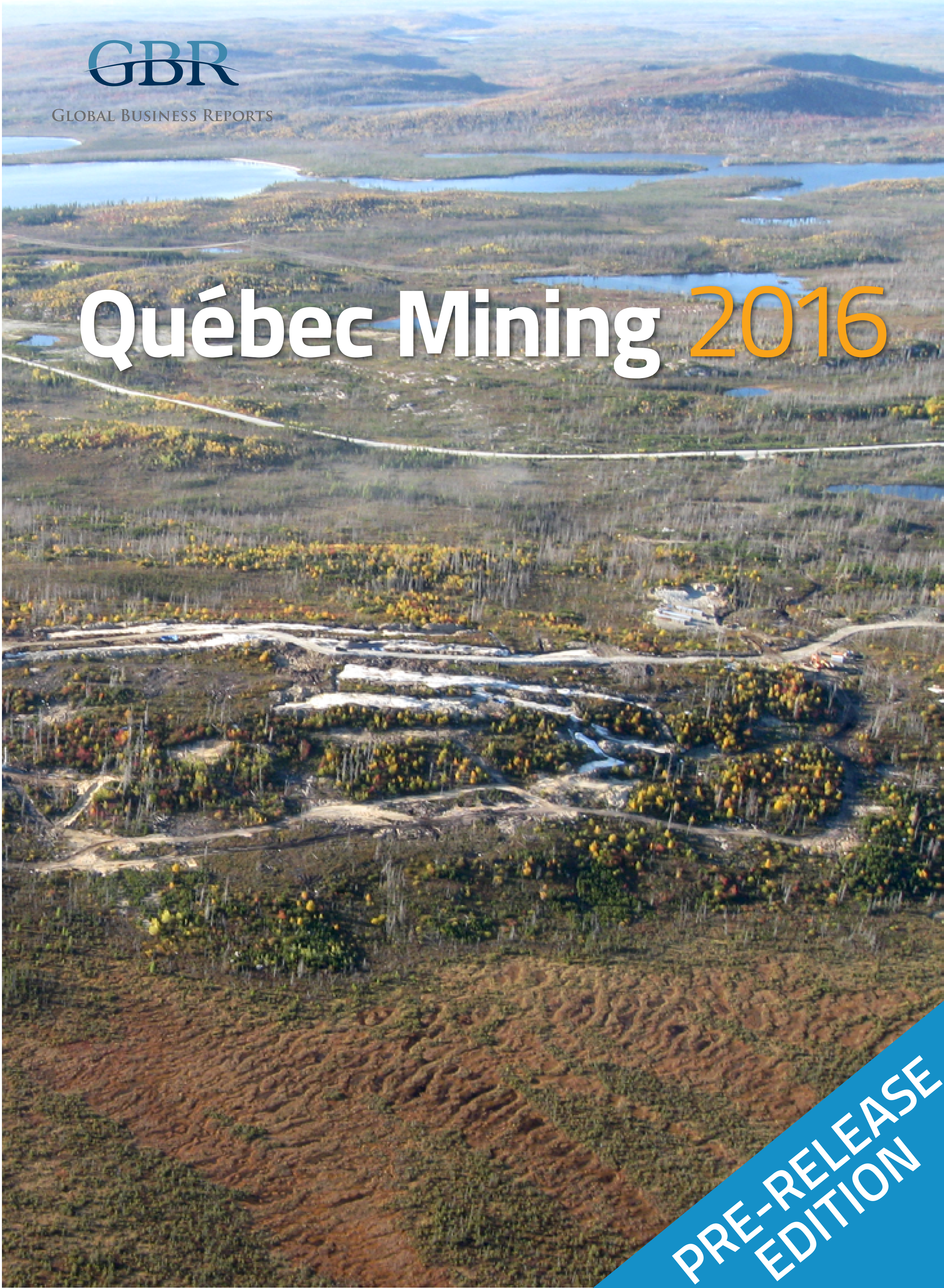

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Global Business Reports

Québec Mining 2016

PRE-RELEASE EDITION

Luc Blanchette

Minister for Mines, Government of Québec

You came into office in April 2014. What were the main objectives you set for your mandate?

When the Québec Government came to power in April 2014, it made a number of commitments for the mining sector. We undertook to share mining, oil and gas royalties with local and Aboriginal communities, use natural gas supplies to aid in the recovery of the Côte-Nord region, and develop a world-class network of suppliers and equipment manufacturers in the mining, hydroelectricity and forest sectors. In addition, we promised to reactivate sustainable Northern development with the Plan Nord, benefiting more workers, companies, suppliers and equipment manufacturers and generating new jobs in every region of Québec.

Our Government has established a favorable environment for mining investment. We have a new mining regime, clear, stable and predictable. Investors know that and they participate actively in the economic development of Québec. Indeed, Québec's business structure is competitive and offers some of the most advantageous measures in Canada.

Moreover, last March, I launched the Strategic Vision of Mining Development. The vision covers the entire mining sector, from exploration to transformation, and aims to support sustainable mining development. Broadly speaking, what we want to do is develop existing mining industries and create new ones. We also want to create a predictable business environment, in particular with respect to land access in the North.

How would you characterize the evolution of Québec's mining sector since you came into office? What were the positives and what were the negatives?

The mining industry is an important sector of Québec's economy. In 2015 alone, it generated nearly 3 billion dollars in investments and supported more than 30,000 direct and indirect jobs. Québec's mining shipments in 2015 were valued at 7.7 billion dollars.

In spite of the difficult economic context, there are a number of positive elements. For example, metal prices are no longer declining, and we hope they will start to rise again. Champion Minerals has bought the Bloom Lake mine (Cliffs Natural Resources). The Québec Government has also purchased Cliffs Natural Resources' facilities at Pointe-Noire, along with the Arnaud railway. In doing so, it hopes to support the revival of the Plan Nord by providing access to strategic infrastructures that mining companies located north of Sept-Îles, in the Labrador Trough sector, can use to ship their production.

I would also like to underline that the investments made in the mining sector in recent years have stimulated exports. Overall, this year, the volume of ore exports has increased by 52% over 2013 levels, despite a decline in metal prices. In other words, the volume of exports is much greater than in previous years.

Québec is responsible for 20% of Canada's total mining production. It produces and develops 15 metals and 13 non-metallic minerals, and is considered to be Canada's most diversified mining producer. Our sector accounts for a significant percentage of Québec's total export value. Annual exports for the mine extraction sector alone are valued at more than 3 billion dollars. If we add the value of primary processed exports, it rises to 16 billion, representing more than 20% of Québec's total exports across all sectors.

Furthermore, this year alone, there are several projects at the start-up, construction and beginning of the production phase in Québec. In the area covered by the Plan Nord, more than 300 exploration projects are currently underway.

With regard to mine operations, the Éléonore gold mine began commercial production last summer. The processing plant for the DSO iron project in Schefferville recently began operations too, and Stornoway's Renard diamond mine will start production this year, almost six months in advance of the projected date. Other projects for which major phases have been completed may also start between now and the end of the decade. Examples include Arianne Phosphate and Arnaud Mine, which are expected to begin apatite production in 2019. Royal Nickel's Dumont project, a large open-cast nickel mine, could also start up in 2019. In addition, Nemaska Lithium's Whabouchi project will be starting a pilot plant in Shawinigan this year.

Northern Québec's mining potential is a significant competitive asset, given the world demand for substances whose development is of strategic importance for Québec.

In April 2015, Premier Philippe Couillard announced the revival of "Plan Nord". What has been done so far, and what role does the Department of Mines play in the equation?

The Société du Plan Nord (Plan Nord Corporation) provides practical help for companies with activities in the area covered by the Plan Nord. It organizes missions outside Québec and invites the companies to take part. It also helps to finance certain projects, and oversees the preservation and development of infrastructures in order to support the application of the Plan Nord.

The Plan Nord has a budget of C$450 million over five years. The Société du Plan Nord (Plan Nord Corporation), created a year ago, already has a number of achievements to its credit, including investments in the Bloom Lake mine, acquisition of railway and port infrastructures in the Pointe-Noire sector of Sept-Îles, a direct-shipping iron mine project in Schefferville, measures to promote regional employment, a telecommunications investment in Nunavik, assistance to the Town of Sept-Îles for economic and environmental projects, the signature of a new agreement with the Cree Nation, and funding for a feasibility study for a rail link between Sept-Îles and the Labrador Trough. •

Introduction:

Québec's Political Improvements, and Legislative Stabilization

At this point in time, saying that the global mining industry is experiencing a downturn does not constitute news for anyone, anywhere, anymore. Every commodity has had its ups and downs. We remember gold companies starving for cash when the extravagant $2000-per-ounce (oz) prices started plummeting in 2013, but we must also not forget that back then, iron ore producers were expanding operations around the world, based on high demand from China and a price point of around $150 per metric ton (mt). Keeping these facts in mind, we arrive in present-day Québec, a mining jurisdiction traditionally known for its exceptional gold and iron ore reserves situated in the north of the province in regions such as Abitibi-Témiscamingue (gold), and the Labrador Trough (iron ore); gold is trading at roughly $1,200/oz, while iron ore prices are hovering at $ 40/mt. So is it all doom and gloom for "La Belle Province" and its miners? Quite simply put: no, not at all.

Many developments have been occurring within Québec's internal structure since 2013. The accomplishment with the biggest impact was probably the adoption of Bill 70, "An Act to amend the Mining Act," which cleared the waters for many potential investors. "With Bill 70 finally being passed in December 2013, the whole legislative uncertainty is now gone. The actual amendments are quite subtle, so there were little changes to the daily operations of mining companies," stated Eric Levy, partner at Osler, Hoskng, & Harcourt LLP.

Normand Champigny, president and CEO of Sphinx Resources, an exploration company with several Ni-PGE projects in Québec, added: "It is no surprise that investors are looking for stability: the new mining regime brought that in December 2013. The industry was not happy with all the measures approved but, to a large extent, it can live with them. The

IMAGE: Courtesy of Richmont Mines

fact that we have a stable legislation now, one that will not change for many years to come, is a very positive thing. […] The exploration process largely continues to work today as it did before Bill 70 came into play, with the exception of a few added administrative tasks."

As always, politics also played a major role in the metamorphosis of Québec's attractiveness as a mining jurisdiction. On April 7, 2014, the Liberal Party won a provincial majority government of 70 seats in the National Assembly of Québec, with the conservative Parti Québecois coming in second, with 30 seats. "The election of a new provincial government has had a good impact. The dialogue between the industry and the authorities has improved, there is a better general mood within the sector, and investors now view Québec as once again being open for business," said Levy.

Communication and investor perception were not the only elements of the equation that improved as a result of this political change. One year later, in April 2015, Premier Phillipe Couillard announced the revival of Jean Charest's "Project of a Generation," the development of 72% of Québec's land surface, covering 1.2 million square km in the north of the province: the Plan Nord. However, this new version would be a scale-down of its 2011 original predecessor – Couillard called for public and private investments totaling C$50 billion over 20 years through to 2035, a significant change from Charest's initial plan, of C$80 billion over 50 years. Breaking that down further, C$20 billion would come from Hydro-Québec's new projects, C$2 billion from the government as public infrastructure, while the other C$28 billion would be constituted by private-sector investments.

Consequently, the Société du Plan Nord was created in 2015 to implement this major endeavor. Over its intended timeline, the organization will benefit from a total estimated budget of C$2.7 billion, which is generated by tax-money coming from the extractive industries operating within the Plan Nord area, and yearly Hydro-Québec contributions. Furthermore, a special fund, the Capital Mines Hydrocarbures (CMH), worth C$1 billion, was also included within the initiative. This was entrusted to Ressources Québec, Investissment Québec's natural resource subsidiary, with the amendment that at least C$500 million of it would be dedicated to Plan Nord deals. "The CMH fund is fully operational now. Out of that, C$500 million will be exclusively dedicated to Plan Nord projects; the rest will cover all the province of Québec. Ressources Québec has made several investments in the market over the past years and in 2014-2015 we had five interventions over a broad scope of companies at different development stages of their projects. The two main companies we supported were Stornoway Diamonds (Project Renard's construction phase), and Canadian Royalties (Project Nunavik Nickel's operational scale-up)," explained Denis Williams, general manager of Ressources Québec.

Leaving legislation and politics aside and diving deeper into the operations of mining companies across Québec, we see numerous, rather surprising, and overall positive developments. From favorable U.S. dollar-Canadian dollar exchange rates dramatically improving gold producer profits, to non-traditional mineral projects such as Nemaska Lithium, Stornoway Diamonds, or Arianne Phosphate marching strongly to operation, Québec is visibly rallying up forces and moving in the right direction.

Downturn Resourcefulness:

Québec's Increasingly Diversified Mining Scene Counters Iron Slowdown, and Uranium Moratorium

Iron Ore's Harsh Present

Over the past two years, press headlines largely covered the rather negative aspects related to Québec's mining industry. Iron ore prices steadily descended throughout 2014, and 2015 towards the $40/mt mark, making the life of iron ore producers and explorers extremely difficult in Québec, a jurisdiction with tremendous potential for this commodity, especially in its Labrador Trough region. While there is no doubt that iron is facing a severe downturn at the moment, these market conditions also provide a realm of opportunity for those players that have good financial backing at the moment.

Cliffs Natural Resources, the top iron ore producer in the United States, decided to divest its Canadian interests in 2014 as a result of poor market conditions and lack of profitability. Among these assets were its Wabush mine in Western Labrador and its Québec Bloom Lake Mine, which, combined, accounted for 15 million mt/y of iron ore. At the peak of its operation, Bloom Lake employed 600 people and produced 6 million mt/y. Cliffs had acquired the mine at the top of the iron market in 2011 in a $ 4.9-billion takeover deal of Consolidated Thompson Iron Mines. Fast-forwarding the situation a few years later, in December 2015, Cliffs entered an agreement with Champion Iron Ore, a Canadian iron ore junior with several proprieties in Québec and Canada, to sell its Bloom Lake mine. The price of the deal? C$10.5 million for the propriety, and roughly C$41 million in reclamation liabilities – you do the math. While it is unlikely that Champion Iron Ore will restart production in the near future, the tremendous deal it completed is a resounding success in its own and proof that good business can be achieved even in this troublesome environment.

Another eye-catching move came from Indian giant Tata Steel, through its Canadian subsidiary, Tata Steel Minerals Canada (TSMC), a company in which it has a 94% stake with the rest of the 6% belonging to New Millennium Iron, a Canadian mining company with taconite projects in Québec and Newfoundland. On the 20th of January, at the World Economic Forum, in Davos, Switzerland, Québec's Premier Philippe Couillard announced an agreement-in-principle with TSMC for a continued investment of C$ 400 million on the part of the company into the its Québec/Newfoundland-Labrador DSO Project, over the next two years. The operation includes mining, crushing, washing, screening, and drying the run-of-mine ore within a state-of-art facility near Schefferville, in Québec, with the sinter and pellet fines being transported by rail to Sept-Îles and onward to Tata Steel's European steel facilities. The agreement-in-principle should lead to a decision before the end of March 2016, and while this announcement clearly represented good news for Québec, and its mining industry, it is important to note that in January 2016, TSMC also scaled down current DSO operations due to poor market conditions.

Uranium Controversy

"The recently published Bureau d' audiences publiques sur l' environnement (BAPE) report compels me to write to you. It is very troubling to have the BAPE present your government with conclusions and recommendations that lack scientific basis and rigor," reads the introduction of Michael Binder's July 2015 letter to David Heurtel, Québec's Minister of Sustainable Development. Binder, the president and CEO of the Canadian Nuclear Safety Commission (CNSC), addressed the letter as a counter-response to BAPE's July 2015 report, which advised Québec's authorities against uranium exploration and mining in the province. The 626-page study, which was conducted over a timespan of a year, stated that uranium developments were "counter-indicated" because of "limitations and uncertainties" within the existing technologies. A moratorium had already been in place since 2013, when Yves-Francois Blanchet, the Environment minister at the time, had ruled on the matter, entrusting the BAPE to create the detailed report. Thus, Québec joined Nova Scotia and British Columbia on the list of uranium-banning provinces, an antithetic position to that of Saskatchewan's, the world's second largest producer of uranium with a total of 16% of the global share. Binder used Saskatchewan as a counter argument to BAPE's report, saying: "Furthermore, to suggest that uranium mining is unsafe is to imply that the Canadian Nuclear Safety Commission (CNSC) and the Government of Saskatchewan have been irresponsible in their approval and oversight of the uranium mines of Canada for the last 30 years."

"It really does seem to be an emotion-versus-science battle here in the case of Québec's uranium moratorium. Before all of this happened, the QMA had approached the government with the idea of establishing the best practices through which we could explore and exploit uranium in Québec; after all, this is done very successfully in Saskatchewan already. We were surprised to see however that the government was still deciding whether uranium exploration and mining should even happen in the province, instead of "how" it should happen," said Josée Méthot, the president and CEO of the Québec Mining Association (QMA).

A final ruling on the matter is still not out. Québec's government has put an inter-ministerial committee in place to study the report, but there is no specific timeline for its decision. In the meantime, Québec's Strateco Resources, a uranium junior that had invested C$123 million into its high-grade Matoush uranium project, saw its operations being put to a halt because of these developments. Strateco, which was once a key part of Jean Charest's Plan Nord 1.0, is now consequently suing Québec's government for C$190 million in investment losses.

"There is a spillover effect across all resources, and the industry. International financiers know what is happening in Québec, and they can quickly dismiss any projects, no matter the commodity or resources, if they are in the proximity of Strateco's propriety; this has happened to some of our members. From an investment point of view, it transmits a negative message, and again, it creates uncertainty. The AEMQ filed a memoire related to uranium exploration with the BAPE, and strangely enough, the document was not even accepted," added Frank Mariage, the Association De L'Exploration Minière Du Québec's (AEMQ) chairman of the board.

Québec Mining's Unexpected Beacons of Hope

A depressed global mining environment, a severe iron ore crisis, commodity moratoriums, all within a climate of scarce financing sources does not paint a beautiful picture for La Belle Province's mining scene. Yet somehow, within this scenery, several companies, with a line-up of non-traditional minerals for Québec, are fighting their way through production and onto success.

Stornoway Diamonds is building Québec's first diamond mine and is doing so ahead of time and below its initially planned budget. Its Renard mine, which will employ close to 500 people, is now expected to produce its first ore in September 2016, with total costs of construction coming up to C$775 million – five months ahead of schedule and C$36 million less than its original expected cost. Stornoway Diamonds boasts Indicated Mineral Resources of 30.2 million carats (ct), with a further 13.35 million ct as inferred mineral resources, which should enable the company to produce 1.6 million ct/y over the initial 11 years of Renard's mine life.

"It is very encouraging to see mineral diversification happening in Québec, a province traditionally known for its iron ore and gold resources. More and more, new discoveries of rare earths, graphite, lithium, apatite, and even diamonds are making the headlines, strengthening Québec's brand as a mining industry, while offsetting the risks of being too focused on one or two commodities," said Denis Williams of Ressources Québec, which financed C$240 million of Renard's costs. But Investissment Québec is not the only Québec Inc. financial player involved in this up-and-coming success story. Caisse de dépôt et placement du Québec, another traditional and long-standing finance player in the province, also contributed C$ 105 million to the project.

Another unsuspected positive development came from of Arianne Phosphate and its Lac à Paul apatite project, located in Québec's Saguenay-Lac-Saint-Jean region. With reserves of 472 million mt of 6.9% P2O5, and an expected 72 million mt of high-off grade concentrate at 38.6% P2O5, which will assure a 26 year mine-life, Lac à Paul will create more than 1,000 direct, and indirect jobs during its operation. Additionally, the project, which holds a C$1.9 billion net present value, is expected to only need 4.4 years for its capital payback. And there could not have been a better way for Arianne to end the year 2015 than it did, by receiving the ministerial decree from Québec's government to go ahead with its C$1.2 billion phosphate project, for which it is now actively looking for financing.

Rare-earths also constitute an up-and-coming mineral segment in Québec, and companies such as Geomega Resources, Quest Rare Minerals, and Commerce Resources have been able to advance their projects in recent years, aiming to help create a Western counter-poll to China's dominance in the sector.

"Since 2013, and the positive economics we had released in 2012 for our Ashram rare-earth deposit in Nunavik, we have had great metallurgical advancements on several different aspects of the project. We have been able to perform a significant amount of drilling, advance our environmental baseline data collection, and continue our talks with the other stakeholders in Nunavik that could benefit from Ashram going into production. Just in October 2015, we released the news of the highest grade rare-earth element concentrate, with the highest recovery rate we have ever achieved (42% total rare earth oxide (TREO), at 76% recovery). Moreover, October 2015 also brought Commerce Resources the e3 Plus Award from the AEMQ, which is presented to the exploration company that best personifies responsible exploration as envisioned by the e3 Plus framework, developed by the Prospectors & Developers Association of Canada (PDAC). In addition to all of this, Commerce Resources was also able to recently identify fluorite as a by-product at its Ashram site, discovery which further strengthens the economics of the project," said Chris Grove, president of Commerce Resources.

Elsewhere, having just topped the 2016 OTCQX Best 50, a ranking of the best performing companies traded on the OTCQX Best Market, Nemaska Lithium is in a prime position to profit from the favorable dynamics of the global lithium market, which is expected to need up to 100,000 mt of new lithium compounds by 2021. Nemaska's Whabouchi project recently received a big vote of confidence from Canadian authorities mid-February 2016, when it secured a C$12.87 million grant from Sustainable Development Technology Canada (SDTC), the institution's largest grant to date. The funds will be used for phase 1 of Nemaska's hydroxide hydromet plant, which will produce 500 mt/y of high-purity lithium hydroxide. Whabouchi contains the world's second largest lithium reserve and the project is expected to have a life of 26 years. •

Gold's Favorable Canadian Context

Throughout recent years, gold miners have been struggling with high operating expenditure, low ore prices, and tough financing conditions, leading producers around the world to decrease capacity and reassess strategies, and juniors to fiercely fight for the little exploration financing still available in the market. During all this time, gold prices steadily decreased all the way to a seven-year low of $1050/oz, in December 2015. Therefore, in this context, it should come as no small surprise to hear that Québec's gold producers are currently having somewhat of a field day. But why is that?

The first factor of the equation is related to the C$/US$ exchange rate. On July 4, 2014, the two currencies were almost at par, with C$1.06 buying $1. However, on January 20, 2016, the situation looked dramatically different, with $1 being valued at C$1.46. Translating that into Canadian gold mining operations where costs are incurred in Canadian dollars, and revenues are obtained in U.S. dollars, we see a very positive change in these companies' margins. Moving forward, the second factor is one which gives hope to the entire gold mining value chain: on February 18, 2016, gold was worth $1239/oz, a significant increase from the prices of December 2015, and yet another profit amplifier for those producing the precious commodity.

In other words, companies such as Agnico Eagle (LaRonde, Lapa, and Goldex mines), Goldcorp (Éléonore mine), Canadian Malartic (Agnico Eagle and Yamana JV), Richmont Mines (Beaufor mine), and IAMGOLD (Westwood mine) are going through a very favorable period, despite gold's still precarious global profile.

"The beauty of the situation is that we have increased operational efficiencies during a development period for Richmont Mines. We analyzed the Canadian dollar situation, and realized that we will have a two year window in which we could maximize development work at our Island Gold mine, in Ontario [...] So we have partially sacrificed 2015 and 2016, with the vision of reducing costs by 50% during 2017-2022. Richmont Mines has essentially positioned a mine with 6-7 years of predeveloped infrastructure already in place, which is quite unique," said Renaud Adams, president and CEO of Richmont, which leveraged its Québec assets to develop its Ontario propriety.

"2015 and 2016 saw a lot of free cash flow being generated from our Monique and Beaufor assets in Québec. Monique was the only open-pit story in Richmont's 35 year history and it was a complete success for us [...]. It is now depleted, but we managed to fully leverage it in the meantime to become more aggressive at Island Gold, which started producing more, completely offsetting the loss in production in Québec. This balancing policy will continue with the Beaufor mine, which is a free cash flow option at all times for us. We have just positioned ourselves to continue there for another two years, all based on current reserves," added Adams.

"Essentially, from 2013, Richmont Mines has moved from a 30,000 oz short mine-life producer, to a long mine-life 80,000 oz producer, and we hope to increase that number further to 100,000 oz, in the future. Gold mining is and will remain a very strong aspect of Québec's society, especially in Abitibi. As producers, we are going through favorable times now and our hope is that we have learnt from the previous cycles that the good times do not last forever [...] The actions we are taking today are meant to make us perform even during the most pessimistic future scenarios," concluded Adams.

However, this state of well-being is not yet shared by the vast majority of Québec's gold juniors that are still finding it very difficult to procure financing.

"As a junior, it is almost impossible to find financing in the market at the moment. That said, we are finding it encouraging that gold prices are going up again. It was about time. This is definitely helping out the producers here in Québec and, if the trend continues, the junior segment of the market will eventually benefit from it as well. This is the way things are supposed to go: the producers recover first, and then they help carry and lift the exploration companies," said David Grondin, president and CEO of TomaGold Corp., a success story among Québec's gold juniors.

During difficult market conditions, TomaGold successfully entered into an agreement with IAMGOLD for its Monster Lake project near Chibougamau. IAMGOLD acquired 50% of the project for C$3.22 million cash, while holding an option to add another 25% interest by spending C$10 million in exploration work over a seven-year period, with a minimum of C$500,000 per year.

With gold juniors having such a hard time, the market context clearly favors mergers and acquisitions (M&A) activity and sustained consolidation campaigns from the part of those strongly financed players. Osisko Gold Royalties is perhaps the prime example of that in Québec and the company wasted no time by financially backing Oban Mining. Oban completed several deals over the last 18 months, including the acquisitions of Eagle Hill, Corona Gold, Ryan Gold, Northern Gold, and has now made a recent a bid for NioGold. "Lavery has been very busy since the beginning of the year due to high M&A activity in the market. We expect this trend to continue throughout the entire first half of 2016. We are working with some of the biggest companies in the Province, like Osisko Gold Royalties, which created Oban Mining, a company that has already acquired several exploration firms," said René Branchaud, partner at Lavery, one of Québec's established law-firms with a strong mining expertise.

Yet every rule has its exceptions, so when it comes to Québec's gold juniors and their progress towards production, Integra Gold and Falco Resources stand out from the crowd. While their strong financial positions are impressive, their projects also share a different key characteristic that truly enforces their positions as gold junior leaders. Both Integra Gold (Lamaque South gold project) and Falco Resources (Horne 5 project) have their proprieties adjacent to two of the world's most revered gold mining towns, true symbols of Québec's mineral industry: Val D'Or and Rouyn-Noranda. •

"We see a sense of unity in Québec, which fosters an environment that encourages companies with initiative to grow."

- John W. Mercer,
President and CEO,
Dundee Sustainable Technologies

IMAGE: Courtesy of Canarail

From Abitibi–Témiscamingue to the World

A Tale of Two Mining-Towns

Since its discovery in 1901, the Abitibi Greenstone belt, which is shared by Ontario and Québec, has generated over 170 million oz of gold production. The mineralization is rich beyond doubt, but a bigger resource, one that is more sustainable and more beneficial to the regional and national economy of Canada, is increasingly affirming itself on the Québec side of the belt. Over the past 10 years, in the historically symbolic mining-towns of Val D'Or, and Rouyn-Noranda, local service companies have developed such a tremendous amount of human expertise that they are now influencing mining practices around the world.

"About 10 years ago, the mines in Québec were closing down and many were left unemployed – just here in Val D'Or about 1000 homes were for sale. Our local mine engineers took jobs all over the world, so Meglab began getting contacted by them, getting requests to help out, training electricians for mines in Africa, Mexico, or Argentina. Consequently, Meglab's staff grew from six to 140 people, and now we have full-on electrical engineering and instrumentation control departments," said Louis Valade, president of Meglab, a company born and raised in Val D'Or, specialized in the manufacturing and design of electronic equipment, instrumentation and control systems.

Indeed, this knowledge base and mining tradition were built locally. Val D'Or's historic Sigma and Lamaque mines operated for 75 and 52 years respectively, producing a total of 9 million oz of gold, before shutting down in 1985. In more recent times, the service expertise was developed by assisting mines such as Hecla Mining's Casa Berardi (200 km north of Val D'Or), Agnico Eagle's Goldex (Val D'Or), or the Canadian Malartic Complex (20 km west of Val D'Or).

Now, Integra Gold Corp, one of Québec's strongest gold juniors, is marking yet a new revival of the town's mining production, with its Lamaque South Gold project, and its recent acquisition of the Sigma/Lamaque milling complex and mines: "On the Lamaque South Gold project, Integra Gold Corp went from 735,000 oz indicated and inferred in late 2013, to 1,673,000 oz indicated and inferred in late 2015. Moreover, late 2014, we acquired the Sigma-Lamaque complex and mine out of bankruptcy, with the purpose of securing the mill. Our original plans did not include exploring the old mining operations but upon further study, we realized that we had also inherited 75 years' worth of mining and

IMAGE: Courtesy of Nouveau Monde

exploration data which had never been utilized," said George Salamis, executive chairman of Integra Gold Corp.

"We decided to run a crowd source analytical challenge and so we open-sourced all the data. This had been previously done by Goldcorp in 2000, but this time around, the amount of data was far bigger, and the means available for processing it were far more advanced. We benefited greatly from associating ourselves with HeroX, a crowdsourcing platform for incentive prizes, to discover complex, innovative solutions to the challenges facing companies, governments, nonprofits, and individuals. So HeroX helped us bring multidisciplinary teams together, which cross-pollinated their expertise to come up with the best data-processing ideas. The two winning submissions were a mix of traditional geological thinking, with machine learning, and artificial intelligence," explained Salamis.

InnovExplo, a Val D'Or consultancy founded in 2003 by Alain Carrier and Carl Pelletier, has been consistently supporting Integra in recent years. "The mining market is still difficult, but we are involved with the important projects happening in Québec, like Integra Gold Corp's Sigma-Lamaque. Over the past years, InnovExplo has been growing, increasing its number of employees, and hiring senior staff. This increase has allowed us to now add complete feasibility studies to our service offering," mentioned Carrier.

That said, InnovExplo is not restricting itself geographically: "Most notably, however, over the past two years, we have been able to enter the African market, where we are active in countries like Mali, Cote D'Ivoire, and Mauritania. In Senegal, we were called upon to provide training and short NI 43-101 regulations courses," explained Carrier.

Denis Gourde, InnovExplo's Engineering and Sustainable Development VP, completed: "In Mali, we are working directly with an African client, overseeing an operation which was initially closed down in 2012. We are helping the operation completely relaunch itself, from drilling planning, to resource estimates, to mine design, and even coaching staff for the operational phase. The owners are open to consulting Canadian expertise in order to turn the project into a success. InnovExplo comes from the right place and has the right methodology."

The favorable local gold market activity, which is amplified by internationalization opportunities, is helping out companies across the service sector's value chain and the Malartic-born contractor CMAC-Thyssen Mining Group has taken full advantage of the situation: "CMAC-Thyssen has the capacity to serve its clients throughout the entire mine planning and construction process, and over the last couple of years, we have hired over 400 people, for a total of 600 employees today. This has been enabled by the fact that we are in business with producing companies, which, in Abitibi, have been accelerating their projects recently, notably in the gold sector. The vast majority of our business consists of providing services to our clients, but we also have a smaller portion dealing with equipment manufacturing. This has allowed us to expand internationally and broaden our client portfolio. At the moment, we are active in around 15 countries outside of Canada, with a focus on French-speaking Africa," said Luc Guimond, president of CMAC-Thyssen Mining Group. More often than not, the natural focus of most of Abitibi's service providers is West Africa. Ghislain Blanchet, executive VP of CMAC-Thyssen Mining Group, explained why: "Francophone countries like working with us due to the cultural similarities we share, but also because they realize the level of underground mining expertise we possess as Québecers. CMAC-Thyssen is a trusted partner for the mining industry because we have the expertise, manpower and necessary equipment to accomplish all the operations related to the development and successful operation of a mine. For us, French Africa is the next big market, since it is becoming more and more mining-prone. We expect

to see three or four new mining projects in Morocco over the next years and we are well positioned to secure contracts there."

Just 65 miles east of the entrepreneurial Val D'Or, another town proudly boasts its mining tradition: Rouyn-Noranda. And while a rivalry clearly exists between the two, there are more similarities that bring them together than differences to set them apart. Since its discovery in 1923 until its shutdown in 1976, Noranda's Horne gold mine produced 11 million oz of gold, while the entire regional Rouyn-Noranda mining camp accounted for an additional 8 million oz.

The industry's service sector players rose and developed tremendous expertise, which has been leveraged since to assist the numerous mines stretching across the Greenstone belt, the same mines that Val D'Or's companies have been helping.

Blais Industries is one of Rouyn-Noranda's reference-points; a family-business dating back to 1952. Over the last 38 years, the company has enjoyed a close collaboration with the historical Horne Copper Foundry (Glencore); Canada's only facility of its kind, which has been active in town since 1927. This relationship allowed Blais Industries to gain further exposure within the mining sector and to specialize in boiler-works, mechanical-piping, and electrical-instrumentation installations. Having worked on almost all of Québec's major mining projects, Blais Industries is now further expanding its geographical scope, as Jean-François Blais, a member of the family's third generation to lead the business, explained: "We followed our Canadian clients abroad, and we realized that this diversification would help us better manage the downturns. Blais Industries has worked on projects in Mexico, Namibia, Russia, and Burkina Faso. That said, we want to expand wisely, and not sacrifice quality for quantity. We have turned down jobs with unrealistic targets, because mismanaged expectations and projects have hurt the industry."

"The industry is going through a long downturn and exploration work has suffered as a result. Over the past couple of years, some companies have been looking at the lowest cost options in terms of service providers and overall, that is not beneficial to anyone, since most of the time, the quality is absent," said Richard Aubé, regional manager at Major Drilling, one of the largest drilling service companies in the world.

Headquartered in New Brunswick, Major Drilling expanded significantly in Québec in 2011, when it acquired Rouyn-Noranda's Bradley Group, and throughout Canada in 2014, when it took over Taurus Drilling, thus gaining access to the underground percussive market. "We know the market is going to return and Major Drilling has the advantage of being financially strong and capable of investing in expanding its portfolio, even during the downturn. This helps us strategically position ourselves for the upturn," mentioned Aubé, a professional with over 35

"As service sector entrepreneurs in Abitibi, we have tried to pro-actively help our mining clients overcome obstacles."

- Nicola Fournier, Vice President, Sales & Technical Services, Fournier et fils

Frank Mariage

Chairman of the Board,
Association De L'Exploration Minière Du Québec (AEMQ)

Bill 70 was passed in December 2013, finalizing the long process of reforming Québec's mining regime. What has been the overall effect of this adoption on the mining industry?

Québec went through four legislative attempts to reform the Mining Act in five years. Moreover, during this time, provincial elections occurred as well, where mining was a hot topic, in terms of what the industry meant for Québecers, and what economic benefits the population was seeing from it. All these factors created a very difficult environment for our industry, in the province. Mining is an industry of risk, and implicitly, venture capital – what we need to understand is that venture capital does not mind risk, because investors can calculate that (it is part of the game); what they cannot calculate or measure however is uncertainty. And that is what Québec represented for them, from 2009, all the way to the 10th of December 2013, when Bill 70 passed, and the new Mining Regime was adopted. Now, we have greater certainty, stakeholders know what to expect, and we can be sure that no politician will want to touch the mining act for a very long time. So on the one hand, that uncertainty that is so detrimental to venture capital has disappeared, but on the other hand, we are now confronted with an unfavorable global commodity climate. The AEMQ is working with the government to see what we can do together to offset that, and create the favorable conditions that will allow investment capital to come back.

In April 2015, Premier Philippe Couillard announced a scaled-down revival of Plan Nord. What has been done so far?

We had a Plan Nord 1.0, and now a revised version, a Plan Nord 2.0. The initial objective was to help out the iron ore mega-projects in the Labrador Trough, which needed massive infrastructure investments, but with the downturn of the iron prices, people started looking West in the province, analyzing what else is out there. So now we are happy to see the advancement of other projects not related to iron ore: for example, Stornoway Diamonds is well on its way to become Québec's first diamond producer, Nemaska Lithium is rapidly advancing its project, and Arianne Phosphate recently received the green light from the government to go ahead with its Lac à Paul operation. We have strategic minerals that will require secondary transformation, which will occur in Québec, and thus generate more jobs, and more added value. The challenge for Plan Nord 2.0 will be to create an infrastructure that can be used by all these projects that are scattered throughout the vast territory. The Société du Plan Nord is now active, and has financial resources, so we are seeing how the government is slowly, but surely working to create favorable conditions for investors to come back into Québec. A lot of works remains to be done however. •

Josée Méthot

President and CEO,
Québec Mining Association (QMA)

Could you tell us more about QMA's implementation of the Towards Sustainable Mining program in Québec?

Since 2004, the Mining Association of Canada (MAC) has put into place the Towards Sustainable Mining (TSM) program, which is a set of tools and indicators that ensure responsible mining measures are in place for all of its members. Since not all of Québec's companies are part of the MAC, we decided in June 2014 that we were also going to implement the TSM at the provincial level, for all of our members. This measure was a clear reflection of the commitment that QMA has for sustainable development and responsible mining – we established a four year timeline to fully implement the TSM, and we are currently working with all our members to achieve that.

What are the current dynamics of Québec's mining industry, and are we seeing more mineral diversification in play?

The diversity of our mineral potential will ultimately carry us through the downturn. When the liberals launched the Plan Nord 2.0, they sent out a clear message: that mining is a core business for Québec, and that we need projects here. We all know this is a difficult time for iron ore focused companies, and predictions are that their downturn has not reached its bottom yet; the situation is not great for zinc, or nickel either. Thankfully, there are several factors that offset this. First of all, we have strong gold production in Québec, which, at the moment, is benefiting from the advantageous USD/CAD exchange rate. We are getting good news in apatite, with Arianne Phosphate recently receiving its environmental permits, and we are also looking forward to Stornoway Diamond's diamond mine, the first of its kind in Québec; elsewhere, Royal Nickel's Dumont project will enter its construction phase soon enough, as well. Another element that is making life easier for some companies is the low cost of petroleum, which is bringing operating expenditures down, in some cases. Rare earths and lithium projects are also bringing some hope and could help compensate, in their own ways, for downturns in traditional mining activities.

Ultimately, what makes Québec a great mining jurisdiction today and what are the QMA's plans for 2016?

The quality of our manpower in Québec, the excellence of our universities, and research centers, these are core strengths that we have here. Furthermore, even though political changes have occurred quite often lately, we are still a very stable and predictable jurisdiction, as compared to others. Québec has an excellent support system (suppliers, research centers, etc.) for its mining industry, which is really engrained in its culture. For 2016, the QMA is targeting to improve communication and dialogue with local communities and First Nations, so that is one of our top priorities. Otherwise, another important step will be the integration of Minalliance, an organization meant to promote mining to the general public, within our structure. Looking forward, the QMA will continue to offer all the support it can to Québec's mining industry, which has numerous established, and experienced responsible companies. •

"The Saguenay-Lac-Saint-Jean region needs a project like Lac à Paul badly. The logging, and the pulp and paper industries were once the economic drivers there,but that is not the case anymore – many of these businesses are shutting down. In 2015, Arianne Phosphate was invited by the government to the "Sommet Economique Régional du Saguenay–Lac-Saint-Jean", which was chaired by Québec's Premier, Philippe Couillard, and the message was clear: let us look at mining as a solution. In the end, this project is going to help Québec: we will create 2,200 jobs during the construction phase of Lac à Paul, and then generate 1,000 direct and indirect jobs during its operation."

- Jean-Sébastien David,
Chief Operating Officer,
Arianne Phosphate

years of experience with both underground and surface drilling operations.

Tradition seems to be, however, the keyword in Rouyn-Noranda, and the town's other major family-owned business is Moreau, a construction company that has grown since its inception in 1977 to have over 1,200 employees today, generating an annual revenue of over C$ 200 million. Entities such as Moreau, heavily active in Nunavik, show that the Abitibi-Témiscamingue serves as the center of mining expertise and gateway to the north of Québec, despite the 1,000 miles that separate the regions.

Unlocking the resource-potential of northern Québec will prove extremely rewarding one day, but in the meantime, intriguing developments are occurring in the heart of Rouyn-Noranda itself. In 2012, Falco Resources, another strongly-positioned gold junior, entered the scene and bought 70% of the historical Rouyn-Noranda mining camp, determined to make good use of the 300,000 m historical drilling and exploration done by Noranda Inc. After 17,000 m of its own drilling and the digitalization and compilation of historical data, in early 2016, Falco Resources boasted 5.36 million oz of gold indicated and a further 1.25 million oz inferred for its Horne 5 gold project.

"We now know that Horne 5 is eligible for exploitation as an underground bulk tonnage mine. This will enable Falco Resources to process more than 10,000 mt/day at the mill when operational, essentially making this one of the biggest underground mines in North America. There are so many elements both in the OPEX, and in the CAPEX that can be improved, and all of those are opportunities for us to increase the attractiveness of our project. Horne 5 is situated in an industrial park and so we will tap into the town's electrical power infrastructure and its municipal services. Finally, we will benefit from having all those exceptional service providers as neighbors – all these factors will help us reduce costs. Rouyn-Noranda stands as a global reference point for gold mining – we could not be positioned in a better place," said Luc Lessard, president and CEO of Falco Resources.

With an international career of more than 25 years in the industry, during which, among other accomplishments, he oversaw the design, construction, and commissioning of Canadian Malartic's gold mine, Lessard is confident and hopeful about Québec's mining future: "There is strong support for mining in this province and Falco Resources is proud to be here – that is why our headquarters are in Montreal. The people are on board, the government is on board and we have a longstanding tradition of mining excellence. I strongly believe in Québec as a mining jurisdiction. The day I will stop believing, I will move away and give my tax-money to another jurisdiction."

Conclusion: Leading by Example

In no way can the global mining downturn be overlooked or minimized. The situation is still dire and there are few signs out there that 2016 will mark a spectacular comeback of the industry.

"The mining market is still a difficult one and the situation will not change soon. Even if the commodity prices will go back up, it will take quite a long time for the industry to come back as well, since it is so capital reliant," stated André Allaire, president of BBA, a Canadian engineering company with a long-lasting tradition in the mining sector. "Mining still represents about 50% of BBA's business, but recent market conditions have led to us focusing on sustaining capital costs and the optimization of existing operations. Things are changing and we are seeing more synergies between our mining and energy departments. Power efficiency is currently a key item, especially with remote operations, and BBA is helping companies by integrating wind and solar energy solutions on those sites, improving productivity and reducing carbon footprints," explained Allaire, who has seen BBA expanding across Canada in recent years and consistently being placed among the country's best managed companies.

"BBA is now seeing more activity happening with front-end studies and there seem to be more opportunities coming up in Canada now with gold and special metals, so we expect moderate optimism to dominate the market in 2016," concluded Allaire.

Without a doubt, the planet will continue to eat more, build more, and innovate more and, from cloud-breaking skyscrapers to burgers to the lithium ion cells that power electrical cars, everything in the value chain is dependent on mining, whether we are considering iron, phosphate, or lithium.

Québec is one of the most mature and experienced mining jurisdictions in the world and this fact, just like any other, comes with a trade-off; but in this case, the positives vastly outweigh the negatives. Yes, La Belle Province is not a cheap place in which to mine, but its service providers, like those from Val D'Or and Rouyn-Noranda are some of the best in the world, and they will get the job done right from the outset, generating long-term cost efficiency. Yes, Québec has more regulations and is more sensitive to community relations than most other jurisdictions out there, but no coup d'état will endanger a project here. Furthermore, authorities, when feasible, will put in a real shift to help miners see their projects become reality (just ask Agnico Eagle, Stornoway Diamonds, or Nemaska Lithium). And yes, Québec still needs an infrastructural network to develop its far north, but, at the same time, companies like Integra Gold and Falco Resources are reviving important historical mining sites that are adjacent to fully developed and serviced municipalities.

So what can Québec achieve during this mining downturn? Well, what it has been doing already – to innovate and to lead the world's miners by example, across the various layers of its industry supply-chain. From Dundee Sustainable Technologies developing solutions that could change the world of mining by eliminating cyanide usage from gold processing, to Falco Resources planning a project with virtually zero environmental surface impact, Québec is in the sector's driving seat. As it should be.

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Our full 2016 Québec Mining Report will delve deeper into the ways through which companies across the industry's value chain are finding new and resourceful methods to advance their technology and projects, which ultimately might influence the global mining industry.

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