

Effective ERP solutions keep mines ahead of the market

By [Julian Nagel](#)

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The digital age has brought about many changes in the mining industry. More often than not, mines that embrace technology have remained ahead of the curve, achieving a positive ROI - even in the face of poor market conditions.



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Mining has traditionally been slower to adopt new technologies than its secondary and tertiary industry counterparts, particularly in the realm of ITC.

The need to modernise

In a special report in the *Mail & Guardian* on 25 August 2015, Anglo American Platinum chief executive, Chris Griffith, spoke at length about the need to modernise.

“On a revenue-to-revenue basis this industry spends 80% less on technology and innovation compared with the petroleum sector, for example. Yet our operating costs are increasing three times faster than consumer inflation rates and are on their way to doubling in less than five years. With industry margins being squeezed on all fronts, we simply have to embrace innovation if we want to find more productive, efficient and sustainable ways of extracting value from the minerals we mine.”

Good ERPs are scalable

Enter Enterprise Resource Planning (ERP) systems. While not new to the industry, the mining value chain requires specific systems to be implemented to achieve the best possible gains.

They replace and/or integrate with multiple systems to provide a holistic solution with modules that talk to each other and exchange data meaningfully.

In this cohesive environment, data can be cross referenced to provide much needed context, insight and operational awareness. Good ERPs are also scalable with scope for new functionality and can grow with a business's evolving needs.

Access to real-time data

The design is based on best practice business processes and adopting such a solution would reflect in the way operations are undertaken; with potential gains in productivity and cost reduction via improved resource and process management.

Accessing data in the field is another major benefit. The value of having access to real-time data in the field, thanks to modern distributed ERPs which are accessible on mobile platforms, cannot be underestimated considering that key decision makers and pivotal users will not be desk bound at all times.

Potential challenges

There are of course potential challenges a mining business can expect in adopting an ERP system.

For one, implementing systems of this scale and complexity can be a lengthy process and often requires a fundamental change in business processes, which needs to be navigated carefully.

Secondly, there is the necessary hurdle of end user training – which is required for any new system. The effectiveness of a system is proportional to the skill level and proficiency of the people using it.

Quantifying the benefits

Most business owners will rightly ask how to quantify the benefits of an ERP solution. It's important to realise that not all ERP solutions are created equal and the benefits experienced by one business may not be the same for another operation. While it is challenging to quantify the performance and benefit there are financial related indicators that can be used to do so.

First there is the total cost of ownership - what the solution is costing directly and indirectly. The payback period, how long before the implemented solution effectively pays for itself, is also a useful barometer for risk.

Net present value is a useful indicator to measure the worth of an ERP solution over a longer period of time, from a financial point of view, especially if there are on-going costs such as SLAs.

It must also be noted that ERP benefits can also manifest as non-financial indicators, such as improved health and safety and legislative compliance.

Implementation is key to realise the potential benefits that an ERP can offer and a willingness to assess and improve business processes is often required. One way of looking at it – and indeed this is a critical paradigm shift, is that implementing an ERP solution should not be viewed as software procurement, but rather an investment in an improved way of conducting business.

ABOUT THE AUTHOR

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