

Analyse.
Improve.
Sustain.

Mining



Mining Services



Operational Improvement Management (OIM) advises several South African blue-chip companies and has managed assignments in Europe, Australia, the USA and other African countries.

With a track record dating back to 1985, we are business performance specialists in the key areas of organisational improvement, people management and operational optimisation.

■ ■ We work with clients to create long-term value and turn their companies into desirable investment opportunities, employers of choice and solid business partners. ■ ■

OIM's services relate directly to the mining industry and specifically focus on production optimisation, leadership and supervisory development, labour stability and employee engagement.

For more information mail info@oimconsulting.com or call Arjen de Bruin on 083 454 5795.

© OIM Consulting (Pty) Ltd | +27 21 913 8814 | www.oimconsulting.com

Building high-performing organisations.



Analyse. Improve. Sustain.

About OIM

OIM believes in an integrated approach to business performance management with an emphasis on sustainability. As such, it provides a unique, comprehensive operational framework for:

- Business strategy definition and execution
- Business architecture and alignment
- Operations management, optimisation and continuous improvement
- Effective leadership
- Employee relations and stakeholder engagement
- Talent management
- Performance measurement and improvement

This results in a visible improvement in quality, a reduction in unit costs, increased operational compliance and control, and better customer service. Sustainability is achieved by teaming up with clients to

implement the desired changes, customising solutions and ensuring knowledge transfer.

The team of consultants can lay claim to years of experience within iron ore, gold, nickel, coal, platinum, uranium and manganese. This gives them a fundamental understanding of the industries they work in and an innate sense of what should happen. This understanding allows for project delivery in a shorter space of time – usually within four to six months depending on the complexity of the intervention.

Collectively, OIM's team has worked throughout the following mine types: mechanised, conventional, surface and underground, including beneficiation plants and smelters.



Analyse. Improve. Sustain.

Our Clients



OIM has a proven track record in many countries, across several continents and industries.

We have built long-term partnerships with many of our clients who trust us implicitly to create sustainable solutions and, as a result, have referred business associates to us.

Some of our current and past clients:





Methodology & Approach

Through the expertise available to OIM, we offer a comprehensive solution to operational, organisational and people challenges to enable profitability, growth and solid business reputation.

To this end we offer a balanced eco system of culture, people and operational solutions which can be summarised as follows:

Employee & Stakeholder Engagement

Intangible benefits

Improved culture, behaviour and labour stability

Supervisory Skills

Improved skillsets & efficiencies

Efficiencies

Tangible benefits, Measurable ROI



Structure, Roles Competencies

Cost avoidance & intangible benefits

Right people, roles, structure and time

Modular

Integrated vs stand alone

Flexible

Sequence

Now & Then

Short- & long-term benefits



What we do



OIM's services relate directly to the mining industry and specifically focus on the following:

／ Production optimisation

Improve efficiencies and throughput, reduce operating costs and resolve operational constraints.

Services include:

- Business process analysis and re-engineering: An in-depth analysis and redesign of workflows and processes.
- Maintenance optimisation: Improved machine availability (capacity and performance).
- Workforce management: Optimal resource scheduling to meet production demand and productivity standards.
- Continuous improvement: Methods, standards and skills for ongoing operational optimisation.
- Systems management: IT project management and specialised resources for improved business effectiveness.

／ Leadership development

Match the right leadership talent with specific organisational needs and develop appropriate competency sets to optimise business performance.

- **Talent management** – a customised talent management strategy, model, processes and implementation tools.
- **Competency profiling** – define the key leadership competencies required for organisational success. Use the framework to assess, develop and manage your organisation's talent.
- **Leadership assessments** – a battery of tests, using internationally benchmarked tools.
- **Leadership development interventions** – customised solutions at an organisational and individual level for optimised performance.
- **Coaching** – one-on-one sessions to assist leaders with career transition, performance improvement and leadership development.
- **Team dynamics** – assessments and facilitated sessions to improve team performance.



More than 1 000 front-line leaders have benefitted from our programme.

The intervention typically delivers an ROI of 5-10 times.

／ Supervisory skills development

A multidisciplinary intervention that addresses a fundamental weakness in supervisory skills development – the ability to transfer classroom knowledge to the workplace, resulting in operational improvements.

- **Define** what supervisors need to do (the required competencies, capabilities).
- **Assess** supervisors against these competencies to determine the development needs, establish a baseline and track progress.
- **Develop** supervisory skills through an 80-20 intervention – a unique blend of classroom training and assignments (20% focus), complemented by on-the-floor coaching and evaluations (80% focus)

This approach bridges the learning transfer gap by ensuring that knowledge is properly applied in the workplace while clients benefit from ongoing operational optimisation solutions.

- **Manage** talent through a model that includes recruitment, retention, succession planning and leadership development in your organisation.

This intervention is led by a multidisciplinary team of specialists with years of experience in performance improvement, process and operational optimisation, and leadership development.



✓ Labour stability

Actively manage your labour-employer relations for sustainable business success. In essence we assist organisations to:

- Develop and implement a comprehensive employee relations strategy in line with overall business goals.
- Promote labour peace and stability.
- Foster a climate conducive to optimal performance.
- Proactively manage and resolve conflict.
- Position employee relations (ER) as a strategic instrument, not a tactical tool.
- Move from a legalistic industrial relations (IR) approach to a more inclusive, people-orientated ER approach.
- Equip stakeholders with skills in ER and IR effectiveness, engagement forums and team engagement.

✓ Employee engagement

OIM's acclaimed methodology is the vehicle used to engage everyone in the organisation, mobilise them around goals and build a climate conducive to strategy execution. OIM's methodology is the vehicle used to engage everyone in the organisation, mobilise them around goals and build a climate conducive to strategy execution.

The methodology can be likened to a coach setting up his/her players for success. It entails reviewing the team's previous performance, setting goals for the next game, analysing the opposition and obstacles, and agreeing the game plan with clearly allocated individual responsibilities. This all happens against the backdrop of continuous improvement and everyone understanding their role, the

strategy and the opposition they will encounter. Similarly, our engagement methodology is used to review team performance, set goals, identify obstacles, agree actions and evaluate conduct to ensure high performance and appropriate behaviour in day-to-day operations.

OIM has almost 35 years' experience in customising the methodology for organisational needs, implementing it and building sustainability through training, coaching and assessments. We work on the principle that mindset change precedes operational change. If implemented correctly, the methodology becomes part of business culture and the "way people do things".



OIM believes if all of the above are addressed correctly, a sustainable benefit will be gained to turn mining companies into desirable investment opportunities, employers of choice and solid business partners.



Case Studies



Gold mine: building capacity

Our client, with one of the deepest gold mines in the world (2.9 km), was unable to lift production and improve profitability – despite numerous operational interventions over the years. It consistently struggled to meet mining and production targets, had poor equipment reliability, and labour productivity was well below the industry standard.

OIM Consulting was requested to launch a transformational programme which integrated the following aspects:

- **Shaping the culture** - instil a new culture in the mine.
- **Building capability** – increase productivity by focusing on improving the competencies of the middle and front-line team. This was done through the implementation of a rigorous training and coaching programme throughout the mine.

- **Managing the work** – implement a management operating system.
- **Improving the work & sustaining the improvements** – equip the organisation's leadership with the relevant toolsets, skillsets and mindsets to ensure sustainability going forward.

The project was conducted over a 12-months period, and started on the back of a strike resulting from a restructuring and retrenchment process. The bulk of the programme focused on the “building capability” phase which emphasised individual performance coaching between OIM consultants and front-line leaders which, in turn, drove team performance and led to operational improvement. The ongoing engagement with front-line leaders and the measurement of operational KPIs ensured individual coaching was customised to ensure the team results.

Noticeable successes

A significant change set in during the 12 months. Teams embraced the new culture and became more effective under the improved capabilities of mid-level and front-line leaders. This can be attributed to a strong partnership approach between the client and OIM, and buy-in from both client management and individual staff members.

The mine returned to profit in the last quarter. Noticeable successes over the previous year include:

- **An average increase of 25% in recovered gold.**
- **An increase of 54% in meters per rig.**
- **An increase of 86% in tons per rig.**

Significantly, these results were achieved with 28% less permanent and contracting staff than the year before.



Iron ore mine: competent drivers of operational success

As the largest iron ore producer in Africa and part of a global mining company, our client needed its mines – and especially mining operations – to deliver the rapidly increasingly required volumes and quality ore on time.

The imperative was to have competent supervisors capable of consistently achieving operational targets.

In approaching OIM Consulting, the client observed the following:

- Artisans/Operators were promoted to supervisory positions prematurely and therefore couldn't deliver on the increasingly high targets.
- Supervisors were technically proficient, but struggled in the area of people management and general

management skills, such as planning and organising, problem solving, action taking and following up, as well as dealing with poor performance and disciplinary matters.

- The client's existing capability development model proved ineffective; i.e. there was a focus on classroom and theoretical training which did not translate into the required operational behaviour and actions linked to the daily business requirements.

The HR Executive and Head of Talent requested OIM to roll out our supervisory development programme across two sites, covering the 300 supervisors within the mining, plant and engineering operations.



OIM's performance coaching is a differentiator.

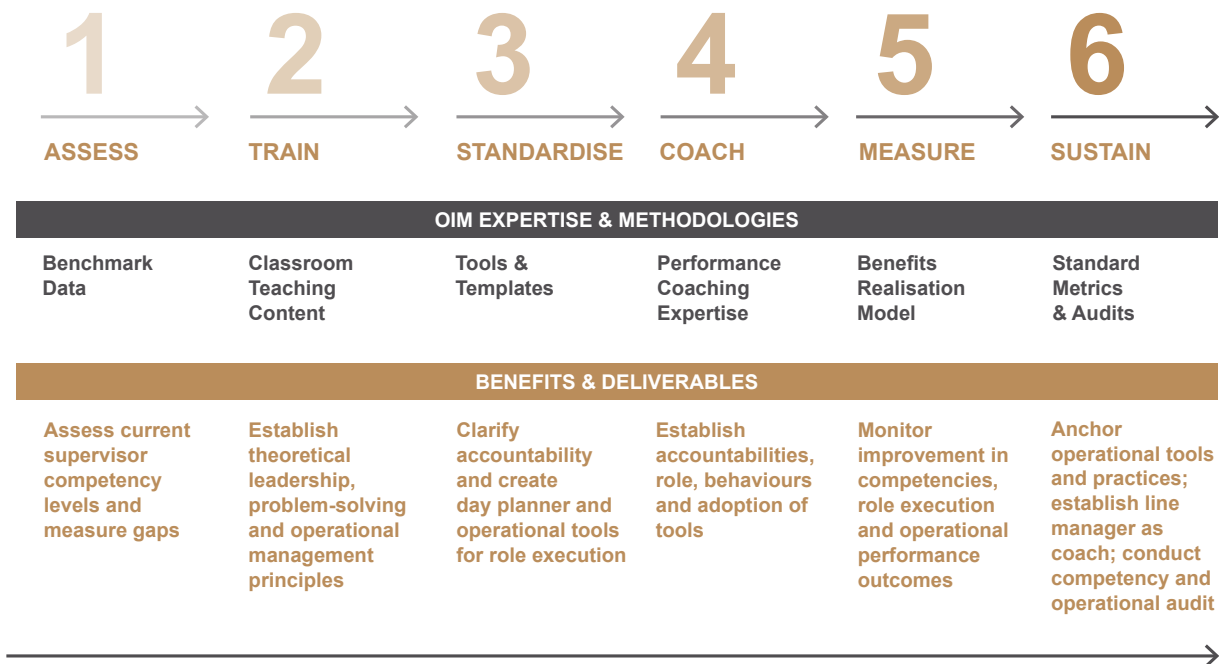
Head of Talent





▲ A proven supervisory development model

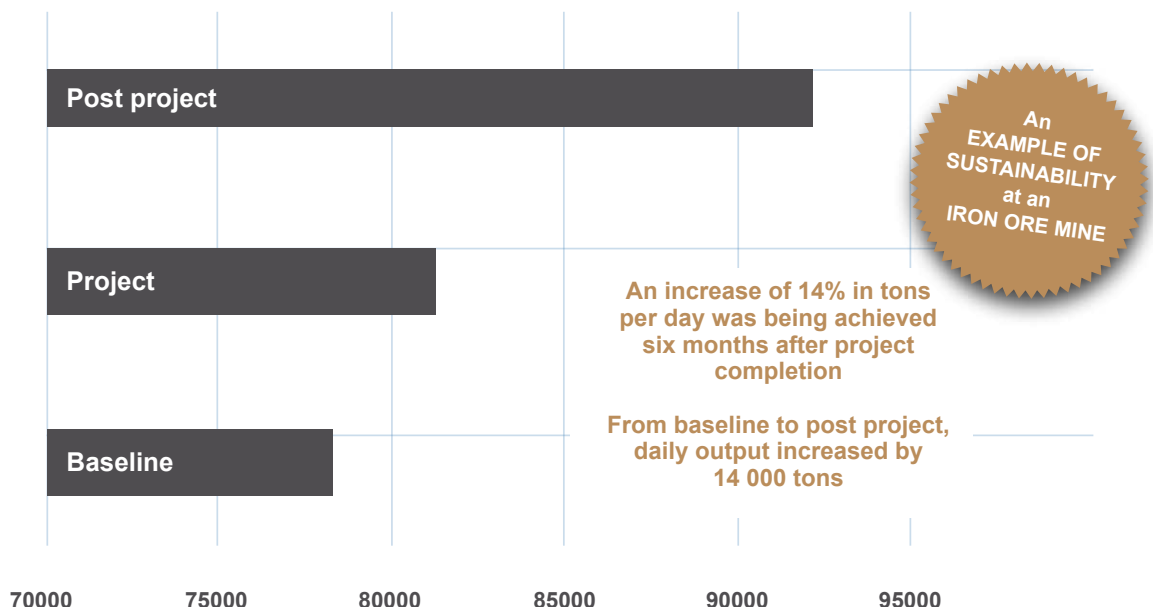
The programme was implemented over a 24-month period and covered OIM's proven six steps to supervisory success



▲ The Benefits

At the end of the intervention, post-assessments indicated an average increase of 10% in competencies and a 39% increase in role execution.

The increase in the net improved saleable and stacked tons (per day) can be summarised as follows:





Open cast iron ore mine: organisational transformation

A Northern Cape open cast iron mine, made up of two mines and a 16 million ton per annum beneficiation plant, approached OIM in 2011 to assist in an organisation-wide transformation programme with two objectives:

Firstly, instil a culture of higher performance and, Secondly, gear the organisation with the requisite capabilities to meet its aggressive ramp-up plan of growing product output tons by 32% and 18% respectively over the next two years.

A multi-phased “back-to-basics” approach began in mining to restore balance to the core process – mining was unable to sustain ore delivery to the plant.

The initiative worked concurrently in the Engineering and Mining functions to optimise processes, reduce

production lost time, improve availability and utilisation of equipment and ultimately increase production output.

This phase included the implementation of OIM’s cultural and mindset change methodology to over 2 000 staff members. It established a team-based performance management structure based on the following principles:

- Scorecards focused on operational KPIs and behaviour.
- Accountable leadership.
- Leadership decisions through team involvement and commitment.
- Promoting holistic business understanding and learning.
- Horizontal and vertical integration.
- A focus was placed on staff identifying, solving and actioning problems within the areas of their control.



▲ Hands-on coaching and operating principles

Our hands-on supervisory and management coaching entrenched sound principles which provided better planning, short-interval measurement, monitoring of inprocess variances, reviewing deviations from plans and proactive problem resolution which led to more effective and appropriate behaviours.

When this is supported by implementation of a robust management control system that is designed together with the client, the behaviours become entrenched in the organisation and performance improves sustainably.

The 70 million ton per annum mining bottleneck was successfully moved to the plant in 12 months.

Our initiatives were also implemented in the processing plant along with our innovative and high-intensity supervisory coaching programme to build internal capacity in frontline supervision – a much maligned level in the organisation.

Supervisors are often ill-equipped for their positions as many artisans and operators are prematurely promoted to supervisory positions to meet ever-increasing structural requirements and capacity growth plans.

The plant was equally successful after having achieved its production ramp-up goals and for the first time in its history exceeded its production targets in 2012.

▲ Improvement highlights

- Organisational productivity increased by 10%
- \$175 million of production efficiencies were delivered
- Mining achievements:
 - Drill & Blast tons broken increased by an average of 16% from base
 - Load & Haul tons moved increased by an average of 20,5% from base
- Engineering achievements:
 - Overall 21% increase in scheduled work completed
- Internal capability development:
 - Preventative work increased by 28%
 - Corrective work increased by 16%
 - Breakdown work decreased by 37%
- 12% measured growth in competencies of 63 supervisors in all operational areas
- 30% measured growth in the planning and organising competency





Working capital

OIM was also requested to help reduce working capital on the mine. A review was done on operating supplies inventory and maintenance inventory. Within four months R100m of stock was reviewed, with R22m of inventory being identified as redundant and/or for discontinuation, over R4m in benefits through reducing stocks and reorder levels, and R2m in reduction of satellite stores.

OIM is currently reclassifying stock while evaluating stock levels and reducing direct purchases which will deliver additional benefits.



Chrome mine: supervisory effectiveness

A company with two mines and three smelters has experienced a significant increase in manpower costs and a reduction in output over the past few years.

A key concern in this loss of productivity is the effectiveness of the supervisory function. The amount of “administrative” activities surrounding their functions has increased over time and has impacted their availability, thus affecting their ability to perform optimally and manage their time appropriately.

To investigate and validate these perceptions the mining company requested an analysis of supervisory activities. The main focus of this was the day-in-the-life of observations (DILO) which included observation of actual activities during a shift and recording these activities against time. Ninety (90) of these studies were done over a three-month period.

The team also listed operational problems which related to supervisory competencies.

The main findings were presented along with OIM's industry benchmark:

- An average of 25% of a supervisor's day is spent on core supervisory activities (active supervision, passive supervision and ad hoc discussions). OIM's benchmark is 35%.
- An average of 25-50% (site dependent) is spent on secondary supervisory activities (formal meetings, administrative work and operational systems). OIM's benchmark is 30%.
- An average of 1-7% of a supervisor's day is waiting time. OIM's benchmark is 0%.

OIM and the client are formulating plans to ensure the supervisor's time is reflected against the benchmarks.



Manganese mine: organisation-wide transformation programme

Late in 2012 a major manganese mine requested OIM to assist in an organisation-wide transformation programme for three mining shafts and a beneficiation plant.

A “back-to-basics” approach was initiated to restore balance to the core process as the mining division was more than 300 kt behind plan. Our comprehensive turnaround programme focused on optimising the mining processes by reducing production lost time, improving

availability and utilisation of equipment and ultimately increasing production output and productivity.

Within 12 months mining was 77 000 tons above plan. Other key performance indicators include:

- Total product tons – 9% up
- Total ROM tons – 14% up
- Total ROM meters – 19% up





Analyse. Improve. Sustain.

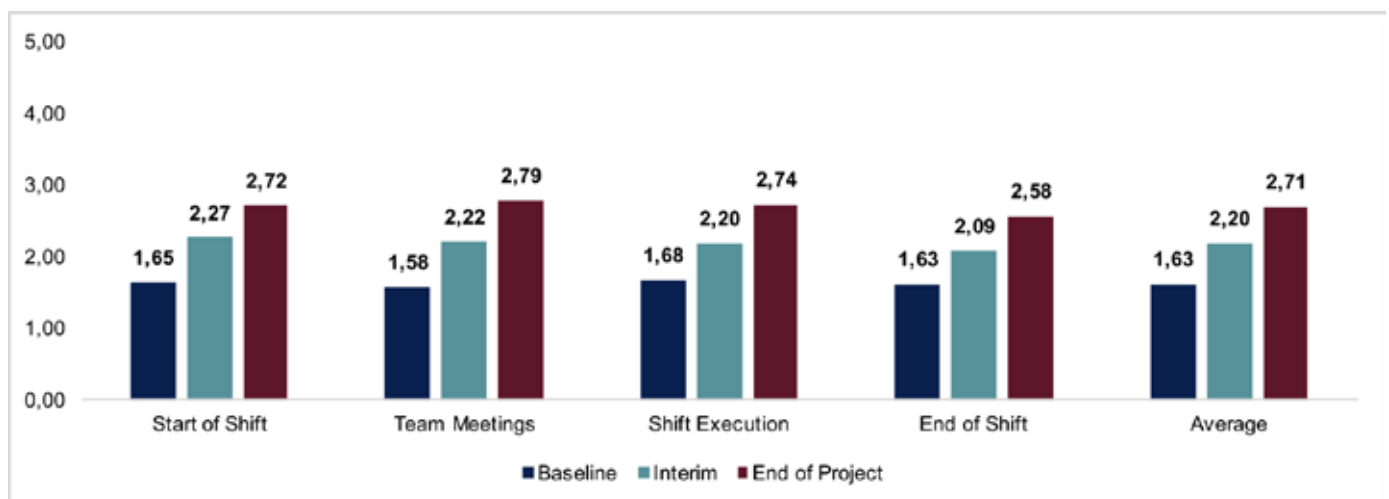
Large open-pit iron ore mine: supervisory effectiveness

In March 2017 OIM kicked off a supervisory development intervention at the largest open-pit iron ore mine in Africa and one of the largest in the world. The project ran over a year, with significant post assessment results (see below). These successes allowed OIM to continue with similar supervisory interventions within other mining departments.

Turnover: Revenue increased by almost R540 million by end of project

Productivity: Ton outputs improved by 25% per annum

Competencies: Improvement was recorded in all measured areas





Enabling GROWTH

To make use of our business consulting services visit www.oimconsulting.com



OIM Consulting, The Vineyards Square South, The Vineyards Office Park, 99 Jip de Jager, Welgemoed, 7530
Tel: +27 21 913 8814/5 | Email: info@oimconsulting.com | www.oimconsulting.com