



April 2020

# Ground Breaking News

## TRANSFORMING THE GLOBAL MINING INDUSTRY

COVID-19 is bringing change to the global mining industry, just as it is to everything else. But this is only the immediate crisis, not the only crisis. Climate change will slow slightly with the downturn in the economy, but it is not resolved. Neither is the decline in productivity and ore grades, not the public's distrust of mining's waste management practices. The opportunity to deal with these crises individually has been lost and now we have to deal with them collectively. The time of significant change – strategic innovation is with us. Consequently, we are still working to support the development and commercialization of technologies that will be key in reviving the industry and ensure continuity of operations.

## MICA NETWORK UPDATE



The Centre for Excellence in Mining Innovation (CEMI) is the lead applicant for the creation of the federally funded Mining Innovation Commercialization Accelerator (MICA) Network. The MICA Network will be a 5-year, \$100M (\$40M Government) multi-stakeholder Program, aimed at networking regional mining clusters across Canada, to create a nation-wide ecosystem that supports regional capacity-building activities and promotes inter-cluster cooperation and sharing of best practices. MICA will advance the commercialization of late-stage innovative clean-technologies that will have social-economic-environment benefits to Canada and the global mining sector. Our recent efforts with MICA have been to identify the key regional clusters and national partners that will be the foundation of the MICA Network. In the next few weeks, we will reach out to the other organizations that have previously indicated their interest in participating in MICA. If you would like more information on MICA or would like to join the MICA Network, please contact us via [info@cemi.ca](mailto:info@cemi.ca)

## THE PROGRESSIVE MINING AGENDA

### METAL MINING INNOVATION AND COVID-19.

#### Position Piece #4

The lack of strategic innovation in the metal mining industry in the last 35 years is coming to an end. The decline in ROI is because the technology platforms in exploration, mine production and waste management, have not adjusted to market conditions – the only exception is mineral processing. Given the dual impetus of climate change and COVID-19, the focus has to be on the strategic transformation of mine production systems and mine waste management practices. COVID-19 is forcing everyone to adjust expectations. [Continue reading](#)



## RELAMCO

Sudbury, Ontario, Canada April 14, 2020 – [CEMI has entered into an alliance with Sudbury based RELAMCO](#) to help businesses drive out waste, improve productivity and innovation by using the tools and techniques from Lean Six Sigma methodology to execute multiple process improvement and design projects in Canada and South America.

RELAMCO's regional knowledge of the Peruvian culture and their extensive experience in facilitating Community Engagements uniquely positions them to be informed about the real concerns, aspirations and expectations of the Peruvian community. "As native Spanish speakers, we have a keen understanding of the cultural practices, traditions and social factors that may influence business transactions in the Peruvian mining industry," says Celia Espinoza, Performance Improvement Director of RELAMCO.

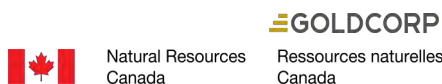
## Crush It!



CEMI is pleased to continue to work with NRCAN on enhancing Canada's mineral processing ecosystem and supporting its emerging clean tech innovations.

### CANADIAN MINERAL PROCESSING ECOSYSTEM MAP

CEMI's Canadian Mineral Processing Ecosystem map (3ft x 6ft), available for purchase at [Global Advantage Consulting](#)



<https://impact.canada.ca/en/challenges/crush-it>

COVID-19 continues to impact our businesses, our communities and our families around the world. There is uncertainty about when things will get back to "normal", and for that to happen we must continue to do our part to help flatten the curve. We would like to take this opportunity to acknowledge and thank front-line workers for the extreme efforts undertaken to deal with this pandemic. We would also like to thank all essential personnel and volunteers for their exceptional service during these very difficult times.

## NEWS/PUBLICATIONS

### Canadian Mining Journal

[CEMI seeks to accelerate advance rates](#)

February 2020 issue

### International Mining

[A Progressive Mining Agenda](#)

April 2020 issue



## FDMC 2020

### Future of Deep Mining Conference 2020

September 16–17

Radisson Admiral Hotel  
Toronto—Harbourfront

[www.cemi.ca/fdmc2020](http://www.cemi.ca/fdmc2020)

## UPCOMING EVENTS

### [Mining Investment North America](#)

Toronto, Ontario  
June 11–12

### [Mines and Technology, Mines and Money](#)

Toronto, Ontario  
June 23–24

### [Electric Mine 2020](#)

Stockholm, Sweden  
November 16–17

## INTRODUCTION TO COMMERCIALIZATION SUPPORT SERVICES



### Crush It! - Webinar

DATE: April 21, 2020  
TIME: 2:30 to 3:00 pm EST

This presentation is intended for those that are working on advancing the commercialization of technologies into the Canadian Mineral Processing Ecosystem

[Register now](#)



**CEMI**  
Centre for Excellence  
in Mining Innovation

### WHY ENGAGE CEMI?

CEMI helps solve mining industry challenges. We accelerate the delivery of commercially viable innovations to improve operational performance. Simply said, our services are designed to bridge the gap between a challenge and a solution.

### OUR SERVICES

- **Innovation Scouting**  
Global search for current and emerging pre-commercial solutions
- **Challenge Identification**  
Review of existing challenges from technology road maps and uncovers hidden challenges using a systems analysis process
- **Challenge Solution Matching**  
Matches current and emerging pre-commercial solutions with validated industry challenges
- **Commercialization Services**  
CEMI conducts innovation and commercialization gap analysis assessments and offers services to bridge identified gaps



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## CEMI ENGAGEMENTS



GUPEX® Air to Air Heat Exchangers. Heat recovery from mine exhaust air used to preheat the fresh ventilation air to the mine shaft.



Underground Ring Blast Design Advanced Fragmentation Prediction to Reduce or Eliminate Crushing.



Cryogenics for Mine Cooling and Energy Storage. May provide for cogeneration of refrigeration and electricity from a cryogenic liquid.



Environmentally friendly, High-quality dust control, soil stabilization, and water remediation solutions for a growing global economy.



Rapid Advance Shield designed and manufactured in collaboration with CEMI to safely speed up tunnel development, allowing ground support, drilling and loading to happen concurrently instead of sequentially.



Lost Dutchman. Mine ore concentration technology that is capable of concentrating metal ores without the use of water or chemicals.



Full range of services including conceptual and detailed design engineering, project management, construction management, commissioning, start-up, and production & maintenance support.



Delivers sample digestion technology for faster analysis with greater precision and improved safety. ColdBlock's proven technology is available in multiple platforms. Can be incorporated into virtually any standard wet-chem laboratory setting.

## SUPERCLUSTER MEMBERSHIPS

CEMI is pleased to inform you that we are now a member of all the Superclusters funded by the [Canadian Government Superclusters Initiative](#). We will be exploring opportunities with the Superclusters to identify opportunities for mining application in Supercluster funded projects and activities.

- Ocean Supercluster (based in Atlantic Canada)
- SCALE.AI Supercluster (based in Quebec)
- Advanced Manufacturing Supercluster (based in Ontario)
- Protein Industries Supercluster (based in the Prairies)
- Digital Technology Supercluster (based in British Columbia)