Enhancing Canadian-German partnerships in the mining industry

The German industry is highly dependent on imports of metals and industrial minerals. The Canadian mineral resources market offers long term resource supply security that Germany needs, especially for strategic metals. Germany, in return, provides market-leading equipment and specialty services that can help to meet the challenges of the Canadian mining industry today. On the initiative and with funding of the Federal Ministry for Economic Affairs and Energy, the Canadian German Chamber of Industry and Commerce Inc. in 2012 established a Competence Centre for Mining and Mineral Resources to foster business relationships between Canada and Germany in the mining sector.

1 Introduction

As a nation heavily reliant on commodity imports to sustain its industrial output, Germany is seeking closer ties with the Canadian mining industry to maintain its pole position as Europe’s manufacturing powerhouse. Like most other industrial countries, Germany needs just about every mineral and metal, but it is the availability of so-called critical materials – some of which Canadian companies are involved in locally and abroad – that is top of mind in Germany.

The German manufacturing industry is highly dependent on the import of metals and minerals. Given the current state of the domestic German mining industry, coupled with the low investment and assets globally, Germany’s manufacturing industry may be at stake in the long-term. Critical metals such as Rare Earth, Tungsten, Tantalum, Indium, Germanium, are crucial in high-tech manufacturing processes. The sustained and secure availability of these metals is important to maintain Germany’s technological edge in manufacturing and the need to keep costs from escalating is crucial for the competitiveness of Germany’s industry. Hence, Germany’s access to secure, long term availability of such strategic metals has a direct impact on the sustainability of the German high-tech industry.

2 The German Government’s raw materials strategy

To secure the access to resources the German Federal Government published “The German Government’s raw materials strategy – Safeguarding a sustainable supply of non-energy mineral resources for Germany” in 2010 to put a political, legal and institutional framework in place to foster a sustainable and internationally competitive supply of raw materials to German industry. The core objectives of the Federal Government’s raw materials strategy are:

- Reducing trade barriers and distortions of competition,
- Helping German commerce diversify its sources of raw materials,
- Helping commerce develop synergies between sustainable economic activity and enhanced materials efficiency,
- Developing technologies and instruments to improve the conditions for recycling,
- Establishing bilateral raw materials partnerships with selected countries,
- Doing research on substitution and materials in order to open up new options,
- Focussing on research programmes related to raw materials,
- Creating transparency and good governance in raw materials extraction,
- Integrating national measures with European policy on raw materials.

The Federal Government leaves it up to the companies to ensure their own supply of raw materials. The government activities at Federal level are concentrated on giving firm and effective backing to the private sector’s efforts to secure raw materials; specific measures follow the principle of sustainable development. The government’s backing particularly involves support for the private sector in the form of the instruments of raw materials policy, support for research, and a joined up international raw materials policy which takes account of objectives of foreign, economic and development policy [4].

France who had a similar strategy to Germany’s changed its resources approach in February 2014 and set up a state owned mining company aimed at exploiting mineral resources abroad. This move is another sign of the return of French state intervention in industry to secure minerals supply.

Despite the importance of mineral resources to the German economy, the German government does not intend to become commercially active in mining through, for instance a state-owned mining company, nor does it intend to stockpile industrial raw materials. Its backing involves support for the private sector in the fields of policy and research.
The bilateral importance of the Canadian resource sector for Germany

In 2012 Germany imported resources worth 150.6 bn €. In comparison to the previous year Germany paid 6.1 % more for these imports. Main imports from Canada by value included Iron ore, Nickel, Copper, Aluminum, Silicon, Coal, Cobalt, Molybdenum, Ferro-Niobium. Canada also accounted for more than 20 % of German imports in Tellurium metal, Selenium metal, Titanium ore and concentrate, as well as Tungsten powder. Canada supplies a broad range of metals German industry requires and offers great potential for increasing the long term resource supply security Germany needs. With recent project developments in the Canadian market and the opportunities for global investments through the Toronto Stock Exchange (TSX), Canada presents great business opportunities and strategic advantages for Germany.

At the same time, Germany provides market-leading mining equipment and specialty mining services that can help meet the challenges of the Canadian mining industry today. German companies supply equipment to the exploration, mining and mineral-processing industries around the world and are well-known for their excellence in engineering. A long tradition of innovation and investments in research and development are key features that support German success in world markets. The mining equipment sector in Germany has continued to grow despite the financial crisis, with an average of 15 % growth each year since 2007 and an export quota of more than 90 %.

Given the complementary business environment of both countries, Canada and Germany constitute ideal partners to form mutually beneficial business relationships in both the mining and supply sectors. In order to realize the potential for increased collaboration in the mining and supply sector and in light of a re-evaluation of Germany’s mineral strategy, the Canadian German Chamber of Industry and Commerce Inc. in Toronto established a Competence Centre for Mining and Mineral Resources in 2012. Fully sponsored by the German Federal Ministry for Economic Affairs and Energy, the Competence Centre is the primary contact for German and Canadian companies interested in the respective country. Its main focus is to foster business relationships between Canada and Germany in the mining sector.

The objective of the Competence Centre is:

- To raise awareness about Canada as a resource supplier and mining market; the Centre increases market transparency and provides market information to the German government, German commerce and public sector stakeholders;
- To foster business relationships between Canada and Germany in the mining sector to strengthen the dialogue on how to establish sustainable secure supply chains for specialty metals and raw materials between Canada and Germany;
- To communicate business opportunities as a central contact point to German industry and associations in the Canadian resource market, to improve access to strategic metals;
- To establish market expertise and business network in Canada in order to provide a centralized platform to coordinate activities in Canada and to enhance bilateral business relationships in the mining sector; the mandate is to support diversification of supply sources for German industry;
- To work together with partners in Canada (e.g. Canadian Institute of Mining, Metallurgy and Petroleum CIM; Prospectors and Developers Association of Canada PDAC) and Germany (e.g. German Mineral Resources Agency DERA; German Federation of International Mining and Mineral Resources FAB; Federal German Engineering Association VDMA; Helmholtz Institute Freiberg for Resource Technology HIF) to provide forums and events to support business contacts and offer networking opportunities.

The Competence Centre offers a range of services for Canadian and German companies in the mining and supply sector. Through its expansive direct network the Centre can facilitate customized and specialized business to business opportunities in the mining sector for Canadian and German companies in establishing business activities. The Competence Centre in Toronto is also responsible for the international coordination of German chambers with resource focus worldwide. The mandate is to build an international network between German bilateral chambers active in the mining sector. Since 2013 the centre has established an international quarterly newsletter focussing on mining activities in the countries shown in Fig. 1.1).

The Canadian mining sector

Canada presents great business opportunities and strategic advantages for Germany and is one of the biggest mining nations worldwide (Fig. 2). Canada ranks in the top five producing countries for at least three of the minerals on the EU’s most wanted list, including cobalt, PGMs and tungsten. Cobalt is, for instance, crucial for the manufacturing of lithium-ion batteries and synthetic fuels, while platinum is used in fuel cells and catalysts and palladium in seawater desalination. And although it does not yet produce much on the rare earths front, the country has advanced projects and aspirations to supply at least 20 % of anticipated global demand by 2018.

Thanks to its rich geology, Canada is one of the largest mining nations in the world producing more than 60 minerals and metals. Canada ranks in the top five countries in the global production of potash, uranium, aluminum, cobalt, titanium, tungsten, cadmium, diamonds, platinum, sulphur and nickel with an overall value of mineral production of nearly $46.9 bn in 2012 (Table 1). Seven minerals produced in Canada were in the top three of global production in 2012. Canada had 1,264 mining establishments in 2012 consisting of 76 metal mines and 1,188 non-metal mines. Provinces with the most metal mines are Quebec (22), Ontario (19) and British Columbia (10) [1].

1) If you are interested in receiving this newsletter, please contact the author Christopher Schmidt.
The Canadian mining industry is also a major employer with more than 418,000 people working in the mining and mineral processing industries. Also, the mining sector is the largest private sector employer of Aboriginal peoples in Canada on a proportional basis. Mining in Canada contributed $52.6 bn to Canada’s Gross Domestic Product (GDP) and accounted for 20.4 % of the value of Canadian goods exports in 2012. The mining industry’s payments to Canadian federal and provincial governments total $71 bn in taxes and royalties over the last decade (2003 to 2012). Fig. 4 shows the Canadian mining industry clusters, that are distributed across Canada, depending on the world class deposits.

5 Canada’s world role in global exploration spending

Globally, Canada has been the top destination for mineral exploration investment for 20 of the past 34 years. SNL Metals Economic Group Exploration analysis shows that although Canada led in global exploration investment in 2013. Investment reached $3.9 bn in 2012 in Canada, which are 16 % of the budget worldwide (Fig. 3).

Canadian companies account for approximately 31 % of global exploration spending budgets – the largest share of all nations and 800 of those companies are actively exploring outside of Canada in over 100 countries. Canada has been the recipient of the largest share of global exploration spending since 2004 and is very well explored, even given its size. Canadian firms account for the largest share of exploration spending in Canada, the United States, Central and South America, Europe and, most recently, Africa [2].

6 Canada is the leading global centre for mining finance

Toronto is the global hub for mining finance. Almost 60 % of the world’s public mining companies are listed on the Toronto Stock Exchanges TSX and TSX-Venture. The TSX and TSXV handled 70 % of the world’s mining equity transactions in 2012, and together comprised 70 % of
the world’s mining equity capital that year. Vancouver features the world’s leading cluster of exploration companies, while Montreal is home to major aluminum and iron ore firms. Edmonton has become a global centre for oilsands expertise and Saskatoon for uranium and potash (see Fig. 4).

The Toronto Stock Exchange traded more than $280 bn of mining stock in 2012. Out of all firms listed on the
TSX (not TSX-V), 364 are mining companies. These firms, together valued at $381.1 bn, raised $7.5 bn in equity capital in 2012. TSX-listed mining companies mainly deal in gold, potash, uranium, copper, silver, nickel, iron ore, coal and diamonds. The 1,309 mining companies listed on the TSX-V in 2012 were valued at $19.3 bn, and together they raised $2.8 bn in equity capital in the same year – just under one-third of the overall total of equity raised [1].

Junior mining companies are currently facing challenges in raising capital. The global mining industry raised $14.8 bn in equity in 2012 (together with the other important mining exchanges like the London Stock Exchange LSE, Alternative Australian Securities Exchange AIM, Johannesburg Stock Exchange JSE, Hong Kong Exchange HKEx and the New York Stock Exchange NYSE/NYSE MKT). Investment Market raised less than half of the $31.7 bn raised worldwide in 2011. This decline reflects the challenges of raising capital in the current global economic environment (Fig. 4).

TSX-listed mining companies have a strong global focus. As of December 2012, TSX companies, including those listed on the TSX-V, were involved in 9,736 mineral
projects worldwide. Most of the projects involve exploration, and very few will turn into operating mines. However, the projects listed at the TSX Exchanges cover all project stages in the mineral resources industry (Fig. 6).

7 The German Day at the Prospectors and Developers Association of Canada PDAC Convention 2014 in Toronto

The Competence Centre for Mining & Mineral Resources at the Canadian German Chamber of Industry and Commerce Inc. works as a platform that provides various forums and organizes first-class events, which offer excellent opportunities to build relationships, exchange experiences and support establishing business contacts within the Canadian German mining business community.

Selected events and activities in 2013/14 included:
- German Presentation Room at PDAC Convention on March 6, 2013, in Toronto, Canada,
- Workshop on Canadian-German Partnerships on April 24, 2013 in Sudbury, Canada,
- Seminar on “Mining and Renewable Energies in Canada”, June 7, 2013 in Toronto, Canada,
- Workshop on Tungsten availability with the German Mineral Resources Agency, on October 8, 2013, in Berlin, Germany,
- Workshop on TSX/Financing with German association FAB and the German Mineral Resources Agency, December 11-12, 2013, in Berlin, Germany,
- German Day at PDAC Convention, on March 4, 2014, in Toronto, Canada.

Along with the German Mineral Resources Agency DERA, Helmholtz Institute Freiberg for Resource Technology HIF, German Federation of International Mining and Mineral Resources FAB and the German Engineering Federation VDMA the Competence Centre organized the German day at the PDAC International Convention, Trade Show & Investors Exchange 2014. The convention was held in downtown Toronto from March 2–5, 2014 – where the world’s mineral industry meets. The Prospectors & Developers Association of Canada (PDAC) is a national association representing the mineral exploration and development sector. The PDAC has more than 10,000 individual and corporate members, and encourages the highest standards of technical, environmental, safety and social practices in Canada and around the world and also hosts the mineral industry’s largest annual convention in downtown Toronto.

The PDAC International Convention, Trade Show & Investors Exchange showcases over 1,000 exhibitors promoting the latest technology, products, services, mining jurisdictions and their mining projects & discoveries. With
25,122 delegates from more than 120 countries in 2014 this was a world’s leading convention (4th largest PDAC ever since 1932) for people, companies and organizations in, or connected with mineral exploration, to attend technical sessions, short courses as well as social and networking events.

The “German Day” at the PDAC Convention 2014 (March 4th) with the slogan: “The Mineral Resources Value-Added Chain: Increase Efficiency with German Technology” focussed on Germany’s mineral resource strategy, its equipment and engineering prowess and mineral processing technology and innovations (Fig. 7). The organizers were very pleased to welcome more than 80 attendees during a series of short presentations on German expertise and mining technologies along the supply chain of minerals and metals and more than 150 people at the German Reception following the presentations to meet German decision makers (Fig. 8). German companies showed the potential of mining expertise made in Germany (e.g. DMT GmbH & Co. KG, Aumund Fördertechnik GmbH, Bosch Rexroth, Herrenknecht AG) and allowed a deep insight into the efficiency in mineral processing (CRONIMET Mining AG, Outotec, RWTH Aachen). During the German reception – partly sponsored by K+S Potash Canada – many other German companies presented their services and products. The presentations are available for download on the Competence Centre’s website: www.Canadian-German-Mining.com.

Germany is one of the main manufacturing and exporting countries in the world. Its industry relies on the availability of commodities at reasonable prices. The Canadian mineral resources market offers opportunities for Germany’s security of long-term resource supply. On the other hand, Canada’s demand for technical mining solutions and special services for the mining industry is covered by German companies. These topics were reflected in the presentations of the German companies and organizations and the networking opportunities. This event was important to keep this topic in public discussion alive and was another step toward the success of the German Government’s raw materials strategy in Canada.

References

Authors
Christopher Schmidt (M.Sc.)
Christopher.Schmidt@germanchamber.ca
Alexandra Ermolaeva (Dipl.-Kff.)
Alexandra.ermolaeva@germanchamber.ca
Competence Centre for Mining & Mineral Resources
Canadian German Chamber of Industry and Commerce Inc. in Toronto
480 University Avenue, Suite 1500
Toronto, ON M5G 1V2
Canada