

Tracking the trends 2017

Executive summary

As a result of different dynamics in global supply and demand, mining has evolved from a single industry to a collection of industries. Take companies that mine iron ore or thermal coal for example. They have an entirely different outlook than those heavily weighed in precious metals. Diversified miners face different challenges than those with a niche commodity focus. Major producers are planning for a different future than the one that appears on the horizon for most junior explorers.

These divergent views of the industry's prospects emphasize a widening gulf in the sector. It seems no longer possible,

if it ever was, to discuss the mining industry as a cohesive whole. This largely explains why so many companies are adopting such different strategic responses. Yet, although their approaches to the future will differ, all miners should be asking one common question: going forward, where should we play and how can we win?

The next two years will bring corporate responses to this question into sharp relief. Will this be wasted time, where companies fail to learn from the mistakes of the past? Or will these be the years where miners seize the opportunity to transform themselves and create a sustainable industry?

For those willing to engage in substantive change, opportunities abound to rethink strategy, unlock productivity, improve sustainability, close functional gaps and interact with key stakeholders in new ways. However, to successfully execute on a 'how to win' strategy, miners will need to make cultural shifts. This will require strong leadership, greater collaboration, and the adoption of a long-term view and leading practices from other industries, along with a commitment to fostering wellness and diversity across the enterprise. ➔

Key messages

01. There is a measure of cautious optimism within the mining sector. Commodity prices (while volatile), are on the rise and financing (while still not widely available) is picking up. To position themselves for sustainable growth, miners must be willing to explore and invest in strategies to help them continually improve operations and enhance shareholder value.
02. By adopting best practices from other industries and embracing a proactive and holistic view on collaboration, the mining sector can begin to innovate and evolve to an industry of the 21st century.
03. Transparency, engagement with key stakeholders (governments, regulatory bodies, communities, shareholders) and commitment to corporate social responsibility will be key for miners in winning the social and business license to operate.

1

Understanding the drivers of shareholder value

Miners seek a balance between financial discipline and growth

- As commodity prices (while volatile) are on the rise and financing is picking up in the mining sector, a measure of cautious optimism is prevailing some segments of the industry.
- Despite positive indicators, mining share performance continues to lag, driving the imperative for companies to redefine shareholder value.
- To drive sustainable growth as a way to enhance shareholder value amidst market volatility, mining companies should consider adopting a series of short and long term strategies which include: pursuing top-line growth, optimizing portfolios, furthering widen margins, being more agile, and changing the rules of the game to encourage long term investments.

2

Unlocking productivity improvement

Focus shifts to becoming serial innovators

- Productivity improvement remains a critical priority for mining companies, but in order to get to the next layer of efficiency gains, they need to turn to innovation.
- Technology is key to drive the next wave of productivity gains. Companies are leveraging learnings from other industries and are exploring the benefits of full automation, artificial intelligence, 3D printing, lean operations and outsourcing.
- Proactive approach: Miners need to integrate innovation across regional and functional lines by adopting the appropriate systems, processes and technologies, measuring progress, and making a cultural commitment to guide business decisions and actions.

3

Operating in an ecosystem

Collaboration and unorthodox partnerships will drive the industry forward

- The mining sector needs to recognize the imperative of operating in an ecosystem in order to realize major breakthroughs from endemic issues.
- Mining innovation hubs are emerging to encourage greater industry collaboration amongst technology start-ups, businesses, industry leaders, government and academia to find creative solutions to resource challenges in mining.
- Miners need to move out of their comfort zones and be more proactive on collaborating. Other strategies to promote a systematic approach to operating within an ecosystem include: turning vendors into partners' collaborating with competitors and building extended partnerships.

4

The digital revolution

Mining starts to reinvent the future

- Mining companies are starting to explore the potential benefits of digitization as a way to improve the way they operate.
- Embracing digitization involves more than just investing in apps and solutions.
- To thrive in the digital future, mining companies should articulate a clear digital strategy, define a supporting digital architecture and foster the right skills and capabilities.

5 Mapping the threat landscape Cyber security concerns accelerate

- As more data moves into the cloud, IT and OT technologies converge and digital innovation becomes the norm, mining companies will be more exposed to online threats.
- In the past several years, most major mining companies have been subject to attack. The current IT security technologies used by most mining companies are unable to safely protect their digital and physical assets from increasingly sophisticated and malicious online threats.
- As the cyber threat landscape evolves, mining companies need to adopt a more rigorous approach in cyber security. They need to strengthen traditional security controls, become more vigilant and cultivate resilience.

6 Creating a shared vision for the sector Moving from compliance to a potential source of competitive advantage

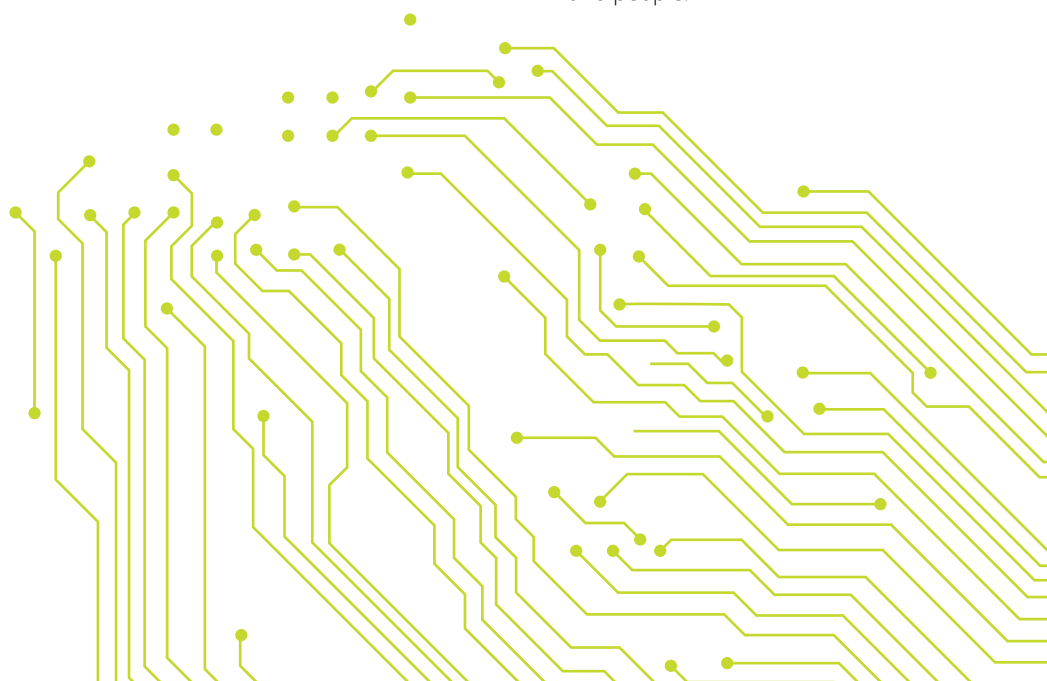
- The relationship between governments and mining companies has long been fraught with tension.
- In many cases, governments are trying to balance their desire to attract mining investment with their need to raise the funds required to support local economic and social development and hence they are looking for new ways to bring divergent stakeholder interests into alignment.
- Effective engagement and productive dialogue are key to enhancing cooperation with government, mining companies and other key stakeholders. Although different models of stakeholder collaboration will prevail in different jurisdictions, best practice approaches for fostering a shared vision for the sector include: building long-term solutions, linking societal outcomes to build business success, measuring social outcomes and aligning with government.

7 Re-earning the social license to operate Environmental sustainability and energy management move into sharper focus

- The mining sector is facing greater challenges in winning the social license to operate in communities due to the environmental impact resulting from recent catastrophic accidents at mines and from the pollution caused by greenhouse gas emissions.
- Regulators also expect mining companies to comply with a range of mandatory and voluntary environmental disclosures, detailed in guidelines issued by the International Council of Mining and Metals (ICMM), the Global Reporting Initiative (GRI), the Extractive Industries Transparency Initiative (EITI) and other local regulatory bodies.
- To regain their social license to operate, mining companies must sharpen their focus on environmental sustainability, including: energy management, water management, climate change adaptation and mine closure and reclamation.

8 Supporting strategic priorities Mining companies move to transform their operating models

- Miners have come to realize the imperative of transforming their operating models (from functional outsourcing and process redesign to revised approaches towards centralization and decentralization) in order to sustain growth.
- Some companies chose to decentralize their management approach to foster a high performance culture and to instill greater accountability at the mine site while helping companies improve their returns while lowering risk.
- Others have taken a centralized approach as a way to enhance oversight, quality control and service levels by eliminating duplication; streamlining, automating and standardizing processes which could potentially improve service levels and response times.
- Companies with leading operating models are typically more capable to respond to industry challenges, see faster revenue growth and higher operating margins. Miners should look to five key aspects of their operating models as part of their operational excellence strategy: Organizational structures, processes, technology, culture, and skills and people.



9

Creating healthy and inclusive workforces

Wellness and diversity are rising on miners' agendas

- Fostering healthy workforces and inclusive workplace are fundamental to sustainable productivity improvements.
- The global mining sector is underperforming on both fronts (as mental illness is no longer confined to site operations; and the workforce is lagging in inclusiveness and diversity).
- As the mining industry becomes more digital in its operations, it will compete with other sectors for in-demand skillsets from all over the world. Pay alone will not be enough to attract talent.
- In order to build leading-edge teams that can foster the innovative culture mining companies need to thrive in the sector, they need to take a proactive approach in improving workforce wellness and inclusiveness. These steps include: amending FIFO policies, extending wellness programs to the entire employee population and cultivating inclusiveness.

10

Adopting an integrated approach to reporting

Demands for greater disclosure and transparency increase

- Mining companies face increasing scrutiny as governments and regulatory bodies are demanding greater levels of transparency, including financial disclosures and international tax reporting.
- At the same time, the investor community expects companies to go beyond mere compliance and report on a broad range of non-financial information.
- True transparency, in the light of these growing mandates, requires mining companies to adopt a strategic and integrated approach to reporting.
- To strengthen their compliance and disclosure practices, mining companies are taking steps to enhance their reporting and transparency, including: standardizing information and considering the benefits of over-reporting.

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