

Fraser McGill Introduction





Guiding Your Business on a Pathway to Value

We believe that there is always a different and better way to conceive, design, engineer, evaluate and manage a mining project or investment to extract maximum value.

Being flexible, independent and highly customer-focused, we offer executive level advice that is discreet, trusted and custom-fit to your business.



Organisation Structure & Sectors



Consulting & Advisory
in the mining sector in
three important
mining jurisdictions



THE PROJECT COMPANY
MINING AND INFRASTRUCTURE

EPCM offering for the
South African mining
sector

VECTR LABS

Digital & AI offering
for global customers
in mining



Our global project footprint



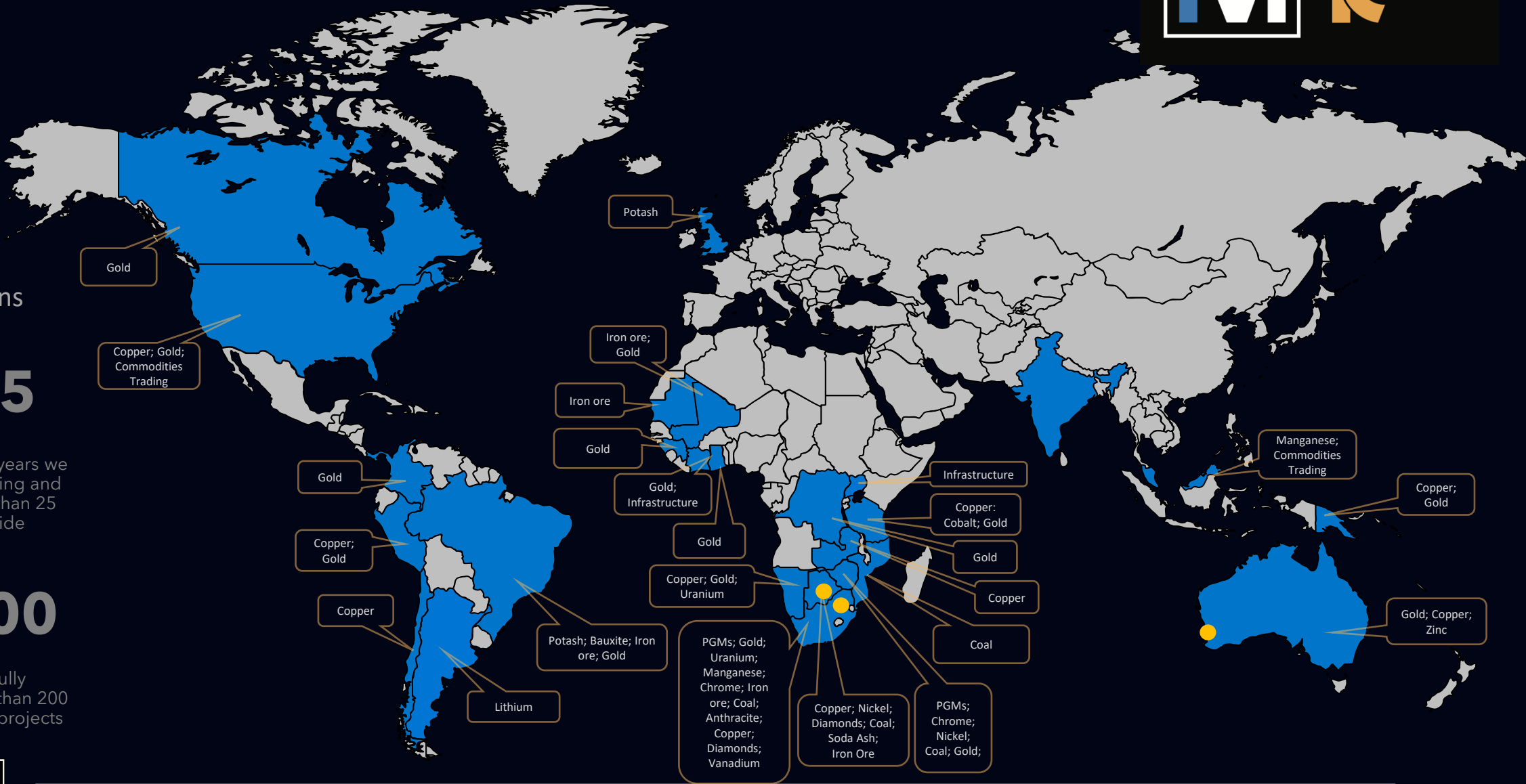
● Locations

+25

Over the last few years we have been operating and advising in more than 25 countries world wide

200

We have successfully completed more than 200 assignments and projects



Relationship-based **strategic advice**

Fraser McGill understands the industry and the challenges that our customers are facing. We assist company executives and management with their strategy development process and guide them on the path to shareholder value.



Valuation, Organisational Design
and Optimisation



Project Support



Technical and Engineering



Digital and Analytics - **powered by Vectr Labs**





Valuation and Optimisation

We quantify assets and projects beyond traditional financial metrics with executive-friendly models and dashboards.

- Asset & Portfolio Optimisation
- New Growth
- Due Diligence Studies
- Techno-economic Modelling
- Business Case Optimisation
- Fair Value Assessments



Valuation and Optimisation



Project Support



Technical and Engineering



Project Support

Your project will change your business. We are here to help you unlock the potential you envision through precision work and sound technical insight, custom-fit to your needs.

- Project Steering & Owners Team Support
- Project De-risking
- Capital & Project Scrubbing
- Project Studies
- Costing & Estimating



Valuation and Optimisation



Project Support



Technical and Engineering





Technical and Engineering

With global experience and a network of skilled resources, we can tap into technical and strategy know-how through our broad network.

- Shaft and Infrastructure Audits
- Operational Readiness & Maintenance Planning
- Electric mine and Battery Electric Vehicle Studies
- Technical Reviews
- Mine Design & Planning
- Geotechnical Engineering



Valuation and Optimisation



Project Support



Technical and Engineering



Mine Geotechnical & Rock Engineering Services

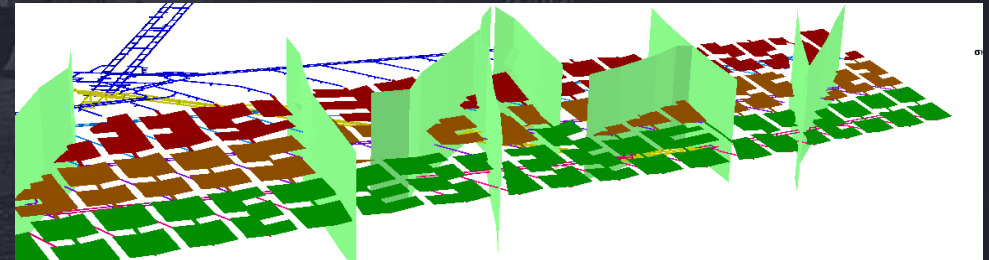
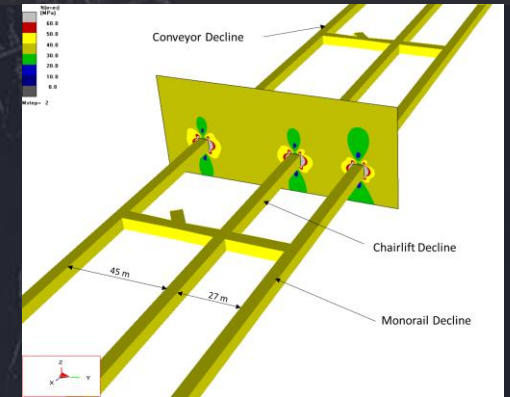


Geotechnical & Rock Engineering Experience ranges from tabular to massive orebodies, shallow to ultra-deep mining and conventional to fully mechanized operations

Our **Geotechnical Engineering** team has **extensive** experience in mine design and optimisation studies with an emphasis on project delivery and excellence

Key Knowledge Areas:

-  Optimisation & Feasibility Studies
-  Due Diligence Audits
-  Numerical Modelling
-  Ground Support Design
-  Rock Engineering Systems Review
-  Geotechnical Guidance and Strategy



Mine Design & Mine Planning Services



Mine Design & Mine Planning Experience covering all common mining methods in underground & surface mines, and includes various commodities in hard and soft-rock

Our Mine Design & Mine Planning team has extensive experience in various mine design, planning & scheduling software packages including: Deswik (CAD, Sched & IS) Datamine (Studio UG & EPS), Geovia Surpac, Whittle, GEMS, MineSched & Bentley Microsation

Key Knowledge Areas:



Mine Designs & Schedules



Sequencing, Scheduling & Reporting of Mine Designs



Optimisation of Mine Designs & Schedules



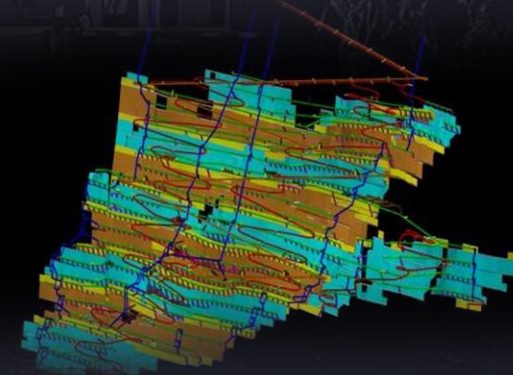
Geological Blockmodel Interrogation



Develop Mine Design Criteria



Reserve Audits



Mining Engineering Services



Mining Engineering Experience covers multiple mining methods, both underground & surface mining, and includes various commodities

Our Mining Engineering team has broad experience and has been exposed to numerous mining methods and mining environments, which cover a wide range of commodities

Key Knowledge Areas:



All phases of Mining related Studies



Battery Electric Vehicle (BEV) Studies



Trade-off & Benchmarking Studies



Project Execution



Technical due diligence / reviews / audits



General Mining Engineering



Investigating applications of new mining innovations / methodologies



Our Engineering Team

Mining is Our **Business**



- A hand-picked group of Engineers, project managers and mining all-rounders.
- Registered professionals for quality assured, code-compliant solutions and sign-offs.
- Project and operational experience on five continents.



Mechanical Engineering



Electrical Engineering



Civil & Structural Engineering



Metallurgy/Processing Engineering



Project Management & Project Services

We're Part of the **Professional Community**



Technical & Engineering Services



Our **engineering offerings** focusses on helping our clients to unlock potential through precision work and sound technical insight, custom-fit for their needs. With global experience and a network of skilled resources, we can tap into technical and strategy know-how through our broad network.

Our **Engineering** team has **extensive** experience in design and optimisation studies with an emphasis on project delivery and excellence

Key Knowledge Areas:



Trade-off & benchmarking **studies**



Study and engineering **management**



Project **support**



Due diligence **audits**



Design **reviews**



Operational readiness & **operational improvement**

Technical & Engineering Services

Bulk Material Handling

System **Engineering**
and **Optimisation**



Engineering

- Auditable design process
- 3D Models & detail drawings
- All study phase
- Detail design
- Engineering oversight



Design review & Audits

- Third party review
- System & plant analysis
- Energy efficiency



Implementation Support

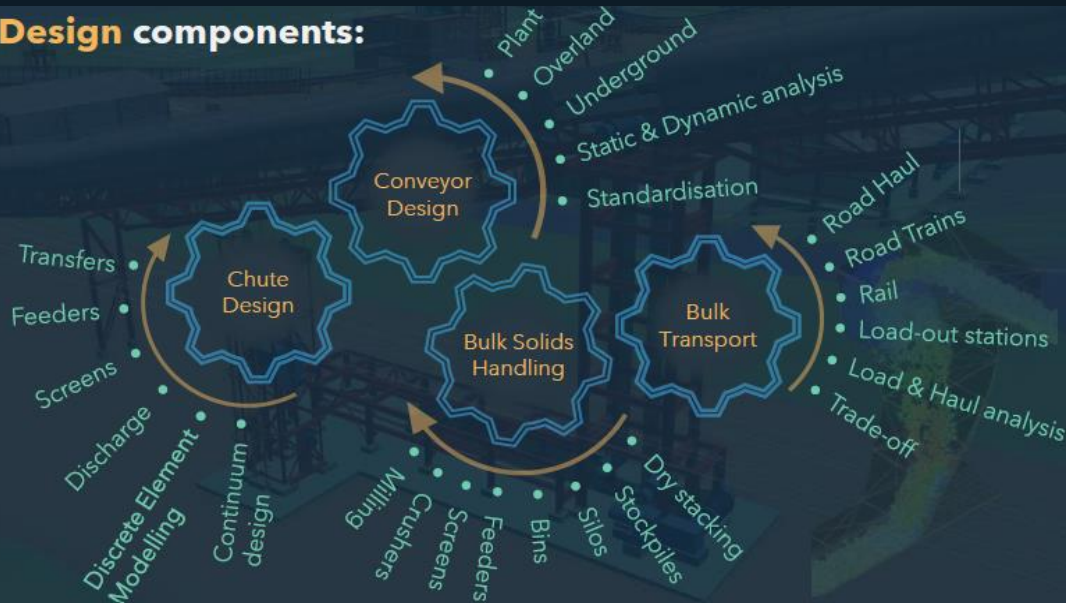
- Project management
- Procurement
- Technical adjudications
- Commissioning



Optimisation

- System simulations
- Capital optimisation
- De-bottlenecking
- Operational improvement
- Trade-off studies

Design components:



Dry Stack Tailings

Secure a **safer**, **cleaner** and **greener** tailings-deposition future for your mining project or operation



Environmental Benefits

- Eliminates catastrophic failures of tailings dams
- Radically reduces water consumption
- Virtually eliminates groundwater contamination
- Retains dissolved metals and admixtures
- Potentially smaller footprint

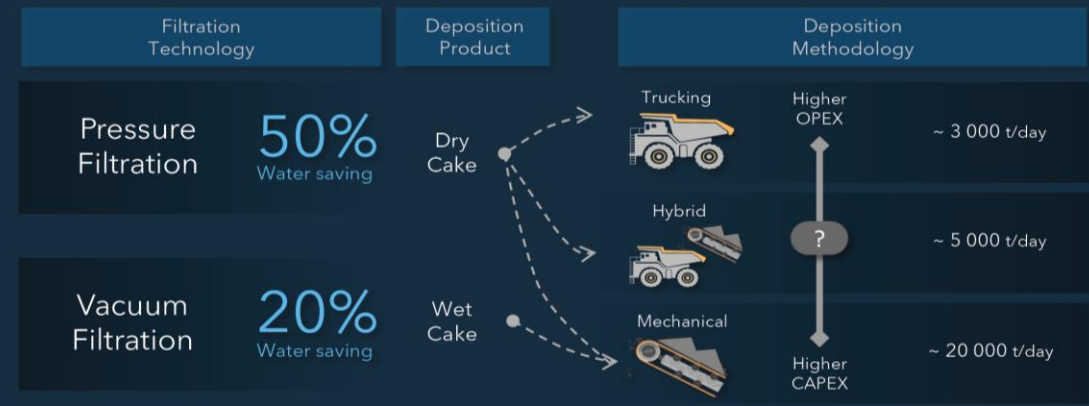


Operational Benefits

- Protects operations from water related risks
- Continual rehabilitation possibilities
- Costs and liabilities are spread out over LOM
- Less construction material
- Continuous access by mobile equipment

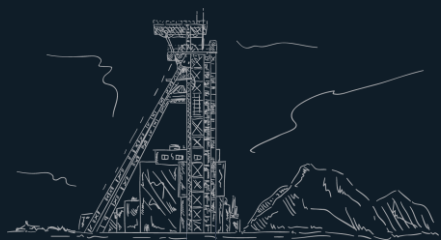
Components of the solution design:

- Existing wet tailings operations can be converted to dry stack
- If you have a tailing filter plant you may already be halfway there
- Operation life and size will determine deposition solution



Technical & Engineering Services

Shaft Infrastructure Engineering



- Shaft **Inspections** and Audits



- Shaft Design **Reviews**



- Shaft **Equipping** Assessments



- **Hoisting** Reviews and Optimisation



- **Loading Arrangements** Design & Review



- Shaft Bottom **Infrastructure** Layouts

Our Shaft Specialists have **extensive** experience of the design and operation of deep level vertical shafts, both during sinking phase and operational requirements



Recent **Projects** Concluded

Sirius Minerals **Woodsmith** Shaft -
(Liner Design Review)

Orion Minerals **Prieska** Shaft -
(Design Review & Optimisation)

Konkola -Copper Mines -
(Shaft Audits)



Historical **experience** includes:

Mponeng Shaft Design & Layout
(Gold)

Western Deep Levels (Gold)

Worldwide **Shaft Sinking** Operations

Potash Shaft & Infrastructure Design





Digital and Analytics

Vectr Labs, is a digital analytics venture born from the intersection of deep mining expertise and cutting-edge technology. Working with Fraser McGill, we deliver bespoke digital solutions, targeting the industry's most pressing challenges in productivity, safety and sustainability

Our team combines hands-on mining experience with data science capabilities, positioning us to rapidly prototype and scale solutions that drive operational excellence

- Mining Intelligence Software Solutions
- Custom Analytics Models
- Digital Transformation Consultancy
- Continuous Operational Support
- Advanced Data Reporting & Visualization
- IoT & Hardware Integration



Valuation, Organisational Design and Optimisation



Project Support



Technical and Engineering



Digital and Analytics

Our value proposition

01

Custom-Built Solutions

- Built with the team to their requirements
- Tailored to your specific mining method and operational context – NOT an off the shelf solution
- Integration with existing systems and processes
- Scalable architecture that grows with your needs

02

Holistic Transformation Approach

- Change management expertise
- Training and capability building
- Process redesign and optimisation
- Stakeholder engagement at all levels

03

Long-Term Partnership Commitment

- Dedicated support team with mining expertise
- Continuous system optimisation and enhancement
- Regular business value assessments
- Proactive problem identification and resolution
- Flexible support model aligned to operational needs

04

Agile Development Methodology

- Rapid prototyping and iteration
- Phase-wise implementation
- Quick wins identification
- Continuous value delivery

Safety & Risk Management

neXus

An integrated safety platform combining real-time computer vision, intelligent inspection tools, and predictive analytics to transform mining safety from reactive to proactive

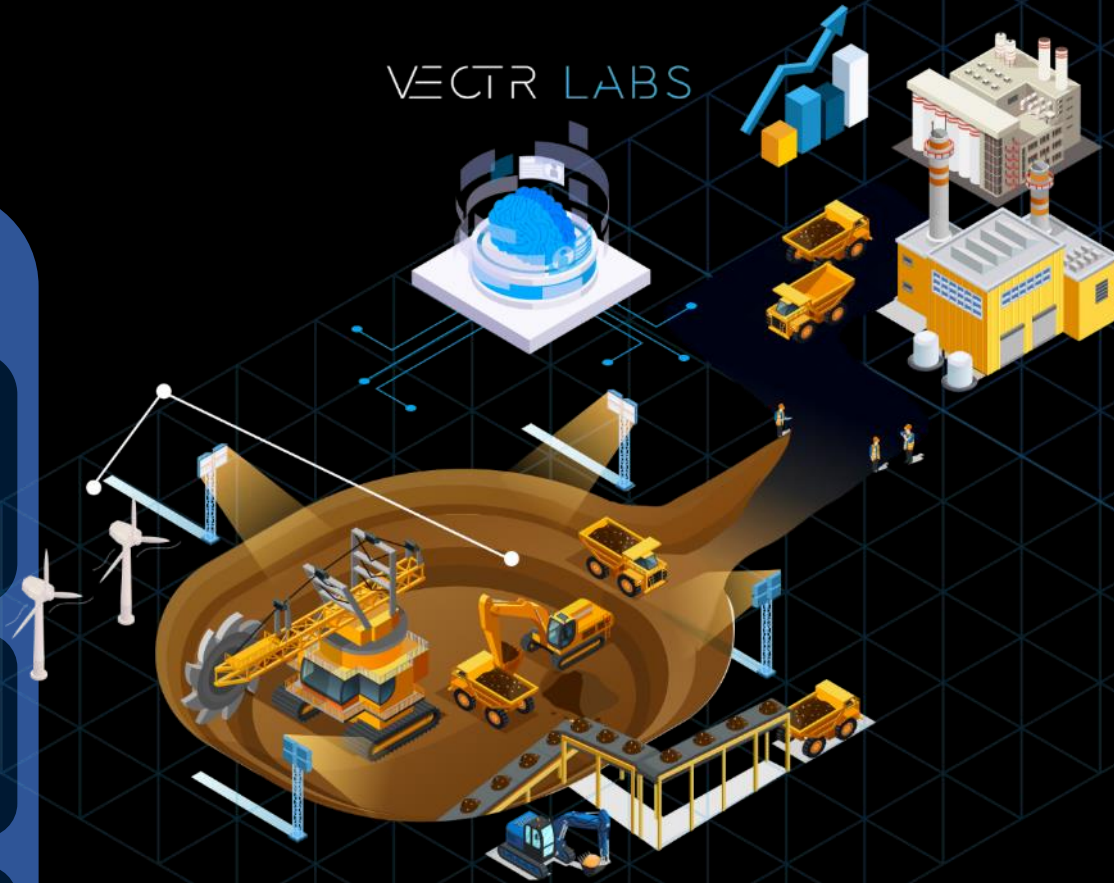
ESG

Comprehensive ESG monitoring and reporting platform automating data collection and compliance reporting while identifying improvement opportunities

Security & access control

Intelligent access control and visual monitoring platform ensuring asset security through automated tracking and real-time threat detection

VECTR LABS



Operational Excellence

Tech enabled mining

- Dynamic bottlenecking through simulation
- Scheduling
- Short interval control
- FMS optimization
- Fuel analytics
- Energy/ventilation on demand

Processing AI

AI-powered processing optimization platform delivering improved throughput and recovery through intelligent setpoint recommendations and real-time adjustments

Quality control

Advanced visual analytics platform automating grade control and compliance monitoring to maximize resource value and reduce operational variance

Business Intelligence

Integrated business intelligence platform transforming operational data into actionable insights for faster, more informed decision making

Supply Chain Optimization



IRIS

Digital Procurement Intelligence: AI-powered strategic sourcing and spend analytics to optimize vendor management, reduce costs, and ensure supply chain resilience

Inventory Optimization

Intelligent inventory optimization platform combining demand forecasting, automated replenishment, and strategic stock placement to minimize working capital while ensuring operational continuity

Recent Projects



Project Execution

Deepening the world's deepest



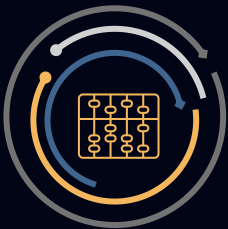
Decarbonisation Strategies

Battery Electric Vehicle Studies
Mine Electrification
Battery Recycling



Feasibility Studies

Deep-level gold mines
Greenfields UG PGM project



Funding Models

PGMs, Coal, Copper Projects



Growth Strategies

Portfolio Optimisation
Growth & Corporate Strategy
New Technologies (beneficiation and narrow-reef drilling)



M&A

Multiple due diligences
Divestment strategies (divest, harvest, transform)



Valuations & IFRS Support

Impairment Assessments
Valuations
Budgets & LOM Forecasts



Systems & Digital Integration

Systems Integration & Development across all mine functions
People and Asset Tracking (including off-site logistics)
Fixed Asset Verification & Barcoding



Our Partnership Agreement



Customisable and
agile solutions



Quick turnaround



Direct, real-time
support



Secure and
discreet



Let's **progress** together

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