



Innovation in mineral processing

2 0 2 0

# ACTIVITY REPORT



[corem.qc.ca](http://corem.qc.ca)

# MESSAGE FROM THE PRESIDENT OF THE BOARD AND FROM THE PRESIDENT AND CEO



JEAN-FRANÇOIS LEROUX, Eng.  
CHAIRMAN OF THE BOARD



FRANCIS FOURNIER, Eng., F.  
PRESIDENT AND CEO

As for most companies, Corem had to reinvent itself in 2020 with the new reality imposed by the COVID-19 pandemic. All sectors of our business were impacted. With the health and safety of our personnel and their families in mind, we had to review our processes to continue business development, management of innovation, operation of our laboratories and pilot plants as well as our methods of communication with our members and clients in the context where teleworking was prioritized. Everyone at Corem had to show creativity and resilience, which made all the difference.

The main challenge was the shutdown of our facilities for 7 weeks in response to the sanitary measures imposed on the majority of companies in the province of Quebec, as a precaution, by the Government of Quebec in March 2020. Despite this major constraint, we had to set new objectives due to this extraordinary period. These objectives were met thanks to our employees' inventiveness. We succeeded in minimizing the negative impacts on our clients while maintaining our expertise and ensuring protection of our liquid assets. Our dedicated personnel made it possible for us to continue our mission and to reach most of the objectives that were set for 2020, despite the pandemic.

Management of the sanitary measures to protect our personnel from COVID-19 was one of our main concerns for the complete re-opening of our facilities, which was successfully done in May. These measures allowed us to maintain a high level of activities despite several challenges. Our precompetitive research program is at the heart of our activities and for a fourth consecutive year, we increased our investments in research works carried out with our members thanks to, among others, a one-time investment from the ministère de l'Énergie et des Ressources naturelles to support and accelerate the development of technologies. Our investments amounted to \$7.5M compared to \$6.6M in 2019.

Efforts to develop partnerships were maintained as well as our positioning across Canada as a key partner in innovation in ore and mineral processing within the mining innovation ecosystem. Consolidation and retention of our members was a priority in 2020 in the context where all our committees as well as liaison and transfer activities had to be held in a virtual mode. The proximity of our personnel and their keen knowledge of our members' and clients' operations sets us apart, and allowed us to deploy a research and innovation program that meets the needs of the mining industry. In this regard, the latest analyses of technology transfers validated by our members show that there was a beneficial return of more than \$9 for each dollar invested in our precompetitive research program.

The year 2020 has allowed us to complete our 2018-2020 triennial plan for investments in infrastructures and equipment. Thanks to this plan, the most important one in Corem's history in the amount of \$18M, Corem can continue to offer innovative programs and specialized services to the mining industry, to both traditional sectors and emerging ones such as graphite, lithium and rare earth elements. Completion of phase 2 of our hydrometallurgy platform in 2020 now allows us to support the mining industry at laboratory, mini-pilot, pilot and demonstration scales, in this field of expertise. We should remember that completion of our triennial plan was made possible thanks to our partnerships with the governments of Quebec and Canada that continued throughout 2020.

In regards to governance, under the chairmanship of Mr. Jean-François Leroux, Corem welcomed two new directors that were elected during the general meeting held in June 2020. Corem's management thanks its directors and its personnel for their contribution to the success of the organization.



# GOVERNANCE

## BOARD OF DIRECTORS (4 meetings)

---

### DIRECTORS

**JEAN-FRANÇOIS LEROUX** (Chairman of the Board)  
Glencore – Raglan Mine

**FRANCIS FOURNIER** (President and CEO)  
Corem

**JEAN CHÂTEAUNEUF**  
Canadian Malartic Mine

**CATHERINE COBDEN**  
Canadian Steel Producers Association (CSPA)

**NATACHA GAROUTE**  
Quebec Iron Ore

**ANGELA HAMLYN**  
Canadian Institute of Mining, Metallurgy and Petroleum (CIM)

**MARC LAFONTAINE**  
Agnico Eagle

**PATRICK MALENFANT**  
ArcelorMittal Mining Canada

**JEAN MORISSETTE** (Trésorier, secrétaire corporatif)  
Raymond Chabot Grant Thornton

**SYLVAIN MORISSETTE**  
Hecla Québec

**STÉPHANE RIVARD**  
IAMGOLD Corporation

**ANDRÉ ZACCARIN**  
Université Laval

### OBSERVERS

**JOSÉE MÉTHOT**  
Québec Mining Association

**DENISE MORANVILLE**  
Ministère de l'Économie et de l'Innovation  
Government of Quebec

**CHRISTIANE MORIN**  
Ministère de l'Énergie et des Ressources naturelles  
Government of Quebec

Thanks to Alain Grenier, André Morneau, John Mullaly and Daniel Lemay for their contribution to the Board of Directors.

## EXECUTIVE COMMITTEE (5 meetings)

**JEAN-FRANÇOIS LEROUX** (Chairman of the Committee)  
Glencore – Raglan Mine

**STÉPHANE RIVARD** (Vice-president of the Committee)  
IAMGOLD Corporation

**JEAN MORISSETTE** (Secretary-treasurer)  
Raymond Chabot Grant Thornton

## AUDIT COMMITTEE (4 meetings)

**JEAN MORISSETTE** (Chairman of the Committee)  
Raymond Chabot Grant Thornton

**JEAN CHÂTEAUNEUF**  
Canadian Malartic Mine

**NATACHA GAROUTE**  
Quebec Iron Ore

## ETHICS AND GOVERNANCE COMMITTEE (3 meetings)

**JEAN CHÂTEAUNEUF**  
Canadian Malartic Mine

**ANGELA HAMLYN**  
Canadian Institute of Mining, Metallurgy and Petroleum (CIM)

**PATRICK MALENFANT**  
ArcelorMittal Mining Canada

## MANAGEMENT

**FRANCIS FOURNIER**  
President and CEO

**GIANNI BARTOLACCI**  
Director – Business Development

**GUILLAUME DUMAS**  
Executive Director – Planning, Finance and Digital Solutions

**CLAUDE GAGNON**  
Director – Innovation

**MICHEL GARANT**  
Director – Member and Client Relations

**SYLVIE LÉVESQUE**  
Executive Director – Operations

**HÉLÈNE TREMBLAY**  
Director - Organizational Development and Human Resources

# OUR MISSION

Create innovative solutions in mineral processing for the benefit of a sustainable mining industry, working closely with our members, our customers and our partners.

# OUR SERVICES

Adapted to our clients, research and innovation are at the heart of our business model. Supported by our state-of-the-art installations and expertise, our services are offered to our clients under three models:

- Pre-competitive Research Program
- Research and collaborative innovation
- Contractual services

# THE VALUES THAT GUIDE US

## CREATIVITY

We are working to find possibilities where none are seen: we cultivate the art of doing otherwise.

## INTEGRITY

Through the veracity and exactitude of our words and actions we strive to uphold honesty.

## ENGAGEMENT

Our promise to our colleagues, organisation, members and partners is to offer the best of ourselves and to have our actions reflect those intentions.

## TEAM SPIRIT

We unite and work toward a common goal in a climate of confidence, openness and respect.

## HEALTH, SAFETY & SUSTAINABLE DEVELOPMENT

We work toward a safe and healthy workplace and we take actions to be part of sustained development and environmental awareness.

# COREM, A LIVING ENVIRONMENT

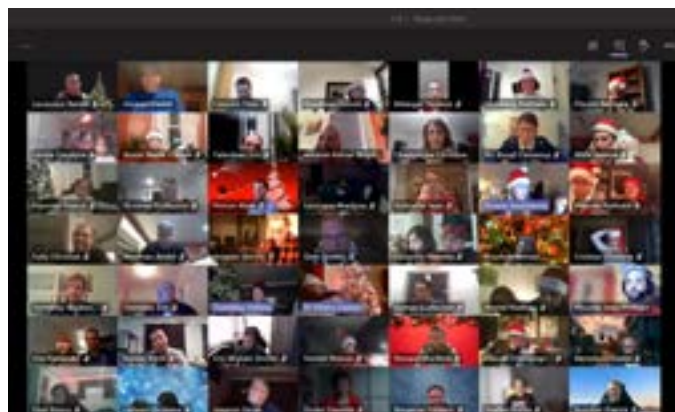
In 2020, despite the pandemic imposing social distancing, Corem took initiatives in order to unify its teams and to maintain a safe and stimulating living environment.

As of the first weeks of the pandemic, we implemented a Guide to avoid the spread of Covid-19 as well as procedures and sanitary rules going beyond the restrictions imposed by the government to ensure the safety of our employees. Online training on the new measures was provided to all employees. Furthermore, management members signed together a commitment charter to fight the coronavirus at work (Charte d'engagement à combattre le coronavirus en milieu de travail) developed by the CNESST.

Corem rallied by adapting to this reality that marked 2020. A Facebook group called Corem ensemble (Corem together) was set up to bring employees closer together and maintain contact, which became difficult due to telework. Social activities were held in accordance with the Covid-19 Guide, i.e. a FoodTruck lunch, virtual happy hours, and a virtual Christmas bingo evening in collaboration with the social club, at which 75% of our employees participated. These events helped to highlight the good work of the year.

Sharing and communication of internal information became more important as of March 2020 and was done on a weekly basis, and sometimes on a daily basis during certain periods. Furthermore, a new Web version of our internal information bulletin (InfoCorem) was deployed in September, with a more frequent dissemination, integrated video media and the ability to assess the number of visitors using browsing statistics.

In order to strengthen the employees' sense of belonging to the company, new safety hats with our new logo and corporate clothing were distributed to all employees.





## COREM IN NUMBERS

**\$19.9M**

Annual budget

**\$7.5M**

Investments in the precompetitive research program  
Over \$9 of industrial benefits per dollar invested by our industrial members

**179**

Technological and contractual transfers

**234**

Projects per year

**3**

Licensed technologies

**3**

Patented technologies

(South Africa, Australia, Brazil, Canada, United States)

## TYPES OF ORES PROCESSED

PRECIOUS  
METALS

BASE  
METALS

TITANIFEROUS  
ORE

RARE EARTH  
AND CRITICAL  
ELEMENTS

IRON  
ORE

MINERAL  
SANDS

INDUSTRIAL  
MINERALS

## OUR FIELDS OF EXPERTISE



COMMINUTION



PHYSICAL  
SEPARATION



FLOTATION



EXTRACTIVE  
METALLURGY



PELLETIZING  
AND THERMAL  
PROCESSES



MINERALOGY



# OUR MEMBERS, THE CORE OF OUR ORGANIZATION

Our members\* are at the core of our business model for innovation, and our efforts are focused on developing technologies that significantly impact the 25 operating plants we are covering in terms of productivity and sustainability. The satisfaction of our 14 members and

our clients, as well as the recruitment of new members, are our priority. In 2020, Corem welcomed a new member from the gold sector, Hécla Québec. This strengthens and confirms our leadership in the development of innovative solutions for the mining industry.



RioTinto



GLENCORE



DETOUR GOLD



GREENSTONE GOLD  
MINES



\*Our members as of December 31, 2020



# PRECOMPETITIVE RESEARCH PROGRAM

## VALUE OF THE PROGRAM

In 2020, the precompetitive research program included over 50 innovation projects that were launched, continued or completed. These projects were beneficial to both plant operations, and for reducing environmental impacts for our members.

In addition to financial support from its members and governments, Corem's research program benefited from financial support provided by the Clean Growth federal program of Natural Resources Canada. This financing, aiming at accelerating the development of green technologies, will allow Corem and its partners to scale-up its technology to regenerate cyanide in gold extraction.

It should also be noted that the completion of two projects on the development of a novel recovery process for refractory gold enabled this technology to move this technology to the pilot scale demonstration stage and will allow performance improvements to be achieved at applicable mining operations.

Among the new projects launched in 2020, there were projects on the behavior of iron ore pellets during direct reduction and on the substitution of metallurgical coke for biochar during production. Those projects were beneficial to both plant operations, and for reducing environmental impacts for our members. Also, a decision aid tool for flotation with frother was developed to allow the optimization of the recovery of value minerals and the consumption of reactants.

Furthermore, installation and commissioning of the ore sorter purchased by Corem were completed in 2020. With this equipment, Corem has enhanced its research program and can now offer services to the industry to reduce the amount of ore sent for processing, and subsequently reduce the volume of tailings to be stored in the environment.

Recorded process improvements show that over \$9 in financial benefits are generated in our members' operations, in a concrete and sustainable way, for each dollar they invested in the precompetitive research program.



**\$0.44M**

Comminution



**\$0.87M**

Flotation



**\$1.64M**

Physical  
Separation



**\$0.76M**

Pelletizing  
and Thermal  
Processes



**\$3.33M**

Extractive  
Metallurgy



**\$0.45M**

Other  
activities

**\$7.49M**

Total investment  
in 2020

**+ 14%**

Increase  
compared to  
2019

RE  
SEARCH  
CH

## PRECOMPETITIVE RESEARCH COMMITTEE

(3 meetings)

---

### REPRESENTATIVES

#### MAYCON ATHAYDE

Vale S.A.

#### PHILIPPE BARBEAU-VERREAULT

Glencore Canada Corporation – Raglan Mine

#### STEVE BEAUDIN

Métal 7

#### SIMON-PIERRE BLOUIN

Niobec

#### RENÉE DUPÉRÉ

Canadian Malartic Mine

#### JEAN-FRANÇOIS DUPONT

Detour Gold

#### JEAN GIROUX

Rio Tinto Iron & Titanium

#### CORY HENNESSEY

Iron Ore Mining Company of Canada

#### FRANÇOIS LAVOIE

Quebec Iron Ore

#### MARTIN LEBEUF

Newmont Corporation

#### GUILLAUME MALTAIS

Glencore Canada Corporation – Matagami Mine

#### DAVID NEWHOOK

Greenstone Gold Mines

#### STEVE PARENT

Hecla Québec

#### ROMAIN PRÊCHEUR

ArcelorMittal Exploitation Mining Canada

#### STÉPHANE RIVARD

IAMGOLD Corporation

#### FRANÇOIS ROBICHAUD

Agnico Eagle

---

### OBSERVERS

#### SANDRA CÔTÉ

Ministère de l'Énergie et des Ressources naturelles

#### TESFAYE NEGERI

Natural Resources Canada - CANMET



# HIGHLIGHTS

## 2019-2023 STRATEGIC PLAN

In 2020, we pursued our efforts in the deployment of our strategic plan despite the pandemic. These efforts focused on actions in line with our challenges and our two main guidelines:

- Develop a culture within the organization based on service and dedication to members and client's satisfaction;
- Improve the efficiency in all our projects and of the organization as a whole.

### Review of our internal management

The work and teams organization was reviewed at the beginning of 2020 to align our business structure on our customer experience goals. The changes enable Corem to increase the impact of our approach with our members and our clients, to improve the efficiency of our operations and to facilitate our business development, while maintaining the priority of developing innovative solutions for the mining industry. These changes allow us to lay the basis of our organizational transformation.

### Dedicated to client's satisfaction

The creation of a management team dedicated to members and clients relations gave rise to a reflection on the improvement of our commitment to clients practices. This led to the deployment of an action plan aiming at increasing our members and client satisfaction that will continue throughout 2021. This reflection led to an action plan aiming at increasing the satisfaction of our members and our clients, and this will continue to be deployed throughout 2021.

### Positioning at the national scale

Corem continued its Canadian positioning efforts through the development of partnerships with key organizations in mining innovation. Several work sessions were held in order to identify avenues of cooperation to increase our capacity and efficiency at meeting our members and our clients' needs. This positioning also aims at an increase in our membership and client base both in Canada and internationally. We also made efforts to expand our relationship with our government partners and to make Corem a key partner in supporting the delivery of government strategies.

### Increase in our capacity

The year 2020 marked the completion of an investment triennial plan, the largest in Corem's history, with the installation of state-of-the-art equipment, such as an ore sorting system, which should allow the mining industry to significantly decrease its environmental footprint and energy consumption, and the implementation of a unique hydrometallurgical platform in Canada. These two investments and other cutting-edge technologies acquired allowed Corem to maintain its leadership in innovation by offering innovative solutions for both traditional and emerging mining sectors.

We also laid the foundation of our digital transformation by accelerating the development and deployment of tools and systems to improve our efficiency through better operational planning based on data and performance indicators.

### Innovation is at the core of our organization

In 2020, we increased our pre-competitive research efforts and the benefits generated among our members for each dollar invested. The announcement of the funding from Natural Resources Canada and the ministère de l'Énergie et des ressources naturelles du Québec for the scale-up of our cyanide regeneration technology shows our ability to carry out complex and multi-partners projects, thus providing the mining industry with important benefits. In this context, we also began the development of strategic research initiatives in 2020 to support the mining industry in the challenges it faces.



## GOLD CYANIDATION

On August 10, 2020, the honorable Jean-Yves Duclos, President of the Treasury Board of Canada, announced \$2.1M in federal funding to Corem to support the development of its technology for cyanide regeneration in gold extraction. This new technology will reduce by 80% the nitrites and the nitrates having an impact on aquatic environments by transforming more than 80% of the by-products of cyanidation, such as thiocyanates and metal cyanides, into active cyanide that is reinjected in the gold cyanidation circuit. With this funding, the design of a

demonstration plant was completed in 2020 and its construction will begin in the first quarter of 2021. Once finished, the plant will be installed on the LaRonde mine site, owned by Agnico Eagle, to be operated over a period of 6 to 12 months. With the financial support of the governments of Canada and Quebec, this project is carried out with our partners: Agnico Eagle Mines, Cyanco, Chemours, H2Flow Equipment Inc., IAMGOLD Corporation, Kirkland Lake Gold, Newmont Corporation and TELUQ.



## PLAN FOR THE DEVELOPMENT OF CRITICAL AND STRATEGIC MINERALS

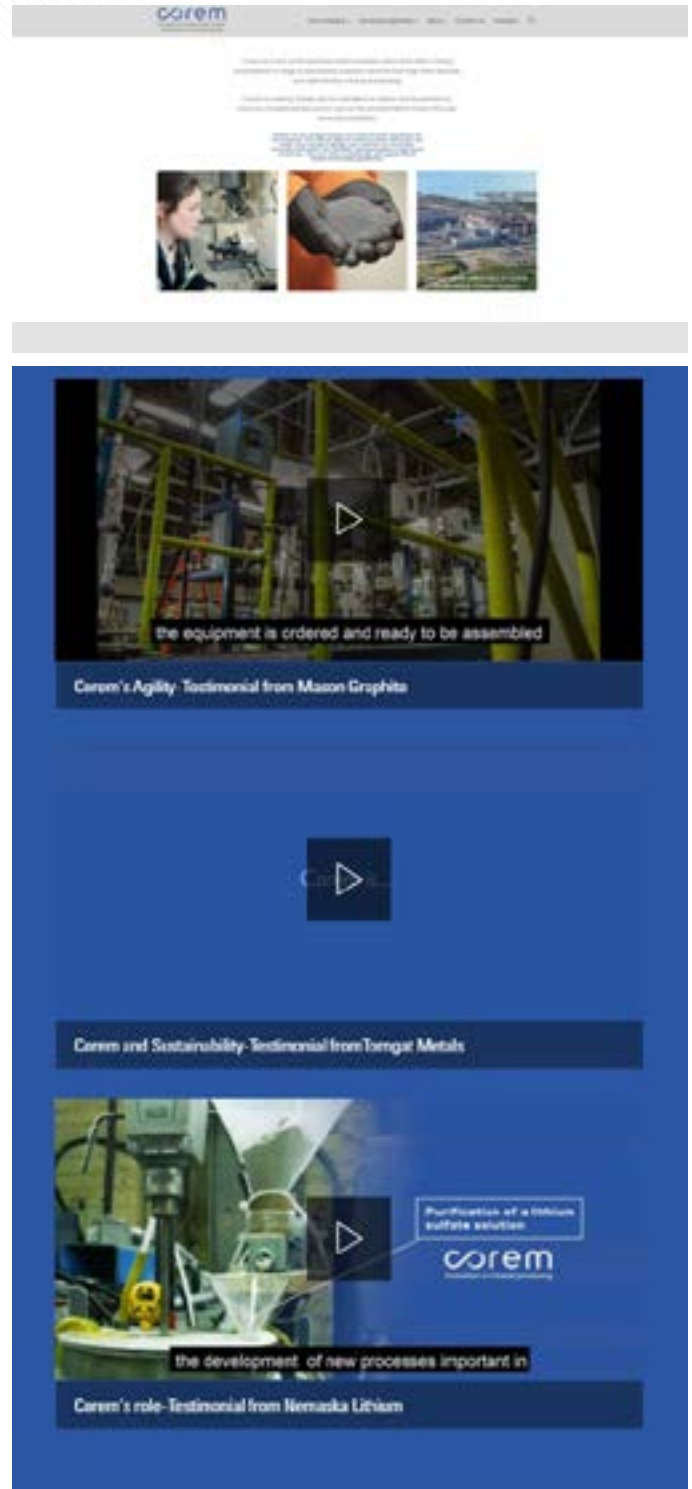
In November 2020, the Government of Quebec released the Québec Plan for the Development of Critical and Strategic Minerals 2020-2025 aiming at the deployment of value chains of critical and strategic minerals (CSM) in Quebec, in compliance with the principles of sustainable development, social acceptability and wealth creation. To position the Province of Quebec in this market, whether for manufacturing of technological products or recycling these products at the end of their life cycle, the availability of raw materials in Quebec and processes for their extraction, their purification and their recovery is essential. Corem was selected among key innovation partners to support the development of the CSM sector, and is currently working on the implementation of an innovation program along with different partners by 2021. Furthermore, in 2020, Corem was involved in and supported several innovation initiatives.



## COREM'S INFLUENCE

Corem underwent a makeover and was rebranded, including our new website [corem.qc.ca](http://corem.qc.ca) which was launched at the end of February. New marketing tools were also designed in print, video and Web formats to allow Corem to have a greater influence on the mining industry. These tools were very useful as our relationships with our potential clients moved from face-to-face to virtual because of the pandemic.

We also increased our presence in social media throughout the year, and we collected statistics to have a better track of our visibility efforts with current and potential clients.



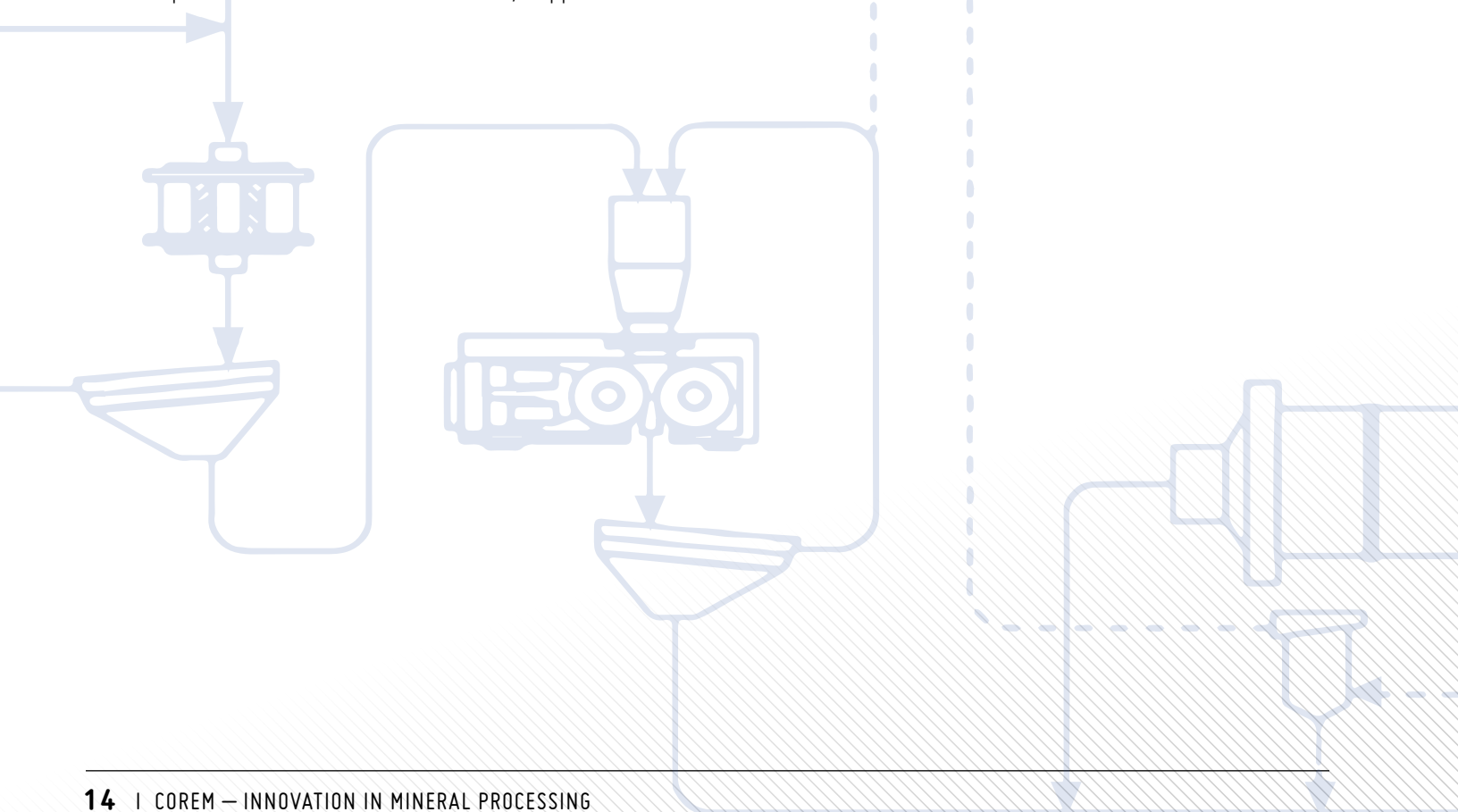


# INNOVATION THROUGH COLLABORATION

## PROGRESS OF THE CRUSH IT! CHALLENGE

Out of the six finalists in the Crush It! Challenge from the ministry of Natural Resources Canada, Corem is leading two projects and participates in two others. One of the two projects under Corem's leadership is aiming at replacing the ball mill with HPGR to bring ore to its final size before concentration by processes such as gravity separation, flotation or leaching. The challenge was to conceive circuits that work with the moisture required for the HPGR operation. Testing has been completed, and it was shown that for operation such as our two case studies, Copper Mountain

and Porcupine operation, energy savings with the HPGR were significant when compared to ball mill circuit. For our second project, Intellicrush, we are at the last stage of developing our software for circuit design. We have demonstrated that Intellicrush could use artificial intelligence to learn about grinding circuit performances and circuit design and to use that information to design energy efficient circuits. With these two projects, Corem is strongly in the race to win the \$5M grand prize.





# OPTIMIZATION OF KEY PROCESSES

## CONTRACTUAL SERVICES

2020 was marked by increased efforts of the industry to develop innovative processes, with a reduced environmental footprint, for both traditional and emerging sectors. Many of our projects require the development of complex processes at laboratory, pilot and demonstration scales. For this purpose, Corem continued several projects related to the improvement of the purification process of graphite to give it the properties required to be integrated into batteries. In the same sector, concentration, purification and separation work on nickel, using hydrometallurgical processes, was performed for two companies with major development projects in Canada.

Characterization of iron ore drill cores to identify new deposits for mining planning continued to be a significant part of our activities. The very recent improvement of our facilities allowed an increase in our efficiency for the realization of this work and to meet our clients' demands.

Our company remains a worldwide reference for concentration and pelletizing of iron ore. The benefits of Corem's complete offer, from grinding through to characterization of iron ore products, including gravity separation, magnetic separation and flotation, most certainly play an important role in this acknowledgement. In 2020, test work on iron ore was done for clients from Canada, United States, Bahrain, Brazil, Kazakhstan and India.

Gold characterization was a very active sector in 2020. Corem was able to meet the growing needs of the industry with its recognized expertise in gold cyanidation and its larger and more efficient new facilities. We worked on several gold development projects with junior mining companies.

# COREM ENSURES ITS LEADERSHIP

## PRESENTATIONS AT CONFERENCES

16th International Mineral Processing Conference - 7th International Conference on Geometallurgy, Santiago, Chile – November 25-27, 2020

- Challenges in comparing gravity separation technologies for gold pre-concentration assessment. Authors: D. Amariei, G. Bartolacci

## Participation in face-to-face events

- CMP National, Ottawa (Ont.) – January 21-23, 2020
- SME Annual Conference & Expo, Phoenix, Arizona, É-U. – February 23-26, 2020

## Participation in virtual events

- 24-hr Global Muster, Australie – May 26-27, 2020 – presentation of CO and EP :
  - How to evaluate and counter negative impact of reactive sulfidic ore (pyrrhotite) in grinding, pre-oxidation and cyanidation circuits of operating plants
- AbitibiExplo, Québec, Canada – May 26, 2020
- Virtual Canadian Mining Symposium, Canada – June 16 to 18, 2020
- XPlor 2020, Montreal – October 21-22, 2020
- Procemin – Geomet, Santiago, Chile – November 25 to 27, 2020
- Alta 2020 Perth, Australia – November 13 to 20, 2020 (5 conferences and access until March 31, 2021) :
  - Nickel-Cobalt-Copper (November 15 to 17), including Pressure Acid Leaching forum and panel
  - Uranium-REE (November 18), including SX Applications, Design and Development forum and panel
  - Gold-PM (November 18) including Refractory and Complex Gold Ores forum and panel
  - In-Situ Recovery (ISR) (November 19) including Enhancing ISR Permeability forum and panel
  - Lithium and Battery Technology (November 19), including Developments in Battery Technology forum and panel
- COM + U2020 conference – October 14-15, 2021



### TRADE SHOWS (ON-SITE AND VIRTUAL STANDS)

- PDAC, Toronto, ON – March 1 to 4, 2020

### PUBLICATIONS

- AMARIEI D., BARTOLACCI G., Challenges in comparing gravity separation technologies for gold pre-concentration assessment. 16th International Mineral Processing Conference - Santiago, Chile – November 25 - 27, 2020
- AMARIEI D., BARTOLACCI G., Challenges in comparing gravity separation technologies for gold pre-concentration assessment. IMPC 2021: XXX International Mineral Processing Congress.
- J. S. GUIRAL-VEGA, J. BOUCHARD, É. POULIN AND L. PEREZ-BARNUEVO, "Developing a phenomenological dynamic model for particle flow in wet low-intensity magnetic separation", COM + U2020 conference 2020.
- C. OLSEN AND É. PROULX, "How to evaluate and counter negative impact of reactive sulfidic ore (pyrrhotite) in grinding, pre-oxidation and cyanidation circuits of operating plants", 24 Hour Global Muster – May 27, 2020

## MEMBERS

### AGNICO EAGLE

LaRonde Division, Cadillac (QC)  
Goldex Division, Val-d'Or (QC)  
Meadowbank Division (NU)  
Meliadine Division (NU)  
Kittila Division (Finland)  
La India Division (Mexico)  
Pinos Altos Division (Mexico)

### ARCELORMITTAL MINING CANADA

Mont-Wright Concentrator, Fermont (QC)  
Pelletizing Plant, Port-Cartier (QC)

### IAMGOLD CORPORATION

Westwood, Rouyn-Noranda (QC)

### DETOUR GOLD

Detour Lake Mine, Cochrane (ON)

### GLENCORE CANADA CORPORATION

Matagami Mine, Matagami (QC)  
Raglan Mine, Katinniq (QC)

### HECLA-QUÉBEC INC.

### NEWMONT

Éléonore Project, Rouyn-Noranda (QC)

### CANADIAN MALARTIC MINE

Canadian Malartic, Malartic (QC)

### QUEBEC IRON ORE

Lake Bloom Mine, Fermont (QC)

### NIOBEC

Niobec Mine, St-Honoré-de-Chicoutimi (QC)

### RIO TINTO ENERGY & MINERALS

IOC Concentrator, Labrador City (N.L.)  
IOC Pelletizing Plant, Labrador City (N.L.)  
Rio Tinto Iron and Titanium, Sorel-Tracy (QC)  
Rio Tinto Iron and Titanium, QIT Madagascar Minerals (Madagascar)  
Rio Tinto Iron and Titanium, Richards Bay Minerals (South Africa)

### VALE S.A.

Usina 8 – Pelletizing Plant, Vitória ES (Brazil)  
Conceição I – Serra do Esmeril Concentrator, Itabira - Minas Gerais (Brazil)

## JUNIOR MEMBER

### GREENSTONE GOLD MINES

Trans-Canada project (Hardrock), Geraldton (ON)

## ASSOCIATED MEMBER

### MÉTAL 7

Sept-îles (QC)

## PARTNERS

## RESEARCH

- AMIRA International, Melbourne (Australia)
- Canada Mining Innovation Council (CMIC), Ottawa (ON)
- Coalia, Thetford-Mines (QC)
- IVADO, Montreal (QC)
- National Research Council of Canada (NRC)
- Natural Resources Canada (CanmetMINES), Ottawa (ON)
- Universities
  - Curtin University, Perth, (Australia)
  - British-Columbia, Vancouver (BC)
  - École Polytechnique de Montréal (QC)
  - INRS-ÉTÉ, Québec (QC)
  - Laval, Québec (QC)
  - McGill, Montreal (QC)
  - Queens, Kingston (ON)
  - Toronto, Toronto (ON)

## INDUSTRIAL

- BBA
- BioCarbon Industries
- Chemours
- Copper Mountain Mining
- CRIQ
- Cyanco
- Derrick
- FLSmidth
- H2Flow
- MeGlobal
- Métal 7
- Metcom
- Multotec
- National Carbon
- Newmont, Porcupine Mine
- Outotec
- Paul Wurth
- ThyssenKrupp
- Scantech
- Weir Minerals

# NOTES

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, leaving small margins at the top and bottom. There are no vertical margin lines, text, or other markings on the page.







1180, rue de la Minéralogie  
Québec (Québec)  
Canada G1N 1X7

**corem.qc.ca**

2<sup>nd</sup> quarter 2021

ISBN 978-2-922734-30-0 (PDF)

Legal deposit: Bibliothèque nationale du Québec

Legal deposit: Library and Archives Canada

#### Financial partners



Canada Economic  
Development  
for Quebec Regions

Développement  
économique Canada  
pour les régions du Québec

