The Way Forward on Mineral Development

MINING 2030 THE FUTURE

A Plan for Growth in the Newfoundland and Labrador Mining Industry







Message from the Premier



Mining the Future 2030, an initiative of **The Way Forward**, is a plan to grow the Newfoundland and Labrador mining industry and create jobs throughout the province in collaboration with Indigenous governments, groups and community stakeholders.

The world needs minerals as they form the very basis of modern life. They make health care procedures like x-rays possible. They make vital infrastructure like roads, bridges, and buildings possible. They make new jobs and new economic development possible. A world of possibilities is at our doorstep because our geology positions Newfoundland and Labrador to be a global supplier of minerals, particularly while advancing a green economy.

Great potential exists for us to further this industry in Newfoundland and Labrador in areas such as Western Labrador's ore developments, in Central Newfoundland's gold opportunities, and in southern Labrador's rare earth elements. The electrification of vehicles will provide significant upside for metals like nickel and cobalt while China's increasing demand for higher quality iron ore to reduce environmental impacts is resulting in premiums for our ore.

By 2030 the Provincial Government envisions five new mines, sustainable direct employment of more than 6,200 people in operations, doubling annual exploration expenditures to \$100 million, \$4 billion in annual mineral shipments and a workforce that is more diverse and includes a minimum of 30 per cent women – double the current level.

Our future success depends on our ability to attract and support prospecting, exploration, and development while working within an industry that is driven by commodity markets. Increased exploration activity will leverage demand for supplies, services and skilled workers especially in rural communities. This plan will ensure future success, much as other industry development plans that were developed as part of The Way Forward are advancing success for aquaculture, agriculture, oil and gas, and the technology sector. Just as we are positioning Newfoundland and Labrador as an ideal place for mining activity and investment, we are positioning our province as an ideal place for people to live, work, and raise their families.

Thank you to Mining Industry NL which collaborated with government to develop Mining the Future 2030. We will continue to work with our partners to grow this important industry.

Hon. Dwight Ball

Premier

Message from the Minister



Starting with the first major mining development in Tilt Cove in 1864, mining has contributed greatly to Newfoundland and Labrador by employing people, providing opportunities for businesses, growing communities, and supplying global markets.

To plan for a changing global economy and to embrace opportunities, we have initiated **The Way Forward on Mineral Development** – Mining the Future 2030: A Plan for Growth in the Newfoundland and Labrador Mining Industry.

The success of Mining the Future depends on our ability to attract and support prospecting, exploration, and development while

working within an industry that is driven by commodity markets. We have the opportunity to increase exploration expenditures, mineral shipments, revenues, and jobs. Our goal is to be consistently ranked as a leading Canadian jurisdiction.

To reach our potential, we need to be competitive with clear and efficient regulatory processes; targeted public geoscience, marketing and education; effective Indigenous and community engagement; and a focus on innovation and emerging technologies.

Mining the Future is a living document to be delivered in collaboration with all industry stakeholders including governments, Indigenous governments and organizations, local communities, industry, prospectors, labour, education, training and research institutions.

Thank you to everyone who has contributed to Mining the Future. By working together, we will achieve our vision of being a global, top tier jurisdiction for mineral exploration and development - one that is safe, environmentally responsible, maximizes benefits and opportunities, and competitively produces quality products for global markets.

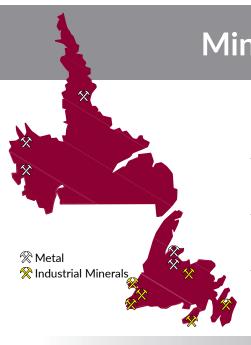
Hon. Siobhan Coady

Minister of Natural Resources

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Mining in Newfoundland and Labrador





Mining Statistics

Producing mines

Metal and non-metal commodities produced

of Canada's iron ore shipments

26% of Canada's nickel shipments

4,800

Number of people directly employed in mining in 2018 (excluding construction)



\$3.0B

Estimated gross value of mineral shipments in 2018



6.4%

Percentage contributed to GDP by mining and quarrying in 2016



\$90M

In mining taxes in 2017/18



Capital Investment

\$2.3B

in investment announced since February 2017

10.2%

of Canadian mining major projects planned/under construction

The Global Outlook



Mining in Canada

Canada ranks in the top five producing countries for 13 major minerals and metals, and mining is a major generator of wealth and employment for Canadians. Newfoundland and Labrador currently ranks fifth in Canada for value of mineral production and contributes 46 per cent of iron ore and 26 per cent of nickel nationally.

The Government of Canada is taking steps to solidify its status as a global mining leader, and to ensure the industry continues to contribute to prosperity for Canadians. Federal, provincial and territorial jurisdictions are collaborating on the development of a framework for a Canadian Minerals and Metals Plan, which focuses on unlocking Canada's resource potential.

Participation in this plan is important for Newfoundland and Labrador as we further our goal to be consistently ranked as a leading Canadian jurisdiction.

The World Needs Minerals

The Organization for Economic Co-operation and Development has stated that the world economy is expected to quadruple and the global population is expected to grow from 7 billion today to more than 9.2 billion by 2050.

An increasing population will require an increasing volume of products that require metals and minerals including cobalt for electric cars, rare earth minerals for wind turbines, copper for magnetic resonance imaging equipment, iron ore used in buildings, and nickel used in stainless steel applications.

Newfoundland and Labrador's geology provides the provincial mining industry with

the opportunity to be a supplier of metals and minerals required in a green economy. For example, the impact of electric and hybrid vehicles has been projected to increase the nickel market by 50 per cent to 100 per cent by 2030.

In 2017, the Fraser Institute ranked Newfoundland and Labrador 4th nationally and 11th globally in its international mining survey, which listed the most attractive jurisdictions for investment – a significant jump from the 16th world ranking held in 2016.

Defining the Opportunity

In Newfoundland and Labrador, we have the opportunity to significantly increase revenue from increased exploration and mining activities, strengthen the economy, and provide jobs for rural communities as envisioned by **The Way Forward.**

Understanding Our Resource Potential

For more than 150 years, the province's Geological Survey has mapped the mineral resources in our province. The work of the survey is publicly available to prospectors, junior exploration companies and investors globally.

Information from the Geological Survey provides a catalyst for claim staking. Geoscience has increased staking to about 20,000 claims in each of the past two years. Gold in central Newfoundland is a commodity of great interest and has contributed to about 50 per cent of claims staked since 2016.

While much is already known about the geology of our province through the work of the Geological Survey, the opportunity exists for us to learn much more about areas such as the Labrador Trough, southern Labrador's rare earth elements potential, and Central Newfoundland's gold opportunities.

We need to ensure the work undertaken to further understand our resource potential is targeted, strategic and market-based. This will require the coordinated efforts of governments, industry, and many other mining stakeholders. For example, the Government of Newfoundland and Labrador signed a cooperation agreement with the Government of Quebec in April 2018. By working together, we can further map the geology in the Labrador Trough, in both Newfoundland and Labrador and Quebec.

The more exploration being undertaken throughout our province, the more it leverages the demand for supplies, services and skilled workers.

Educating and Training People to Work in the Mining Industry

Mining in Newfoundland and Labrador offers a variety of opportunities for careers requiring different levels of training and education. People are needed throughout the mining cycle for exploration, construction and operations, including supply and services. Jobs are often high paying and sustain families and communities throughout our province.

The future of our industry depends on educating, training, recruiting and retaining people, building technical and leadership skills, and strengthening Indigenous and women participation rates.

Our future also depends on engaging and educating young people about the importance of the mining industry and how it affects our daily lives and climate change mitigation.

Innovating and Unlocking New Mineral Opportunities



The mining industry continues to evolve globally. To compete, we must innovate. Government and industry must work together as partners, challenge current processes, and advance our approaches – everything from governance to education to operations.

Key to planning for the future is to develop opportunities to diversify the number of commodities extracted within the province such as rare earth elements. This will help mitigate risk in an industry that has well established commodity cycles.

Being globally competitive, adopting cutting-edge airborne and sub-surface technologies, advancing skills for emerging technologies and engaging Indigenous governments and organizations along with local communities is critical to unlocking new mineral opportunities.

Focus Areas

A focused, collaborative effort is required to achieve the success of the plan for the benefit of all stakeholders. Four specific areas have been identified to support planning and delivery of a number of activities.

- Competitiveness and Efficient Regulatory Processes
- Public Geoscience, Marketing and Education
- Indigenous and Community Engagement
- Innovation and Emerging Technologies

The Vision

Vision Statement Newfoundland and Labrador is a globally competitive, top tier jurisdiction for mineral exploration and development - one that is

safe, environmentally responsible, maximizes benefits and opportunities, and competitively produces quality products for global markets.

IOC reclamation at Leila Wynne

Photo courtesy of Iron Ore Company of Canada

To advance **The Way Forward on Mineral Development**, we must be globally competitive with a modern and transparent governance structure, including efficient regulatory processes, attractive fiscal policy, Indigenous engagement, infrastructure planning and stakeholder collaboration to maximize local benefits.

We recognize that the mining industry is driven by commodity markets. The collective actions of governments, Indigenous governments and organizations, local communities, industry, labour, education, training and research institutions, along with other stakeholders will help drive the success and growth of the industry.

Measuring Success

By 2030, we envision:

- Five new mines
- Sustainable direct employment of more than 6,200 people in operations
- Doubling annual exploration expenditures to \$100 million (or at least 5 per cent of Canadian total)
- \$4 billion in annual mineral shipments (or at least 10 per cent of the Canadian total)

- A workforce that is more diverse and includes a minimum of 30 per cent women double the current level
- Ensuring the province is consistently ranked as a top three Canadian jurisdiction in permitting times
- Ensuring the province is consistently ranked overall as a top three Canadian jurisdiction by industry*

Principles

Working together, the following principles will guide our actions to achieve our objectives in industry growth and development.

- We will pursue safe, environmentally responsible exploration and development.
- We will be competitive, innovative and technologically advanced.
- We will advance socially responsible development through Indigenous and community engagement and participation.
- We will contribute meaningful economic growth, including advancing supply chain opportunities that foster sustainable communities, particularly in rural areas.
- We will promote a highly skilled, competent, adaptive and diverse workforce through increasing Indigenous and women participation rates.
- We will pursue further processing of our mineral wealth.
- We will educate our people on the importance of minerals to everyday living from smart phones to advanced medical technology.



Premier Ball, Minister Coady, MP Yvonne Jones, Parliamentary Secretary Letto, and IOC representatives at the Moss Pit opening.

^{*} Fraser Institute

Action Plan

The following actions will help to achieve Mining the Future. Each action will have a separate implementation plan, a team leader, realistic timelines, and will require collaboration. A fully integrated, multiyear implementation plan with internal and external partners, timelines and transparent action item tracking will be developed by June 2019. Accountability is fundamental to our success. Updates will be provided on **The Way Forward** website at www.thewayforward.gov.nl.ca.



Immediate (within 2 years)

Competitiveness and Efficient Regulatory Processes

- Complete a jurisdictional review to assess the competitiveness of the province's mining industry
- Review junior exploration and prospecting programs to ensure best value
- Review current mining taxation regime and fee structures
- Modernize the Mineral Act (1976) and Mining Act (1999)
- Assess venture capital funding along with other investment options
- Assess effectiveness and efficiency of federal/provincial regulatory processes and support improvements

Public Geoscience, Marketing and Education

- Advance drill core digitization process
- Advance geoscience considerations within a comprehensive land access and land use review
- Create an Independent Geoscience Technical Advisory Committee
- Include potential exploration targets into geoscience planning
- Enhance global promotion to grow investment, exploration and development with future re-branding
- Identify and develop emerging technical and leadership skills through education and training opportunities

Indigenous and Community Engagement

- Encourage capacity building and readiness initiatives in Indigenous communities
- Identify Indigenous and community opportunities for procurement and supplier development
- Develop benchmarks and reporting structures for community and employment benefit impacts
- Strengthen Indigenous and women participation rates in the workforce including leadership roles

Innovation and Emerging Technologies

- Assess cutting-edge airborne and sub-surface technologies to enhance detection of new mineral deposits
- Establish a technical working group, in collaboration with Tourism, Culture,
 Industry and Innovation, to develop an innovation plan focused on productivity and competitiveness
- Examine integrated and remote operations requirements and impacts

Mid-Term (2-5 years)

Competitiveness and Efficient Regulatory Processes

- Develop regulatory process benchmarks across departments
- Support infrastructure that progresses sector competitiveness and growth
- Improve understanding of climate change impacts to critical infrastructure and support mitigation programs

Public Geoscience, Marketing and Education

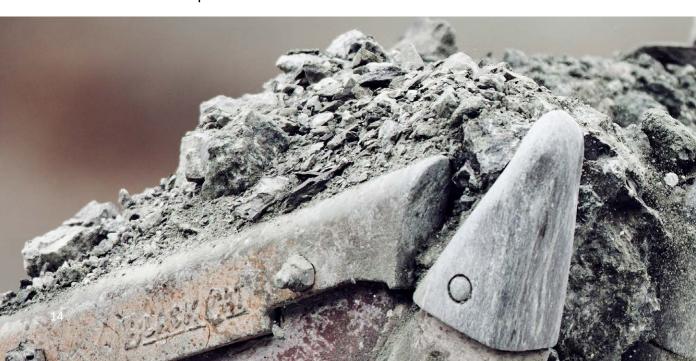
- Develop and deliver a Labrador specific geoscience plan, which supports exploration in frontier regions
- Develop outreach programs for schools and communities to improve public awareness
- Update online staking technology

Indigenous and Community Engagement

- Promote transparency and information sharing among stakeholders with:
 - Web-based project dashboard to monitor permit status
 - Industry led community sustainability metrics

Innovation and Emerging Technologies

- Seek opportunities to expand the industrial base through further processing
- Advance renewable energy opportunities for the mining sector
- Adopt cutting-edge airborne and sub-surface technologies to enhance detection of new mineral deposits



Long-Term (5-10 years)

Competitiveness and Efficient Regulatory Processes

 Evaluate the relative competitiveness and regulatory process trends and address gaps

Public Geoscience, Marketing and Education

Assess offshore mineral potential

Indigenous and Community Engagement

 Achieve a workforce that is more diverse and includes a minimum of 30 per cent women

Innovation and Emerging Technologies

- Measure effectiveness of technologies to enhance detection of new mineral deposits
- Assess the innovation plan successes and update based on technology advancements and trends

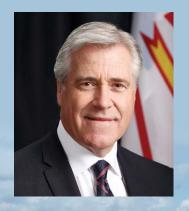


Mining the Future 2030 was developed in collaboration with Mining Industry NL



(left to right) Ed Moriarity, Executive Director, Mining Industry NL; Heather Bruce-Veitch, Chair, Board of Directors, Mining Industry NL; Honourable Siobhan Coady, Minister of Natural Resources; Graham Letto, Parliamentary Secretary to the Minister of Natural Resources

The Way Forward on Mineral Development



"Our vision for the future of Newfoundland and Labrador is a place where potential is realized and opportunities abound. Through unprecedented partnerships with high potential industries, we are fostering the economic growth, innovation, and job creation needed to support bright futures for the people of our province."

Premier Ball



