

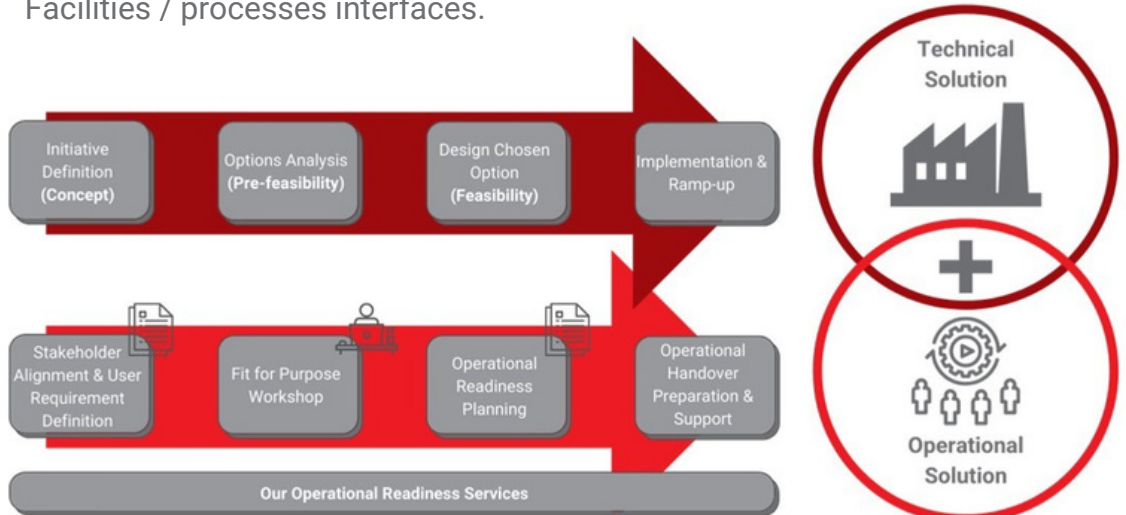
Capability Statement

Operational Readiness

Operational readiness is the function within a project that represents the project owner's interests. It ensures that the project stakeholders are engaged at an early stage. This ensures that a fit-for-purpose solution is put on the table and that the end-user requirements are built into the design from the start.

Operational readiness deals with the so-called "soft" issues and plans for aspects such as:

- › The operating philosophy;
- › Ensuring that the business requirement is translated into an appropriate functional requirement that will meet operational needs;
- › Design integration to ensure correct application of functional requirement;
- › Handover / ramp-up activities;
- › Setting up an opex / manpower budget;
- › Update operational / maintenance manuals and systems;
- › Setting up the necessary service contracts;
- › Facilities / processes interfaces.

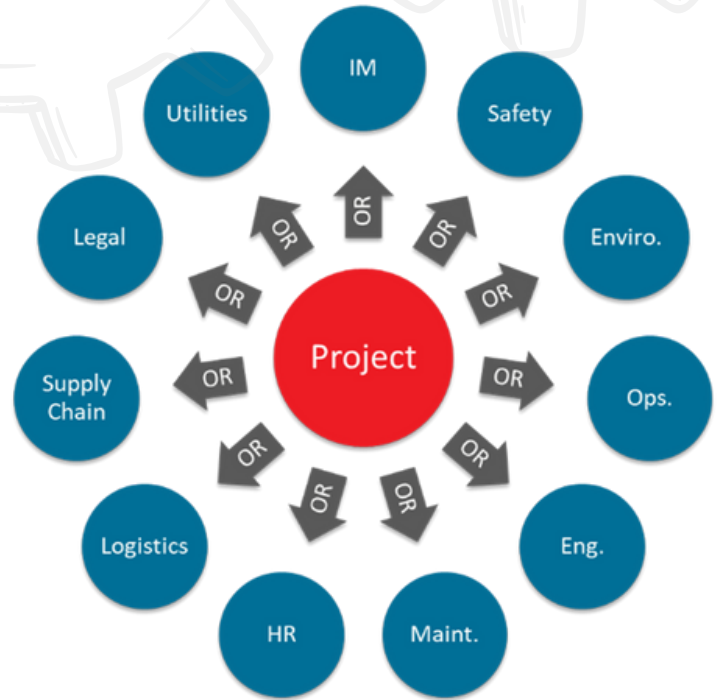


Systems Thinking

All projects have multiple stakeholders as illustrated in the following figure. We find that in capital intensive projects the engineering stakeholders and deliverables are however prioritised and the other stakeholders that may introduce fatal flaws in the project are neglected.

We believe that Operational Readiness (OR) is a key discipline that must be employed to ensure that:

- › All stakeholders requirements are understood
- › Engineering designs are evaluated to be fit-for-purpose when measured against these requirements
- › The actions required to address all system inputs, outputs, mechanisms and controls then need to be defined in an OR project execution plan that takes into consideration all change management activities to ensure stakeholder buy-in and adoption of the deliverables



Planning OR properly ensures:

- › Smooth project handover to operations
- › Fit-for-purpose solutions that integrates well with interfacing systems
- › An operational team that is prepared to operate and maintain the new system or facility

Our team is fully equipped to address OR due to:

- › Standard industrial engineering system definition and process evaluation, mapping and constraint definition skills
- › Project management trained individuals to ensure project governance artefact development and adherence
- › Operational readiness checklists, templates and skills to define requirements and plan for execution
- › Hazard and Operability (HAZOP) accredited facilitation skills to not only understand the hazards but the operability problems when considering the OR requirements

Operational Readiness Planning

At VBKOM we perform an OR Risk Assessment that follows a three-stage approach with risk workshops as illustrated in the following image:



The OR Implementation Plan is documented as follow when the project certainty is acceptable or feasible

- › Project Purpose
- › Scope of Work
- › Key Milestones
- › Operational Methodology
- › Pre-Construction, Construction, Post Construction
- › OR Plan Accountabilities
- › OR Focus Area Description and Deliverables
- › Organisational, Human Resources, Training, Infrastructure and Utilities, Interfaces, Operational Procedures, Maintenance Procedures, Spares List, Safety, Health and Environment (SHE), Supply Chain
- › Project Operational Costs
- › Commissioning
- › Handover Criteria
- › OR Schedule Activities

VBKOM's Industry Experience

VBKOM has completed various Stay-in-Business and Growth Operational Readiness Projects for different clients and within different commodities, which include:

- › Autonomous Mining
- › Fixed and modular plants
- › New mining area development
- › Primary to quaternary and in-pit crushing
- › Trolley assist / pantograph systems
- › Warehouses and distribution centres
- › HME and general workshops
- › Bus routes, mine entry and parking
- › Explosives facilities
- › Fire systems
- › Plant discard systems
- › Dispatch systems
- › Scada, simocode and PLC upgrades
- › Scrap yards
- › HME filling stations
- › Diesel storage
- › Fatigue management systems
- › Caucus rooms
- › Laboratory sampling and analysis
- › Town resettlement
- › Waste tyre yards
- › Change house facilities
- › Storm and clean water systems
- › Tailing storage facilities
- › Automatic plant sampling systems
- › Pump systems
- › Tripper cars and stockpiles
- › Feeders, conveyors, stackers, reclaimers, chutes
- › Load-out stations
- › Control and protection systems
- › Pollution control facilities
- › Dust management monitoring and -systems
- › LDV and HME segregation and separation
- › Radio communication
- › Flocculent dosing
- › Silt traps
- › Sample preparation facilities
- › Overhead cranes
- › Barcoding systems
- › Pedestrian walkways and car-parks/ports
- › Dewatering and recharge infrastructure
- › Personnel rehabilitation centres
- › On-boarding and health clinic facilities
- › Sewer systems
- › Helipads and airports
- › Office buildings
- › Waste water treatment works



Our Value Proposition

VBKOM is a provider of innovative business and technical consulting services and solutions for the mining and capital-intensive industries throughout Africa. We challenge ourselves to apply fresh thinking and to utilise our experience and technology in pioneering new ways to deliver forward-thinking solutions.

Due to VBKOM's diverse pool of expertise, we can offer our clients specialised skills within a one-stop-shop culture. Our engineering, risk, and project management capabilities as well as simulation and decision support expertise, make us an ideal partner to the mining, petrochemical, agricultural, and construction industries.

Our focus on long-term client relationships combined with our technical skills ensures that our clients can fully optimise their value chain.

At VBKOM the quality of our work is guided by a simple philosophy – our success is driven only by the success of our clients and the achievement of our professionals. By using cutting-edge technology and the most advanced computer modelling systems on the market our technical expertise comes unrivalled. Our capacity and continuity have earned us the trust of some of the world's most prestigious mineral resource companies. By staying true to our core values; by utilizing our vast project-specific experience and qualifications; along with applying proven world-class methodologies and processes the VBKOM team is a dynamic, flexible and innovative team with a track record standing as solid proof of our competitive edge in our field.

VBKOM employees have been successful in providing solutions of an independent nature to a range of clients in the mining industry. Our consultants have developed a good understanding of the needs and opportunities of both open pit and underground studies and operations and we look forward to adding value to your company. We believe that independent consultants can provide optimal solutions to the Client without any risk of providing a solution with an inherent conflict of interest. The VBKOM strategy is to form part of the owner's team to define and protect the owner's interest within our area of influence and control. VBKOM is committed to adding value to each client through innovative, practical, and trustworthy engineering solutions.

