The Mining Association of Canada L'Association minière du Canada

Boom Times: Challenges on the Horizon

A Brief to the 63rd Mines Ministers Conference
Whitehorse Yukon

Submitted by the
Canadian Mineral Industry Federation
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EXECUTIVE SUMMARY

Canada is arguably the world's leading mining country and ranks among the largest producers of minerals and metals. In 2005, Canada ranked first in the global production of potash and uranium, second in nickel and magnesium, and third in titanium concentrate, aluminum, cobalt and platinum-group metals. Canada was the leading destination for exploration in 2005, receiving 19% of world spending, followed by Australia at 13% and the United States at 8%.

The mining industry is an important contributor to Canada's economic strength. The industry employs some 388,000 Canadians in mineral extraction and in the value-added smelting, fabrication and manufacturing areas. The industry's $42 billion contribution to gross domestic product includes approximately $10 billion in mining extraction and $32 billion in mineral processing and manufacturing. The industry exports 80% of its production and accounts for 14% of annual Canadian exports. Exports of gold, nickel, copper, zinc and diamonds each exceeded $1 billion in 2005.

While the industry is important at the local community level, it also generates significant prosperity for our larger cities. Toronto is the world's leading city for mining finance, while Vancouver is home to the world's leading cluster of exploration companies and expertise. Mining is the largest private-sector employer of Aboriginal Canadians and stands to offer increased opportunity to this group – some 1,200 Aboriginal communities are located within 200 kilometres of producing mines and exploration properties.

Among upstream and downstream sectors, mining is also a source of economic prosperity. An estimated 70% of Canadian port volume and 60% of Canadian rail freight revenues are generated by mining industry customers. Some 2,360 service and equipment firms provide expertise to the mining industry, including hundreds of engineering firms, environmental firms, and legal and financial firms.

Mining and its related industries are also important contributors to federal, provincial and territorial coffers. The mining and metals industry paid $1.57 billion in corporate income tax in 2004, while the transportation, securities, and technical services sectors paid corporate income taxes in the multi-billions of dollars, some portion of which relates to the mining industry. The mining industry also generates significant income for individuals and, subsequently, income taxes. Average weekly wages and salaries were $1,099 in 2005—a level that is 18%, 19%, 24% and 25% higher than those of workers in the finance, forestry, manufacturing and construction sectors respectively.

Canadian mining companies are active investors in research and development - investing a total of $504 million in 2005. Statistics Canada reports some 4,600 mining R&D workers, higher than for the agri-food, oil and gas, electrical equipment, or automotive sectors and close to the level of the aerospace and pharmaceutical sectors.

The mining industry is enjoying a prosperous period. Exploration levels are strong and global metal prices are at or near historic highs. Economic growth in China (and increasingly India) suggests that this demand and price situation will continue well into the future. China bought 22% of the world's base metals in 2005, versus 5% in the 1980s.

Though times are good, Canadian policymakers and businesses should not be complacent. We face significant challenges such as human resource constraints, infrastructure capacity problems, and project approval inefficiencies which, if not addressed, threaten the long-term viability of the Canadian mining sector and related industries. Beyond these, the issue of declining Canadian reserve levels is critically important, as are the related issues of inadequate government geoscience spending and outdated definitions of exploration/development expenses.

In particular, Canada's reserves of key base and precious metals have fallen by 50-80% in a quarter century. This is linked to some extent to the fact that federal government investment in basic geoscience has declined by 50% since 1988 with the result that some Canadian regions are largely unmapped or poorly mapped. This is also partly linked to the fact that definitions of the exploration and development expense categories under the Income Tax Act are decades old and fail to reflect current business practices of exploration-related spending on community consultation, environmental assessment and First Nations interaction. Updating the definitions of exploration versus development would trigger investment and effort aimed at increasing Canadian reserve levels. A deep-drilling exploration tax credit incentive would reinforce this effort.

1.0 INTRODUCTION

The Mining Association of Canada (MAC) and the Canadian Mining Industry Federation (CMIF) appreciate this opportunity to brief federal, provincial and territorial Mines Ministers and to engage in a discussion on policy issues of importance to our industry.

The CMIF speaks on behalf of a wide spectrum of mining industry interests across Canada. Its members represent the majority of companies engaged in mineral exploration, mining, and processing – accounting for most of Canada's production of base and precious metals, diamonds and oil from oil sands. As a group, we have identified priority topics for consideration by Mines Ministers. We urge Mines Ministers to reflect and act upon the challenges and recommendations that are detailed in the following pages.

2.0 OVERVIEW OF CANADA'S MINERALS INDUSTRY

2.1 The Canadian Economy

The Canadian economy has performed strongly in recent years, benefiting from the continuation of the prudent fiscal and monetary policies that commenced in the 1990s. High oil and commodity prices are driving growth and investment in many facets of the Canadian economy. Employment and income levels are also expanding - indeed the Canadian unemployment rate is presently at a quarter-century low. The Canadian dollar continues to appreciate in response to these strong fundamentals – reaching a level of 90 cents US in May 2006. Many analysts feel the currency will continue its upward trend.

Robust economic activity in emerging economies, particularly China, is driving global demand for minerals and metals. Demand from China is among the principal factors supporting Canada's economic performance. Over the past five years China's demand for iron ore increased 168%, coal 544%, copper 114%, and alumina 246%. In 2005, China bought 22% of the world's base metals versus a 5% share in the 1980s. In the coming decades, China will face an increasing gap between supply of and demand for minerals and metals. Among the 45 commodities with proven mineral reserves in China, only 21 will meet domestic demand by 2010, reducing to six by 2020.

This trend is affecting the Canadian industry in two ways – first as a supplier of product to this market and second as a price-taker benefiting from global price increases stimulated by Chinese demand.

2.2 Status of the Canadian Mining Sector

Canada is arguably the world's leading mining country and it is among the world's largest producers of minerals and metals. In 2005, Canada ranked first in the global production of potash and uranium, second in nickel and magnesium, third in titanium concentrate, aluminum, cobalt, and platinum-group metals, and fourth in zinc, cadmium and gypsum. Canada ranked first in the world in 2005 as a recipient of exploration spending – hosting 19% of world spending, followed by Australia at 13% and the United States at 8%.

According to Statistics Canada, the Canadian minerals and metals industry is responsible for approximately 4% of the country's gross domestic product. In 2005, this amounted to $42 billion in GDP, comprising $10 billion in mining extraction and $32 billion in mineral processing and manufacturing. The industry also has impacts beyond its immediate GDP contribution. For example, the industry contributes approximately 60% of the freight revenues of the country's rail industry and an estimated 70% of the tonnage handled at Canadian ports. In addition, according to the database firm, Global Infomine, there are some 2,360 goods and services firms in Canada who provide technical, legal, financial, accounting, environmental and other expertise to the mining industry. Other sources suggest that the actual number of companies supplying goods and services to the Canadian mining industry is far greater – perhaps around 10 thousand.

The industry employs an estimated 388,000 Canadians in the mining extraction, metals and non-metals manufacturing and fabricated metal production areas. The industry is presently the largest private sector employer of Aboriginal Canadians, and there remains potential to broaden this component of the industry's labour pool. Approximately 1200 Aboriginal communities are located within 200 kilometres of 190 producing mines and 2,100 exploration properties across Canada. Progressive socio-economic agreements, such as the BHP Billiton Ekati Mine Project agreement and the Falconbridge-Makivik Raglan mine agreement, can provide literacy, training, employment, profit-sharing and/or environmental benefits to signatory Aboriginal groups.

Based on 2005 intended investment in research and development, Canadian mining companies invested $54 million in extraction R&D, $274 million in primary metals R&D, and $176 million in metal manufacturing R&D, for a total of $504 million. Six Canadian mining companies rank among Canada's Top 100 R&D investors.

The mining industry has been a leading contributor to the commodity driven economic boom of recent years. Prices are near historical highs and in most cases are well above year 2000 levels. As shown below, prices of important base-metals in 2005 have nearly doubled from 2000 levels – these increases have continued through much of 2006.

Change in Prices August 2005 /Average Year 2000	
Aluminum	123%
Copper	206%
Lead	196%
Nickel	181%
Zinc	114%
Gold	160%
Silver	141%

The value of mineral production, excluding oil and gas but including coal, increased to $26 billion in 2005, a 31% increase over 2003 production value. Strong metal prices drove up the operating profits of mining companies to $3.2 billion in 2004, double the level of two years previous. High metal and petroleum prices are also leading to increased corporate bottom lines and, in turn, the corporate income taxes paid by the Canadian mining and oil and gas extraction sectors have increased by 96% and 234% respectively between 2000 and 2004.

The growth of mineral prices has helped stimulate an increase in exploration activity. The mining industry invested $1.37 billion in exploration in Canada in 2005, double the $0.7 billion figure of in 2003. Some 60% of this amount was invested by junior companies and 40% by senior mining companies. The share invested by junior companies has increased from 33% in 2002, reflecting the success of the federal flow-through share initiative that is aimed at this tier of company.

Exploration Spending in Canada ($ million)

Type of Company	2002	%	2003	%	2004	%	2005	%
Junior	**191**	**33**	**284**	**41**	**600**	**51**	**790**	**58**
Senior	**383**	**67**	**403**	**59**	**578**	**49**	**579**	**42**
Total	**574**	**100**	**687**	**100**	**1178**	**100**	**1369**	**100**

While the industry is known for its importance at the local community level – hundreds of Canadian communities rely on the mining industry for their existence – it is also a critically important generator of prosperity in our larger cities and among upstream and downstream sectors. For example, Toronto is the world's leading city for mining finance – fully 41% of equity raised worldwide by the global industry in 2005 was generated through the Toronto Stock Exchange – while Vancouver is home to the world's leading hub of exploration companies and expertise. Reflecting the success of the TSX venture exchange for smaller companies, some 88% of global mining financings in 2005 were handled on the TSX exchange.

For reasons such as these, it is no wonder that the *Globe and Mail* last year identified mining as one of the ten things Canada does best.

2.3 Environmental Progress

The Canadian mining industry is known throughout the world for its leading-edge mining technologies. The industry places a high priority on enhancing environmental performance, improving occupational health and safety, and responding to social issues within a sustainable development framework.

As one illustration, in recognition of its environmental work, the Globe Foundation awarded the *Industry Association Award for Environmental Performance* to the Mining Association of Canada in 2005. This award is presented annually to associations whose industry has gone beyond regulatory compliance to improve environmental performance through research, development and education. MAC was recognized for its Towards Sustainable Mining (TSM) initiative launched in 2004. TSM addresses the mining industry's social licence to operate – the initiative includes performance indicators and targets for tailings management, energy use and greenhouse gas emissions management, external outreach and crisis management. Canadian firms are also actively involved in such research and consultation initiatives as Mine Environment Neutral Drainage and the National Orphaned and Abandoned Mines Initiative.

As shown below, MAC member companies have made significant progress in reducing releases to the environment over the past decade. For example, mercury releases have been reduced by 91%, cadmium by 71%, zinc by 71% and lead by 68% during this period. This reflects the success of investment by mining companies in cleaner processes and technologies in response to early-stage voluntary actions and Canadian laws.

Release of Substances to the (Air and Water) Environment, 1993 and 2003 (tonnes/year)

	1993	2003	Change (%)
Arsenic	110	120	9
Cadmium	85	25	(71)
Copper	700	270	(61)
Hydrogen Sulphide	380	60	(84)
Lead	1100	350	(68)
Mercury	11	1	(91)
Nickel	500	250	(50)
Zinc	1400	400	(71)

The mining industry has also made considerable progress in improving energy and greenhouse gas intensity performance over the past 15 years. The non-ferrous metal smelting and refining industry has reduced its energy requirements from 50.4 terajoules per kilotonne of production output in 1990 to 41.6 in 2004, while the industry has reduced greenhouse gas emissions from 1.89 kilotonnes of carbon dioxide per kilotonne of production output to 1.26 during this period. These improvements (18% in energy, 33% in greenhouse gases) reflect industry investment in energy management and efficient process technologies and a shift from heavy fuel oil to electricity produced from cleaner sources.

3.0 CHALLENGES FACING THE CANADIAN INDUSTRY

While times are good, this is not the moment for Canadian policy makers or businesses to become complacent. The industry in Canada faces some significant challenges which, if not addressed, threaten the long-term viability of the Canadian mining sector and its related segments.

This paper focuses on three issues that, if not addressed, will limit Canada's ability to take advantage of the market opportunity offered by China and other rapidly developing nations. These are:

1. Declining Base Metal Reserves
2. Human Resources Deficit
3. Regulatory Inefficiencies

Beyond these priority issues, it is important to note that the mining industry also monitors the climate change issue closely. The industry operates in a global context and its investments are driven in part by global prices. In this sense, the industry believes that whatever Canadian policy/program may emerge to address climate change should recognize recent efforts by the sector, should consider international competitiveness factors, and should focus on enhancing investment in energy efficiency and clean-energy technologies. For example, accelerated capital cost allowance or other federal tax measures to encourage investment in modern process technologies and systems would both enhance Canadian productivity and reduce emissions of air pollutants and greenhouse gases.

3.1 Declining Base Metal Reserves

Canadian mineral reserve levels are declining, and have been declining for over two decades. Copper reserves have declined from 17 million tonnes in 1980 to less than 6 million tonnes at present. Zinc reserves have fallen from 28 million tonnes to 5 million tonnes, while silver and lead reserves have shown similar 80% declines during this quarter-century period. Gold reserves increased in the 1980s, reaching a new peak in

1996, but have since dropped by 40 percent and have now returned to the lower levels experienced in the early 1980s.

Decline in Reserves 1980-2004	
Copper	67%
Nickel	52%
Lead	93%
Zinc	81%
Molybdenum	85%
Silver	78%

At current rates of production, Canada has 5.5 years of lead reserves remaining, seven years of zinc, 10.5 years of copper, 15 years of gold and 21 years of nickel reserves.

In line with declining reserves, Canadian production levels in key minerals such as gold, copper, lead, nickel and zinc have decreased or shown only modest increases in recent years. As discussed below, it will take an increased level of private-sector and government investment over a sustained period of time for this challenge to be addressed.

The exploration investment figures of the past two years are positive. Aggregate exploration expenditures in Canada have increased in response to the industry's improved economic conditions, the discovery of diamonds, and the introduction of the federal super flow-through share program. As a result, Canada has positioned itself as a global leader in attracting exploration investment. While base metals are accounting for a smaller share of the total, the amount being directed toward base metals exploration has increased from $140 million in 2001 to $300 million in 2005.

With the decrease in domestic ore reserves and domestic production, the value-added smelters and refineries have begun to rely on more costly imported custom concentrates. Statistics Canada trade figures indicate that Canada has a significant trade deficit in raw metals and metal ores. Imports of metals/ores have increased from $15 billion in 2001 to $24 billion in 2005 – reflecting declining reserves and the need for Canadian smelters and refiners to import raw product for their operations.

The base metals industry is the foundation of a significant mineral processing industry in Canada with 40 nonferrous metal smelters and refineries operating in six provinces. Smelting and refining accounted for 13 thousand jobs in 2005, and is an important anchor for employment in many of the larger mining communities across the country, such as Sudbury, Thompson, Flin Flon, Timmins, and Trail, which would not have been developed without significant base metal supply from local mines.

3.2 Human Resources Deficit

As in any business sector, the Canadian mining industry is dependent upon having a strong supply of skilled and trained workers. The most important resource of the minerals and metals industry is its people. Skills shortages, both in professional and trades areas, are a pressing concern for the sector.

Last year, the Mining Industry Human Resources Council (MiHR, formerly MITAC) led the first comprehensive, national sector study of the short- and long-term human resource issues and challenges facing the minerals and metals industry in over a decade. This study, entitled *Prospecting the Future: Meeting Human Resources Challenges in Canada's Minerals and Metals Sector*, revealed the following:

- Aging Workforce - the average age of the minerals and metals industry workforce is higher than that of the overall Canadian workforce.
- Increased Retirements - 25-40% of current workers will retire within 10 years.
- Decrease in Skilled Trades - the largest percentage of workers planning to retire is in the skilled trade occupational group (45%).
- Demand Growth - beyond simply replacing retired workers, the industry will need to expand its labour force to meet demand.
- Education and Training - anticipated enrollment in mining-related post-secondary programs will fall well short of meeting demand for skilled workers.

According to the study, the Canadian mining industry (not including the oil sands) will need up to 81,000 people to meet current and future needs and to fill positions vacated by retirees. Skilled labour shortages are already impacting operations, planning and productivity. There is no quick remedy to the shortages of highly specialized skills. The short term solution has been to increase wages which has led to salary bidding wars between companies and contract labour firms. The demand situation in the oil sands segment compounds this human resources challenge.

Given that skills shortages will likely persist in the short term, mining companies have aimed to improve retention rates through enhancing remuneration packages, fly-in/fly-out operations, and company career paths. Efforts have been undertaken to widen the labour pool by increasing female employment and investing in programs to increase Aboriginal employment levels. Immigration of skilled workers is another solution, and industry is looking to the federal government to accelerate the processing of eligible workers.

3.3 Regulatory Inefficiencies

The Canadian mining industry, in particular the large mineral producers and processors, operate within a complex regulatory environment. There are 19 federal acts and 14 federal regulations related to the mining industry. They range from the specific, such as the British Columbia Indian Reserves Mineral Resources Act, to the general, including the Income Tax Act and the Canada Labour Code. In addition, there are dozens of provincial laws and regulations. For example, 21 provincial acts and 12 regulations govern the mining industry in Ontario. (The Canadian approach of having 13 provincial and territorial regulators of securities is not discussed in this section, although it is important to note that this remains a fragmented, costly, slow and inefficient means of regulation and does not enhance Canada's international image in this area.)

Canadian mining companies and domestic and foreign investors depend on governments for a clear understanding of information requirements, approval processes, timetables and responsibilities. Mining industry experience over recent years - for example, with respect to environmental legislation such as the *Canadian Environmental Assessment Act (CEAA)* - has been very uneven. Projects are often delayed because officials involved in a project review do not have time to carry out their responsibilities. At times, this is because demands on officials are added on to their normal, daily responsibilities. In most mining projects, the majority of delays are caused by idle time rather than on active review. For example, it can take more than a year for departments to make a decision that a review is needed and to decide on who will lead, and months to review and provide a response on information submitted. Removing or reducing these idle periods would permit more time for the substantive work of a review, such as public consultation, while reducing the overall time from first application to final decision.

In other areas, a recent presentation by the Canadian Environmental Assessment Agency showed that, in many instances, departments were continuing to change the assessment scope three years after commencing an assessment under CEAA. Amendments to CEAA that were to have improved timeliness and coordination have not been implemented. A Cabinet directive and additional resources to implement the amendments committed at the end of the previous federal government have been lost. The overall project review process is unpredictable, inefficient and expensive, with major projects often subject to changing or multiple project scopes and no clear administrative lead. With federal involvement uncoordinated, coordination with provincial and territorial processes becomes next to impossible. Furthermore, the government does not appear to have determined how it will discharge its obligation for Aboriginal consultation.

These examples illustrate that the project review process, including environmental assessment, is neither properly resourced nor disciplined, despite the fact that investment in the billions of dollars is at stake. This affects Canada's status as a destination for capital investment and, in turn, impedes Canada's ability to develop projects and to build its level of base minerals reserves.

4.0 RECOMMENDATIONS

In a world where capital is mobile and production is global, Canada must feature an internationally competitive tax regime to encourage investment. The regulatory and human resources situations must also help encourage investment.

The Canadian Mining Industry Federation acknowledges the progress the federal government initiated in Budget 2006 through eliminating the capital tax and corporate surtax and announcing a phased reduction in the corporate income tax from 21% to 19%.

More is needed, however, to respond to the issue of declining base metal reserves. In a recent review of the global mining industry, PricewaterhouseCoopers noted that "the key output of exploration is a pipeline of future projects." Canada's minerals and metals industry is primed for a period of sustained growth generating wealth for all Canadians at levels not seen since the commodity price cycles influenced by Europe in the 1950s and Japan in the 1960s. The question is whether Canada will be in a position to realize its potential as a value-added resource supplier in this global marketplace. Acting upon the following recommendations would help place Canada in such a position.

1) Governments should invest in Geoscience. The federal government should lead.

Over the past fifteen years, Canada's governments have cut back their support for public geoscience. This decline has been equally dramatic at the federal and provincial/territorial levels – with spending in both areas being reduced by approximately one-half. Where the federal government invested $98 million in 1988, it invested only $49 million in 2004. Corresponding provincial/territorial investments fell from $74 million to $39 million.

Today, we are dealing with the effects of these cuts. It is widely acknowledged that there are knowledge and capacity gaps in public geoscience data, resulting in unrealized mineral exploration and future production. Without new geological information, governments can expect contractions in economic activity across our provinces and territories, as investment moves to other parts of the globe. One interesting illustration of this decline is that some 73% of Nunavut is either unmapped or has inadequate geological maps. Present investment levels would require an estimated 80 years to complete the first mapping of Nunavut. Similar challenges are faced in other Canadian regions – primarily though not exclusively in the north (including northern parts of provinces). Given the level of interest in diamonds and other northern resources, one must question the logic or public good served by this pattern. Questions of national sovereignty in the North are also raised by this under-investment.

MAC and the CMIF urge the government to commit to funding the ten-year, $25 million per year Cooperative Geological Mapping Strategies (CGMS) program which has been designed in partnership between federal, provincial and territorial governments. The CGMS has been designed to address large tracts of unmapped regions following a regional approach and triggering matching contributions from provinces and territories, as part of a national strategy to reinvigorate minerals exploration.

2) The federal government should modernize the CEE and CDE definitions.

In 2003, the Government proposed to improve the taxation of resource income by phasing-in a number of measures over a period of five years. While this plan is still being implemented, the proposed new structure was deemed by Finance to be simpler by streamlining tax compliance and administration, sending clearer signals to investors, and improving the international competitiveness of the Canadian resource sector.

However, during this tax reform process, the federal government has failed to modernize two fundamental tax provisions for the minerals and metals industry, namely, the Canadian Exploration Expense (CEE) and Canadian Development Expense (CDE). Indeed, these definitions have not been amended in some 40 years, creating distorting effects based on the interpretation of CEE by the Canada Revenue Agency which, while consistent with the existing definition, is out of date with the reality of costs incurred by today's exploration and mineral development industry.

The Canadian mining industry is concerned that federal tax signals work against on-site exploration spending. Today's exploration efforts require investment of considerable time and resources on consultation with Aboriginal and other groups, and on conducting environmental testing and baseline studies. Ironically much of this early effort is at the urging of the government itself. Yet these expenses are not eligible for flow-through share treatment. Expenses for new exploration at depth (i.e. within existing mine shafts) are classified as CDE and only eligible for a 30% write-off. This is a considerable disincentive compared to the 100% write-off allowed for similar greenfield expenses.

The industry is presently undertaking discussions with Finance Canada and Canadian Revenue Agency officials in the aim of providing a partial solution to this issue. A full solution, however, will require changes to the Income Tax Act through a future budget.

3) The government should introduce a Deep Drilling Exploration Tax Credit.

Assuming a modernization of the above definitions, significant opportunities for finding new mineral reserves and extending mine life at depth could then be achieved with the right fiscal stimulus. Efforts are already being undertaken in Canada and different parts of the world to develop new deep mining innovations and processes to ensure the future prosperity of existing mines, improve productivity, control costs, and maintain employment.

It is estimated that 10% of exploration and deposit appraisal spending in Canada is directed on-site, while 90% is for off-mine site efforts. This partly reflects the fact that tax signals work against on-site exploration and hence diminish the possibility that significant reserves could be found at depth or in proximity to existing mine sites.

As part of a mineral reserves growth strategy, the federal government should introduce a 20 percent deep drilling investment tax credit in Budget 2007. This rate is equivalent to that applied to scientific research and development costs that are incurred to gain knowledge about improved processes and products. The credit would apply to exploratory drilling within a certain defined proximity of production areas - with the objective of discovering deep ore deposits and extending the reserve life of existing mines.

4) The federal government should establish a Project Review Coordination Office.

The federal project review process is broken. It is unpredictable, inefficient and expensive, with major projects often subject to changing or multiple project scopes and no clear administrative lead.

The federal government has no mechanism to monitor or coordinate its engagement in project reviews. As such, each permit, license, authorization and review is designed and managed to function in isolation. The problem rests both with legislation and with implementation - Acts are designed in isolation and implemented without adequate direction, resources, performance management or consistency of interpretation.

After years of acknowledging the problem, the time for action is now. Steps are urgently needed to improve the coordination and administration of the federal government's project review process. The federal government should establish a small, efficient, centrally-located Project Review Coordination Office. The activities of the Office would be

focused on monitoring federal engagement in project review, improving coordination and resolving bottlenecks, engaging provincial support and efficiency, enforcing timelines and schedules, assisting proponents in navigating the system, and acting as an ombudsman on their behalf. In parallel to establishing such an office, the government should also implement a performance standards and measurement system for application to officials engaged in project review – this would improve timeliness and responsibility.

5) The federal government should implement the 2003 CEAA amendments.

The 2003 amendments to the Canadian Environmental Assessment Act would have improved the coordination, timeliness and discipline associated with the review of Canadian projects, including mining projects. It is important that the federal government implement these amendments and finalize the appropriate regulations. One quick and effective means of emphasizing the importance of this would be through the government passing a Cabinet Directive. Such a directive was issued by the previous federal government in the Fall of 2005 and was having a positive effect. The previous government had also committed an additional $5 million per year to support the implementation of the CEAA amendments. The change in government, however, has called the Directive and funding into question and the government's project review performance has subsequently deteriorated. A Cabinet Directive would send a signal to all departments that project review is a priority - this serves to command attention at the deputy minister level and, in turn, enhances resources and collaboration between departments responsible for project reviews under the CEAA.

6) Governments should mobilize to address the mounting human resources gap.

As one illustration of the scale of the human resources challenge, it is estimated that, over the next decade, 35-50 thousand new mining workers will require post-secondary education (PSE), of which current PSE programs in Canada will supply 9-12 thousand.

The Mining Industry Human Resources Council is undertaking a number of actions over the next two years aimed at increasing the availability of trained workers. These include:

- promoting the industry to youth, women, immigrants and Aboriginal people;

- implementing national standards for key mining occupations;

- implementing a strategy to increase recruitment and retention of Aboriginal workers; and

- developing a central repository of information on funding programs and subsidies available to help increase the mining workforce.

Governments at all levels should work with industry, educational institutions, Aboriginal peoples and other stakeholders to address the current and future skills training, mobility and immigration needs in the minerals sector. For its part, industry itself will have to develop solutions over the coming months and years, in partnership with governments, schools, professional and accreditation bodies, immigration organizations, and other stakeholders.