

Northern Ontario Mining Supply and Services Study

Executive Summary

April 2010

Doyletech Corporation

**Prepared for the Ontario North Economic
Development Corporation (ONEDC)**

Introduction

- This document summarizes the results of a strategic analysis of Northern Ontario's Mining Supply and Services Sector.
- The overall objective was to assess growth opportunities and outline a plan to realize them through concerted stakeholder action, both public and private.
- Primary information for this analysis was developed by Doyletech Corporation through interviews with 150 companies and three focus groups to discuss the results.

The Sector

The total value of the *mining supply and services* sector output is \$5.6 billion, by some 500 companies employing about 23,000 people.¹ The approximate breakdown of sales and employment by the region's four principal centres is as follows:

Sudbury	\$3.94 B	13,800
North Bay	\$0.77 B	2,990
Timmins	\$0.59 B	4,600
Thunder Bay	<u>\$0.35 B</u>	<u>1,610</u>
TOTAL	\$5.60 B ²	23,000

1. Based on survey data.

2. Totals may not add because of rounding.

Geographic Market Focus

The market is overwhelmingly domestic:

- Canada accounts for 81% of sales
 - 62% to Northern Ontario
 - 7% elsewhere in Ontario
 - 12% elsewhere in Canada
- Exports are 19% of sales
 - 8% outside of North America
 - 6% unspecified
 - 5% United States.

Value Creation: Source

The sector comprises five main capabilities:

- Mining Engineering and Mine Management;
- Mining Equipment Manufacturing;
- Customization of wheeled, tracked and flanged vehicles;
- Equipment Repair and Rebuild;
- Support: Consulting, Research, Training and Financing;
- There are numerous additional specialized capabilities.

Value Creation: Client Focus

Besides a home market sales concentration, intra-sector trade is limited and firms of all sizes are heavily dependent on a few clients:

- 48% depend on one customer for almost 30% of sales; 51% rely on two customers for at least 50% of sales.
- 63% of ‘best customers’ and 53% of ‘second-best’ are miners.
- About 16% of ‘best customers’ are manufacturers of complete mining equipment systems; some 6% are manufacturers of parts and components for such systems.

Value Creation: Productivity

Sector net output (about \$124,000 per employee) is almost 1.4 x the Canadian average of \$89,000

- However, like other sectors, high productivity¹ comes disproportionately from larger firms:
 - Large: 5.15 x small (e.g. Vale Inco 4.7, Rio Tinto 4.1)
 - Upper-mid: 2.63 x small
 - Lower-mid: 1.84 x small
 - Small: 1.0
- Capability gaps include cutting-edge supply chain mgm't & some innovation (e.g. wireless, waste stabilization).

1. Calculated using gross sales per employee.

The Sector: Prospect and Retrospect

- **Past:** In 2008, almost half of companies lost jobs to recession; just 10% gained employment. Moreover, a major miner entered an extended strike.
- **Future:** 83% of companies foresee significant revenue increases over the next three years; only 1% see a decline; employment forecasts are similarly optimistic.
- **Growth Prospects:** Globally, buyers seek solutions; Systems sales are outpacing the growth of mining companies they serve - reflected in industry's selection of the most promising categories,
 - 1st: Mining Engineering, Complete Solutions 21%
 - 2nd: Mining Equipment Manufacturing, Complete Systems 13%
 - 3rd: Mining Direct Services 9%
 - 4th: Miners 9%

Paths to Growth

While mining is a commodity business where cost rules, 82% seek product and market diversification:

- **53% New Markets**
 - 30% elsewhere in Canada
 - 23% exports
- **29% New Products**
 - 16% through R&D
 - 13% by technology acquisition
- **13% Cost Reduction**
 - 7% by capital investment
 - 6% through skills investment
- **6%¹ No Strategy**

1. Because of rounding totals do not add to 100.

Paths to Growth: New Markets

Future priorities are very different from current markets:

– South America is the top export target.

- 1st: Elsewhere in Canada 63%
- 2nd: Northern Ontario 53%
- 3rd: Chile 43%
- 4th: USA 42%
- 5th: China 27%
- 6th: Peru 25%
- 7th: Brazil 23%
- 8th: Central America/Caribbean 20%

Paths to Growth: Market Barriers

- Insufficient scale is a fundamental problem, impeding the formation of links for systems solutions; and, intelligence gathering and marketing.
 - 39% cited lack of market Intelligence (1st)
 - 38% lacked linkages to complementary firms (2nd)
- Cost is a constraining factor
 - 24% felt their pricing was non-competitive (3rd)
 - 18% saw exports requiring unaffordable capital investment (5th)*
- Most importantly, only 4% felt they were not competitive on quality. Only 8% felt that their products or services did not lend themselves to exporting.
 - I.e., The sector has plenty of export potential

* 4th was lack of promotion of the Northern Ontario sector (20%).

Paths to Growth: R&D

Almost 90% of respondents believe a strong R&D effort, equal to 5% of sales, could increase revenues significantly:

- Over 50 percent: (19%)
- Up to 50 percent: (26%)
- Under 25 percent: (43%)

This would represent a major initiative: Canadian R&D, including public spending is just 1.8% of GDP, low by OECD standards.

Paths to Growth: Public Sector Support

Government is seen as part of the solution: but the paper burden is heavy.

- 64% had used or could benefit from federal programs such as SR&ED tax credits, NRC-IRAP and (formerly) HRSDC temp. employment support
- 53% cited provincial programs such as the Ontario Heritage Fund
- 48%: municipal programs
- 48%: educational institutions (beyond graduates)

Going Forward: Collective Action

A pan-Northern-Ontario industry association could help, *if it had the resources* to deliver key results:

- 53% “Marketing platform to help sales and exports”
- 42% “Provide market intelligence”
- 38% “Help in finding technology and marketing partners”
- 38% “Provide a voice for industry to governments”
- 38% “Networking for coordination and expansion”
- 20% “Special projects, such as technology roadmaps”

Current associations* are valued: companies pay on average \$4,750 annually on all memberships.

- Chamber of Commerce 63%, followed by CIMM (49), SAMSSA (42), CAMESE (20), OMA (17), CMA (13).

SWOT ANALYSIS: SUPPLY SIDE SUMMARY

STRENGTHS

- Very wide range of products and services
- Strong customization capabilities
- Understanding of current customers' needs
- Quality and technology leading-edge
- Environmental and indigenous peoples consultations
- Safety record and equipment
- "The World's Mining Super Store"
- "Expertise, Experience, Excellence"

WEAKNESSES

- Short production runs of customer and semi-custom products prevents economies of scale
- Generally sector consists of small firms with lower productivity
- Not much experience in exporting
- To some degree, costs
- Very limited capability at present to develop and sell complete "solutions"
- Limited record up until now in R&D and innovation

- Develop new internal structures for providing complete solutions
- Take advantage of new e-Tools for mine design, planning and management
- Capitalize on excellent northern Ontario brand to develop export marketing platform

OPPORTUNITIES

- Vulnerable to new competitors with known structured supply chain management capability
- Greater standardization, leading to new entrants capitalizing on economies of scale
- Cost issues
- Possibly financing issues

THREATS

SWOT ANALYSIS – DEMAND SIDE SUMMARY

STRENGTHS

- Experience with underground mining in challenging conditions
- Credibility for expertise, reliability
- Safety record
- Indigenous peoples engagement capability

WEAKNESSES

- Limited experience with exporting
- Lack of knowledge of export markets
- Language barriers
- May lack critical mass for marketing
- May not be able to develop necessary “just-in-time” innovations and supply chains

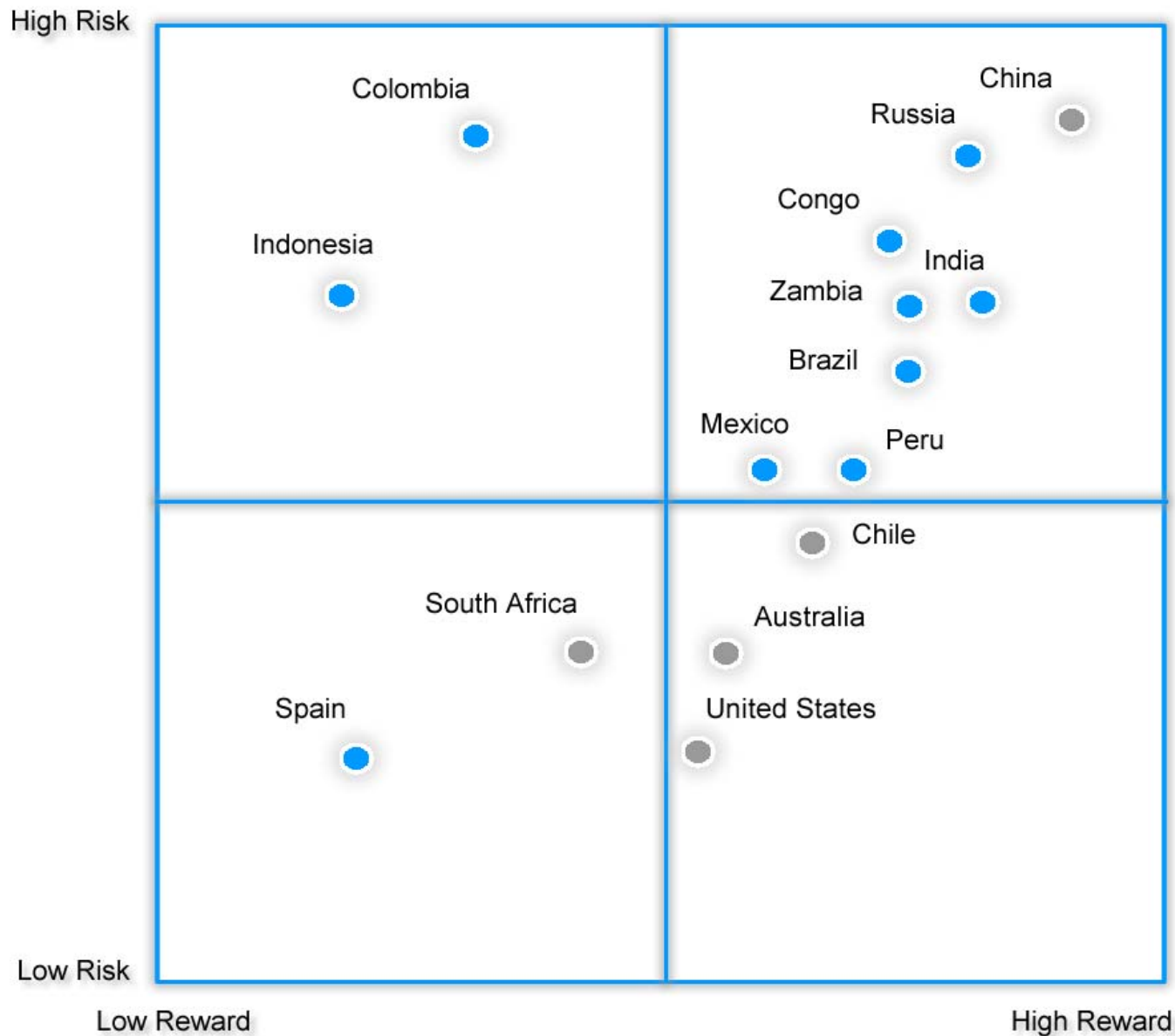
- Expanding global markets
- Increasing outsourcing leading to less reliance on miners themselves for sales
- Potential to retain a leadership position in mining supply globally
- Better commodity prices and economic return

- Protectionist policies among economies gearing up for developing their own infant industry mining supply sectors
- Increasing competition from mining supply sectors with diminishing resource bases
- Low cost suppliers/ producers

OPPORTUNITIES

THREATS

World Mining Markets: A Risk/Reward Overview



Going Forward: An Action Plan

Each of 3 components is viable as a “stand-alone”: stakeholders can refine their own preferred mix:

1. An e-Quartermaster Capability;
2. A Northern Ontario Best Practices Standard;
3. Consortia to Provide Total Solutions for Global Mine Opportunities.

1. e-Quartermaster Capability

The Objectives:

- Provide a virtual inventory of products and services
(cf. *Terminal Railroads*)
- Raise awareness of sector capabilities, within and without

The Benefits:

- A common-use marketing and service platform
- A path to increased collaboration, internal development & eventual lower costs for buyers & sellers
- Readily done in progressive stages & complementary to branding, consortia & quality initiatives

2. Northern Ontario Best Practices Standard

The Objectives:

- To anchor the assertion that the Northern Ontario sector is world-class (branding) cf. VQA
- To differentiate suppliers as global players

The Benefits:

- A unique marketing tool for this sector
- Complementary to consortia formation
- Credibility for smaller (unknown) players to penetrate export markets

3. Consortia to Provide Total Solutions

The Objectives:

- To overcome the barrier of scale, virtually
- To mobilize fast response to global opportunities

The Benefits:

- A unique selling proposition, worldwide
- Supports specialization, e.g. gold, open pit, local focus- e.g., Timmins

The Challenges:

- Governance, cost management, likely need for branding & staged development