



# Energy Resources UPDATE

## Strategies to Address Labor Shortages and Cost Containment Drivers

The international mining industry is at a critical crossroads. A recent BDO study found that 79 percent of mining executives believe the lack of a skilled workforce will negatively impact their business in 2013. This, coupled with declining margins and a need to cut costs, is placing pressure on mining companies to regain real-time control of their often geographically dispersed operations. With 65 percent of survey respondents indicating they will focus on improving internal business processes to improve profitability in 2013, mining executives are now turning to technology solutions and streamlined business plans to address the growing pressure to mine more with fewer resources. One way companies have begun to tackle these cross-cutting forces has been implementing and refining a key new business process: The Mine (or management) Operating System.

### Mine Operating Systems

The Mine Operating System (commonly referred to as a "MOS") is a combination of integrated processes and tools which, together, deliver optimized planning, budgeting and operational management. It is rapidly being deployed throughout the industry to increase cost transparency, comparability and accountability.

Management mechanisms are put in place to enable short interval controls across production, maintenance and technical activity at the mine site, with real time reporting back to corporate. The controls ensure a closed loop from budgeting, planning, scheduling and execution to equip management to take immediate corrective action when exceptions occur.

More mining executives are turning to the implementation of an integrated and standardized MOS across sites to address the combined impact of skilled labor shortages, cost containment priorities

and the heightened need to gain control over "performance to plan." Common outcomes mining executives seek to achieve through the investment in a MOS are:

- Operational performance is managed to plan with a common way of working (though still tailored for specific mine needs).
- Standardized ways of delivering a consistent and structured approach across mines for forecasting, budgeting, planning, scheduling, execution, reporting and reviewing are implemented.
- "Noncompliance to plan" is managed in a structured and effective way.
- Activity is aligned to strategic objectives. Mining executives seek improved earnings results through structured operating disciplines that deliver a combination of cost reduction, improved production outcomes and better asset utilization.

Compilation of the trusted data from individual sites can then be used for key corporate functions such as marketing (sales volumes), infrastructure requirements (e.g., take or pay utilization) and capital coordination.

### What Should a MOS Deliver in Practical Terms?

A successful MOS will deliver to the mine site integrated processes and tools for:

- Daily handover meetings, shift review meetings, key performance indicator (KPI) setting, short interval control and shift performance assessment and preparation
- Weekly performance review meetings, production meetings and shift target setting
- Integrated monthly production and resource planning (across production, maintenance and technical operations)

---

## Strategies to Address Labor Shortages and Cost Containment Drivers

---

Further, the MOS will integrate with corporate to ensure exception-based reporting on how the mine site is performing relative to plan. Corporate uses performance data to reset KPIs and deploy resource utilization and production capacity strategies.

### Developing and Implementing a MOS

The effort associated with the design and implementation of a MOS will vary across organizations and mine sites. Depending on the development strategy, mining executives have a range of options, from purpose-built software package solutions to custom developed MOS solutions that utilize and improve upon the existing systems and processes of the organization. With the focus on cost containment driving efforts to ensure a solid return on MOS investment, more and more mining executives are leaning towards MOS development principles that:

- Use existing systems where possible (across both corporate and mine), maximizing utility and minimizing cost
- Leverage internal subject matter expertise (no one knows the mine better than those working there) while partnering with external expertise for implementation and management of the change process
- Ensure each mine sees itself as a leader in development and implementation, and that system tools are easily transferable across mines (i.e., common but “mine local” processes)
- Deliver practical system tools and an implementation approach with minimum disruption to ensure the change is embraced and the MOS adopted by those users who determine its success.

### Enabling with Technology Solutions

Given the potential impact across the whole of organization and strategic importance of a

MOS (ultimately increasing profitability), the key management technology considerations for mining executives are:

- Take a whole-of-operation approach. Consider the entire mining value chain when evaluating technology needs.
- Technology needs to be driven by organization strategy, not by business units or departments.
- Technology usage needs to be aligned behind a core purpose (e.g., cost reduction and management, productivity improvement) to avoid islands of information or functional redundancy.
- Establish project teams and champions tasked and incentivized to deliver technology improvements. Incentives should link to KPIs, which link back to strategy.
- Manage change to increase user adoption rates within shorter time frames. There is no point in mandating a strategy and selecting and implementing technology if people on the front line are unwilling or unable to use the technology.
- Be prepared to drive technology implementation through to the end. Technology implementation is not completed until the core purpose of implementing the technology is achieved.

In summary, the implementation of a MOS ensures a supply chain focus to the development and delivery of improved processes and management mechanisms. The primary outcome is that non-compliances to plan (budget and performance targets) are managed in a proactive way by giving control back to mining executives. Implementation will require considerable change and project management interventions, the most critical being strategic alignment, development of practical outcomes and holistic technology enablement.



---

## **Strategies to Address Labor Shortages and Cost Containment Drivers**

---

Energy Resources Update is provided by GBQ's Oil & Gas Team for our clients and other interested persons upon request. Since technical information is presented in generalized fashion, no final conclusion on these topics should be made without further review.

This article originally appeared in BDO USA, LLP's "Natural Resources Record" newsletter (Summer 2013) Copyright © 2013 BDO USA, LLP. All rights reserved.