



**Engineers & Constructors**  
for open-pit mines  
& infrastructure projects



## CAPABILITY STATEMENT





# OUTLINE OF TOPICS

## WHAT WE'LL DISCUSS

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1. Capabilities
2. Key projects
3. Our partners
4. Our services
5. Our expertise
6. Contact details



# TACMINMADINI AUSTRALIA

## CEO MESSAGE SAREL BLAAUW



Over the past thirty years, I have gained experience in various infrastructure and open-pit mining projects. I commenced my career as civil infrastructure contractor and then transitioned to open-pit contract mining. In the late 1990s, I established TacminMadini International, an open-pit mining consultancy, and my team and I provided EPCM, PMC and technical mining consultancy services to mining customers worldwide.

I am grateful to our customers for their ongoing trust and support in our services. We value your business and are dedicated to finding the best solutions for your mining and infrastructure challenges. Based on the experience we acquired, we decided to take the next strategic step in our continuous efforts to support our customers by expanding our service offering to include EPC project delivery. To achieve this, we registered our EPC firm in Australia, home to some of the leading EPC companies in the mining and resources sector.

We are also eager to explore new markets and partnerships as we strive to grow our business and create value for our clients. As we embark on this familiar, yet new journey, I assure you that we will maintain our values of excellence, integrity, innovation and customer satisfaction. We will also keep investing in our people, processes and technologies to ensure we deliver on our promises and surpass your expectations. Thank you for choosing us as your trusted EPC partner. We look forward to working with you on your next project.



# OUR CAPABILITIES

## ACCROSS ELEVEN COMMODITIES

With over 27 years of experience in the industry, we have established ourselves as a trusted partner for clients seeking innovative solutions and exceptional results. Since our inception in 1996, we have successfully completed numerous projects, delivering high-quality outcomes that meet the unique needs of each client. Our team of highly skilled professionals combines technical expertise with a deep understanding of the mining sector to deliver comprehensive solutions tailored to your specific requirements. From initial project evaluation and design to construction and ongoing operational support, we are committed to delivering excellence at every stage.



Discipline	Fe	Mn	V	Ni	Cr	Pt	Au	F	Coal	Si	P2O5
Exploration drilling management	✓										
Exploration drilling programmes	✓	✓	✓					✓	✓		
Geological modelling - structural & mining	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Pit optimisation & LOM designs	✓	✓	✓	✓		✓	✓	✓	✓	✓	
Pre-feasibility studies		✓		✓		✓	✓	✓	✓	✓	
Feasibility studies (mining)		✓		✓		✓		✓		✓	
Mining studies	✓	✓			✓	✓	✓	✓	✓	✓	✓
Front-end Engineering Designs (FEED)	✓	✓	✓	✓		✓	✓	✓	✓	✓	
Tender enquiries		✓		✓	✓	✓	✓	✓	✓		



Discipline	Fe	Mn	V	Ni	Cr	Pt	Au	F	Coal	Si	P2O5
Commercial agreements		✓		✓	✓	✓	✓		✓		
Total mining project resource requirements		✓	✓	✓	✓	✓	✓	✓	✓		
Capital recommendations (mining equipment)		✓		✓	✓	✓	✓	✓	✓		
Mine engineering designs & planning	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Competent Persons Reports		✓	✓	✓			✓	✓	✓	✓	
Contractor management	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Operations improvement	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Mine plan, schedule & budget tracking	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Mining cost estimates contractor & owner	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓



# PROJECT EXPERIENCE SUMMARY

## OPEN-PIT MINING

Our core expertise spans consultancy, construction, management, and engineering design of open-pit mines. We have extensive experience in mining platinum, gold, diamonds, copper, cobalt, phosphates, coal, fluorspar, manganese, iron ore, vanadium, PGM's and chrome.

Our key personnel have successfully completed numerous assignments and contracts covering various aspects of mining. These include exploration, feasibility studies, engineering design, planning, optimization, implementation, management, performance evaluation, procurement, and rehabilitation.

Additionally, our senior personnel has gained valuable experience in contract mining while working with open-pit contractors. This experience includes estimating, tendering, commercial agreements, equipment selection and procurement, mine planning and scheduling, contract administration, operations management, project management, client liaison, monthly measurements, payment certification and cost engineering throughout the project life cycle.



Mineral	Mine	Client	Country	Assignment	Work description
Fe	Roy Hill Mine	Roy Hill Holdings	Western Australia	Technical	Mining equipment benchmark study (3 mos)
Fe	Sishen Mine	Anglo America	S-Africa, N Cape	Exploration	Exploration drilling & programmes (4 years)
Fe	Beeshoek Mine	Assmang Limited	S-Africa, N-Cape	Technical	Mine optimisation, geological modelling, multiple pit blend planning and scheduling (5 mos)
Mn	Tshipi Borwa Mine	Ntsimbintle & Jupiter Mines	S-Africa, N Cape	Technical & Contractor Management	Pre-feasibility, Reserve declaration, Contractor vs Owner trade-off, Procurement, Geological modeling, Mine engineering, Mine planning, LOM, Contractor management, Mine plan implementation (4 years)
Mn	Ghana Manganese	Consolidated Minerals	Ghana, Tarkwa	Technical Owner mine management	Reserve declaration, Fleet selections, Geological modeling, Mine engineering, Mine planning, LOM, Mine plan management (10 years)
Mn	Kudumane Manganese	Asia Minerals	S-Africa, N-Cape	Technical	Feasibility study, Owner-operator & Contractor trade-off (12 mos)



Mineral	Mine	Client	Country	Assignment	Work description
Ni	Nkomati Nickel	ARM/Norilsk	S-Africa	Technical Contractor mgmt	Audit short-term planning process, Mine engineering, Mine planning, LOM, Contractor management, Mine plan implementation, Geological modelling (2 years)
Cr	Buffelsfontein Mine	National Mines	S-Africa N-West	Constructor	<u>Load &amp; Haul, Drill &amp; Blast, Planning &amp; Maintenance</u>  Estimating, Tendering, Commercial agreements, Equipment selections, Equipment procurement & finance, Mine planning & scheduling, Contract administration, Operations management, Project management, Client liaison, Monthly measurements, payment certification, Cost accounting, Turning to account, Rehabilitation (5 to 10 year contracts)
Cr	Bayer Chrome Mine	Bayer Africa	S-Africa N-West	Constructor	
Cr	Thorncliff Chrome	Xstrata	S-Africa N-West	Constructor	
Cr	Purity Chrome Mine	Xstrata	S-Africa N-West	Constructor	
Pt	Two Rivers	ARM	S-Africa	Constructor	
Pt	Rustenburg Platinum	Amplats	S-Africa N-West	Constructor	
Pt	Union Section	Amplats	S-Africa N-West	Constructor	



Mineral	Mine	Client	Country	Assignment	Work description
Pt	Maroelabult	Impala Platinum	S-Africa N-West	Technical Contractor mgmt	Geological modelling, Mine engineering, Mine planning, LOM, Contractor management, Mine plan implementation (2 years)
Pt	Tharisa Mine	Tharisa Minerals	S-Africa N-West	Technical Contractor mgmt	Mine engineering, Mine planning, LOM, Contractor management, Mine plan implementation (6 mos)
Coal	Exxaro Group Mines	Exxaro	South Africa	Technical	Contractor & mobile equipment (owner-mining) performance benchmarking group-wide mines (2 years)
Coal	Klipspruit Colliery	BHP (BECSA)	South Africa	Technical	Contractor & owner-mining performance benchmarking Mineability of mine plans (10 mos)
Coal	Huntly Solid Energy	Solid Energy Ltd	New Zealand	Technical	Geological modelling - Vulcan software training & support (13 mos)
Coal	Ermelo Mines	Continental Coals	South Africa	Technical	Geological modelling - Vulcan software training & support (8 mos)



Mineral	Mine	Client	Country	Assignment	Work description
F	Witkop Fluorspar	Sallies	South Africa	Technical Contract mgmt	Mine expansion Feasibility study, FEED, Contractor Procurement, Draft commercial agreements, Geological modeling, Mine engineering, Mine planning, LOM, Contractor management, Mine plan execution (2 years)
V	Rhovan Vanadium	Xstrata	S-Africa, NWest	Technical	Outsourced Mine engineering planning (2 years)
Si	Delmas Quartzite	Samquarz (Pty) Ltd	South Africa	Mine evaluation	Competent persons report - mine evaluation (10 mos)
P2O5	Farim Phosphate	Champion Minerals	Guinea Bissau	Study evaluation	Competent persons report - study assessments, mineability of Phosphate resource (5 mos)
Au	New Luika Mine	Shanta Gold	Tanzania	Technical Contract mgmt	LOM, FEED, Contractor procurement, Commercial agreement drafting, Mine engineering, Mine planning, tracking and compliance, Project controls (2 years)
Au	Raygorodok Mine	RG Gold LLP	Kazakhstan	Technical Contract mgmt	LOM, FEED, Contractor procurement, Commercial agreement drafting, Mine engineering, Mine planning, tracking and compliance, Project controls (2 years)



Mineral	Mine	Client	Country	Assignment	Work description
Au	Petrex Gold Mine	Petrex (Pty) Ltd	South Africa	Mining audit	Mining audit, planning, contractor performance, mining costs, Performance improvement (6 mos)
Au	Lindum Reefs	Lindum Reefs Gold	South Africa	Constructor	Load & Haul, Drill & Blast, Planning & Maintenance Turning contract mining to account (10 years)
Au	Sadiola & Yatella Gold Mine	AngloGold Ashanti	Mali	Operational Improvement	Contractor vs Owner trade-off, Fleet selections (owner-mining) Shadow bid contract mining, Formal enquiries OEM, Capex & Opex, Five year plan, Mining optimisation, Commercial agreement reviews (7 mos)
Au	Morila Mine	AngloGold Ashanti	Mali	Operational Improvement	Contractor vs Owner trade-off, Fleet selections (owner-mining) Shadow bid contract mining, Formal enquiries OEM, Capex & Opex, Five year plan, Mining optimisation, Commercial agreement reviews (4 mos)
Au	Geita Gold Mine	AngloGold Ashanti	Tanzania	Operational Improvement	Contractor vs Owner trade-off, Fleet selections (owner-mining) Shadow bid contract mining, Formal enquiries OEM, Capex & Opex, Five year plan, Mining optimisation, Commercial agreement reviews (6 mos)



Mineral	Mine	Client	Country	Assignment	Work description
Au	North Mara Gold Mine	Barrick Africa	Tanzania	Operational Improvement	Contractor vs Owner trade-off, Fleet selections (owner-mining) Shadow bid contract mining, Formal enquiries OEM, Capex & Opex, Procurement owners equipment, Five year plan, Geological modelling, Mining optimisation, Commercial agreements, FEED (2 years)
Au	Nayanzaga Gold Project	Barrick Africa	Tanzania	Mining Pre-feasibility	Pit optimisation, Mined designs, LOM, Geological modelling, Fleet selections (owner-mining), Formal enquiries OEM, Capex & Opex, Procurement owners equipment, Mining costs. Mining recommendations (12 mos)



# PROJECT EXPERIENCE SUMMARY

## INFRASTRUCTURE CONSTRUCTION

Our core expertise lies in the management and implementation of civil infrastructure construction projects for various African governments. Our experience spans civil infrastructure construction projects in Swaziland, Botswana, South Africa, Kwandebele, Venda, and Lesotho.

Our key personnel have completed many projects, including the construction of single and dual carriageways, roads and township infrastructure, earth dams, bridges and concrete structures, and the construction and rehabilitation of roads and railroads.

They have also constructed international airports and storage facilities, tailings dams, return water dams, stormwater diversion dams, and emergency dams for mining companies.



Project	Client	Assignment	Work description
Pueblo Viejo Tailings dam	Barrick–Newmont	Construction management 24 mos	Construction management services for the tailings dam project in the Dominican Republic. The project involved the construction of a 70-meter-high earthfill dam with a storage capacity of 450 million cubic meters. The project also included the construction of an upstream starter dam, a downstream toe berm, an underdrainage system, an overflow spillway, and associated works.
Tailings dam, Return water & stormwater dam	JCI Mining Company	Constructors 30 mos	The project involved the construction of a 30-meter-high earthfill dam with a storage capacity of 20 million cubic meters. The project also included the construction of an upstream stormwater diversion dam, a downstream returnwater dam with an underdrainage system, an overflow spillway, and associated works.
Crushing & screening	CMI Lydenburg	Constructors 24 mos	Construct and manage a crushing and screening plant for the Thorncliffe mine in South Africa. The project involved the installation of a primary crusher, a secondary crusher, a tertiary crusher, a screening plant, a conveyor system, a dust suppression system, and a water supply system.
Crushing & screening	Shell Metals	Constructors 24 mos	Construct and manage a crushing and screening plant for the Pering mine in South Africa. The project involved the installation of a primary crusher, a secondary crusher, a tertiary crusher, a screening plant, a conveyor system, a dust suppression system, and a water supply system.

Project	Client	Assignment	Work description
Mohale dam	Lesotho Government	Constructors 8 mos	The project involved development of a 3D digital twin for the purposes of estimating, tendering, volumetric calculations and planning of a 145-meter-high concrete-faced rockfill dam, with a storage capacity of 947 million m3. The project also included resource requirements & cost estimation.
Storage dam	Swaziland Government	Constructors 28 mos	Construction of a storage dam for a private owner in Swaziland. The project involved the construction of a 15-meter-high earthfill dam with a storage capacity of 5 million cubic meters. The project also included the construction of an intake tower, a spillway, a bottom outlet, and associated works.
Emergency dam	ESCOM	Constructors 24 mos	Construct an emergency dam for the Koeberg nuclear power station in Free State province in South Africa. The project involved the construction of a 15-meter-high earthfill dam with a storage capacity of 5 million cubic meters. The project also included the construction of an intake tower, a spillway, a bottom outlet, and associated works.
Railroad construction	Swaziland Government	Constructors 24 mos	The project involved the construction of 30 kilometers of single-track rail road with 6 stations, 4 bridges, and associated works. The project also included the installation of signaling systems, communication systems, electrification systems, and safety systems.
Railroad construction	Swaziland Government	Constructors 28 mos	Rehabilitate the existing rail road from Mbabane to Ngwenya in Swaziland. The project involved the rehabilitation of 40 kilometers of single-track rail road with 10 stations, 6 culverts, 5 underpasses, and associated works.



Project	Client	Assignment	Work description
Road rehabilitation	Swaziland Government	Constructors 27 mos	The project involved the rehabilitation of 50 kilometers of single carriageway roads with bridges, culverts, and associated works. The project also included the improvement of road safety features, such as road markings, signage, guardrails, and speed bumps.
Dual carriageway	Bophutha-tswana Government	Constructors 30 mos	Construction of a portion of a dual carriageway road through Bophuthatswana between and Boshhoek and Sun City in South Africa. The project involved the construction of 20 kilometers of dual carriageway road with interchanges, bridges, culverts, and associated works.
Township roads & infrastructures	South Africa Government	Constructors 24 mos	The project involved the construction of 15 kilometers of single carriageway road with bridges, culverts, and associated works in Mamelodi Township. The project also included the construction of water supply systems, sewerage systems, stormwater drainage systems, street lighting systems, and landscaping works.
International airport – Seretse Khama	Botswana Government	Constructors 36 mos	Upgrade and expansion of the International Seretse Khama airport, which is the main international gateway to Botswana. The project involved the construction of the runways, taxi ways, with water, electrical and stormwater reticulations, a new terminal building, a new control tower, a new fire station, a new cargo terminal, and other ancillary facilities.

Project	Client	Assignment	Work description
Township roads & infrastructures	South Africa Government	Constructors 24 mos	The project involved the construction of 10 kilometers of single carriageway road with bridges, culverts, and associated works in Atteridgeville Township. The project also included the construction of water supply systems, sewerage systems, stormwater drainage systems, street lighting systems & landscaping
Roads & infrastructure services	Kwandebele Government	Constructors 24 mos	The project involved the construction of 20 kilometers of single carriageway roads with bridges, culverts, and associated works in Venda. The project also included the construction of water supply systems, sewerage systems, stormwater drainage systems, street lighting systems, and landscaping works.
Terraces, roads and services	South Africa Government	Constructors 12 mos	Construction of terraces, roads and township services for a new school in Roodepoort, Gauteng. The project also included the construction of water supply systems, sewerage systems, stormwater drainage systems, street lighting systems, and landscaping works.
Roads & infrastructure	South Africa Government	Constructors 25 mos	The project involved the construction of 3.8 kilometers of dual carriageway roads with interchanges, 4 bridges, 15 culverts, and associated works. The project also included the construction of water supply systems, sewerage systems, stormwater drainage systems, street lighting systems & landscaping works.
Roads & infrastructure services	Venda Government	Constructors 24 mos	The project involved the construction of 20 kilometers of single carriageway roads with bridges, culverts, and associated works in Venda. The project also included the construction of water supply systems, sewerage systems, stormwater drainage systems, street lighting systems, and landscaping works.



# OUR PARTNERS

## TACMINMADINI GROUP

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TacminMadini is a company that operates through three business units: TacminMadini Centre of Excellence, TacminMadini International (Pty) Ltd, and TacminMadini Australia (Pty) Ltd. The Centre of Excellence was established in 2022 and focuses on providing mining project control services. Their team of experts delivers research solutions to address challenges in project control. TacminMadini International offers technical expertise in engineering, procurement, and commercial contract agreements. They handle all aspects of these processes in-house to ensure seamless execution of contracts and construction management. TacminMadini Australia is an Engineering Procurement and Construction (EPC) company that collaborates with partners to deliver open-pit mining and infrastructure projects. They provide consultation, detailed design, construction, and handover services for their clients.



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# TACMIN MADINI INTERNATIONAL

EPCM, PROJECT  
MANAGEMENT CONSULTANCY



Engineers & Constructors for  
open-pit mines and  
infrastructure projects

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## TACMINMADINI CENTRE OF EXCELLENCE

OPERATIONAL EXCELLENCE &  
OPTIMISATION





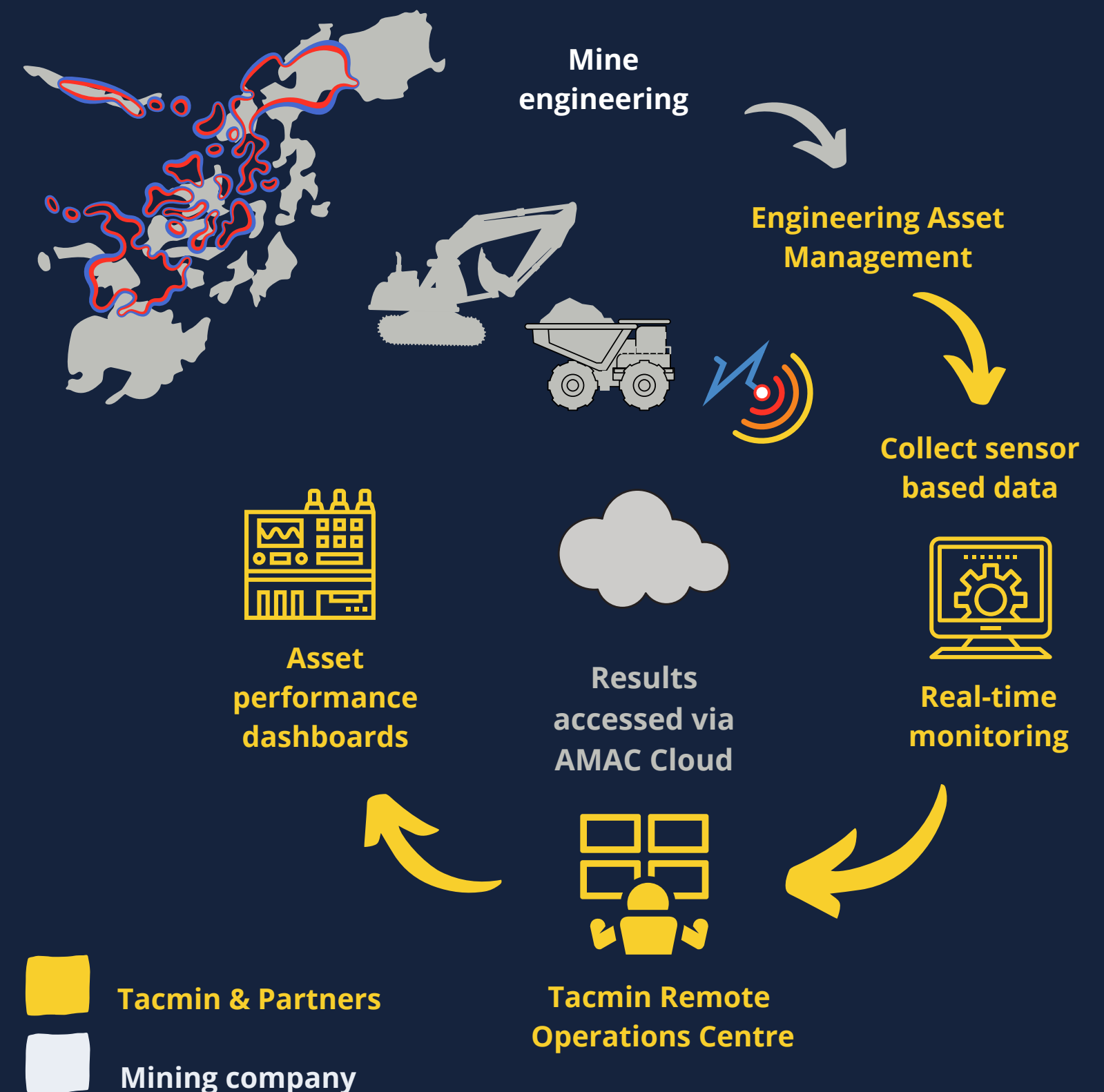
The Mining Project Control Centre of Excellence ensures timely and cost-effective project delivery. TacminMadini CoE collaborates with various innovative Product Engineering and Digital Solutions Partners to optimize our projects for success.



# CONNECTED ASSETS

## OPERATIONAL INTELLIGENCE & ASSET OPTIMISATION TECHNOLOGY

Data must be collected where it's generated, and it often comes from a wide geographical area. We collect and transmit data using a wide range of sensors and data communication technologies, including innovative wireless sensor design. We use wireless, satellite or wired data transmission technologies to securely transmit data from sensors. Our most comprehensive data acquisition system (which is IP67 rated, shock and vibration proof and military-grade) comes fitted with a 3G modem and router that is configured to send data to our Cloud. It also has an onboard historian which stores data through the truck route.





# OUR SERVICES

## ENGINEERS & CONSTRUCTORS FOR MINES & INFRASTRUCTURES

Backed by 25 years of experience in end-to-end value chain optimisation solutions to help organisations improve their operations and asset performance, redefine processes, reduce value leaks, sustain productivity and improve profits. Assisted over 30 mines with mine optimisation, reducing costs and training of Clients personnel to develop sustainable optimal mining practices, totaling to aggregated savings of +USD800 million during operations improvement assignments since 1996.



To better align our goals with our operations, we have reorganized our services into three business categories. These services can be contracted through TacminMadini Australia

### Operational excellence & optimisation

Our operational excellence services follow best practices of the Project Management Institute (PMI). We have a unique blend of engineers and project control experts from TacminMadini's Centre of Excellence who deliver these services. We offer operational excellence as a stand-alone service for our customers or as part of our global EPC project operations.

### EPCM & Project management consultancy

Since 1996, our partner has provided expert technical and open-pit mine engineering consultancy services. They have a proven track record of designing and costing mining projects from first principles, using the latest software and technology. They have successfully procured, managed and delivered numerous open-pit mining contracts safely.

### Engineering Procurement & Construction

TacminMadini Australia is an EPC company that delivers open-pit mining and infrastructure projects in collaboration with its partners. We offer consultation, detailed design, construction and handover services for our clients. We leverage our engineering know-how and consultancy expertise to design, build and operate safe and efficient mines.



# OPTIMISATION of open-pit mines & civil infrastructure projects

Engineering designs & compliance tracking.

Optimise Capex and Opex.  
Track budget forecasts

Equipment performance & maintenance planning.

Production tracking & capability benchmarking.

Commercial agreement compliance management

Safety, Health, Environment & Community targets

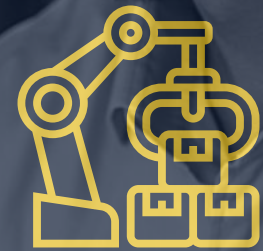
## **TacminMadini Centre of Excellence**

Our mission is to complete projects on time and within budget, while also helping to build world-class mining teams in emerging countries. To achieve this, we recognized the need for mining project control Centres of Excellence. Therefore, in 2021 we began offering mining project controls as a standalone service on our existing projects, and in 2022 we established TacminMadini Centre of Excellence. Our team consists of experts in project controls, who have decades of academic and industry experience. They deliver focused and translational research solutions that address some of the most pressing challenges in project control.



# OUR FOCUS

PERFORMANCE IMPROVEMENT WITH REAL-TIME PROJECT,  
ASSET & CONSTRUCTION MONITORING CONTROLS



FIXED  
ASSETS



MOBILE  
ASSETS



CONSTRUCTION  
PROJECTS

Cost savings,  
Improved  
performance,  
on-time &  
budget  
completion

MINING  
PRODUCTION



Regulatory  
compliance  
& reduce risks

ENVIRONMENTAL  
ASPECTS



CRITICAL  
ASSETS



# PMC, EPCM for open-pit mines & civil infrastructure projects

Feasibility and mining studies

Engineering & designs

Procurement & commercials

Contractor management

Cost engineering

Construction management

## **TacminMadini International**

At TacminMadini, we understand our client's needs and offer the highest level of technical and industry-based expertise. We communicate effectively and handle all aspects of engineering, procurement, and commercial contract agreements in-house. This ensures seamless execution of contracts and construction management. Our purpose is to help you focus on your core business. We build our client relationships on trust, confidence, and integrity. We do what we say we will do and are committed to building a lasting partnership with you and your organisation.



# EPC for open-pit mines & civil infrastructure projects

Open-pit mine  
startup

Contractor to  
owner mining

OEM partner  
alternative

Open-pit mine  
expansions

Infrastructure  
construction

Emerging  
contractor

## **TacminMadini Australia**

TacminMadini Australia is an Engineering Procurement and Construction (EPC) company that delivers open-pit mining and infrastructure projects in collaboration with its partners. We offer consultation, detailed design, construction and handover services for our clients. Before signing an EPC contract, we provide our customers with sound advice and assess the project's viability with our multi-disciplinary expertise. We have a strong track record in designing open-pit mines, procuring contractors and mobile equipment, construction and managing mobile assets. Our company began as a mine engineering consultancy in the late 1990s. Since then, we have grown organically and expanded our scope and capabilities to meet the diverse needs of our clients.





# Transitioning from Conventional to EPC Contracting in Open-Pit Mining



## OPERATIONAL EXCELLENCE

Project control - data collection - data analysis - operational Improvement



## EPCM & PROJECT MANAGEMENT

Front-end Engineering designs - equipment benchmarking - budget enquires - project life cycle cost



## ENGINEER PROCURE & CONSTRUCT

Tender enquiries - tenders - commercial agreements - implementation designs



# OUR EXPERTISE

## KEY PERSONNEL

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Our key personnel have gained experience in many facets of open-pit mining and infrastructure construction. Our team comprises geologists, mine engineers, OEM application engineers, operations managers, surveyors, civil engineers, structural engineers, geotechnical engineers, and cost control engineers.



**TACMINMADINI**  
Build better, mine smarter



# EVOLUTION

TACMINMADINI

TACMINMADINI  
INTERNATIONAL

TACMINMADINI  
AUSTRALIA

TACMINMADINI  
CENTRE OF  
EXCELLENCE

## 1996 - DATE

Tacmin's core expertise has accumulated considerable experience in working with mining companies, from software, geology, and exploration to mine engineering, mobile asset, contractor and construction management over a broad spectrum of commodities.

## 2005 - DATE

Following numerous EPCM & PMC projects by 2005, TacminMadini has organically grown to cater for all aspects of mine engineering, consultancy studies, procurement, management and operational improvement of owner and contractor mining operations.

## 2018 - DATE

To meet the growing customer demand for construction and mining challenges, we founded TacminMadini Australia, a company that executes infrastructure and open-pit mining projects on Engineering, Procurement & Construction basis

## 2022 - DATE

In 2022, we founded the TacminMadini Centre of Excellence with the primary objective of supporting our global operations to deliver projects on time and within budget. The CoE adheres to the Project Management Institute's best practices

We use the latest technology on our sites to ensure the health, safety, and well-being of our workers while maintaining high productivity and delivering projects on time and within budget.



## SAREL BLAAUW

Lead  
Consultant  
Mining & Civils

The CP with overall responsibility is Sarel Blaauw (HDCEng). He is a principal shareholder of Tacmin companies, a Fellow of AusIMM (Australian Institute of Mining and Metallurgy), and a member of ECSA (Engineering Council of South Africa). Sarel has been practising his profession continuously since 1996 and has 38 years of experience in the civil engineering and open pit minerals industry. He specializes in engineering, construction, bringing mines to production, and optimizing open-pit mines. Sarel has gained multiple years of experience in infrastructure construction, environmental engineering, production, enrichment, and contracting in various minerals such as platinum, gold, copper, cobalt, phosphates, coal, fluorspar, manganese, iron ore, vanadium, nickel, and chrome. He assumes overall responsibility for all technical due diligence, feasibility studies, and project evaluations carried out by Tacmin. Sarel has 27 years of experience in this field.

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## YAOHONG DAN JIANG

Ph. D. in  
Mining  
Engineering &  
Computer  
Application

Dr. Yaohong D. Jiang (Dan) is a highly experienced mining engineer with over 30 years of diversified research and practical experience in mine engineering. He is the Chief Technology Officer and co-founder of ThreeDify Inc, a company that provides innovative software solutions to complex mining problems. Before relocating from China to Canada, Dan worked as an engineer of mine design for the National Design Institute for Chemical Mines for five years. Throughout his career, Dan has held various positions, ranging from Consultant to project manager, for startups and well-established public companies. Dan holds MSc and PhD degrees in Mining Engineering & Computer Application from Queen's University, Canada, where he focused on geological modeling and pit optimizations. ThreeDify has been partnering with TacminMadini since 2014.



## WILLEM SMITH

Senior  
Consultant  
Mining &  
Geology

Willem Smith has been a senior consultant with Tacmin since 2001. He has gained vast experience on several open-pit projects in geology- and mining software applications. Willem has built an impressive portfolio of multiple commodities during numerous open-pit mining assignments. With over 25 years of experience in geology, design, and mine planning software, Willem brings a wealth of experience in geology, designs, and planning with the aid of Vulcan mining software in open-pit mines ranging from platinum, gold, coal, fluorspar, manganese, iron ore, vanadium, nickel, and chrome. Willem has built a considerable track record in compiling practical mine designs during mining project management assignments executed by TACMIN, which were crucial for operations improvement and turnaround of numerous open-pit mines. Over many years, Willem and Sarel have designed a system that enables them to integrate mine engineering and project management software. These systems have been successfully applied to multiple mining and infrastructure projects globally.

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## MARCOS GOMEZ

Senior  
Consultant  
Civil  
Engineering

Marcos earned his degree in Civil Engineering from the University of Autónoma de Santo Domingo (UASD) in the Dominican Republic in October 2007. In August 2022, he completed a master's in Building Information Management for Infrastructures and Civil Engineering. Marcos has also attended numerous courses and seminars, gaining proficiency in various civil engineering designs and associated software. In addition to designing road infrastructures, railways, and site services, he has experience in geomatic and drone surveys, data management, and georeferencing. Since 2008, Marcos has worked on several consultancy assignments as a field construction engineer, civil design engineer, BIM manager, and project manager for various civil infrastructure projects. His project experience includes tailings, dams, roads, canals, culverts, industrial steel and commercial buildings, earthworks, energy delivery, surface and underground water management, soil stabilization, and camp construction.



## **RUDOLPH JANSE VAN RENSBURG**

Senior  
Consultant  
Mining  
Operations

Throughout his 27-year mining career, Rudi has held several senior mine operations positions, including Mining Director, Mining Manager, Production Foreman, Project Manager, and various Production Manager roles for open-pit mining companies. He has gained considerable experience in open-pit mining of iron-ore, platinum, manganese, gold, and diamonds. Rudi is committed to professional development and continuous improvement. He has completed various training courses, licenses, and certificates to enhance his skills. Some of these include an Underground Blasting Certificate, Certificate of Loss Control Management, Leadership 2000 at Iscor, Senior First Aid Certificate, General Health and Safety Training Certificate, NOSA Training in Tanzania, Open Pit Blasting Certificate, and Rock Drilling & Blasting Quality Assurance Masters. In 1995, Rudi obtained a Diploma in Metalliferous Mining from the Technicon of Witwatersrand in South Africa.

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## **DUNCAN NEBBE**

Senior  
Consultant  
Mining  
Equipment

Throughout his 35-year career in the mining industry, Duncan has acquired a wealth of expertise in various positions, including Mining Manager, Technical Operations Manager, General Services Manager, Contract Mining Manager, Senior OEM Representative (Caterpillar), and Mine Surveyor. Committed to his professional development and continuous improvement, he has completed various training courses, licenses, and certificates. These include the Mine Managers Certificate of Competence from the Mines Department in Ghana, a National Diploma in Mine Surveying, a partial National Higher Diploma from Technikon Witwatersrand in South Africa, and Business Management from Executive Education. At Pueblo Viejo Mine (Barrick-Newmont), Duncan served as TacminMadini's Project Manager for the Construction Management of a Tailings Dam.



## EMMANUEL MEJÍA

Senior  
Consultant  
Structural  
Engineering

Emmanuel obtained his degree in Civil Engineering from the Autonomous University of Santo Domingo (UASD) in the Dominican Republic in October 2013. In October 2022, he obtained a master's in Geotechnical Engineering from the Polytechnic University of Cartagena, Spain. In 2023, he obtained a master's degree in Structural Engineering from the Technological Institute of Santo Domingo (INTEC) in the Dominican Republic. Emmanuel possesses a well-rounded use of engineering design software for structural and geotechnical disciplines, including Sap2000, Etaps, RAM, SAFE, Plaxis, Slide, gINT, and additional programming skills. From 2012 to date, he has carried out several design projects for steel and concrete buildings and led and managed geotechnical campaigns, soil investigations, drilling and sampling works. Additionally, he has provided consultancy and supervision of hydraulic structures, dams, canals, weirs, geotechnical designs of foundations, retaining walls, slope excavations and stability.

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## VICTOR TORIBIO

Senior  
Consultant  
Geotechnical  
Engineering

Victor obtained his Civil Engineering degree in 2012 from the Autonomous University of Santo Domingo (UASD), Dominican Republic. From September 2015 to October 2016, he obtained his master's degree in Engineering Geology from the University of Portsmouth, United Kingdom. In March 2019 obtained his Geotechnical Engineering Diploma from the Mining Chamber of Perú (CAMIPER). Victor has additionally completed several certification courses in geotechnics applied to embankments and earthworks, mining projects, roads, mining closure planning, geotechnical instrumentation in civil and mining projects, well drilling, construction administration, cost and budgets. From 2014 to date, Victor has provided multiple projects with construction, consultancy, and supervision services, including military facilities and buildings, ground investigations, soil selections and classifications. Also, construction geotechnical investigations and instrumentation of tailing dams. Construction coordination and management.



## XAVIER PALMER

Senior  
Consultant  
Project cost  
controls

Xavier Palmer commenced his career at Meyer Diamond Mining, where he held positions as an accountant and cost accountant. He then transitioned to CS Holdings, assuming the role of software support accountant. In this capacity, he provided user software support, cost accounting modeling support, and accounting and tax planning services to customers on a consultancy basis. In 2004, Xavier joined Tacmin as Financial Manager. In this role, he has been responsible for overseeing all major business decisions, including budgetary planning for both the short and long term. Xavier also ensures that financial practices align with all statutory legislation and regulations. Additionally, Xavier has worked closely with Sarel for the past nineteen years on various aspects related to cost engineering in mining and civil infrastructure projects.

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## THREEDIFY INC

Geology &  
Mining  
Software and  
Support

ThreeDify ([www.threedify.com](http://www.threedify.com)) is a mining software company based in Ottawa, Ontario, Canada. The company develops leading-edge 3D software solutions for drill-hole data visualisation, geological modeling, and strategic mine planning, including open-pit optimisation and underground-stope optimisation. The company is built on a foundation of subject-matter expertise in the mining industry, combined with advanced knowledge of 3D computer graphics, exceptional after-service, and professional training. The ThreeDify team has provided consulting services in four continents and a myriad of commodities for mining companies, consulting houses and investors, including deposit evaluation, infill drilling plan optimisation, pit and stope optimisations, strategic and production scheduling, grade control, 3D blast movement modeling, fleet size budgeting and haulage analysis, as well as due diligence studies.



# OUR CONTACT DETAILS

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