

The Mining Association | L'association minière of Canada | du Canada

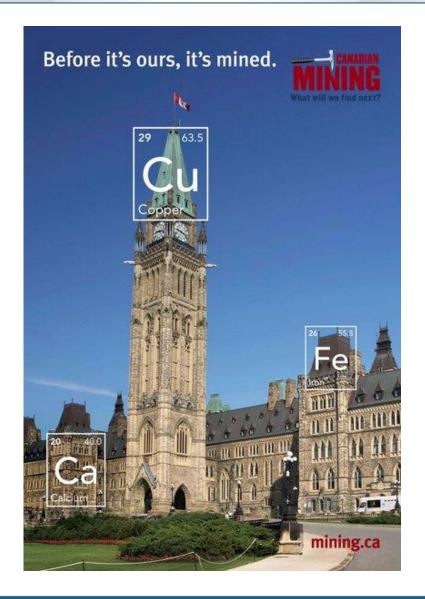
Sustainability, Northern Policy and Mining Development - Strategic Partnership.

Nunavut Mining Symposium

April, 2017 – Iqaluit, Nunavut







The Voice of the Canadian Mining Industry

Representing members committed to sustainable mining.

- Advocacy to advance the business of mining.
- TSM Initiative stewardship and social license.
- 35+ members in iron ore, gold, diamonds, oil sands, met-coal, base metals, uranium.
- ▶ 50+ members that service the mining industry, including engineering, environmental and financial services.
- Members engaged in exploration, mining, smelting, semi-fabrication and supply.





Teck, Greenhills Operations, British Columbia

- 19% of Canada's total export value.
- Major direct and indirect employer
 - ♦ 373,000 direct jobs.
 - ▶ 190,000 indirect jobs.
 - ◆ Top employer of Indigenous Peoples 12,000+ direct jobs.
 - ◆ 3,700 companies provide goods, services and expertise to the industry.
- In the North:
 - ◆ Largest private sector economic driver in Canada's North, ~20% of Territorial GDP
 - 8,500 (1 in every 6) jobs; largest industrial employer of Inuit in Canada
 - ◆ a transformative effect on communities through employment, training, royalty and direct equity shares, all while paying taxes and royalties to governments.
 - Significant growth potential given the right investment environment

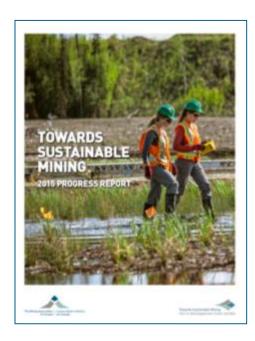




Established in 2004, TSM's main objective is to enable mining companies to meet society's needs for minerals, metals and energy products in the most socially, economically and environmentally responsible way.

TSM is:

- An award-winning performance system that helps mining companies evaluate and manage their environmental and social responsibilities.
- ◆ A set of tools and indicators to drive performance and ensure that key mining risks are managed effectively by mining operations.
- Mandatory for MAC members' operations in Canada.
- Adhering to the TSM Guiding Principles, mining companies exhibit leadership by:
 - Engaging with and supporting local communities
 - Driving world-leading environmental practices
 - Committing the resources and leadership to promote the safety and health of employees





TSM PROTOCOLS AND INDICATORS

Communities and People

Environmental Stewardship

Energy Efficiency

Aboriginal and Community Outreach

Crisis Management and Communications Planning

Safety and Health

Tailings Management Biodiversity Conservation Management Energy Use and GHG Emissions Management

Community of interest (COI) identification

Crisis management & communications preparedness

Policy, commitment and accountability Tailings management policy and commitment Corporate biodiversity conservation commitment, accountability and communications

Energy use and GHG emissions management systems

Effective COI engagement and dialogue

Review

Planning, implementation and operation

Tailings management system Facility-level biodiversity conservation planning and implementation

Energy use and GHG emissions reporting systems

COI response mechanism

Training

Training, behavior and culture

Assigned accountability and responsibility for tailings management

Biodiversity conservation reporting

Energy and GHG emissions performance targets

Reporting

Monitoring and reporting

Annual tailings management review

Performance

Operation, maintenance and surveillance (OMS) manual



TOWARDS SUSTAINABLE MINING: OUR COMMITMENT

TSM's core strengths are:

- ◆ Accountability Assessments are conducted at the facility level where mining activity takes place – the only program in the world to do this in our sector
- ◆ Transparency Annual reporting against 23 indicators with independent verification every three years
- Credibility Includes ongoing consultation with a national Community of Interest Advisory panel to improve industry performance and shape TSM for continual advancement







ABORIGINAL AND COMMUNITY OUTREACH PROTOCOL

What does good practice look like?

- Formal process/system for identifying communities of interest are employed.
- Processes established to communicate with COI.
- Consultation protocols established by Aboriginal communities and organizations are followed or integrated into company consultation procedures to the extent possible.
- Assistance is provided to ensure COI can participate in engagement and dialogue (when appropriate).
- Employees receive appropriate training in engagement practices.
- ◆ Time is built into the engagement process.
- ◆ A formal process/system is established to receive feedback (complaints, concerns, questions, etc.).
- Responses are provided to COI who raise complaints, concerns or questions.
- ♦ Input from COI is used to support decision making.
- Reporting on engagement and dialogue takes place.

INDICATORS:

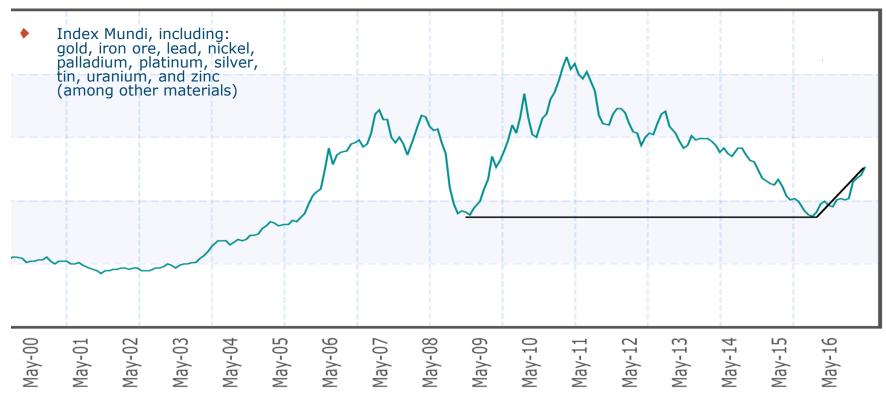
- 1. COI identification
- 2. Effective COI engagement and dialogue
- 3. COI response mechanism
- 4. Reporting





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Select Commodity Price Indices



- Recent price lows were comparable to 2009 downturn painful
- Recovery peaks Winter 2011, and retreats for five
- Close of Q3 2016 and beyond, prices have rebounded cautious optimism returning to the global sector
- Is Canada well positioned to take advantage of the rebound?





CANADA'S COMPETITIVENESS FOR MINERAL INVESTMENT

- Signs that Canada is not as competitive as it used to be; losing ground to other mining countries.
 - ♦ >50% reduction in Foreign Direct Mining Investment into Canada year-over-year from 2014 levels; Only 6% drop in Canadian Mining Investment Abroad
 - ◆ Canada has lost ground in the majority (7/13) of the commodities for which it has been a top-five global producer over the last five years
 - ◆ 2016 off-mine-site exploration spend in Canada expected to decline to lowest in a decade to \$683 million, compared to \$2.8 billion in 2011
 - Australia's mining supply sector surpassed Canada's in 2015.
 - Canada's relative share of global mining spend is getting smaller and is being shifted to other countries.
 - ...why?
- The fiscal and regulatory environments of any jurisdiction are key considerations when companies determine where to invest.

Recent fiscal and regulatory policy decisions have reduced Canada's investment attractiveness and increased uncertainty





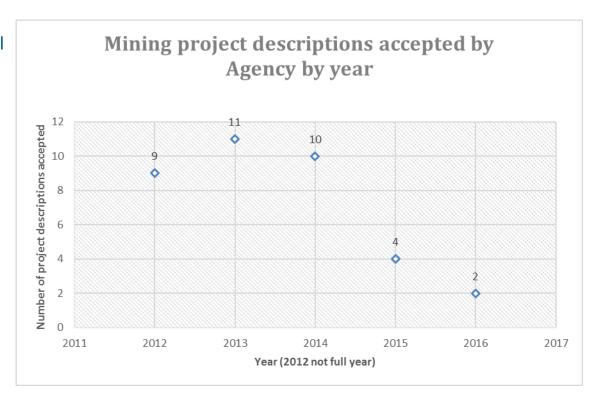
RECENT AND ONGOING FISCAL AND REGULATORY POLICIES

Budget 2012:

- Eliminated the Corporate Mineral Exploration and Development Tax Credit
- Eliminated the Atlantic Investment Tax Credit
- Reduced the Scientific Research & Experimental Development program
- Introduced the FAD rules
- CEAA, FA, NWPA, MMER,

Budget 2013:

- Phase out the ACCA for miners
- Phase out eligibility of preproduction expenses for CEE deductions



- Only 2 new mining project descriptions added to the CEAA registry in 2016.
- Trend coincides with, but not exclusively accounted for by recent downturn in mineral prices.
- Correlation between regulatory and fiscal policy decisions.
- How has this affected the North?



- Indigenous Reconciliation and climate change are key priorities for the Canadian government.
 - Synergy: Most indigenous communities in Canada are situated within 200 km of some 200 operating mines and some 2500 exploration projects
 - Proportionally, mining is the largest private sector employer of Indigenous Canadians
 - Mining companies maintain 260+ agreements with indigenous communities that detail: training, employment, business opportunities, and equity and royalty sharing provisions.
 - Reliance on diesel generation in remote and northern regions makes exposes mining to carbon pricing.
- In remote and northern regions where the majority of indigenous communities are located, and where economies are depressed, the above policy objectives can only be achieved in concert.





INCREASINGLY INDIGENOUS COMMUNITIES AND INDUSTRY AGREE: INFRASTRUCTURE IS THE SOLUTION

- January, 2016: The National Aboriginal Economic Development Board releases Recommendations on Northern Infrastructure to Support Economic Development report:
 - Recommendation 3: establish a new North-specific infrastructure investment fund, in order to invest in infrastructure to support economic development in the North.
 - Recommendation 5:adopt tax structures that take into account the added cost of operating in the North and would act to level the playing field for industry choosing to operate in the North.



"The study found that public investment in northern economic infrastructure that supports major resource development will yield significant economic and fiscal returns. Specifically for every dollar spent on transportation and energy infrastructure, it will yield about \$11 in economic benefits and \$11 in fiscal benefits."

Hilda Broomfield Letemplier, Chair, Northern Sub-Committee National Aboriginal Economic Development Board



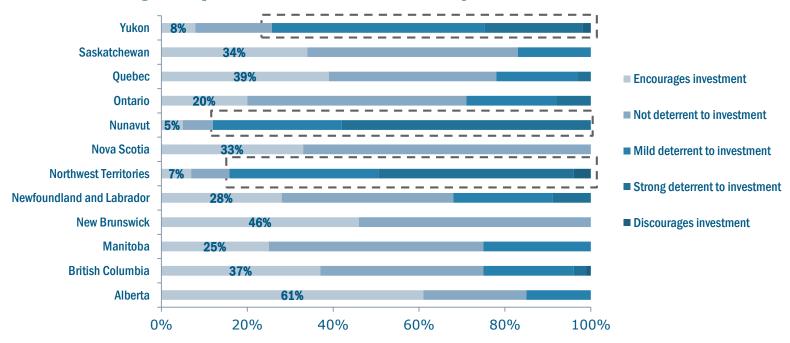
"Creative financial models are required to fund northern infrastructure development to encourage more project proponents to pursue resource development in the Kitikmeot region as well as other regions in Nunavut"

Stanley Anablak President Kitikmeot Inuit Association



INFRASTRUCTURE DEFICIT MAJOR BARRIER TO NORTHERN MINING POTENTIAL

Domestic Quality of infrastructure Comparison

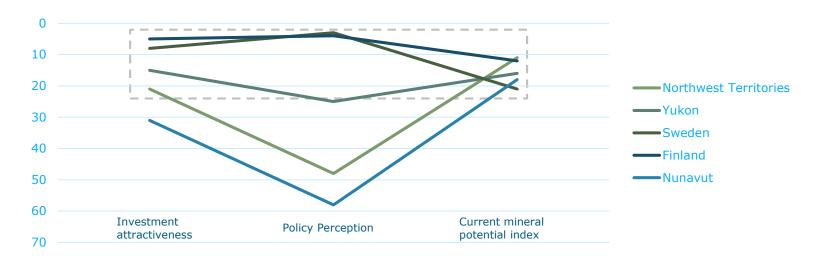


- Cost of developing mines is 2 to 2.5 times higher in remote and northern regions...up to 6 times higher for exploration.
- 70% of this cost premium is accounted for by the infrastructure deficit.
- Geography itself creates an uneven playing field, making rendering investment less productive per dollar spent compared to other jurisdictions
- Reducing Mining Tax Credits pushed development further away in the most expensive jurisdictions in the country





Finland and Sweden score above Canada's North despite having similar comparable mineral potential



Key Factors that differentiate Sweden and Finland from Canada's North:

- ► Availability of skilled labour
- ► Proximity of good infrastructure (transportation, energy)
- ► Excellent Geological mapping
- ► More attractive fiscal regime



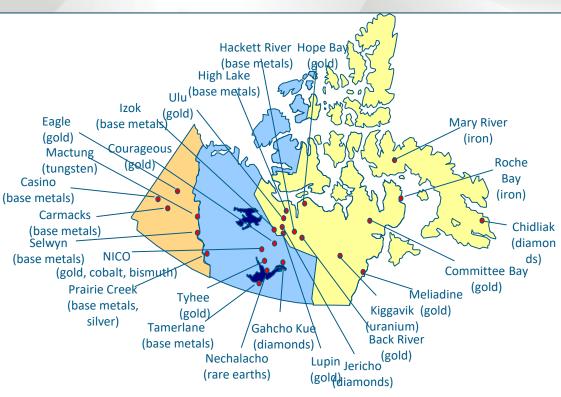
Meadowbank Mine – Nunavut

- Baker Lake 1600 km NW of Winnipeg
- ◆ AEM assumed total cost of 110km road development to bring mine to production – longest road in Nunavut needs to be reclaimed after closure
- Off grid, requiring investment to build diesel gen-set + tank farm, higher costs per-unit delivered energy
- Corporate Income Tax is 27%
- ♦ 12% mining royalty
- Mining tax credits reduced/phasing out
- Canada: Higher costs and lower returns

Kittila Mine – Finland

- ◆ 125 km north of Arctic Circle
- Fully-serviced infrastructure including major highway network, international air and rail links
- Abundance of energy from hydro and nuclear sources, lower fuel and capital costs
- Corporate Income Tax is 20%
- No mining royalty
- No mining tax credits
- Finland: Lower costs and higher returns





Fifteen Advanced Major Mining Projects in the Territories

NPMO Northern Project Tracker	Projected Capital Investment (\$ millions)	Estimated Jobs
EA	9,482	4,865
Permitting	7,746,8	2,265
Total	17,229	7,130

Upwards of 15 potential mines could start, or restart, production over the next 10 years across the three territories depending on the investment environment

Together, these projects represent:

- more than \$17 billion in initial capital investment potential
- more than 7,100 full-time jobs (nearly double 2015 employment levels).
- significant opportunities for local communities and businesses.
- total investment over the life of mine for the above 15 projects is estimated at \$35 billion – nearly 4.5 times the size combined territorial economies in 2015.





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