

# VBKOM & SENSMINING

Collaborating to bring the smart mining  
solution data alive in your TECHNICAL  
OPERATIONAL PLANNING



Making SENS of your mining data








## Smart Decision Making

The major costs of surface mining can be identified as costs associated with resources and equipment, energy, and safety. Every operation strives to increase its production output, while considering its worker's safety and cutting energy costs.

At the end of the day, the cost of surface mining is subject to the output of the mining team.

At VBKOM we found many clients have gone with the big guns and implemented extensive reporting systems, but they are white elephants because it is too complex, too difficult to maintain and update, or too expensive. In other instances, the client does not really know where all their data sources are and what the performance measures are, or how to relate the information back to their mine plans.

 **VBKOM** offers highly skilled and committed area specialists that create amazing solutions for each of our clients, making sure that their challenges are met with advanced problem-solving and implementation approaches that solve their current problems, and make their future successes possible.

## Project- and Business Intelligence

We live in a world where data is abundant in the project environment. So abundant in fact, that the next challenge becomes extracting intelligence from the project that serves the various forums and stakeholders of the project. These audiences include the project steering committee, the project management owners' team and its resources, the contractors, and even external stakeholders who have a vested interest in the project.

VBKOM recognises that a core skill required for successful project controls is the presentation of information in a clean, concise, and easy-to-understand format – the right information to the right forum. Project Intelligence integration with Business Intelligence is crucial – the purpose of a project is, after all, to implement business change, and no project functions in isolation.

Identify the opportunities with **Sens<sup>®</sup>**

Implement the lasting changes with **VBKOM**

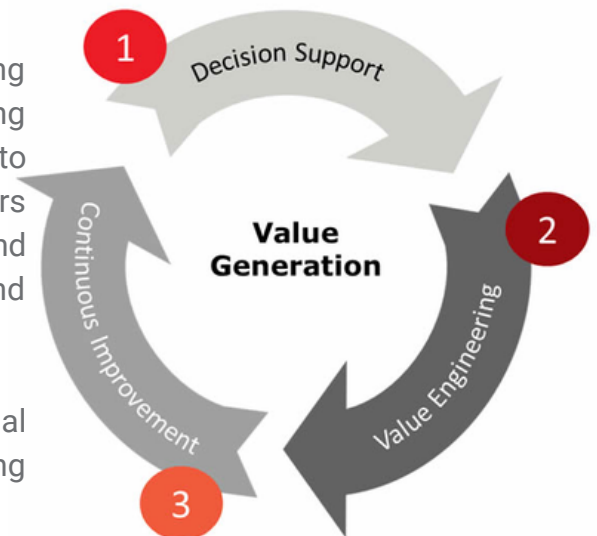
In relation to the data that is extracted from the SENS MINING SOLUTION, VBKOM performs the following tasks:

- Analysis of the data extracted from the SENS MINING SOLUTION
- Improvement Initiative Identification and Prioritisation Support
- Improvement Initiative Technical Consulting
- Initiative Implementation Management and Tracking

## Integration of the data

VBKOM offers a wide variety of services to the mining industry, ranging from specific equipment to overall mining system requirements, as well as from feasibility studies to mine closure plans. VBKOM's consulting mining engineers assist in planning, managing, evaluating, analysing, and improving mining operations to optimise performance and enhance return on investment.

The team operates across all facets of operational management and technical consulting. VBKOM's consulting engineers know how to successfully develop and optimise mining projects. Experience has taught us that a comprehensive approach is needed to assist clients to develop new ventures and enhance the success of existing operations. Our expert teams are well versed in all phases of project development; from initial project planning to product delivery.



## Logistics Studies

VBKOM understands the importance of a logistics strategy for mining operations that should enable production-level development. In most cases, a detailed logistics study is required to define a logistics strategy for current and future projects in mining operations.

Our approach to logistics studies and simulation is:

- Benchmark current logistics and efficiencies and deliver a report on the findings.
- Perform a study to confirm the logistics related to the movement of equipment, people, and materials to determine current as well as future steady-state requirements.
- Construct models from collected data for simulation of logistical options.
- Simulate various options related to a client's requirement/s.
- Deliver an integrated Logistics Strategy for current and future operations, as well as recommendations and an implementation plan aligned with operational readiness criteria and stakeholder requirements.

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## Future Logistics Considerations

The following are required to capture future logistics requirements and recommend actions to support a comprehensive logistics strategy.

### Equipment:

- Confirmation of the current Life of Mine plan and production schedules, intended equipment sizing, and movement into and out of the operational areas
- Confirmation of haul routes for materials, ore, and waste in line with the existing plans and outcomes of the logistics study
- Confirmation of interim- and steady-state logistics requirements including mining, production, secondary equipment and vehicle movements underground, as well as alignment with replacement schedules, spares requirements, refuelling cycles, and maintenance schedules

### People:

- Confirmation of current and future people movement per shift, including access control, transportation, waiting times, and expected efficiencies at steady state
- Time studies of current people movement, the travel time during lifts, on foot and transported to various areas or levels
- Confirmation of logistics requirements for permitting offices, waiting places, rescue chambers, offices, interim- and steady-state phases

### Material:

- Confirmation and detailing of future materials movement strategy for the mine.
- Diesel storage and refuelling requirements for operations and confirmation of legal requirements
- Explosives handling and storage requirements, movement to and from storage to production sites, and confirmation of legal requirements
- Store capacities and requirements for steady-state requirements during construction
- Any other materials storage requirements
- Generators or substations requiring bund walls or fencing etc.



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