

# Québec Looks Forward to the Upturn

*Diversifying away from tradition gold and iron ore operations, the La Belle province exports its mining experience to the French-speaking regions.*

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The 100% owned Renard diamond project, Stornoway's flagship asset, will be the first diamond mine in Québec, once complete in September 2016. Cover photo courtesy of Stornoway Diamonds.

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A REPORT BY GBR FOR E&MJ



# Introduction

## Québec's Political Improvements and Legislative Stabilization



: Panoramic view of Arianne Phosphate's Lac à Paul apatite project. Photo courtesy of Arianne Phosphate.

Positive evolution would be the best way to describe the development of Quebec's mining industry over the past several years. The prestigious annual survey of mining companies, conducted by the Fraser Institute, perfectly reflects this trend, with Quebec gradually improving its appeal as an investment destination for the industry: from 24th in the world in 2013, to 10th in 2014, to 8th in 2015. This report will analyze why and how these positive changes occurred, and see what role the province will assume for itself in the future. 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 US\$1,250/oz, while iron ore prices are hovering at US\$60/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 in the last five years. The accomplishment with the biggest impact was 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, Hosking, & Harcourt LLP.

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 con-

servative Parti Québécois 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 Philippe 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 km<sup>2</sup> 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, Investissement Québec's natural resource subsidiary. "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 2015-2016, we had 10 interventions over a broad scope of companies at different development stages of their projects for a total of C\$220 million. The two main projects we supported this year belonged to Osisko and Agnico Eagle, but in the past, we also offered help to 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 politics aside and diving deeper into Québec's mining operations, we see numerous, overall positive developments. From favorable US\$/C\$ exchange rates improving gold producer profits, to non-traditional mineral projects marching strongly to operation, Québec is visibly rallying up forces and moving in the right direction."



Eric Levy, partner, Osler, Hosking, & Harcourt LLP.

# Interview

## Luc Blanchette, Minister for Mines, Government of Québec



### What are the main objectives you have 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, to use natural gas supplies to aid in the recovery of the Côte-Nord region, and to develop a world-class network of suppliers and equipment manufacturers in the mining, hydro-electricity and forest sectors. In addition, we promised to reactivate sustainable Northern development with the Plan Nord, benefiting more workers, companies, suppliers and equipment manufacturer, and generating new jobs in every region of Québec.

### How has Québec's mining sector evolved since you came into office?

In 2015 alone, Québec's mining sector generated nearly C\$3 billion in investments and supported more than 30,000 direct and indirect jobs. Québec's mining shipments in 2015 were valued at C\$7.7 billion. In spite of the difficult economic context, positive trends exist: 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' facilities at Pointe-Noire, along with the Arnaud railway. In doing so, it hopes to support Plan Nord's revival by providing access to strategic infrastructures that mining companies located in northern Québec can use to ship their production.

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# Beacons of Hope

## Québec's Increasingly Diversified Mining Scene



Aerial view of Whabouchi property. Photo courtesy of Nemaska Lithium.

Over the past two years, press headlines largely covered the rather negative aspects related to Québec's mining industry. Iron ore prices steadily descended towards the \$40/mt mark, making the life of iron ore companies extremely difficult in Québec, a jurisdiction with tremendous potential for this commodity, especially in its Labrador Trough region. Moreover, in July 2015, the Bureau d'Audiences Publiques sur l'Environnement (BAPE) issued a 626-page study, advising Québec's authorities against uranium exploration and mining in the province, triggering the discontent of the Canadian Nuclear Safety Commission (CNSC), and sending a negative message to the international investor community. Add these events to an already

depressed global mining environment, all within a climate of scarce financing sources, and the results should not contribute to a beautiful picture for La Belle Province's mining scene. Yet, somehow, within this scenery, riding the overall positive trends of Q2/Q3 2016, and benefiting from strong governmental support, several companies, with a line-up of non-traditional minerals for Québec, are fighting their way onto success.

### Québec Mining's Unexpected Beacons of Hope

Having 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 at the time. "This is an incredibly important endorsement because it shows we proved that our technology is viable to an array of high-level PhDs. On the governmental side, in the recent past, Québec, as a mining jurisdiction, has not had a great image internationally: the frequent changes of government, the moratorium on uranium and the long-debated Mining Act changes did not help. However, in March 2016, with Ressources Québec putting C\$ 10 million in Nemaska Lithium equity, not debt, we saw a clear statement being made: that the government sees us as a real opportunity and is supporting us in the long-term. Simultaneously, it sent a message to the international financial community that Québec is once again open for business," said Guy Bourassa, the president and CEO of Nemaska Lithium.

With Whabouchi containing the world's second largest lithium reserve and an expected mine-life of 26 years, the future looks very promising indeed for Nemaska. "Domestically, things have been improving in Québec since 2013. We have a relaunched Plan Nord 2.0, which is much more inclusive, and not as Labrador Trough focused anymore, and the Société du Plan Nord, an actual institution actively working to implement this. Most of the commodities are down, whereas lithium is in a very good place; that, combined with the fact that we are an advanced project, makes us a very attractive investment opportunity for the government. We are well-positioned and the future looks bright for us: we will have completed the construction of the Phase 1 Plant by the end of 2016. We will then complete

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Guy Bourassa, president and CEO, Nemaska Lithium.

the C\$550 million project financing, and start the construction of the main plant, with a vision to be in commercial production in 2018," added Bourassa.

Elsewhere, racing towards the finish line, Stornoway Diamonds is building Québec's first diamond mine – ahead of time and below its 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 amounting 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 Investissement 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 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% P<sub>2</sub>O<sub>5</sub>, and an expected 72 million mt of high-off grade concentrate at 38.6% P<sub>2</sub>O<sub>5</sub>, which will assure a 26-year mine-life, Lac à Paul



Christopher Grove, president & director, Commerce Resources.

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 Re-

sources 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, a discovery which further strengthens the economics of the project," said Chris Grove, president and director of Commerce Resources.

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# Canada's Favorable Gold Context

## Exchange Rates Help Producers



Visible gold at Beaufor. Photo courtesy of Richmond Mines.

Throughout recent years, gold miners have been struggling with high operating expenditures, 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 US\$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 C\$ and revenues are obtained in US\$, we see great improvements in these companies' margins. Moving forward, the second factor is one which gives hope to the entire gold mining value chain: in May 2016, gold was worth \$1250/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), Richmond 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 had increased operational efficiencies during a development period for Richmond Mines. We analyzed the Canadian dollar situation, and strategically planned for a two-year window, in which we could maximize development work at Island Gold [...] So we have partially sacrificed 2015 and 2016, with the vision of reducing costs by nearly 50% during 2017-2022 – Richmond Mines will essentially position a mine with 6-7 years of pre-developed infrastructure already in place, which is quite unique," said Renaud Adams, president and CEO of Richmond, 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 Richmond'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, Richmond Mines has moved from a 34,000 oz short mine-life producer, to a potential long mine-life 80,000 oz producer from 2017, 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

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Renaud Adams, president and CEO, Richmont Mines.

even during the most pessimistic future scenarios," he concluded.

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. Consequently, the market context favors mergers and acquisitions activity and sustained consolidation campaigns from the strongly financed players. Osisko Gold Royalties is perhaps Québec's prime example of that 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, more recently, NioGold.

Moreover, in their own ways, other gold juniors, such as Eastmain Resources, Midland Exploration and Balmoral Resources, are also finding their way to success. In fact, Balmoral's story is quite unique within Québec's mining landscape. The Vancouver-based company has won the AEMQ's prestigious "Prospector of the Year" award twice in consecutive years, for two completely different types of assets: in 2013, with its gold Martiniere property, and in 2014, with its Ni-Cu-PGE Grasset discovery. This project line-up and quality makes Balmoral stand out from the crowd. "We have an experienced crew of dedicated explorers: this is our craft, and we do not pretend to be anything else. During these difficult years, we have managed to reach out to the markets and attract that crucial funding everyone needs. However, we have also been courageous enough to consistently spend that on drilling programs, knowing that the money was high-risk both for the investors and for the future of Balmoral itself. Luckily, we succeeded in giving our shareholders a great 2014 with our Grasset asset, while diversifying our portfolio. Now that nickel prices are down, we are shifting our attention to our gold Martiniere property, which has kept growing since 2013. Ultimately, we are explorers and our job is to create value

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Darin Wagner, president and CEO, Balmoral Resources.

for our shareholders, irrespective of the commodity,” said Darin Wagner, president and CEO of Balmoral Resources.

Meanwhile, two other gold juniors, Integra Gold and Falco Resources, also 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 properties 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.



George Salamis, executive chairman, Integra Gold Corp.

### From Abitibi-Témiscamingue to the world: A tale of two mining towns

Since its discovery in 1901, the Abitibi Greenstone belt, 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



Luc Guimond, president, CMAC-Thyssen Mining Group.

tremendous amount of human expertise that they are now influencing mining practices around the world.

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), and the Canadian Malartic Complex (20 km west of Val D’Or).

Now, Integra Gold, 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 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 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 of 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 to-

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Denis Gourde, VP engineering & sustainable development, Alain Carrier, co-president founder, Carl Pelletier, co-president founder, InnovExplo.

gether, 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, Côte 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, amplified by internationalization opportunities, is helping out local companies and Malartic-born contractor CMAC-Thyssen Mining Group has taken full advantage of that: “CMAC-Thyssen can serve its clients throughout the entire mine planning and

construction process and, over the last years, we have hired over 400 people, for a total of 600 employees today. This was made possible by our producing partners, which, in Abitibi, have been accelerating their projects recently, notably in the gold sector. The vast majority of our business consists of servicing clients, but we also have a smaller portion dealing with equipment manufacturing. This has enabled us to expand internationally and broaden our portfolio. Currently, we are active in over 15 countries abroad, with a focus on French-speaking Africa,” said Luc Guimond, president of CMAC-Thyssen Mining Group.

Naturally, the 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 Québécois. For us, French Africa and Morocco, in particular, is the next big market.”

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 have thus developed tremendous expertise, which has been leveraged since to assist the Greenstone belt’s mines, the same that Val D’Or’s companies have been helping.

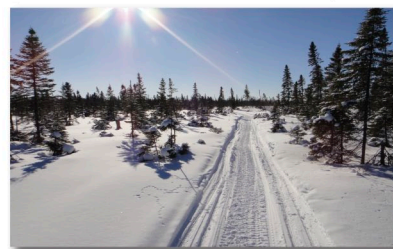
Blais Industries is one of Rouyn-Noranda’s reference-points; a family-business dating back to 1952. Over the last 38 years, the company has enjoyed a close collaboration with the historical Horne Copper Foundry

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Falco Resources' Horne project area in Rouyn-Noranda encompasses the former producing Horne and Quemont mines, as well as the Horne 5 deposit. Photo courtesy of Falco Resources.



Luc Lessard, president and CEO, Falco Resources.

(Glencore); Canada's only facility of its kind, which has been active in town since 1927. Having worked on almost all of Québec's major mining projects, Blais Industries is now expanding abroad: "We have worked on projects in Mexico, Namibia, Russia, and Burkina Faso. That said, we want to expand wisely, and not sacrifice quality for quantity: unrealistic targets and mismanaged expectations have hurt the industry," said Jean-François Blais, executive officer for business development at Blais Industries.

"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.



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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 years of experience with both underground and surface drilling operations.

Tradition seems to be the key-word 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.

While unlocking the north will prove rewarding one day, intriguing developments are presently 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 us 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. We will also benefit from having exceptional service providers as neighbors. Rouyn-Noranda stands as a global reference point for gold mining – we are ideally positioned," 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 about Québec's mining future: "There is strong support for mining in this province and Falco Resources is proud to be here. The people and the government are on board, and we have a longstanding tradition of mining excellence. I strongly believe in Québec."



D•tech is the condition monitoring service providing specific information about the condition of equipment. Photo courtesy of Hewitt Equipment Ltd.

Irrespective of their target commodity prices, over the last years, miners have learnt the hard way that controlling their costs is essential in today's extremely competitive environment. From EPCMs, to consultancies, to drilling companies, to equipment providers, everyone is striving to be ahead of the game, coming up with innovative cost-optimization methods.

"Sustaining capital work is essential because this is where the clients are currently spending their money. We analyze client operations in order to create sustainable cost reductions: anyone can do headcount cuts, but to introduce automation, generating safer work environments, smaller carbon footprints, modelling bottom-lines, and assuring predictability – that is where the added value comes into play," said José Suárez, president of Global Mining & Metallurgy at SNC-Lavalin, which made a significant move in 2014, acquiring 15,000 employee-strong Kentz.

Equipment-providers are traditionally known for having a rather conservative business model; selling and maintaining machinery. But more and more, technology is added nowadays into their product and service offering. David Hewitt, VP of Resource Industries at Hewitt Equipment, CAT's exclusive Québec dealer, explained: "In this cycle, our customers need us to help them extend the lives of existing fleets and drive down their costs. Our gold mining partners are looking at new technological opportunities, such as autonomous vehicles. In fact, in March 2016, Hewitt Equipment was the first in Canada to commission an underground autonomous CAT loader. Many discussions were carried out regarding the usage of more analytics for machine performance improvements underground, an aspect that has always been a challenge for the sector. There are plenty of data-streams nowadays, but there is a gap in the proper utilization of them. Furthermore, we are also performing more machine and component rebuilds, giving second and third lifecycles to underground equipment, an aspect which CAT prides itself on."

Having managed to keep its 2,200 workforce fairly intact during these last challenging years for the industry, Hewitt Equipment, strongly backed by CAT, is now spearheading the remodeling of the traditional equipment provider concept: "There are many new products and programs in the market, but the key is to use them correctly and Hewitt Equipment is at the forefront of CAT's global efforts. We were among the first five dealers worldwide to undergo the condition monitoring pilot programs, and our fluid analysis lab is within the top five most certified facilities within CAT's global network. Our end goal is to help clients succeed, because we believe that by making their

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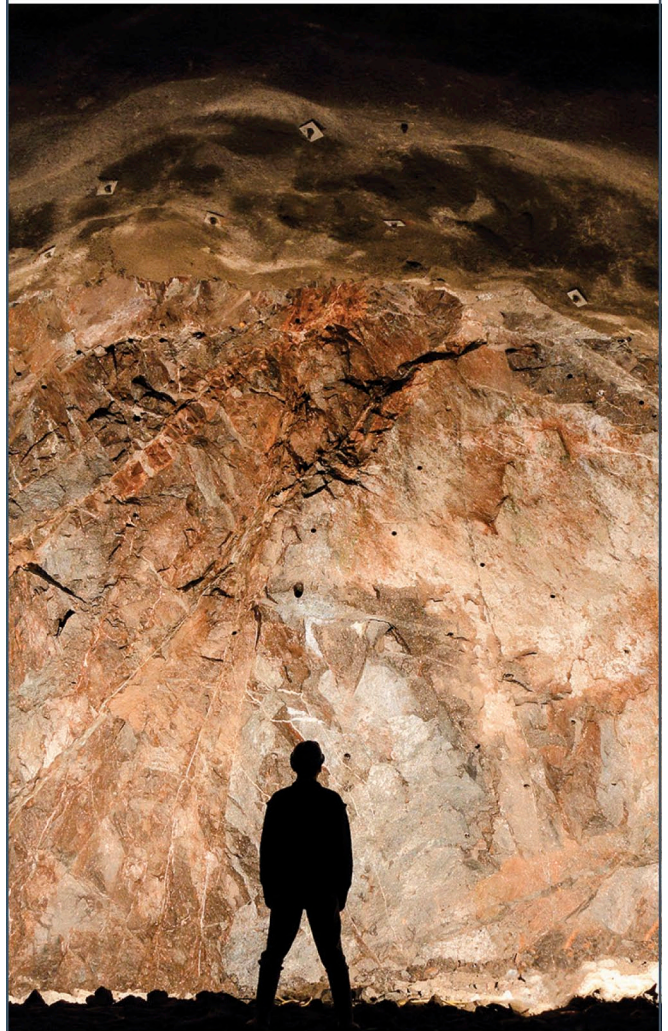


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operations more efficient, in the long-term, they will give us more of their business,” added Hewitt.

The idea of increased efficiencies and technological input is so influential that some companies, such as Hatch, went as far as reinventing themselves on the basis of smart design. “We are now entering a new era for Hatch, which will mark our return to the core, innovation-based values that this company was founded on. Project execution has traditionally been a key area of focus, but we have seen that more and more companies are calling for innovation and smart design nowadays. What is needed is a step-change, and not the continuous improvement of existing models. The industry is asking for a whole new level of commitment and evolution, and throughout the super-cycle, R&D was not necessarily in the spotlight: priority was given to big CAPEX projects, and delivering those on time by employing traditional engineering methods. With Hatch’s new era, we are going back to innovation expertise and leveraging our global network of specialists, asking them to work cross-industrially. Our partners want us to treat their money as if it were our own [...] They encourage us to come with riskier, more-technologically prone solutions that they can analyze and decide whether to pursue or not. Hatch has



David Hewitt, vice president for resource industries, Hewitt Equipment.

a dedicated Technology Group which focuses exclusively on developing new processes and methods that we patent and sell to our customers. We also work directly with our partners to create customized-solutions for them, which we can then potentially apply to new business cases afterwards,” said Martin Dionne, director for Iron Ore and Metal Powders at Hatch, one of the biggest EPCMs in the world and one of the consistent winners of Canada’s Best Managed Companies.

“This new era for Hatch represents one of positive change, and the philosophy behind that is to not only emphasize the execution-quality, but also our employees’ motivation



Martin Dionne, director for iron ore, global metal powders lead, Hatch.

for performing on a project. We encourage introspection and, since engineering shapes our future, we want to make sure we are doing things for the right reasons, taking into consideration the overall social impact that we will have. We want our legacy to benefit everyone,” added Dionne.

Given the moderate optimism displayed by Canada’s mining markets over the last months and the hard lessons learnt during one of the longest down-cycles in recent history, perhaps Hatch’s “Positive Change” slogan will come to represent the modus vivendi of the entire industry, reborn and redesigned for success.

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## Conclusion

### Leading by Example



A winter morning. Photo courtesy of SOQUEM (Société Québécoise d'Exploration Minière).

In no way can the effects of the global mining downturn be overlooked or minimized. Despite the recent positive signals in Canada, it would be risky to say that the industry has passed the final hurdle: even if the upturn is truly around the corner, it will take time for the whole sector to heal and benefit from it. But once it does, it will be stronger than ever.

"The mining market is still a difficult one and the situation will not change soon. Even if the commodity prices 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.

"The market is heading in the right direction, and we are excited about all the upcoming projects. We are based in Val D'Or and this has certainly been among the most



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André Allaire, president, BBA.



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Nicola Fournier, VP sales and technical services,  
Fournier & Fils.

prolific gold towns in Canada for the last 80 years, but that said [...] the next big things will happen up north, and not only in Québec, but in Ontario as well, in the Ring of Fire. Our big environmental department will focus over the next years on mine closure procedures, for which a significant provincial budget of C\$650 million was allocated. With the partnerships it is establishing, Fournier & Fils is strategically positioning itself to take advantage of the upturn it sees ahead," said Nicola Fournier, VP sales and technical services at Fournier & Fils, one of Abitibi's main surface-work providers.

Québec is one of the most mature and experienced mining jurisdictions in the world and this comes with a trade-off; but here, the positives vastly outweigh the negatives. Yes, La Belle Province is not a cheap place to mine in, 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, 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 adjacent to fully developed and serviced municipalities.

So what can Québec achieve during this transition period from downturn to upturn? 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. Québec is in the sector's driving seat: as it should be.