

Value-Driven Optimisation Using Integrated Technology Solutions

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ABSTRACT

A connected data-driven operation is the future of mining – where, real-time operating data is captured and analysed to maximise revenue, identify opportunity and minimise risk.

Integrated Technology Solutions platform embraces the technological leap of the digital revolution in mining and merges with predictive analytics providing a systematic approach to the connected data-driven vision. The platform combines long-term optimisation models with short-term predictive analytics; providing comprehensive information management platforms that present key performance data and targets for the entire operational team in a clearly-defined and systematic approach. The program provides:

- A rigorous method to troubleshoot & debottleneck daily plant issues
- Link short-term opportunities with long-term forecasts
- Training for the operational team
- Continuous improvement of asset health and plant utilisation for changing mine plan
- Mine to mill to product optimisation

The objective of the platform is to improve the value of operations by defining critical decision-drivers at each phase of the mining operation. Ausenco's mining, process, asset and logistics optimisation solutions are integrated with Yokogawa's common value-opportunity solution minimising the dollar per tonne ore processed or unit metal produced in operations through energy and cost-efficient processes.

The paper presents examples of recent success stories highlighting and application of the integrated platform. The presented examples define the methodology and approach realising value for the underperforming operations - underpinning the transformation of these mines into 'mine of the future' operations.