INVEST IN CANADA

CANADA'S COMPETITIVE ADVANTAGES

MINING INDUSTRIES

Canada

CANADA'S MINING SECTOR

In 2015, Canada's mining, mining-related support activities and mineral processing industries employed nearly 373,000 workers and contributed $60.3 billion to Canada's gross domestic product (GDP), accounting for 3.3 percent of the total GDP. In 2015, Canada's mineral exports, which include ores, concentrates, and semi- and final-fabricated mineral products, accounted for 19.1 percent of Canada's total domestic exports.[1]

- In 2015, Canada remained the world's top destination for mineral exploration, attracting 14 percent of global non-ferrous exploration expenditures.[2]
- Canada had some 3,700 suppliers in 2015.[3] These are included within the consulting services, contracting, equipment, supplies and consumables and support services sectors.
- Canada remained the world's top destination for non-ferrous mineral exploration investment in 2015, attracting 13.5 percent of global exploration budgets, while Canadian-based companies accounted for 31.8 percent of global exploration budgets.[1]
- Stock of foreign direct investment in Canada's mining industry totalled $10.4 billion in 2015.[4]

The mining industry is investing in renewable energy systems to improve reliability and reduce energy costs, with renewable energy systems generating power and heat installed or under development at mines in several countries, including Canada.[7]

A WEALTH OF OPPORTUNITIES

Canada produces some 60 minerals and metals, and is the world's largest producer of potash. It is also a major producer of aluminium,* cobalt, diamonds, gold, nickel, platinum group metals, salt, tungsten and uranium.[5] In Canada, there are over 200 producing mines (metal, non-metal and coal); 50 non-ferrous smelters, refineries and steel mills; and 7,000 stone quarries and gravel pits. Canada's total value of mineral production was $40.8 billion in 2016.[6] Canada's top five mineral products by value for 2016 were gold, copper, potash, iron ore and coal. Their combined value was $24.0 billion, accounting for almost 60 percent of the total value of mineral production.[6]

* (Canada accounts for a significant amount of the global production of primary aluminium, but does not host a domestic source of bauxite, an ore that is first processed into alumina and then into aluminium. Thus, Canadian-based operators must import bauxite and alumina.)

1. Natural Resources Canada, *Minerals and Metals Fact Book – 2016*. Estimates based on Statistics Canada data.
2. SNL Metals and Mining, *World Exploration Trends 2016*.
3. Mining Association of Canada, *Facts & Figures of the Canadian Mining Industry 2016*. Based on Statistics Canada data.
4. Statistics Canada.
5. Natural Resources Canada, *Exploration and Mining in Canada: An Investor's Brief. 2016*. Estimates based on Statistics Canada data.
6. Natural Resources Canada, *Information Bulletin: Canadian Mineral Production*. March 2017.
7. International Energy Agency, *Renewables 2015 Global Status Report*.

CANADA'S KEY STRENGTHS

Abundant mineral and metal resources

Sustainable mineral development: one project and one review in a clearly defined time period

Sophisticated financial institutions

Broad expertise in geoscience

Extensive science and technology network

MINERAL RESOURCES

CANADA'S MINING INDUSTRY is comprised of companies covering a wide spectrum of activities all along the value chain.

BRITISH COLUMBIA

» Available resources include aluminium,* copper, gold, lead, zinc, coal, silver, molybdenum and nickel
» Leading companies: Teck Resources, Rio Tinto, Goldcorp

CANADA'S NORTH

» Available resources include gold, diamonds, uranium, zinc, copper, silver, tungsten, cobalt and nickel
» Leading companies: De Beers Canada, ArcelorMittal, Agnico Eagle Mines Limited, Rio Tinto, TMAC Resources

ALBERTA

» Available resources include oil and gas, iron and vanadium
» Leading companies: Repsol, Nexen-CNOOC, Ironstone Resources

SASKATCHEWAN

» Available resources include potash and uranium
» Leading companies: PotashCorp, Cameco, BHP Billiton, The Mosaic Company, AREVA

ONTARIO

» Available resources include gold, zinc, copper, chromite, lead, nickel, cobalt and diamonds
» Leading companies: KGHM Polska Miedź, Vale, Glencore, De Beers Canada, Goldcorp

QUEBEC

» Available resources include copper, gold, zinc, iron, aluminium,* magnesium, niobium, nickel and diamonds
» Leading companies: Alcoa, Tata Steel, Rio Tinto, Glencore, Goldcorp, Hecla Mining Company

ATLANTIC CANADA

» Available resources in Newfoundland and Labrador: iron, gold, copper, nickel and zinc
» Available resources in New Brunswick: zinc, lead, gold and tungsten
» Available resources in Nova Scotia: gypsum and coal
» Leading companies: Glencore, Vale, Tata Steel

RECENT INVESTMENTS

K+S Aktiengesellschaft
In May 2017, Germany-based K+S celebrated the opening of the new potash mine in Canada. K+S Potash Canada's Bethune Mine has an investment volume of around $4.1 billion creating more than 300 permanent jobs in Canada.

De Beers
A South Africa-based company, the De Beers Group of Companies invested in the Gahcho Kué Project, located in the Northwest Territories. This is De Beers' third diamond mine in Canada, and the total capital cost is approximately $1 billion.

Vale
Brazil-based company Vale, by expanding its Voisey's Bay open pit to go underground, is extending mine life by about 15 years to 2032. An additional 400 full-time positions will be created to support the underground operations and expanded site services.

CANADA'S ADVANTAGES

PUBLIC GEOSCIENCE

Legislation in Canada requires the publication of all publicly funded geological surveys. Making geoscientific data available for free is meant to encourage the exploration and development of mineral and energy resources.

FINANCIAL INCENTIVES

- Flow-through shares (FTS) enable a company to transfer eligible exploration and development expenses to investors. Investors can then apply for tax credit for these expenditures. This feature generates attractive prices for FTS, enabling a junior company to fund exploration activities more easily.
- Canada offers a variety of financial incentives, including the accelerated capital cost allowance (ACCA) and Canadian exploration expenses (CEE).

INFRASTRUCTURE

According to the World Bank, Canada has one of the world's best logistics infrastructures,[9] including ports and railways.

GOVERNANCE

A clear and transparent pluri-jurisdictional—federal, provincial and territorial—regulatory regime reflecting Canada's commitment to the environment and effective engagement with Indigenous peoples.[2]

OPEN TO TRADE AND INVESTMENT

Canada remains one of the world's most open countries in terms of trade and investment in mining. The country does not restrict foreign involvement in the development of its mineral resources—except for uranium. Canada has trade and investment initiatives with North America, Europe, Asia-Pacific, India, China, Korea, the Americas and Africa. Canada also offers duty-free access to the United States, Mexico and many other global markets.

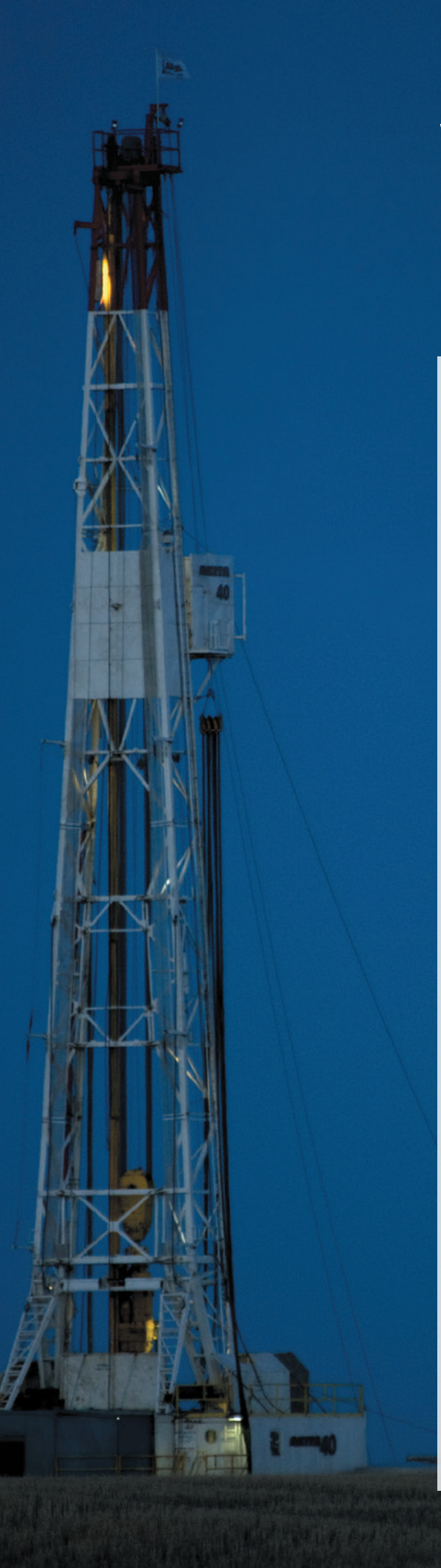
READY ACCESS TO CAPITAL

Canada's leading equity markets, the Toronto Stock Exchange (TSX) and the TSX Venture Exchange (TSXV), are home to more than half of the world's public mining companies. The TSX and TSXV, on a combined basis, are also the world's number one markets for mining financing, accounting for over 50 percent of the total dollars raised in the global public mining sector in 2015. More than $5 billion in public equity capital was raised on TSX and TSXV by listed mining companies through 738 financings. This represents 56 percent of the number of global mining financings worldwide.[8]

EXPERTISE SECOND TO NONE

Access to a reliable supplies and service industry contributes to the success of investments at all stages, and Canada's mining expertise covers the full range: exploration, geophysics, geology, geochemistry, remote sensing, drilling, exploration, financing, investment analysis, due diligence, legal services, analytical laboratories, engineering services, logistical support, environmental management and more. Canada also offers a skilled and experienced labour force supported by skills-development programs in educational institutions and training initiatives led by various levels of government.[2]

8. Toronto Stock Exchange (TMX) Group. 2016.
9. World Bank, *International Logistics Performance Index*. 2016.



SUPPORT PROGRAMS AND INNOVATION

Canada's mining industry develops technological innovations in the production and processing of minerals and metals, which includes the Green Mining Initiative (GMI), targeting energy efficiency and sustainable mining. Many foreign mining firms take advantage of Canada's expertise through R&D programs and collaboration with research organizations:

- Scientific Research and Experimental Development Program (SR&ED)
- Canadian Mining Industry Research Organization (CAMIRO), Sudbury, Ontario
- Canadian Mining Innovation Council (CMIC), Ottawa, Ontario
- Centre for Excellence in Mining Innovation (CEMI), Sudbury, Ontario
- CanmetMINING and CanmetMATERIALS of Natural Resources Canada
- Mining Innovation, Rehabilitation and Applied Research Corporation (MIRARCO), Sudbury, Ontario
- Northern Centre for Advanced Technology (NORCAT), Greater Sudbury, Ontario
- International Minerals Innovation Institute (IMII), Saskatoon, Saskatchewan
- COREM, Québec, Quebec
- C-CORE, St. John's, Newfoundland and Labrador
- National Research Council Canada (NRC)

Canadian innovative technologies cover a wide range of sectors, including information and communications technology, and machinery, among others:

Mira Geoscience – Developed advanced 3D and 4D earth modelling and data management solutions for mineral exploration, resource evaluation, and geotechnical hazard assessment.

Symboticware – Developed ruggedized hardware and software solutions for real-time gathering, transmitting, and analyzing equipment and sensor data for improved safety, productivity and asset utilization.

Maestro Mine Ventilation – Developed sensors, monitoring and telecommunications hardware for mine ventilation automation.

MacLean Engineering – Developed heavy equipment innovation engine with roots in underground mining.

Hard-Line Solutions – Developed heavy equipment remote control products from the ground up to save lives while increasing efficiency in mining and other industries.

Clickmox Solutions – Developed a monitoring system for depth of stress-induced fractures in underground mine openings, a robust bore hole clearance robot, drones for underground mines and a laser-based vehicle positioning system for GPS-denied environments.

AN ENABLING BUSINESS ENVIRONMENT

CANADA HAS A STRONG AND STABLE business climate that is open for business, investment, and trade. Canada benefits from a sound, efficient financial system supported by low taxes and business costs and a government investing in the innovative, clean, inclusive economy of tomorrow.

A WELCOMING BUSINESS ENVIRONMENT

Canada is the second best place for business in the G20.

Source: Forbes

A HIGHLY EDUCATED AND TALENTED WORKFORCE

Canada has the most educated talent pool in the OECD with more than half of its population aged 25-64 having a tertiary level education.

Source: OECD

LOW BUSINESS TAX RATES

Canada is the most tax competitive country in the G7.

Source: KPM

WORLD-CLASS CLUSTERS OF INNOVATION, WITH GOVERNMENT AS PARTNER

Canada has strong geographic and sectoral clusters, as well as R&D-intensive sectors with the lowest business costs in the G7.

Source: KPMG

FINANCIAL STABILITY

Canada's banking system, ranked third by the World Economic Forum (WEF), remains one of the soundest in the world following eight consecutive first place standings.

Source: World Economic Forum

A GREAT PLACE TO INVEST, WORK AND LIVE

Canada ranked first among 60 countries for quality of life. Canada is ranked first in the G7 and G20 for overall prosperity of citizens.

Sources: U.S. News and the Legatum Prosperity Index

Unless otherwise noted, all values in this publication are in Canadian dollars. The content is based on the latest available information at time of publication.

Images: *MacLean EV 975 Omnia Scaler-Bolter (cover image) and Hard-Line's TELEOP Tele-Remote Control System (page 2 image) both tested in Sudbury, Ontario. Drilling Rig Potash Mine Saskatchewan Canada (page 5 image).* All Rights Reserved.

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