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# PDAC-WEF International Mines Ministers Summit 2017

## Summit Report: The Innovation Imperative in the Mining Sector

**Bank of Montreal  
100 King Street West, 68th Floor  
Toronto, Ontario**



Prepared by



**IGF**

INTERGOVERNMENTAL FORUM  
on Mining, Minerals, Metals and  
Sustainable Development

## SUMMIT OVERVIEW

The 2017 International Mines Ministers Summit was held on Monday, March 6, 2017, at the Bank of Montreal Building in Toronto, Canada. This was the second annual International Mines Ministers Summit (IMMS), and it was held on the margins of the Prospectors and Developers Association of Canada (PDAC) Convention. Twenty-five government leaders responsible for mining in their countries—representing five continents—joined leaders of industry, civil society, non-governmental organizations and Indigenous communities, to take part in the 2017 Summit. The Summit was co-hosted by the World Economic Forum and PDAC under the theme *The Innovation Imperative in the Mining Sector*. The meeting followed Chatham House rules.

Participants agreed that innovation is imperative for the mining sector, not only to ensure that mines of the future are economically viable and environmentally sustainable, but also to ensure the sector's potential contribution toward achievement of the United Nations Sustainable Development Goals (SDGs). Three key issues, each central to the innovation imperative in mining, were highlighted:

1. **Competitiveness:** A recent study found that innovation is as important as infrastructure and skills in driving national competitiveness.
2. **The Fourth Industrial Revolution:** The scale and pace of change currently being experienced is enormous, and there is an important need to capture value.
3. **The SDGs:** The goals present a hugely ambitious development agenda, alongside the Paris Agreement. The mining and metals sector is critical to the achievement of these goals, and it is important that the mining industry adapt to help achieve the SDGs.

## PERSPECTIVES FROM GOVERNMENTS

Innovation is crucial to the sector, and it is about more than just technology: many ministers reiterated that innovation is about creating value. Government approaches to innovation in the mining sector are grounded in a commitment to shared prosperity, to ensuring that the benefits derived from the sector are shared across all stakeholders, including the company, the government and the local communities. Without this shared prosperity, ministers recognized that it would be difficult to attract socially and environmentally responsible investment, and to create the social capital needed to help countries achieve the SDGs.

Best practices and mechanisms to facilitate innovation, established at the international level, can help to guide progress at the national level. While innovation in mining is required in a number of well-discussed areas—i.e., social, environmental and financial—it is equally needed in the often-overlooked legal and diplomatic realms; there is an important need to be creative in the legislative and diplomatic space around mining to ensure that innovation can happen. It was also noted that innovation should go hand in hand with the process of forgetting, of unlearning and of peer exchange: there is much that countries can learn on innovation from looking at their own experiences and those of other countries.

In particular, ministers pointed to a pressing need for innovative approaches to managing both land rights and artisanal and small-scale mining in ways that guarantee access both to resources for companies and to mining benefits for affected communities. Governments

must also ensure that small- and medium-scale mining are included in policy, strategy and innovation: with most large-scale deposits already discovered and major projects already underway, medium-sized projects are more and more relevant for the mining sector. It may in fact be easier for these smaller projects to adopt innovation early in the exploration phase; this is typically more difficult for projects that have been operating for decades. The price cycle will continue to challenge innovation, and political structures must try to manage this volatility to ensure that there is stability for investments in innovation.

The challenge is real, and urgent. While global technological innovations and advances have been hugely impressive in the past 20 years in other sectors, the mining sector has not seen similar innovations over the same period, and mining stakeholders still largely do not have solutions to many of the innovation challenges faced by the sector. Change is coming, of course: the sector will play a hugely important role in the global transition to a low-carbon economy, as the key metals required for this transition will come from the mining industry. Green growth will depend on the mining sector, and will require innovation.

Finally, it was recommended that the IMMS become a more formal institution—that it become more than just a yearly meeting, and that the organizing committee and ministers explore the prospect of establishing a formal IMMS body focused on the collection and dissemination of best practices.

## **PERSPECTIVES FROM INDUSTRY LEADERS**

The mining sector faces headwinds: society demands more and more from mining, driven by the hyper-transparency facilitated by social media, and this has in some cases led to a degradation of trust between groups and countries. Commodity prices are recovering—a positive sign for the sector—but they will not meet the returns that investors expect, and alone will not solve the industry's problems.

Innovation is not just about invention and technology, it is about creating new value, and governments must provide the right environment for innovation to flourish. Two words can guide a government's response to the innovation challenge: guardrails and springboards. Guardrails set the context and rules within which innovation can happen. Rules should foster diversity, but must not smother private enterprise. Conversely, springboards can help unleash the entrepreneurial spirit and catalyze innovation. Governments should identify meaningful clusters of innovation in their country and bring stakeholders together around a plan for moving forward. They should make it easy to create new companies, to make venture capital more available, and to create the hubs and ecosystems in which innovation can thrive. Both of these approaches are based on trust and collaboration—two key foundations of innovation.

Collaboration—among government, companies, communities and civil society—is key to innovation, and starts with dialogue: without dialogue, you cannot build trust. The private sector, civil society and governments must be willing to work together to find solutions that support the business case for innovation. There is also a need to embrace innovation, and to accept the associated risks.

## PERSPECTIVES FROM CIVIL SOCIETY, NGOs AND INTERNATIONAL ORGANIZATIONS

The mining sector is innovative, but also territorial; innovation tends to be limited to operational issues, rather than cutting across the industry. As such, there is a need for the industry to rethink the way it does business. Given that many of the negative impressions of the sector focus on its impact on the physical environment, there is a need for innovative thinking on extraction, and whether it can be done with fewer physical impacts. This would help improve public perceptions of the industry.

The industry also has a significant impact on energy consumption and greenhouse gas emissions. If governments could use their leverage to demand that clean energy be used in the sector, the impacts on local and national energy production could be significant. This is linked to the need to think about how mining will contribute to the transition to a low-carbon future: this transition will be a significant area of focus for the mining sector moving forward, given the reliance of clean energy technologies on mined materials. New thinking is needed on how to deploy research and development funding efficiently and effectively, and the policy instruments that must be in place to facilitate this transition.

## BEST PRACTICES RAISED BY PARTICIPANTS

Best practices in innovation from the sector were raised throughout the discussions. These included an example from Suriname, where the government is working with a large-scale mining company and the local communities around the company's gold mine to establish a development plan for the area. They are striving to put the right organizational structures—including traditional structures—in place from the beginning of the project to facilitate sustainable development, and the plan will in turn be financed through cooperation between the state and the company. The government will now try to use this approach as a blueprint for mediating future dealings between companies and communities, recognizing that governments must use their leverage to ensure, early in the mine cycle, that communities play an active, positive role in the project.

It was also recognized that the SDGs provide an excellent framework for collaboration, and that mining companies are already starting to use the SDG framework to identify those key goals—such as water, education and climate change—they are going to focus on to maximize their contribution to sustainable development.

Many of the governments present also encouragingly stressed the need to meaningfully engage with Indigenous peoples and communities. Indigenous communities must have the tools they need to work on the issues discussed at the Summit, so that they can also support and participate in sound environmental planning, safeguards and enforcement. In Canada, strides have been made toward achieving this, and best practices for engagement with Indigenous communities have been developed and are accessible.

## SUMMIT DECISION POINTS

1. The IGF will produce both a meeting report for the 2017 Summit (this document), as well as a collection of best practices and policies that foster innovation in the mining sector, to be distributed prior to the 2018 IMMS.

## ANNEX 1: DELEGATE LIST

Canada	Honourable Jim Carr	Minister of Natural Resources
Argentina	Honourable Daniel Meilán	Secretary of Mining
Bolivia	Honourable César Navarro Miranda	Minister of Mining and Metallurgy
Brazil	Honourable Fernando Coelho Filho	Minister of Mines and Energy
Cameroon	Honourable Ernest Gbwaboubou	Minister of Mines, Industry and Technological Development
Chile	Honourable Aurora Williams	Minister of Mining
Colombia	Honourable Germán Arce	Minister of Mines and Energy
Dominican Republic	Honourable Antonio Isa Conde	Minister of Energy and Mines
Ecuador	Honourable Javier Córdova	Minister of Mines
Egypt	Honourable Eng. Tarek El-Molla	Minister of Petroleum and Mineral Resources
Ethiopia	Honourable Motuma Mekassa	Minister of Mines, Petroleum and Natural Gas
Guyana	Honourable Raphael Trotman	Minister of Natural Resources
Honduras	Honourable José Antonio Galdames	Secretary of State for the Ministry of Energy, Natural Resources, Environment and Mining
Kenya	Honourable Dan Kazungu	Cabinet Secretary for Mining
Mali	Honourable Tiémoko Sangaré	Minister of Mines
Mexico	Mario Alfonso Cantú	Undersecretary of Mining, Secretariat of Economy
Mongolia	Honourable Dashdorj Tsedev	Minister of Mining and Heavy Industry
Nicaragua	General Alvaro Baltodano	Minister-Presidential Delegate for Investment
Portugal	Honourable Jorge Seguro Sanches	Secretary of State for Energy
Sudan	Honourable Ahmed El Karori	Minister of Minerals
Suriname	Honourable Regilio Dodson	Minister of Natural Resources
Sweden	Honourable Elisabeth Backteman	State Secretary, Ministry of Rural Affairs – Ministry of Enterprise and Innovation
Sweden	Honourable Elisabeth Backteman	State Secretary, Ministry of Rural Affairs – Ministry of Enterprise and Innovation

## ANNEX 2: INVITED GUESTS

38 North Solutions	Katherine Hamilton	Principal
BMO Capital Markets	Egizio Bianchini	Vice Chair, Global Co-Head Metals and Mining
BMO Capital Markets	Honourable Brian Tobin ( <i>Event moderator</i> )	Vice Chair, Investment and Corporate Banking
BMO Financial Group	David Jacobson	Vice Chair, BMO Financial Group
CIRDI	Cassie Doyle	CEO
Clareo	Peter Bryant	Managing Partner
Hatch	Nils Voermann	Global Managing Director
ICMM	Aidan Davy	Chief Operating Officer
IFC	Lance Crist	Global Head of Natural Resources
IGF	Greg Radford	Director
Métis National Council	Clément Chartier	President
Newmont	Gary Goldberg	President and CEO
Oxfam America	Ray Offenheiser	President
PDAC	Glenn Mullan	President
PDAC	Andrew Cheatle	Executive Director
RESOLVE	Stephen D'Esposito	President
Teck Resources Limited	Mark Edwards	VP Community and Government Relations
The World Bank	Sheila Khama	Practice Manager, Energy and Extractives
World Economic Forum	Gillian Davidson	Former Head, Mining and Metals Industries

## ANNEX 3: IMMS ORGANIZING COMMITTEE

BMO	David Jacobson	Vice Chair, BMO Financial Group
BMO	Jesse Slovenec	Chief of Staff, Office of the Vice Chairman
Global Affairs Canada	Jeffery Elzinga	Senior Policy Advisor
Global Affairs Canada	Scott McLeod	Trade Commissioner
Global Affairs Canada	Carlos Miranda	Counsellor (Commercial)
Global Affairs Canada	Jasmine Wahhab	Deputy Director
Natural Resources Canada	Julie Boyer	Director, International Affairs and Trade Division
Natural Resources Canada	Mark Brohm	Senior Policy Advisor, International Affairs and Trade Division
Natural Resources Canada	Edward Dodsworth	Analyst, International Affairs and Trade Division
Natural Resources Canada	Katherine Gosselin	Policy Analyst, International Affairs and Trade Division
PDAC	Andrew Cheatle	Executive Director
PDAC	Sofia Harquail	Public Affairs Coordinator
PDAC	Lisa McDonald	COO
PDAC	Deanna Pagnan	Senior Manager, Public Affairs
RESOLVE	Stephen D'Esposito	President
WEF	Roberto Bocca	Head of Energy and Basic Industries
WEF	Gillian Davidson	Former Head of Mining and Metals
WEF	Marina Colombo	Community Coordinator, Mining & Metals