

# Mining in Russia

## *Braving the Bear*

### TABLE OF CONTENTS

Introduction.....	p50
Growth Drivers.....	p53
Equipment.....	p56
Interview with Roman Kopin, Governor of the Chukotka Autonomous Region.....	p58
Services.....	p59

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Inside the shaft. Photo courtesy of Shaftproject.

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# Mining in Russia

Russia is the world's largest country and correspondingly rich in minerals. Yet, even today, investment capital for the mining industry is insufficient.



Building a quarry in Oleniy Ruchey. Photo courtesy of Acron.

Russia, the world's largest country, is also one of the richest mining jurisdictions on earth. From bauxite to iron ore, gold to platinum and a lot of mineral types in between, Russia ranks amongst the world's top 10 in terms of both production and reserves. Furthermore, the country is unusual in being one of the few emerging markets with a well developed domestic service and equipment industry.

Russia is nearly twice the size of Canada, the world's second largest country, and borders both China and the EU. Russian Railways is the world's second longest rail network and the country enjoys port access to the Arctic, Baltic, Black Sea and the Pacific. Access to markets is good and the country is well positioned to benefit from growing demand in Asia, though internal infrastructure is in need of substantial investment.

Despite the size of its industry, it's a case of 'good, could do better' for Russia. During Soviet times quality exploration work was conducted searching for strategic resources, but with the collapse of the Communist regime in 1992, state sponsored exploration halted and the new market system failed to attract private sector capital. Russian integrated metals operations were hastily privatized and fell into the hands of a small number of oligarchs. Due to low commodity prices, national politics, and the personal sentiments of many of the oligarchs, the 1990s and early 2000s were lost years for the Russian mining sector. Owners sent capital offshore, using little money to modernize already outdated mines and the sector declined.

Today, companies are exploring once again, but the volume of capital being expended in the country remains low and the number of juniors active is derisory relative to the sub-surface potential.

## Laws 57-FZ and 58-FZ: A Barrier to Entry?

In 2008, President Dmitry Medvedev signed Federal Laws 57-FZ and 58-FZ, which regulate foreign ownership and control of strategic assets and industries, including certain types of mineral resources.

For a long list of mineral resources, the government has the right to insist that a Russian firm own a controlling stake. These laws have had a stifling effect on exploration activity in the country. Should a relatively large resource be discovered, the explorer may be forced to sell a 50% plus stake in it to a Russian company. The definition of 'Russian' excludes any company with foreign assets or subsidiaries; thus the number of potential partners is extremely limited and the explorer cannot be certain they will be able to sell the controlling stake at 'fair' market price.

Executive director of the Mining Advisory Council, Nikolay Matyash, said: "The laws are problematic in numerous ways. The definition of what constitutes 'strategic assets' is without clear distinction and logic: copper is considered a strategic asset, while silver is not. Additionally, any deposit area that contains mixed mineralization is to be considered a strategic asset. The determination of land for defense and security is similarly vague and mysterious; the government can

essentially deem any land it wants as such.

"The Mining Advisory Council helped submit a 16-page document to the Federation Council which contained statements from economists, lawyers, analysts, and other professionals regarding the impact of these regulations. This document proposed re-evaluating the thresholds for some strategic assets and creating thresholds for minerals that do not have them under the current legislation. For example, the current threshold for a gold deposit before it is considered a strategic asset is 50 metric tons (mt); we hope to see that threshold changed to 250 mt".

Many politicians recognize the need for change and Elena Sokolovskaya, head of anti-monopoly group at Pepeliaev Group, said: "The Council of the Federation, the upper chamber of the Russian legislative assembly, approved a set of amendments to the law during November. The amendments seek to ease government control of foreign involvement in strategically important industries. Exempted will be transactions involving companies with sub-soil investments that are already 25% foreign owned, where the size of the foreign interest does not change, such as if the company issues additional shares. Finally, some activities will be removed from the strategically important list. In brief, the amendments will reduce the burden on foreign investors".

While these amendments have started their slow course through the Russian political system, many fear that they will take a long time to come to fruition, or will be watered down.



Dr. Sergey Pepeliaev, managing director,  
Pepeliaev Group

### Country Risk

Russia was rated the 11th worst mining jurisdiction in the 2010/11 Fraser Institute Survey of Mining Companies, which measures how political factors affect exploration investment decisions. However, Russia has the same foreign currency rating (BBB) as Peru and Brazil and has maintained a stable political and economic environment since the election of Vladimir Putin as President in 2000.

Are mining executives and investors overrating the risk of investing in Russia? "There is a preconceived idea that Russia is a risky place in which to invest. Investors are happy to carry on investing in many other countries that are politically unstable. Russia is far from politically unstable yet investors often treat it with a great deal of skepticism. Managers are quick to blame failures on the country and the press tends to repeat these excuses. We feel there are a lot of opportunities in Russia which we are capitalizing on," said Tim McCutcheon, CEO, Ovoca Gold.

The experience of one company stands out as an example of what can be achieved by a foreign miner in Russia. Kinross Gold has been active in Russia since 1995. Currently it owns one producing mine in the country and is investing heavily in exploration and development. The company's Kupol mine produced 554,000 oz of gold and equivalents in 2010 and 925,000 oz in 2009.

Kupol qualifies as a strategic asset, but the Canadian company was allowed to take a controlling interest in the property and investing in Russia has proven to be an extremely profitable endeavor. Even as the operation shifted underground, Kupol produced at a cost of \$319/oz in 2010, against a companywide average of \$508/oz.

General director of Kinross Far East, Warwick Morley-Jepson, argues that, while miners may understand Russia, investors

often do not. "The mining community itself has a fairer perception than investors, wherein the problem lies. Investors have seen things happen in Russia, not necessarily in mining, and label it as a dangerous place to go. Some miners have left or refuse to come here for reasons that we cannot explain. We are proof that you can make a success of it out here and that there is support for foreign miners. However, there is room for some tweaking of the system, especially to encourage exploration," he said.

### Permitting

The issue of permitting, rather than the laws on strategic assets or political risk, may be the most significant risk associated with mining industry in Russia.

Companies must bid for exploration licenses, which typically last for two years with the possibility of extension. In a number of recent auction rounds, serious applicants have been disqualified on technical grounds at the last moment. For an auction to be valid, at least two parties must bid. If a second party is not present, a new auction must be held and all interested parties must re-qualify.

Once a company has secured an exploration license and identified a resource, it must apply for a mining license.

As a pre-condition to applying for a mining license, the applicant must have their reserves calculation vetted by the State Commission for Mineral Reserves (the GKZ). In most cases the explorer will have to commission a JORC or NI 31-101 compliant resource calculation from an external consultant for internal purposes or in order to secure external funding. GKZ is not compatible with JORC or NI 31-101, though the agency is moving to harmonize its standards with those of Committee for Mineral Reserves International Reporting Standards (CRIRSCO).

Amur Minerals are a base metals focused junior with three projects in eastern Siberia. CEO Robin J. Young discussed their experience applying for a mining license at the company's most advanced project, Kun-Manie sulphide nickel, a copper project. "Typically, applications take six months, but we are dealing with a federal agency. Just as in Canada or the US, their calendar seems to be different from ours. It has already been 20 months. There are four separate agencies that review the documentation, which is eventually given to the Ministry of Natural Resources, the ultimate license granter. We are now just waiting for the fourth agency to submit their report. We are making progress, but I have learned in this business never to project a date".



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The bureaucracy does not end after you secure a mining license. "Mine plans are submitted annually to the local authority, which are checked against the original documents of what you promised you would be working towards. If a client wants to update a mine plan due to a change in the market, it could take a couple of years to get the changes approved by the local authority. Internationally you would just generate a new mine plan within three months and implement it without needing to seek any permission," said David Pearce, general director of SRK Consulting Russia.

The process outlined above is similar to that found in many other jurisdictions across the world, but the major challenge is the time that each step of the process takes. In the words of Ovoca Gold CEO Tim McCutcheon: "It is a bureaucratic system which dissuades juniors from coming in to carry out exploration."

### **"To IPO or not to IPO?"**

As previously noted, the lion's share of the Russian mining industry in controlled by domestic players, thus, if investors want to participate, they will probably have to invest in a Russian company listed on a foreign exchange.

While Russia has gained a reputation as a land of wealth (for some), domestic capital markets remain limited, explained Evgeni Khrustalev, partner, transactions valuation & business modeling at Ernst & Young. "The Russian financial environment is maturing but is still not nearly as deep as Western markets or Hong Kong. We lack institutional investors which is a major challenge. Things are improving but it's a long horizon," Khrustalev said. To raise significant capital, or achieve a 'fair' market value, Russian miners still need to be listed overseas.

"If you go back to the end of 2010, there was quite a long list of potential IPOs in the metals and mining sector. In the first half of this year, some were postponed and some just never happened," Khrustalev said.

Listing activity has been constrained globally in 2011, even in the buoyant minerals sector. Given the size of the backlog, the lack of Russian mining IPO activity in 2011 has been particularly marked. The dearth of Russian IPOs in 2011 is a reflection of investor sentiment and, specifically, the risk premium that foreign investors attach to Russian stocks. The sheer volume of capital required by Russian miners is also a cause for concern. "In 2011, it was clear that investors were cautious about

Russian companies because there was insufficient money in the market to accommodate all those companies at a price acceptable to the owners," said Vladislav Pogulyaev, senior audit partner at BDO.

John Campbell, consumer and industrial products industry leader and partner at PWC, said: "There is an attitude out there of saying 'we need to do an IPO' without thinking through what it involves exactly. You need to be prepared in terms of financial reporting standards and that requires quite a long lead time. You also need to moderate expectations because pre-crisis, the sky was the limit. Many companies have gone to the market and been disappointed. Companies have to be realistic about how much the owners can pull out of the company verses how much they will need to reinvest if they are to get a strong valuation."

London's LSE has traditionally been the obvious choice for CIS firms looking for foreign investors. Rusal chose Hong Kong as its primary listing and this has led to speculation that China might become the investor market of choice for Russian firms. "Many Russian companies are looking to Asia as their chosen market, and Hong Kong is starting to become a more obvious destination. However, there is a depth of knowledge about Russia and mining in London and Toronto that make them the market of choice for Russian miners," said Campbell.

Given that 2012 may herald the start of the second Global Economic Crisis, it remains extremely hard to make any predictions about IPO activity in the near future. In November 2011, the world's third largest silver miner (and fourth largest Russian gold producer), Polymetal, moved its primary listing to the LSE and may become the first Russian miner to graduate to the FTSE 100 index by the time of publication.

Fellow gold and silver producer Polyus Gold undertook a reverse takeover of KazakhGold and had hoped to re-incorporate in the UK and moves its primary listing to London in October 2011.

However, in a surprise move, a panel lead by Russian Prime Minister Vladimir Putin blocked the attempt. Quite why Putin chose to block the merger is uncertain; it could be because of a genuine (and resolvable) technical issue, but many suspect that it is to punish Polyus's main shareholder, Mikhail Prokhorov, who harbors aspirations to become Russia's next president, or because the government did not wish to see a major company such as Polyus leave Russia.

# Growth Drivers

## A closer look at the minerals attracting most investor attention



Jointly owned by Kinross and the regional government, Kupol consists of both an underground and open-pit operation. Photo courtesy of Kinross.

The Russian mining sector may be failing to attract the capital its geology deserves, but in a handful of minerals and metals categories the country is witnessing substantial investment. As an example, Russia is the world's fourth largest producer of phosphate rock, mining 11 million mt of the fertilizer feedstock in 2010. The Khibiny complex, located north of the Arctic Circle in the Kola Peninsula, is the largest alkaline intrusion in the world and it is here that the vast majority of Russia's phosphate (in the shape of apatite) is mined.

Khibiny apatite is high grade and local company PhosAgro, which operates four mines on the peninsula, is the largest producer in the world of high-grade phosphates rock, according to CEO Maxim Volkov.

Not only is Russian phosphate rock high grade, other factors conspire to keep costs low for producers, who tend to follow an integrated approach.

"Our plants were designed in such a way as to facilitate all necessary infrastructures, with the main one built on a river and containing a port on its premises. Our vessels can deliver across Europe. Of course, we also use railways, and we do not see any constraints in the future - they will keep pace with our development," said Volkov.

"We are completely self-sufficient in

phosphate rock, 94% self-sufficient for ammonia, and have very diversified — and therefore competitive — sources of sulfur supply. Mosaic, our major global competitor, pay at least twice as much for sulfur and are much less self-sufficient in ammonia," Volkov said.

Globally, the phosphate mining sector is witnessing substantial investment. Fertilizer company Acron, already one of the world's largest phosphate fertilizer producers and retailers, is in the process of building the Oleniy Ruchey mine in the Kola, Russia's largest mining construction project.



Maxim Volkov, CEO, PhosAgro

"Our deposit is situated on the apatite curve. This area is the greatest apatite ore deposit in the world. Here, you find apatite that is easy to process, is clean and allows us to produce 40% concentrate. We won the auction for Oleniy Ruchey in 2006 and in 2008 we received an approval to start the construction of the mine and processing plant, and in 2009 we began the infrastructure works," said Sergey Fyodorov, VP mining development.

Since gaining approval, Acron have moved quickly. "We mined the first ton of ore in October 2011 and in a year we will start producing apatite concentrate," said Fyodorov.

### Diamonds

Russia is the world's largest diamond miner, accounting for nearly 25% of the world's diamond production by value. The industry is dominated by ALROSA, which, for a second year running, was the world's largest diamond mining company. ALROSA produces some 25% of the world's diamonds by value, and accounts for 94% of Russia's output. Aside from a 34% share in Angola's Catoca mine, all of ALROSA's revenue is derived from its Russian operations.

Russia has been a major producer since the 1970s, but ALROSA has only recently



## MINING IN RUSSIA



Dr. Sergey Mityukhin, advisor to the president, ALROSA

asserted its leadership in the industry. Unlike its rivals, ALROSA is a state owned company, which has been a great advantage argues adviser to the board, Dr. Sergey Mityukhin. "In 2008, when diamond prices fell, ALROSA did not stop its production. The Russian Ministry of Finance bought \$1 billion in diamonds," Mityukhin said.

In a world of few new major discoveries, ALROSA's resource base is strong. "ALROSA has enough diamonds for the next 35-40 years, given that we extract 35 million carats per year," he said.



Quarry 'Mir' and the town 'Mirny'. Photo courtesy of ALROSA.

ALROSA's strong resource base positions it well for the long-term. "In the past 25 years, not a single significant diamond deposit has been discovered. We can expect that in the next 10-15 years one or two large deposits might be discovered. Thus, the amount of diamonds consumed is not going to be compensated by the amount of diamonds produced, as production is likely to fall. In the long-term, diamond prices are bound to rise. Regardless of (ALROSA's resource base), the company continuously invests in exploration. We do

this for two reasons; the first goal is to increase the resource amount of the deposits we have, thereby increasing the possibility for extraction. Secondly, we seek to improve the structure of our resources. Like any other company, we wish to find new deposits with good mining conditions: large enough, lying not too deep, with good ore grade, situated close to roads, railways and other infrastructure," he said.

## Gold

It is gold that attracts the most foreign interest in Russia mining and it is gold miners who have had the most success amongst the foreigners. The rising price of gold in recent years has played a part in this, but local factors have also contributed to the relative success of the sector.

Mikhail Damrin, CEO of Kopy Gold-fields, said that a key factor is prospectivity. "Historically, Russia focused on alluvial production after both World Wars, when it needed to raise capital quickly to repair infrastructure. In the case of the region in which Kopy works, the Lena goldfields of the Irkutsk region in eastern Siberia, the focus on alluvial came at the expense of hard rock exploration.

"Lena has been a major producer of alluvial gold for the last 150 years; producing an accumulated 30 million oz. Limited bedrock production started seven years ago and currently stands at 30% bedrock and 70% alluvial. There are currently four reasonably large bedrock projects which are all either currently in production or will be put into production in the next two to three years, and we still consider the area under-explored," he said.

In the far eastern autonomous region of Chukotka, Kinross' Kupol is a high grade deposit with 10.66 g/mt of gold and 135.4 g/mt of silver. Warwick Morley-Jepson, gen-



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eral director, Kinross Far East, said: "In 30 months we produced 2 million oz of gold and over 22 million oz of silver. Very few gold mines in the world have produced so much in such a short time, giving you an idea of the grades we are dealing with and the efficiency of our operations."

Kinross continue to invest heavily in the eastern regions. "We acquired Dvoinoye in August last year; it was operating only part of the year and had some of its open-pit resources exhausted, so we decided to close everything out and start again from scratch. We completed a scoping study at the beginning of the year, and are currently conducting a feasibility study and are building a decline to give us better exploration and development potential. The question is: How big will it be? We think it will give us eight years and produce 900 mt/day of ore, but our focus is on extending the mine-life," said Morely-Jepson.

Chukotka has attracted a lot of attention despite its brutal climate and isolated location protruding into the Bering Sea on the eastern-most tip of Asia. This is largely due to geology, but politics plays a part as well. The autonomous region has maintained a pro-business stance and recognizes the importance of the extractive industries to its economy.

Further to the west, gold junior White Tiger Gold owns five properties in Russia and managed to move its Savinako property from greenfield to production in a record breaking three years.

"We are on a gold belt that runs from south-west Siberia up to Nikopol. The big problem is the size of the vein and where it is; if it is too deep you have a problem with overburden and mining costs. We have a NI 43-101 in place at Savkino (for phase one) which we are currently updating. The central part of the pit produced 16,000 oz in 2010; and we are planning on doing 20,000 oz/y this year and next year. The plan for early next year is to start developing, based on the updated drilling results, an expanded Savkino mine which will more than double the current rate of production by 2013," said CEO Dr. Geoffrey Cowley.

### Silver

In Russia, many miners produce silver as a by-product and only a handful focus on the metal. One of the few silver focused juniors active in Russia is Silver Bear Resources. Silver Bear owns the Mangazeisky property in the vast Yakutsk region of central Siberia. Mangazeisky is ultra high grade: a Russian GKZ compliant appraisal of the

resource identified a prognostic resource (in the P1 and P2 categories) of 16,600 mt at 1,809 g/mt. Silver Bear have a 43-101 resource of 30.6 million oz at 554 g/mt inferred and 18 million oz at 514 g/mt indicated.

Silver Bear are looking to progress the project rapidly. "We have just completed the scoping study and are still digesting some of the information it has generated. We are going to do a lot more drilling on-site in order to expand the resource from the current 900 million oz estimate. Then we will define what has to be done in our feasibility study and aim to move the property from an exploration license to a mining license," said CEO Mark Trevisiol.

Silver Bear is a part of the Forbes & Manhattan group. "Forbes & Manhattan have a strong history of applying their expertise to projects like this and adding huge value to them. A partner with deep pockets is necessary for this development as you are looking at a fully integrated site and \$100-150 million is a lot of cash," said Trevisiol. In the shape of Russian firm Alfabank, Silver Bear have found such an investor. It is more than just money that the local investor offers. Alfabank have helped Silver Bear through a lot of bureaucracy in Russia.

## Building golden opportunities in Russia

Kinross has more than 15 years experience in Russia and is the largest Canadian investor in the country.

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# Locals and foreigners compete for a share of the equipment market

The Soviet Union was able to produce nearly everything that it required in terms of mining equipment and many of the Soviet factories are still producing, though today they have to compete with foreign competition. The market is crowded argues David Hill, regional director, Russia and CIS, at British heavy equipment manufacturer JCB. "There is a perception that Russia is a backwater with few people in the market, but everybody is here including the Chinese who are just over the border. It is a very, very hectic market."

Uralmashzavod is Russia's largest manufacturer of walking draglines and a leading producer of excavators and crushing equipment. Sergey Chervyakov, head of the mining division, acknowledges that during the initial post-Soviet years, times were tough for the company. "Our factory went through some rough times in the 1990s, when many specialists were leaving the factory and there was no money for research. I think that we managed to overcome these

difficulties in the best possible way, as we kept all our key employees and have been able to carry on offering new and improved products," Chervyakov said.

"As well as improving their product line, Uralmashzavod are looking to increase their after-sales service capability: We want to build a network of service centers, which could assemble equipment, repair it and hold spare parts in stock. Today, we have such centers in three regions — Kuzbass, Eastern Siberia and Ukraine. We are hoping to open two to three centers per year, not only in Russia, but also in the countries where we want to build a market share," Chervyakov said.

2011 has been a good year for most manufacturers, domestic and foreign alike. After the tough times of 2009-2010, Russian clients started replacing old gear and investing to meet new demand. For JCB, 2011 was their best year yet in Russia and Hyundai's sole agent TechnoGrade were able to establish a leadership position in



Sergey Chervyakov, director of the mining equipment division, Uralmashzavod

the imported excavator sector, according to commercial director Dmitry Kuznetsov.

One of the ways heavy equipment manufacturers have navigated their way out of the crisis has been to focus on mining clients rather than the construction and oil and gas sectors that had taken up much of their attention previously. "In the early days, we were focusing on the pipeline business, then we endured a very harsh economic crisis. We managed to avoid laying off any employees and increased our mining team dramatically in 2009, before starting to grow the mining business aggressively in 2010. This year we achieved 200% growth in mining and we are planning another 200% growth next year. So mining, although not so significant earlier on, is now crucial for our growth, especially from the product support side," said Adel Selim, general director of Caterpillar dealer Mantrac Vostok.

Despite the size of the market, strong import tariffs and privileged access to some other CIS markets, Russia has witnessed surprisingly little investment from foreign equipment manufacturers. "Russia is not a low cost center for manufacturing; to do it properly and effectively, with assured quality, would mean a lot of investment. At the moment we cannot make a business case for it," said JCB's Hill.

The current situation is unlikely to change in the near term: Russia joined the World Trade Organization in December 2011 and tariffs on manufactured goods will fall from a ceiling average of 9.5% to 7.3% as a consequence, making the case for building new factories even weaker.

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# Chukotka Develops Comfortable Conditions for Investment

**Chukotka is a great Russian mining region. It has attracted investment and is home to Kinross' Kupol gold mine. Governor of the Chukotka Autonomous Region, Roman Kopin, describes how the region fosters a mining business.**

Mining is the most important business sector for Chukotka. In 2006 the government of Chukotka developed a strategy for regional development through to 2020, the key focuses of which is the development of existing mines and the integration of new ones. This is especially important for gold deposits.

Research indicates that 10% of Russia's identified gold is situated in Chukotka. The largest tin deposit in Russia, Pyrkakayskie, is also situated here. The latest geological expedition suggested that Chukotka hosts one of the world's largest copper deposits — Peschanka, with over 27 million mt of ore. We expect this deposit will become one of the top five copper deposits in the world. We also have a very prospective coal project — the Bering junction. It is estimated that it contains over 4 billion mt of coal, and what's interesting is that it is situated in a strategic area, very close to potential markets and infrastructure.

With all this potential, mining is our priority and the Region is very dependent on it. Companies that work in this sector are important tax-payers and employers; they are reviving the economy of Chukotka.

**Chukotka has been the most successful region in Russia when it comes to attracting foreign investment. How has this been achieved?**

The key factors here are the creation of comfortable conditions for investment; the minimization of bureaucratic hurdles and the readiness of the local government to cooperate with companies. The roots of this policy were laid down by the previous governor, and the new government maintains these principles. As an example, we can use Kupol. Normally, to develop such a deposit takes about 10 years. Despite the challenges associated with transportation in this remote location, we managed to develop it in five years. Evidently, this would have been impossible without support from the government. We are proud that it was possible to realize such a project here in Chukotka.



**Do you think that the success of Kupol has made foreign companies more aware of Chukotka?**

Yes. Currently, many large gold-mining companies work in Chukotka, including Polymetal, Polyus Gold and of course Kinross. In 2012, the plant will begin working at Polymetal's Mayskoye deposit. Various Canadian and Chinese companies have shown interest in our coal deposits, and we are expecting increased interest in the copper deposit. It is very likely that that this increase in interest has been driven by the Kinross example. Everybody can see that it is possible to work in Chukotka, regardless of its difficult climate and infrastructural challenges. It is possible to do business here.

**Initially, the Government of Chukotka owned a substantial stake in Kupol. Is this something that you would like to do with other mine developments in the future?**

I think that this type of model is the most successful and profitable, both for the company and the region. It helps to advance development. That's why we will continue using this model. It is obvious that we are not miners, and at a certain stage our presence in business is unnecessary. Similarly, we don't think that it is necessary to remain a shareholder. Our participation is necessary only at a certain stage in the development process.

**What is the Regional Government's strategy when it comes to infrastructure development?**

We are trying to work with companies and to agree co-investment programs for infrastructure projects. A good example of this strategy is the Mayskoye deposit. We received funding from the Development Program for the Far East and Transbaikalia and cooperated with Polymetal to develop power infrastructure. Evidently, the region does not have sufficient funds for large infrastructural projects; that is why we work together with investors, companies and the Federal Government.

**Mining plants and deposits require a large amount of highly-qualified staff. Are such workers available in Chukotka?**

We have a shortage of employees. The mining sector is developing very rapidly, and we don't have all the people that it needs. There are about 50,000 people living in Chukotka, while Kupol, for example, employs about 1,600 people. You can't find all of the people the industry requires in our region alone.

In terms of development, we are launching a training program at the Chukotka College to prepare mining specialists and are also work with the Moscow State Mining University. Our students can train in Moscow and then they return to work in Chukotka. Thus, we are doing our best to help local communities work in their mines.

**Where do you see Chukotka's mining industry in four to five years?**

I think that Chukotka will maintain its positions in gold-mining, and we will see new deposits being opened up.

But I also think that Chukotka can not only become a leader in gold-mining, but also become a leading region in terms of copper, silver, coal and other metals.

While working to develop new deposits, we do not forget our environmental responsibilities. It is very important to maintain our region's pristine environment.



# Services: Closed Market?

**Privatized versions of former state companies dominate a market that foreign firms are only beginning to penetrate.**

While foreign equipment manufacturers have had a lot of success securing market share in Russia, the story is more mixed when it comes to the service sector. During the Soviet period, specialist institutes were established which dealt with specific engineering, metallurgical and geological issues. Typically there was only one institute for each area of expertise.

Today these institutes have been privatized and are building broader practices, but they still dominate the sector and foreign firms have struggled to make their mark.

The soviet legacy also still lingers in the Russian engineering sector, and EPCM contracts are the exception, not the norm. "It is hard to break down the old Soviet model of three building blocks: clients, general designers and general constructors; but slowly it is crumbling as Russian entrepreneurs seek financing offshore and international partners. This brings international culture and the influence of foreign skills and backgrounds," said Peter Orford, director- project services at Hatch.

"Five years ago, clients were not ready (to instruct on an EPCM basis), but now the market is developing and there is more demand for these kind of services. Clients were looking for an alternative to the old institutes, as they could not offer tailored solutions and were unaware of new developments in the mining industry. In recent years, the quality of engineering companies has significantly improved, as well as the number of clients and their demands have increased. This forces us to come up with new solutions and technologies," said Artem Romanchenko, director of Russian engineering and geological services firm TOMS.

*Rosgeoperspektiva*

## Centering Ideas



LLC 'Rosgeoperspektiva' is a privately owned independent organization, uniting a number of enterprises which deal with the geological studying of ore and nonmetallic deposits amongst other in the Ural area, Chukotka and the Republic of Komi on the territory of the Russian Federation, as well as in Kazakhstan and Kyrgyzstan for more than 10 years.

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## MINING IN RUSSIA



Artem Romanchenko, director, TOMS Engineering

EPCM contracts may be rare in Russia, but EPC contracts are rarer still. Shaftproject is one of only a handful of companies in Russia offering both engineering and construction services, but it has focused on a specific sub-sector, shaft sinking and decline construction, to do this. Our company is only two years-old, but we work very actively. Among our clients are big companies, such as Eurochem and Alrosa. We are building a decline for Eurochem at the Gremyachenskiy deposit," said Mikhail Bogdanov, general director of Shaftproject.

Bogdanov argues that integrating engineering and construction services is a logical step, regardless of historic market norms. "In my opinion, it is a lot easier to work with a company that can design and also build something."

It's not just large scale projects where the Russian industry has been slow to change business practices. "There is a conservative tradition here in Russia. After Perestroika, Russian mining companies inherited the concept of large, centralized structures from Soviet times, and never thought of outsourcing work," said Olga Izbash, director of testing company Stewart Group in Russia.

"Now the market has changed with the realization that maintaining so many departments is expensive. People in Russia people often misunderstand us, thinking we offer only equipment, while we also provide people, training and monitoring," she said.

Andrey Koshurnikov general director of Russian firm MSU Geophysics observes that "Often the people who grew up during the Soviet period don't understand the importance of geophysics, they still have the Soviet perception of this science." Koshurnikov notes however that money plays a part as well: clients

"are willing to invest money only if they see the results quickly."

Some forward looking Russian clients are starting to invest in more advanced exploration technologies however. "The chief geologist of Pavlik (part of the Arlan investment group) had witnessed a big geophysics survey in Central Asia and wanted to employ it on their property in Magadan. We shot a 3D survey, local geologists did not believe our results but Pavlik drilled on the back of our survey results and were able to increase their gold reserves 10 fold" said Koshurnikov.

For foreign service providers, flexibility and a demonstrated willingness to work with local partners and competitors may be the key to success in Russia.

"We currently have one turn-key mining project, and another where the project management is divided up. Some huge mining companies have their own construction departments that take care of everything — although they might hire a company like us to support where they lack expertise," said Tero Liutu, projects director at Finnish project management firm Ahma Engineers.

While investment is more constrained than might be expected in such a large market, new coal, phosphate and gold



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## A Unique Set of Mining and Construction Services

LCC 'MCC-Shaftproject' was created by a group of dedicated specialists in the field of design and engineering of shafts and headframes complexes for mining companies in Russian and neighboring countries. We perform the whole cycle of engineering, construction and assembly work, including the supply of equipment and managing mining complexes according to EPCM contracts including:

- engineering of shafts, including surface and underground infrastructure
- quarry design
- supplying lifting machines for open and underground operations from the leading brands
- servicing and maintenance of the mining equipment
- shaft sinking and equipment of the shafts with lifting machines and complementary equipment
- construction of headgear and other surface infrastructure of mines
- construction of tunnels (sinking, lining, installation and commissioning of mining equipment);
- construction of underground crushing plants;
- electrical wiring and installation of automatic control equipment
- organisation of contract-based mining





mines are currently under construction. "We have just finished coordinating the construction of a new coal mine called Severnaya for JSC Uralugol. It is situated in Chegdomyn in the Habarovsk region. It will have a capacity of 5 million mt/y. now we are working on a project to design an enrichment facility at the site," said Valery Stratov, chief engineer at St. Petersburg based firm Giproskhakht.

In the testing sector, demand is growing, and is particularly strong in remote regions. "At the moment there is a lot of demand for analytical services and we are seeing a lot of that coming from the exploration sector, which is particularly exciting, as a lot of this is coming from parts of Siberia where we have not seen much activity before," said Stewart Group's Izbash.

Moderate growth in demand, and recognition that Russia has the potential to become a huge market should the mining sector be fully liberalized, is encouraging foreign service firms to invest in the country.

Runge, an Australian provider of mine planning, asset management and financial software and consulting services, has recently opened an office in Moscow. Operations director Michael Johnson notes that they were able to start selling without a physical presence in the country.

"We have sold our software in Russia for six years. Our brand is well recognized here, but having an office gives us an advantage when it comes to consulting. I think our global management recognized that it was the right time to open an office here and start building our team of Russian engineers. Russia is going to be one of the markets to watch out for in the future," Johnson said.

Russia has witnessed some terrible mining accidents over the years, but standards have been improving in recent years. In the mid-1990s, Russian firm Ingortech began production of equipment to monitor methane and other toxic gas emissions in underground operations, as well as air circulation equipment.

"Together with our competitors and governmental organizations, we formulated the standards which safety equipment must meet in Russia. The number of tasks that our equipment fulfills has increased dramatically. It is not just about air and gas control, we've learned how to solve more complex challenges and clients are increasingly willing to invest in these sort of systems," said general director Sergey Lapin.

# TOMS

## ENGINEERING

from exploration to production

TOMS is a large engineering company, comprising in its work all the aspects necessary for a subsoil user to develop an ore mining facility. We are a team of 500 highly qualified and experienced employees: engineers, geologists, miners, explorers, metallurgist, economists.

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Geological audit	Mine optimization
Reserves Evaluation	Scoping Study
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Due Diligence	Development of dressing and metallurgy technologies

### ■ Organization and management of geological exploration

### ■ Dressing and metallurgic tests

### ■ Design of mines, plants, infrastructure

### ■ Organization and management of construction, engineering, procurement, construction and project management (EPCM)



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## MINING IN RUSSIA

Russian firms have been quick to exploit the linguistic, cultural and political ties that the country has with CIS markets.

Chelyabinsk based consulting group, RosGeoPerspektiva, has opened offices in Chukotka and Magadan since its establishment in the mid-1990s. Looking for further growth opportunities the company has turned to Central Asia.

"We've been working in the north of Kazakhstan for a long time. Our focus is on gold. One and a half years ago we started from scratch a company in Kyrgyzstan, working on a gold deposit for Unkurtash, our client in the country. It is situated 3,000 meters above sea level. We see quite a lot of opportunities in the country," said Vladimir Chechulin, general director.

Keen to export their services, some Russian firms are dusting down Soviet-era relationships in places other than the CIS.

"We have just signed a contract with a Vietnamese company to design and build shafts and associated equipment. We are preparing bids for a number of projects in India and have interest from Iranian mining companies," said Giproskhakht's Stratov.

## Conclusion

### Siberia isn't so bad after all.

In Russia there exists one of the greatest remaining opportunities in the mining industry worldwide. Despite a strong tradition of exploration, Russia remains extremely under-explored and, in the world's largest country, this adds up to a whole lot of potential.

Many of Russia's existing and operating mines still have more than a 30 year lifespan at current rates of production. While the last five years have witnessed increased investment, there remain plenty of opportunities to improve output and reduce costs and this represents a major opportunity for investors, mining firms and equipment and service providers alike.

Russia continues to be a challenging place in which to do business, particularly for those involved in exploration: permitting remains slow, laws protecting 'strategic' assets are misguided, infrastructure is weak in places and business costs are high.

Despite these challenges, however, Russia's mining sector is given an unfairly high risk rating by many analysts and investors. Property rights remain relatively strong (the Russian government has not sought to consolidate control of the mining sector as it did with oil and gas), and there has been no talk of increasing mining taxes or implementing a royalty scheme.

Despite the popular image of Russia in the West as a land of robber barons and political mafias, the country is generally law abiding. Russian miners enjoy a high level of support from local communities and NGO activity is limited- a significant and oft overlooked advantage for Russia when compared to most jurisdictions. The state retains near absolute power in Russia and, assuming mining is conducted in a responsible manner, miners and explorers have little to fear in the way of non-governmental obstruction and intervention.



### The Integrated Approach to Geophysics

Specialised in land electro-investigation, seismic prospecting, gravity and magnetic surveys and engineering drilling, MSU Geophysics has vast experience in the sector. Our main activities are as follows:

- Organization and carrying out field works
- Data processing and interpretation
- Research
- Creation of software and hardware

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### Community Relations: A perfect 10 out of 10?

Russia may be the easiest jurisdiction in the world to work in from a community relations perspective and this major advantage is not as well recognized by the wider mining and investment communities as it should be.

"Russia is very mining friendly. Usually there is a conflict between agriculture and mining. In the Russian far north, where most of the mining occurs, there is no conflict with agriculture. The difference here is that people are pro-mining," said Alex Gordine, managing director and principal of Golder Associates Russia.

Most miners and explorers interviewed, foreign and local alike, acknowledge that good community relations are crucial to the success of any new mining operation. Unlike in many areas of the world, it seems that most miners and explorers enjoy good community relations and that, in general, local communities are happy to see new jobs created.

"Community relations is the most important thing [for us]. Our Kun-Manie project is located 175 km from the nearest village. This community is already benefiting from employment running the camp and they are keen for us to go ahead and start building the mine," said Amur Minerals CEO Robin J. Young, which are developing nickel-copper assets in the Amur region of eastern Siberia.