects, mitigation measures, studies and monitoring programs so that the biodiversity conservation targets can be achieved. The biodiversity information has been incorporated into an Integrated Land Management Geospatial database to allow for the integrated planning and management of our operations.

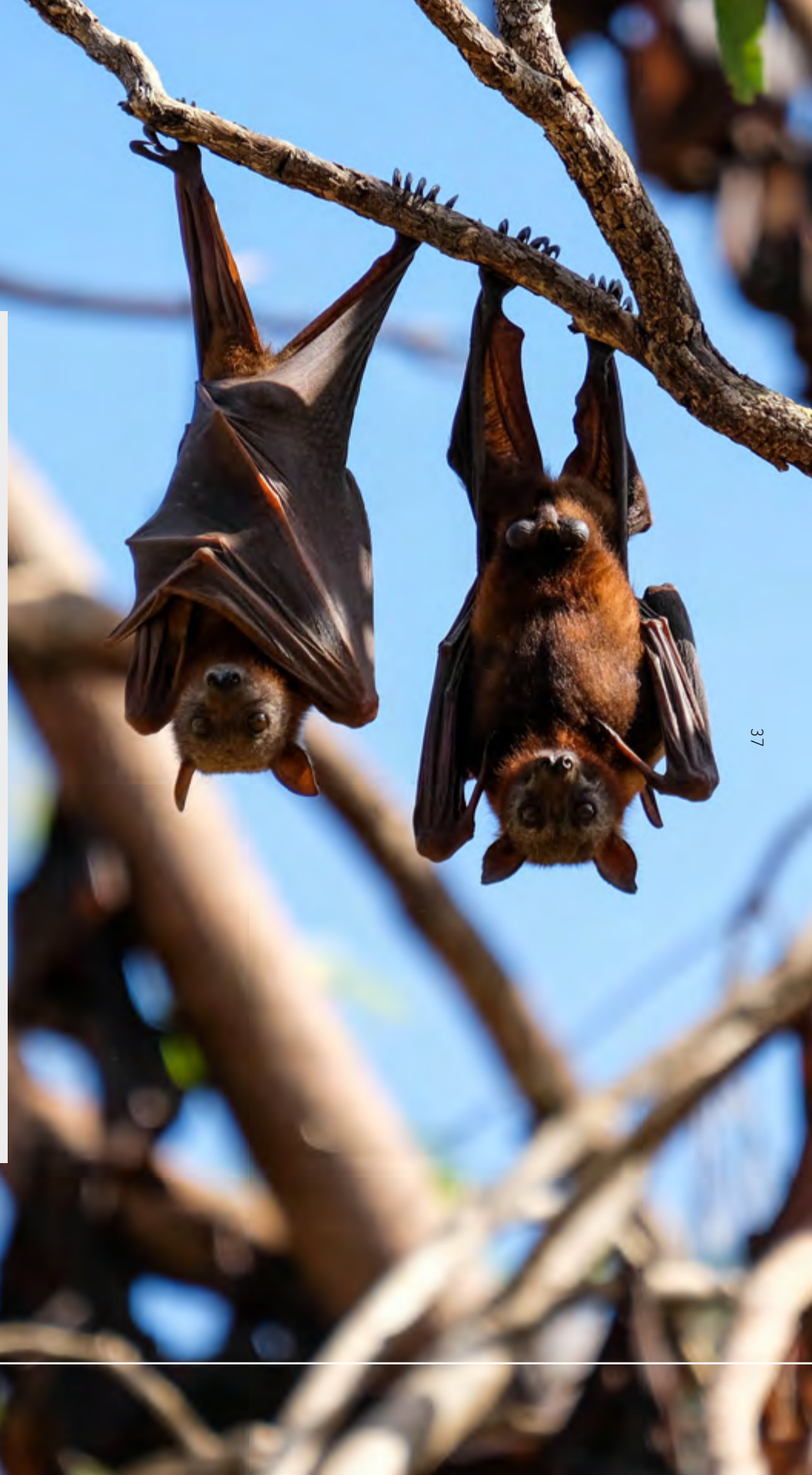
This five-year plan is adaptive to anthropogenic and natural changes in the landscape, shifting priorities, and new information about species, communities and habitats.

### Bat Monitoring Program

In 2021, IOC installed ten Anabat Swift passive full-spectrum bat detectors at waterbody/wetland locations throughout IOC property in Labrador City. A total of 495 echolocation calls were recorded over the sampling period. Echolocation calls were classified as either little brown bat, Northern myotis or unknown. The province of Newfoundland and Labrador recently listed these bats as endangered species.

Information gathered from this monitoring program will be incorporated into the Biodiversity Conservation Strategy and the Integrated Land Management (ILM) planning tool.

Mapping of critical habitat in the Geographical Information System (GIS) will indicate whether potential interactions are likely to occur between IOC activity and known areas of bat use or critical habitat. This information will help reduce risks for bat species and enhance habitat protection.



# Greenhouse gas emissions performance and reduction targets

## IOC GHG emissions profile

Total GHG emissions from IOC operations from Mine to Port total approximately one million tonnes of CO<sub>2</sub>eq annually. In 2021, total GHG emission of 1,018 kt CO<sub>2</sub>eq had the following breakdown:

- Mining operations represented 130 kt of CO<sub>2</sub>eq (12.8% of IOC total) primarily related to Heavy Mine Equipment fuel and explosives.
- The Concentrator produced 17.9Mt of concentrate and emitted 26 Kt CO<sub>2</sub> eq (2.5% of IOC total) through steam and heat production via fuel boilers.
- The majority of IOC emissions is from the Pellet Plant, where a portion of the concentrate produced is converted to pellets via travelling grate furnaces. The pelletizing process also uses bentonite as a binding agent, and fluxes are added to produce various pellet types. In 2021, emissions from the Pellet Plant totalled 756 kt of CO<sub>2</sub>eq (74.2% of IOC total). The emissions are generated from furnace heating (combustion of fossil fuels), naturally occurring carbonates from the orebody, and additives, including fluxes. Emissions from carbonates and fluxes are not controllable and represented 162 kt of CO<sub>2</sub>eq.
- The Rail and Port operations, primarily shipment of iron ore products from Labrador City to Sept-Îles, accounted for 107 ktCO<sub>2</sub>eq (10.5% of IOC total).
- The combustion of fossil fuels represented 84.1% of IOC total GHG emissions.

## Rio Tinto commitment

As part of the Rio Tinto Group, IOC has agreed to support its commitments to fighting climate change, with a 15% reduction in absolute Scope 1 and 2 emissions by 2025, 50% reduction by 2030 and Net zero by 2050. This commitment is one of the most ambitious in the mining sector and will require a daily engagement of all IOC employees, from Mine to Port.

To achieve these targets, a long-term decarbonization plan has been developed combining incremental actions (energy efficiency) and the implementation of new technologies.

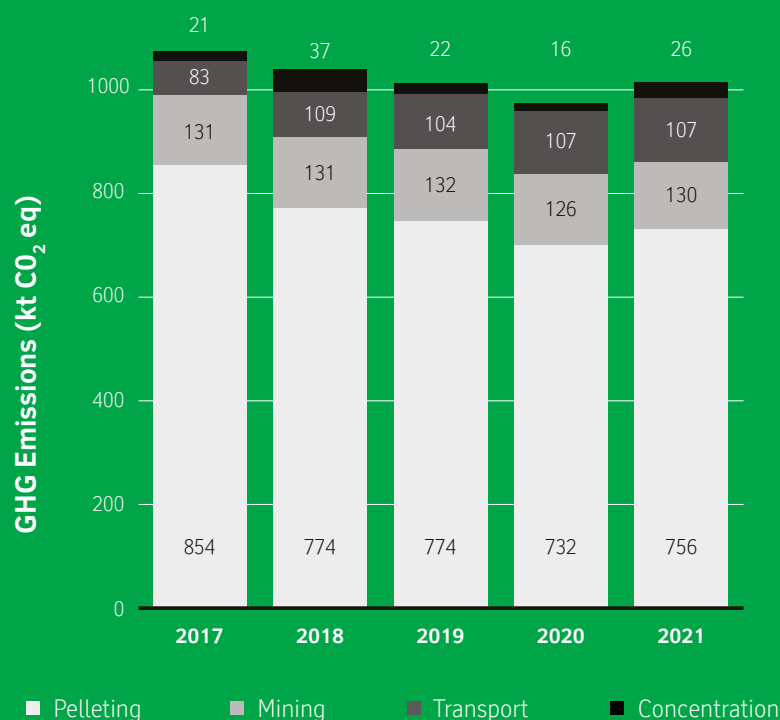
## IOC engagement with Newfoundland and Labrador

In order to meet the province's GHG challenge, we have worked with authorities to define an ambitious but achievable carbon pricing system. This system, approved by the federal government as part of the Canada-wide pricing system, is a carbon pricing mechanism specific to Newfoundland and Labrador. This scheme is a hybrid approach, combining a Carbon Tax on fossil fuels and a Performance Standard approach for industrial activities. As of today, 91% of IOC emissions are covered by this Performance Standard approach, which sets an ambitious target for our Labrador City operations. This implies a reduction of 12% of the stationary GHG emission intensity (i.e., the industrial GHG intensity from fossil fuel combustion) between 2019 and 2022, with a reference value based on the average of the 2016 to 2018 period. More specifically, from 2021, these targets are defined as follows:

## 2021 GHG Emissions Intensity

Product	Unit	2021		
		Target	Result	Difference
Mining operations	Kg CO <sub>2</sub> eq/kt.	1,343	1,286	-4.20%
Concentrate	Kg CO <sub>2</sub> eq/kt.	1,125	1,120	-0.40%
Pellet	t CO <sub>2</sub> eq/kt	57.2	60.1	5.06%

## Total IOC GHG Emissions



## 2021 performance data

Table 1: Performance data

### Environmental stewardship

Energy use (MWh)	<b>4,663,066.7</b>
Absolute greenhouse gas emissions (Scope 1 and 2) t CO <sub>2</sub> eq	<b>1,018,190</b>
Emission intensity t CO <sub>2</sub> eq/tonnes of total saleable product	<b>0.0614</b>
Land rehabilitated ha	<b>58</b>

### Social well-being

All injury frequency rate (per 200,000 hours worked)	<b>0.73</b>
Lost time injuries	<b>15</b>
Medical treatment case	<b>16</b>
New cases of occupational illness	<b>5</b>
Number of employees exposed to an 8-hour noise dose above 85 dBA	<b>600</b>
Community advisory panel or similar community meetings	<b>6</b>

### Economic Prosperity

Number of employees	<b>2,723</b>
Community investments	<b>\$500,000</b>
Municipal, provincial and federal taxes	<b>\$753 M</b>
Sales	<b>\$3,937 M</b>
Sales (including QNS&L Railway)	<b>\$4,147 M</b>
Salaries and benefits	<b>\$502 M</b>

# Environmental certification programs

## Towards Sustainable Mining

TSM is a globally recognized sustainability program that supports mining companies in managing key environmental and social responsibilities. TSM was the first mining standard in the world to require site-level reporting with external verification. Each year, mine sites use TSM to report on protocols and indicators focused on social and environmental performance. Qualified external verifiers review and confirm these results every three years with results publicly available for assurance purposes. IOC adhere to TSM principles and commitment to responsible mining. The 2021 TSM Self-Assessment performance is listed in the table here below:

**Table 2: TSM performance indicators**

### Aboriginal & Community Outreach

Community of Interest (COI) Identification	AAA
Effective COI engagement & dialogue	AAA
COI Response Mechanism	AAA
Reporting	AAA

### Energy use & Greenhouse Gas Emissions Management

Management System	A
Reporting System	AA
Performance Targets	A

### Tailings Management

Tailings Management Policy & Commitment	A
Tailings Management System	A
Assigned Accountability & Responsibility	A
Annual Tailings Management Review	A
Operations, Maintenance and Surveillance	A

### Safety & Health

Policy, Commitment and Accountability	A
Planning, Implementation & Operation	AA



- AAA** Excellence and leadership
- AA** Integration into management decisions and business functions
- A** Systems/processes are developed and implemented
- B** Procedures exist but are not fully consistent or documented

Training, Behaviour & Culture	<b>AAA</b>
Monitoring & Reporting	<b>AA</b>
Performance	<b>AA</b>

### **Biodiversity and Conservation Management**

Corporate Biodiversity Conservation Policy, Accountability & Communications	<b>A</b>
Facility-level Biodiversity Conservation Planning & Implementation	<b>A</b>
Biodiversity Conservation Reporting	<b>A</b>

### **Water Stewardship**

Water Governance	<b>A</b>
Operational Water Management	<b>B</b>
Watershed Scale Planning	<b>AA</b>
Water Reporting & Performance	<b>B</b>

### **Crisis Management and Communication Planning**

Preparedness	<b>Yes</b>
Review	<b>Yes</b>
Training	<b>Yes</b>

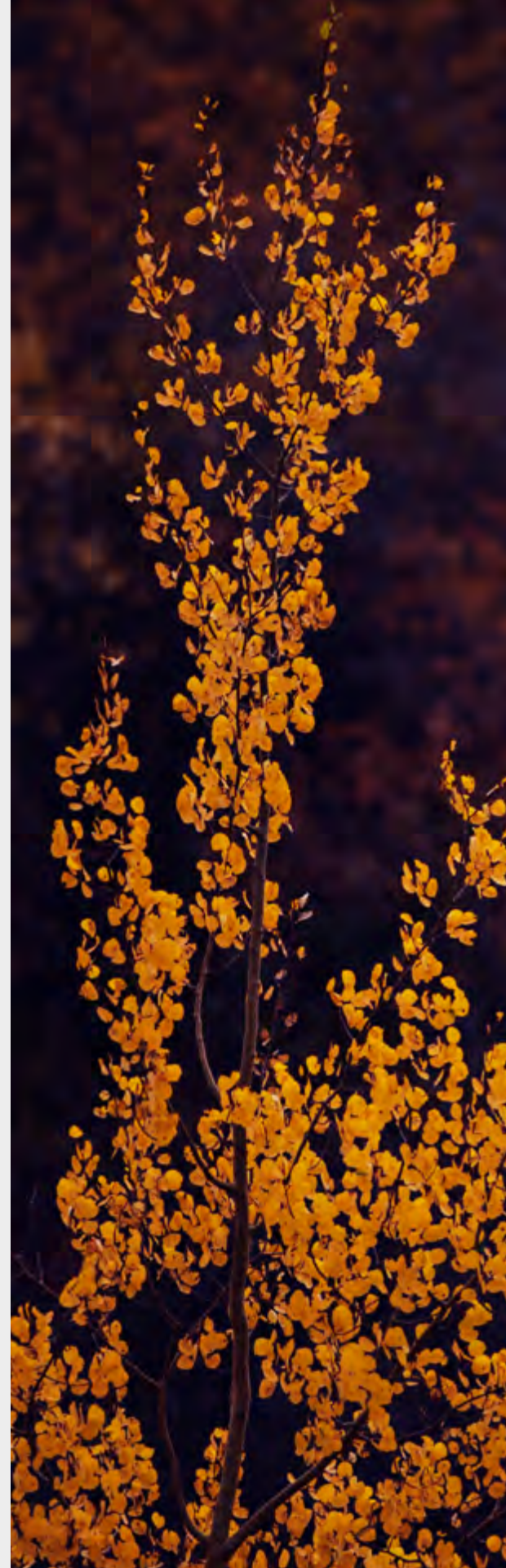
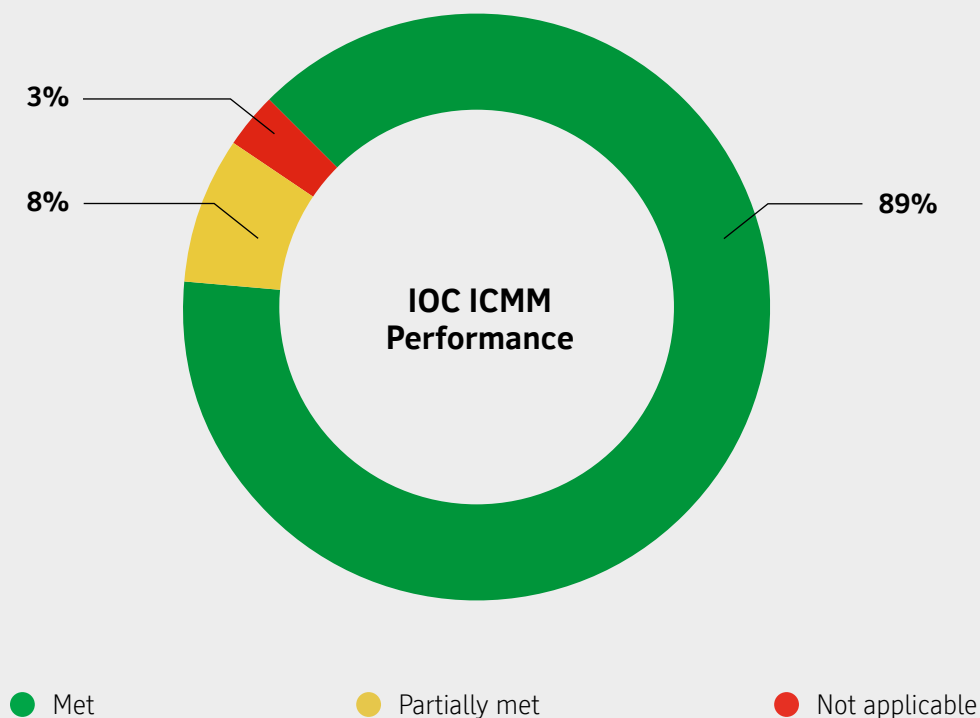
## International Council on Mining and Metals (ICMM)

The International Council on Mining and Metals (ICMM) is an international organisation dedicated to a safe, fair and sustainable mining and metals industry, and bringing together 27 mining and metals companies and over 36 regional and commodities associations. The ICMM has committed to adopting ethical business practices that promote sustainable development and progress towards the global targets set out in the United Nations Sustainable Development Goals (UNSDG) and the Paris Agreement on Climate Change.

The ICMM's principles define good environmental, social and governance practices for the mining and metals industry. By integrating a thorough verification of performance expectations on the ground and credible certification of corporate reporting on sustainable development, these principles maximise the benefits for host communities and minimise the negative impacts.

In 2021, Rio Tinto committed to reporting on its social and environmental performances based on the ICMM's 10 sustainable development principles.

IOC was among Rio Tinto's first business units to complete the self-assessment on ICMM Minind Principles Framework. The 2021 IMCC Self-Assessment performance is listed in the graph here below and where ongoing actions are progressing to meet expected performance before the next review cycle:



The 10 ICMM principles		Performance expectations rating		
		Met	Partially met	Not applicable
01	Apply ethical business practices and sound systems of corporate governance and transparency to support sustainable development.	5	0	0
02	Integrate sustainable development in company strategy and decision-making processes.	2	0	0
03	Respect human rights and the interests, cultures, customs and values of employees and communities affected by our activities.	8	0	0
04	Implement effective risk-management strategies and systems based on sound science and which account for stakeholder perceptions of risks.	4	0	0
05	Pursue continual improvement in health and safety performance with the ultimate goal of zero harm.	2	0	0
06	Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change.	3	2	0
07	Contribute to the conservation of biodiversity and integrated approaches to land-use planning.	2	0	0
08	Facilitate and support the knowledge-base and systems for responsible design, use, re-use, recycling and disposal of products containing metals and minerals.	1	1	0
09	Pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities.	3	0	1
10	Proactively engage key stakeholders on sustainable development challenges and opportunities in an open and transparent manner. Effectively report and independently verify progress and performance.	4	0	0

A woman with long brown hair, wearing a red top and blue jeans, is sitting on a blue mat on the floor, smiling warmly at a group of children. The children are also sitting on the mat, and one child in the foreground is wearing a red shirt. The background shows a classroom with a whiteboard and a window with greenery outside. The text "Communities and social performance" is overlaid in the center of the image, flanked by two vertical red lines.

## **Communities and social performance**

Activities connected to community relations and social performance are designed to promote sustainable relationships with all IOC stakeholders, including our staff, unions, suppliers, communities, government, and Indigenous partners.

In 2021 we updated our socioeconomic knowledge base of the communities in which we operate. This provides us with information about the socioeconomic challenges, opportunities and trends in the regions, allowing us to support communities more effectively. We conducted primary and secondary research of the communities, which was supplemented with semi-structured interviews with stakeholders and a community sentiment survey, to complete an analysis of trends arising, which has been tracked since 2011. We will continue with the formal updating of our community socioeconomic updating every 5 years.

We have also maintained our ongoing engagement with stakeholders through regular updates with the Town of Labrador City and the Newfoundland and Labrador Department of Industry, Energy and Technology. These forums are an opportunity to take stock and find opportunities for collaboration. Our Community Advisory Panel in both Labrador West and Sept-Îles helps keep us informed about and better understand what is happening on the ground and align the company and communities on a set of mutually agreed upon objectives.

The needs of the community network in the areas of Labrador City and Sept-Îles were extensive during the pandemic. Through our support, we express our recognition of the work carried out by the community organisations representing the broader population.



## Community investments

- **List of partner organizations in Labrador West and Sept-Îles in 2021:**

- Air Daffodil
- Moisie River Protection Association
- Association de Ringuette de Sept-Îles
- Eastern Quebec Cancer Association
- Association du hockey mineur de Sept-Îles
- Association for New Canadians
- Ducks Unlimited Labrador West Chapter
- Canadian Centre for Diversity & Inclusion
- Centraide Duplessis/United Way
- Centre d'action bénévole Le Virage
- Centre de dépannage Parc Ferland
- Centre de prévention du suicide Côte-Nord
- Centre de réinsertion Le Phare
- Centre d'intervention le Rond-Point
- Sept-Îles Vocational Training Centre
- Centre Femmes aux 4 vents
- Ste-Marguerite golf club
- Club Richelieu for women
- First Nations Commission Human Resources Development Commission of Quebec
- Sept-Îles Food Bank
- Sept-Îles paratransit corporation
- Jourdain-André-Pinette Hockey School
- Manikoutai School
- Élyme des sables
- Envol - Maison de la famille
- Regional Hospital Foundation of Sept-Îles
- Gallixtrème
- Greffe toi à nous
- Sept-Îles Scouts Group
- Hommes 7-11s
- Lab West Indigenous Centre
- Labrador West Community Garden
- Labrador West Ministerial Association
- Labrador West Minor Hockey Association
- L'Âtre de Sept-Îles
- Ligue de hockey d'IOC
- Maison des greffés Lina Cyr
- Menihek High School Grad committee
- Menihek Nordic Ski Club
- MHS Social Justice Group
- Mike Adam Recreation Complex
- Mothers Against Drunk Driving
- Nishk Uashat mak Mani-Utenam
- NL Mixed Curling
- NNC – Labrador West Indigenous Centre
- Polka Dot Trot
- Projet Kuei Nutam, Cégep de Sept-Îles
- Répit Richelieu
- RSEQ Côte-Nord
- Snowbird Gymnastics Club
- Multiple Sclerosis Society of Canada – Côte-Nord
- Studio Makushan
- Technoscience
- Vieux Quai en fête
- WinSETT (Women in Science, Engineering, Trades and Technology)

- **Rio Tinto COVID-19 fund**

With the pandemic still present in 2021, Rio Tinto has renewed its commitment to organisations through a special COVID-19 fund. The following organisations have received a donation:

- + **Encore Community Arts Association**
- + **Envol, Maison de la famille**
- + **Centre d'hébergement Tipinuaikan**

- **Rio Tinto women's shelter fund**

In support of International Day for the Elimination of Violence Against Women, for a second consecutive year, Rio Tinto donated \$360,000 to 12 women's shelters and local organisations across Canada.

In our communities, we supported:

- + **Labrador West Status of Women**
- + **Maison des femmes in Sept-Îles**
- + **Centre d'hébergement Tipinuaikan in Uashat mak Mani-Utenam, each of which will receive \$25,000.**

The contribution will allow these organisations to continue providing a variety of support services to women and their families, including safe shelters, education and training resources, counselling, workshops and activities for kids.



## Indigenous peoples

The IOC Indigenous Relations team will continue to strengthen partnerships with the five Indigenous groups claiming or asserting Indigenous rights in the areas where we live and operate, namely Labrador and Quebec. We are committed to promoting the viability and diversity of Indigenous groups, and offering them support in the areas of training, education, employment and business opportunities. We engage in a variety of ways with the five following Indigenous groups:

- Innu of Matimekush-Lac John (Quebec)
- Innu of Uashat mak Mani-Utenam (Quebec)
- Innu of Labrador (Sheshatshiu and Natuashish, Labrador, as represented by Innu Nation)
- Naskapi Nation of Kawawachikamach (Quebec)
- NunatuKavut Community Council (Labrador)



In 2021, all IOC employees completed our Indigenous Cultural Awareness training. This training raises awareness of the history and culture of Indigenous peoples in Canada, and IOC's partnership with its Indigenous partners.

IOC has supported Indigenous community organizations through contributions that have creative initiatives in various fields such as education, sports, food security and cultural heritage. During the year, IOC participated in these events either virtually or in person, when circumstances allowed:



- IOC participated as a sponsor in the general assembly meeting of the NunatuKavut Community Council.
- IOC and Rio Tinto funded activities related to National Indigenous Day, June 21, in different Indigenous communities/organisations.
- IOC granted funding to Cégep de Sept-Îles for Kuei nutam!, a cultural exchange project in the arts with Indigenous and non-Indigenous students.
- IOC funded the Jourdain-André-Pinette Hockey School to provide young people in the community of Uashat mak Mani-Utenam with access to physical activity at an affordable cost.
- IOC funded the Indigenous recognition and role model gala held by the First Nations Human Resources Development Commission of Quebec.
- IOC was one of the main sponsors of the annual Christmas concert given by musician Florent Vollant in Sept-Îles.
- IOC funded two scholarships for students who have completed their training in medicine and airplane piloting.
- IOC funded activities organised by the communities of Matimekush-Lac John as part of celebrations and community gatherings during the Holidays.

## **National Indigenous History Month**

Throughout the month of June, IOC took the opportunity to offer a number of awareness initiatives for employees.

### **June 1<sup>st</sup>**

IOC lowered our flags in both Labrador City and Sept-Îles for 215 hours in memory of the children whose lives were lost in Kamloops, as well as in recognition of Indigenous children and their families impacted by residential schools.

### **June 4<sup>th</sup>**

We invited employees to wear orange to show support or Indigenous communities across Canada to help ensure that the tragic history of Canada's residential schools is not forgotten.

### **June 9<sup>th</sup>**

Chantal Rich-Joncas (a resident of Labrador West) invited community members to place orange rocks at the top of Quartzite Lake (above the White Wolf Clubhouse). The goal was to have 215 painted rocks to symbolise each one of the children found. Members of IOC's Mine Operations Team brought pieces of iron ore from the mine, painted them orange and placed them in support and remembrance.

### **June 15<sup>th</sup>**

IOC invited Dr. Stanley Vollant to give a virtual presentation on the global health and wellness of Indigenous Peoples in Canada.

### **June 21<sup>st</sup>**

In recognition of National Indigenous Peoples Day, all IOC employees received a letter at home recognizing the day. It included a sample of Labrador Tea, which is a very important plant for Indigenous people in the area, and a recipe for making traditional Indigenous bannock bread.

### **National Day for Truth and Reconciliation**

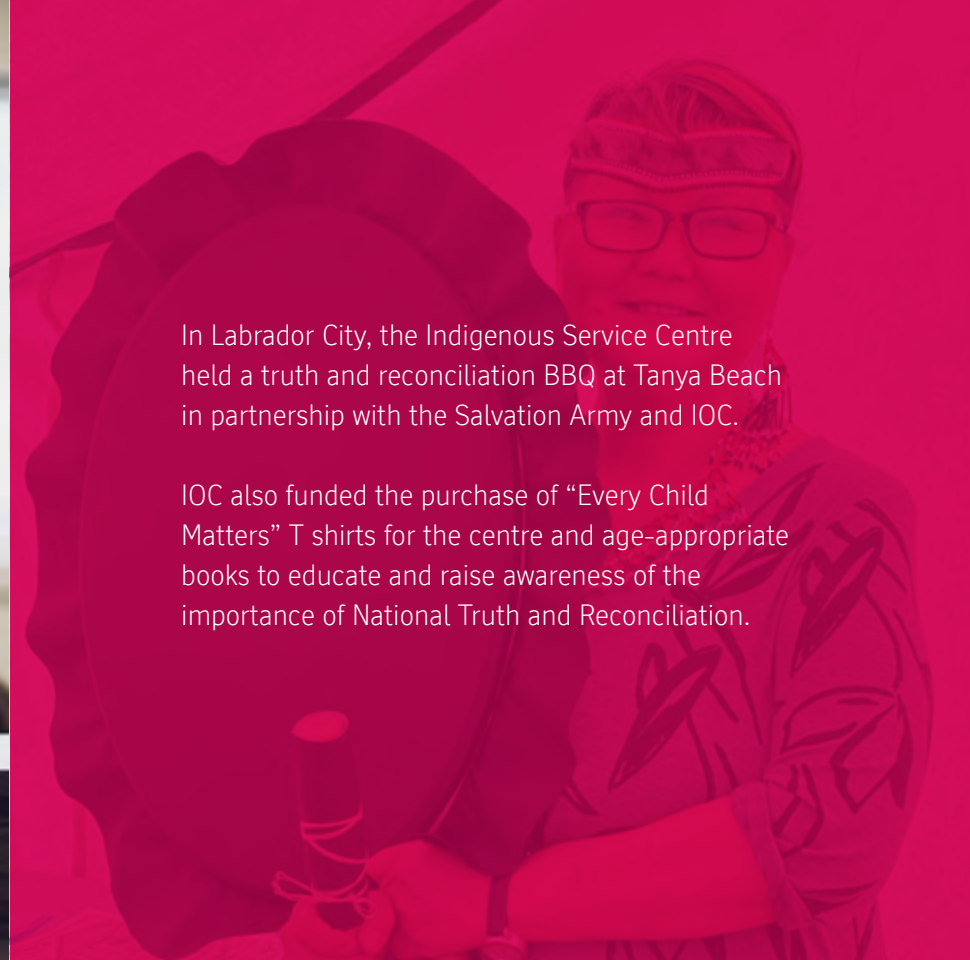
We took a number of actions on September 30 to demonstrate our commitment to recognising National Day for Truth and Reconciliation, which included an all-staff virtual call with a moment of silence, the distribution of “Every Child Matters” pins to all employees across our two main operating sites and the lowering the flags at both sites.

In addition, our CEO and COO, Mike McCann and Chantal Lavoie, participated in the commemorative activities held at Uashat mak Mani-Utenam on the first National Truth and Reconciliation Day.



In Labrador City, the Indigenous Service Centre held a truth and reconciliation BBQ at Tanya Beach in partnership with the Salvation Army and IOC.

IOC also funded the purchase of “Every Child Matters” T shirts for the centre and age-appropriate books to educate and raise awareness of the importance of National Truth and Reconciliation.



## Acknowledgments

The achievements discussed in this sustainable development report would not be possible without the commitment and outstanding work of our people. The Iron Ore Company of Canada (IOC) would like to thank all its employees for their tremendous efforts in upholding health, safety and environment standards each and every day.

We also wish to thank all our stakeholders, in particular the contractors, citizens and municipal councils of Labrador West and Sept-Îles, federal and provincial governments, and our partners in Indigenous communities. Together, we are moving in the right direction.

**Thank you!**

RioTinto



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