



Maheshwari

Global Technologies. Ecological Mining.

In 1972, **Maheshwari Mining Pvt. Ltd (MMPL)** was founded to offer services to Indian mining sector at Raniganj, its head office now. Later a corporate office was established at Kolkata and branch offices at Delhi, Mumbai, Nagpur, Udaipur & Hyderabad. Central Engineering Works, the core of MMPL operations, is located in Raniganj.

For over three decades, MMPL invested in cost effective, customizable and expandable state-of-art operations across diversified markets and geographies. It started off with mining but later forayed into exploration, mine equipping and HEMM equipment refurbishing. MMPL today has a strong presence with various projects across the entire nation.

OUR VISION

No.1 Business Partner in UG Mining and Exploration Industry with our purpose to provide as much value to our stakeholders as we can in an ecological and sustainable way.

OUR MISSION

Delivering value for all stakeholders involved in the process creating a win-win situation.

OUR VALUES

- Trust
- Respect & Humility
- Loyalty
- Persistence



MILESTONES

OUR JOURNEY

- 1972** Stepping Stone of MMPL; started with Sand and Coal transportation works
- 1978** Mine Development, Specialization in Shaft Sinking and Incline Drivage
- 1990** Installation, Maintenance of Long Wall Coal Production in Khottadih Mine
- 1992** First Collaboration with CDFI for Gas Monitoring System and Automation at Khottadih Mine
- 1997** The Central Engineering Works at Raniganj to cater the repair, refurbishment of machineries
- 1997** First Work in Mineral Exploration with rate contract from CMPDIL
- 2000** First Mine Development & Operation (MDO) in Metal Mines started



2004 Establishment of Geo-Technical Division for Purulia Pump Station (PPS) - Infrastructure

2007 Tunnelling work in Hydro Electric Project

2008 Major services taking over complete mines for MDO in coal and metal mines

2010 Exploration department established for Geo Technical, Geo Physical, Directional Drilling

2012 Mine Winder Supply, Installation & Commissioning to cater the Winding system of man and material conveyance

2016 First step to Coal Mines with Low-Capacity Continuous Miner at TATA Steel Jamadoba

2019 Completed first Winding system of 600KW at Shantikhani Mine, SCCL

2021 Completed 25 years of CEW Raniganj; MMPL executed second BackFilling Plant having 150 cubic mtr/hr capacity

2022 Celebrating 50 Years of MMPL



OUR ESSENCE



QUALITY

MMPL has developed and implemented quality systems, responsibilities and structure further to the ISO 9001:2008 standard.



SAFETY

MMPL details management responsibilities and governs resource management, product delivery and measurement benchmarks.



TIME

MMPL administration always encourages continuous improvement in quality parameters.



OUR ESG



MMPL conducts sustainable mine development projects by focusing on environment-friendly processes without affecting the nearby social fabric. MMPL's activities are thoroughly monitored by top corporate team and its focus is to attain long-term beneficial social development.



OUR CSR

Deeply focuses on:

- **Education**
- **Health & Medical Aid**
- **Village Development**
- **Sports Promotion**



▪ Aid for village infrastructure/ roads near our sites

▪ Organized free medical camps & medicine distribution at our workplaces

▪ Contributing aid/ scholarship to colleges/schools for imparting education to the underprivileged

▪ Promotion of sports in different places near our office/ site

▪ Distributed Solar Lamps to the areas around our drilling sites



HR STRATEGY

MMPL has built a team of qualified and trained executives having experience and knowledge of different machineries and operations. It believes in regular skill upgradation of its team members. Participation in OEM and overseas training programmes are mandated for all. MMPL has an open HR policy and it is as follows-

- Enhancing Employee Ownership Culture
- Creating an environment for career growth
- Promotes innovative thinking and pioneering solutions
- Recognizing and rewarding excellence and achievements
- Fostering a unified corporate culture

Mining Team	1943
Exploration Team	830
Engineers/ Technical Staff	181
Administrative Staff	72
Geotechnical Team	23
TOTAL	3049





UNDERGROUND METAL MINING

- MMPL provides END-TO-END Mining Solutions
- A ONE-STOP-SOLUTION-PROVIDER with multiple divisions catering to the miners' needs from shallow to deeper mines and from development to production in total MDO mode
- Expert in track & trackless mining using methods like room & pillar, cut & fill stopping and sub-level caving. MMPL owns close to 100 trackless mining equipments
- Deploys own equipment and skilled manpower for cost effective and economical ore extraction
- Practical & economical designing, high production rate, low equipment down time, efficient strata support system, good fleet of equipment and mine machinery, sufficient spares, efficient material management



Development

High speed mechanized trackless hard rock mine development services using Jumbo Drills, Load Haul Dumper (LHD) and Low-Profile trucks.

Production

Capable of producing from metalliferous mines using specialised equipment required in production from underground stopes. MMPL's mining services include production drilling, charging & blasting, loading in UG trucks and hauling to the surface, supplying and operating plant and machinery and in-house machinery maintenance.

Track Mining Equipments

Electric Locomotive
Rocker Shovel
Cavo Loader
Hydraulic Bolter
Electric LHD



Trackless Mining Equipments



Jumbo Drill
Diesel LHD
Low Profile Dump Truck (LPDT)
Shot Creting
Man Utility Vehicle
Scissor Lift
Bolters





UNDERGROUND COAL MINING

Total solution provider from mine designing, planning, construction of infrastructure, supply, operation and maintenance of equipment to coal production.

- 40 Years of UG coal mining experience
- Expert in multiple commodities
- Capable of using different underground mining methods
- Turnkey service provider
- Offer tailor-made solutions to each project
- Constant focus on optimum economic benefit

Mass production technologies MMPL provides:

- Continuous Miner (CM) Package
- Road Headers
- Twin Bolters
- Electric LHD
- Fast Inclined Drivage



LOW CAPACITY CONTINUOUS MINER

Indigenously designed and operated in Indian mines—

- Successfully operated in TATA Steel's Jamadoba since 2018
- Machine is capable to operate in any existing coal mine of India
- It is a low-cost machine producing 500 tonnes per day



TWIN BOLTER

- Total hydraulic machine for drilling in face ranges from 5.5 meters
- Height ranges from 4 meters of roadway
- Can adapt to the work of roadway slope as plus or minus 15°
- High comprehensive drilling function, good safety, high working efficiency and low labour intensity
- Used specially to support anchor rod and anchor cable
- Shortens operation time, improves efficiency and enhances quality



Mine Entries for UG Mining

Rapid Shaft Sinking Coal & Metal Mines

Since inception, MMPL has executed various works in Metal & Coal Mines and diversified its arms into multiple divisions undertaking works like shaft sinking, deepening & equipping.

It adopted technologies for fast progress in sinking using mechanized equipment and methods by employing:

It adopted technologies for fast progress in sinking using mechanized equipment and methods by employing:

- Hydraulic drilling machines
- Grab loading
- Multi deck scaffolding
- Mechanized winches
- Automatic sinking winders
- Batching unit
- Ground water stabilization
- High-capacity pumping



MMPL also specialises in stabilizing tilted shafts due to instability of the ground by doing in-house design engineering and geo-technical expertise.





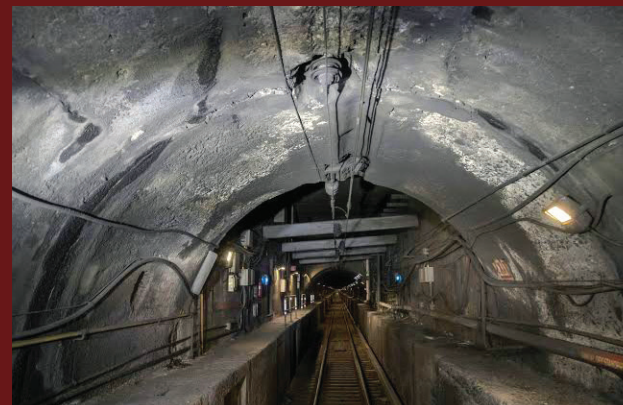
Shaft Sinking & Tunneling

Performance in Brief

Shaft Sinking in Coal / Metal – 27 nos. dia. 5.6-7.5 mtr, depth 180-468 mtr. Progress 30 mtr per month

Inclined Drivages

Tunneling in Coal / Metal – 22 nos. 250-790 mtr. Gradient of 1 in 3.5 to 1 in 5, progress 70 mtr per month per face. Drivage in Coal with mechanized means and road header upto 1000 mtr per month





MMPL undertakes designing, manufacturing, supply, installation, commissioning & testing of winding engine for different locations with varied capacities ranging from 100KW to 600KW including VFD and Automation System.

MMPL has successfully designed, installed & commissioned Man winders in different part of India up to 600 KW for our esteemed clients like:

- MOIL at Gumgaon, Munsar, Chikla, Ukwa
- HCL at Kendadih
- IMFA at Mahagiri
- SCCL at Shanthikhani Mines

Converting old steam winders into new electrical driven system with safety features as per DGMS guidelines along with AMC for 9 years at 6 locations of Eastern Coal Field Ltd. namely JK Nagar, Lower Kenda, Nimcha, Pandaveswar, Kunustoria, Shyamsunderpur.



MMPL owns its full fledged and automated sinking system (equipped with VFD, PLC, SCADA, Automatic Contrivances, etc) including Winders, Winches, Hoists, Grabs, Scaffolds, Batching Plants for rapid shaft sinking works adhering to the DGMS requisites.

MMPL also specialises in working below ground for Installation & Commissioning of Winders at 4 Locations at Khetri Mine up to a capacity of 250KW.

MMPL Specialises in Equipping works like -

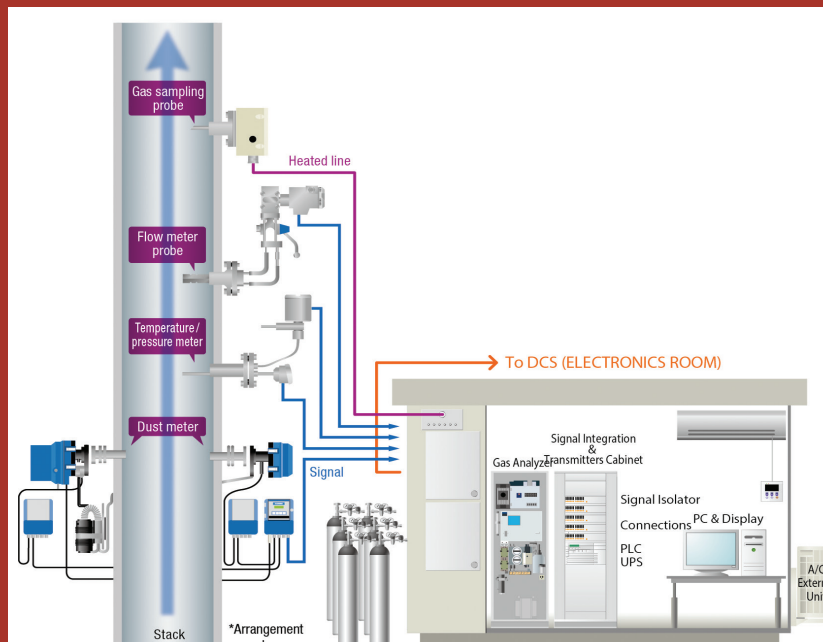
- Total Integrated Sinking System design, analyse, and formulation of a Rapid Sinking System in latest and advanced Software and simulations
- Skip Loading and Unloading System - design, supply and commissioning
- Tippler Tub - design, supply and commissioning
- Supply & installation of other key components:
 - Sheave wheel, Guide rope anchoring, Catch dogs, Keps, Cage receiver, Guide ropes, Horizontal & vertical doors, Winding rope, Cage & suspension gears, etc.

MMPL has experts capable for Operation & Maintenance of Winders for 10 years and more. It has different Hoists and Winches from small to high capacities up to 100 KW for varied works of Mining.



Ventilation

- Designing, Supply, installation & Commissioning of mine ventilation fan with VVFD drives aiming at energy conservation
- Installed 2 large diameter and higher capacity ventilation fans at Hindustan Copper's Kendadih mines
- Executed 50-750KW ventilation fans at surface and undergrounds mines



Gas Monitoring

- Aim is sustainable productivity by controlling the hazards & make it a safer place to work
- Installation & Commissioning of Continuous Environmental/ Gas Monitoring system for gases like CH₄, O₂, CO, SO_x, NO_x and other parameters like Temperature, Humidity, Air Velocity in underground Mines





Electrical Sub Stations - UG & Surfaces

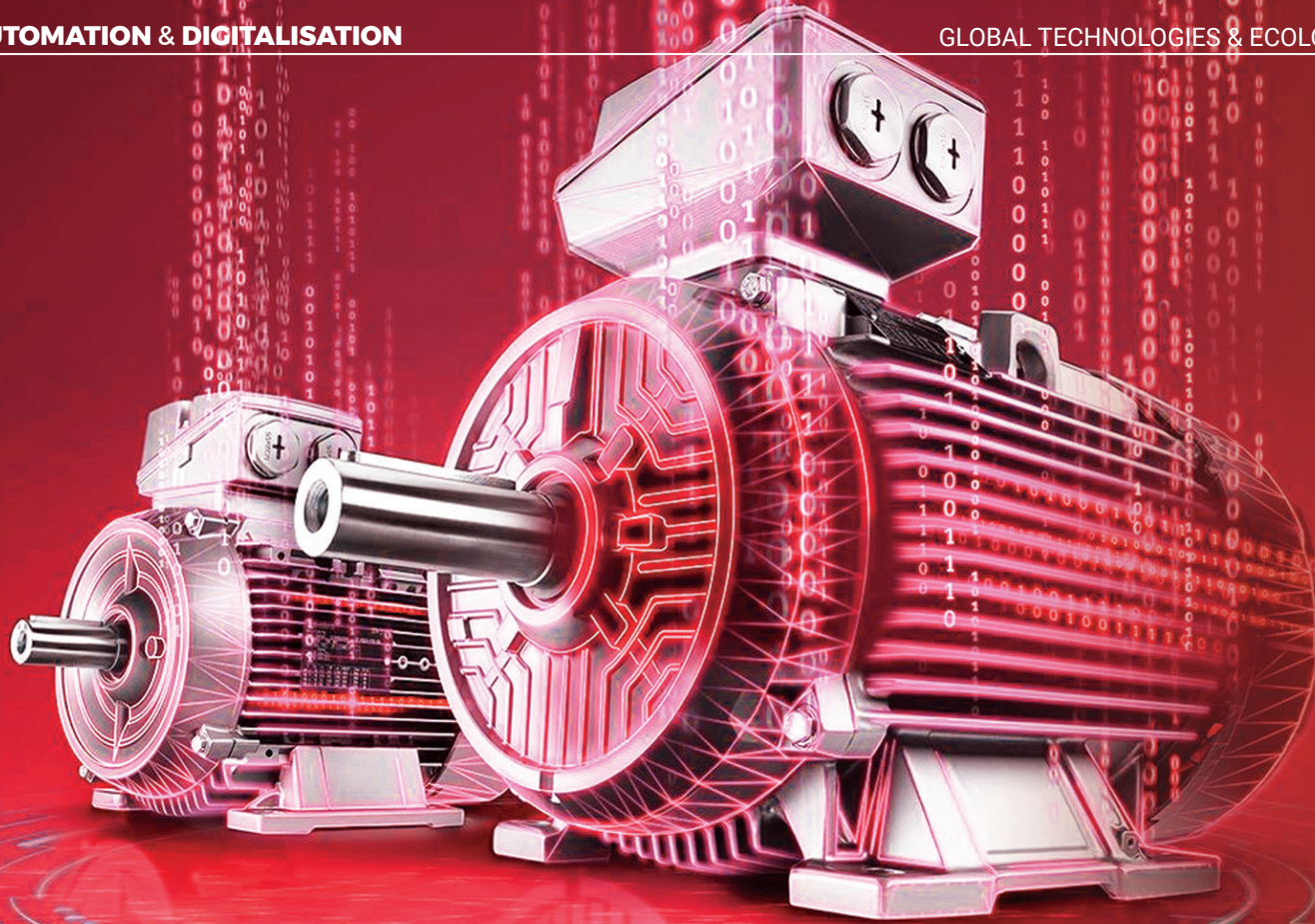
- MMPL designs, plans, supplies, installs & commissions HT & LT electrical sub-stations at surface and underground, indoor and outdoor for metal & coal mines along with approval from statutory bodies
- Has experts with HT license who are well trained in installation & commissioning of electrical HT/LT power supplies
- A 33KV/3.3KV electrical substation along with 3.3KV/415V underground substation were successfully designed, supplied, installed and commissioned at Kendadih mine of HCL

Belt Networking



- MMPL provides one-stop solutions by customizing in-house design engineering and indigenously prepared conveyor belt system
- Designed movable conveyor which will negotiate one gallery to another gallery at right angles
- Chain Conveyor like LDCC, HDCC and other conveyor belt system with weighing system along with following safety devices for metal and coal sector:
 - Pull Chord
 - Audio Visual Alarm
 - Belt Sway Switch
 - Gas Detection System
 -
 - Belt Synchronization





AUTOMATION

Critical monitoring system for motor, gearbox and stator and transferring the data to cloud via wireless technology enabling Real Time Data Monitoring and Analysis.

Mining Underground-

- RFID Technology for making Exploder defunct when the exploder/blaster encroaches the safe blasting zone before start of the blasting. Unless person reaches safe zone, exploder didn't start



- GPRS tracking system for underground equipment
- RFID/ Laser technology for making barricade for entering in the areas where there is frequent movement of Vehicle which auto-cut the power when people cross this barricade to avoid accidents

Belt Network-

- Real time data of Plant Operation-Maintenance-Breakdown into cloud
- Synchronization of long belt networks
- Belt-Weigh system giving tonnage of materials handled
- Belt Sway-Zero Speed Sensor data feedback to operator
- Remote control mode of operation for Long Belt network where difficulties in deploying manpower or the environment condition is not good

Mine Environment-

- **Oil and Gas Detection monitoring System.** Audio-Visual Alarm system when exceeding Permissible limit of noxious gases, reduction in oxygen qty., excess of methane percentage, flammable gases
- **Roof Support System Monitoring.** Real Time Data Analysis for Roof Stability Monitoring System
- **Heat-Humidity-air monitoring system**

Pumping-

- Health Check-up of Pumps, surface monitoring for Operation, breakdown,
- Real time data analysis of running of machine at surface, elimination of operators in critically areas- health hazardous in nature
- Water/Sludge detection system in sump enabling auto start-stop of pumps
- Water Flow Measurement system and Tracking of data



HEMM

- Health Check-up of machine and real time data analysis
- Real time data of status of Engine, Hydraulic System, Transmission, Electrical System
- Real Time data of performance of machine, status of breakdown
- Real Time data for Jumbo drilling operation and maintenance
- Oil Level Monitoring and Fire resistance Mechanism
- Remote Controlled Operation of machineries
- Low-Capacity Continuous Miner, Power Centre, Twin Bolter- Electricals and Automation

Exploration & Drilling

- Health Check-up of Drilling Rigs, Drilling Equipments and real time data analysis for performance, operation, and maintenance
- Real time data of status of Diesel Engines, Hydraulic System, Electrical System.
- Real Time data of performance of machine, status of breakdown
- Diesel, other Oil Monitoring System

DIGITALISATION

MMPL has tied up with Major System house for technical collaboration in developing new technologies for mining need. It is progressively looking to establish digital mine concept in India.



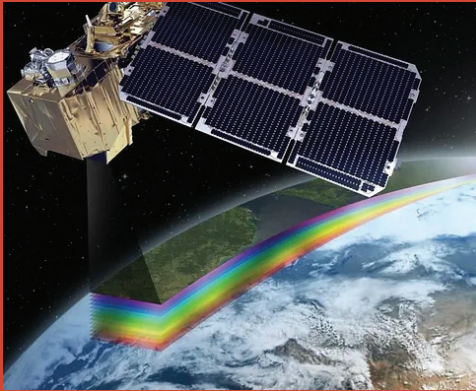
BACKFILLING TECHNOLOGY

- Social sustenance and environmental protection are core activities of today's mining. Filling mine voids after ore extraction is crucial. MMPL has a dedicated team for backfilling mine voids and stabilizing surface installations
- MMPL studies the raw materials required for mine filling and their physical properties like grain size distribution, drainage characteristics, settling properties and other required attributes
- MMPL has established EPC for 2 backfilling plants with capacity 100 cubic mtr per hour & 150 cubic mtr per hour respectively to augment the requirement of backfilling of the stops to facilitate the faster mining of the ore
- MMPL is also making a modular backfilling plant for fast setup and movement for short duration projects and critical in nature
- MMPL aimed in making the product in view of the following key considerations-
 - SALEABLE
 - ACCEPTABLE
 - WORKABLE



EXPLORATION & RESOURCE MODELLING SERVICES

Remote Sensing & GIS



Gravity, Magnetic Drone & DGPS Survey



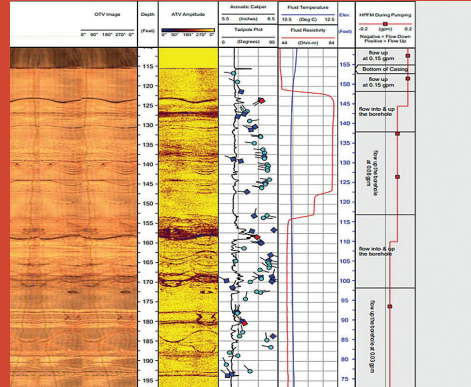
Borehole Geophysics



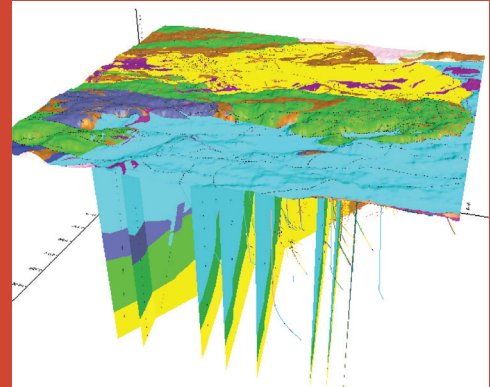
Exploratory Drilling



Geological mapping, logging & drafting



Geological modelling & Resource Estimation



OTHER MAJOR SERVICES

- Exploration Planning
- Seismic Survey- 2D/3D
- Hydrogeological Survey
- Geo Technical Services
- VES, Electrical Resistivity Imaging
- Laboratory Analysis from NABL Accredited Lab
- Mine Planning



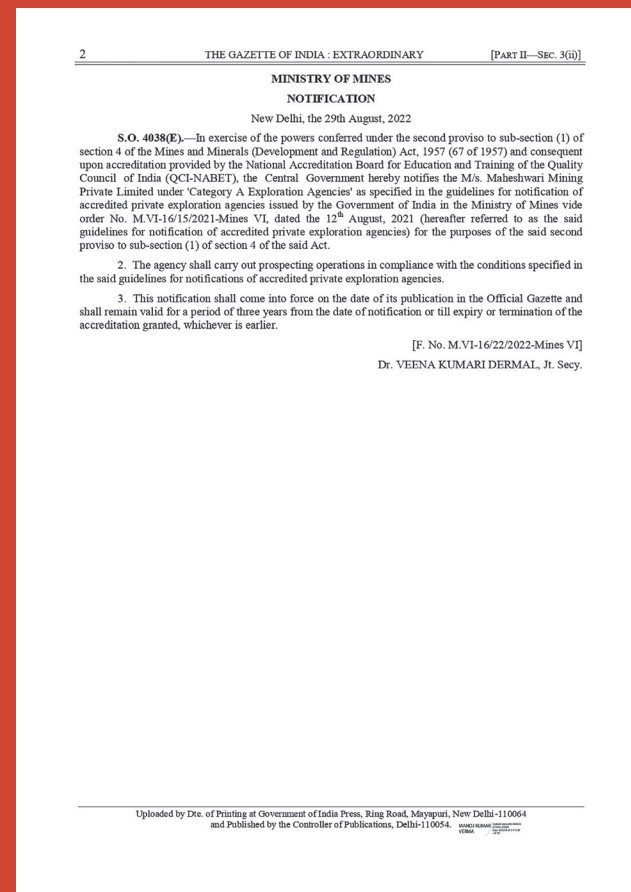
Mineral & Coal Exploration

- Provides End to End solution starting from Planning of projects till mine management
- QC-NABET Accredited agency for Preparation of Geological reports in Coal
- Notified Exploration Agency (Category A) under Ministry of Mines
- Conducts Pre-feasibility & Feasibility studies
- Over 2 Lakh meters drilling per year

Accredited for prospecting Exploration Agency (APA)



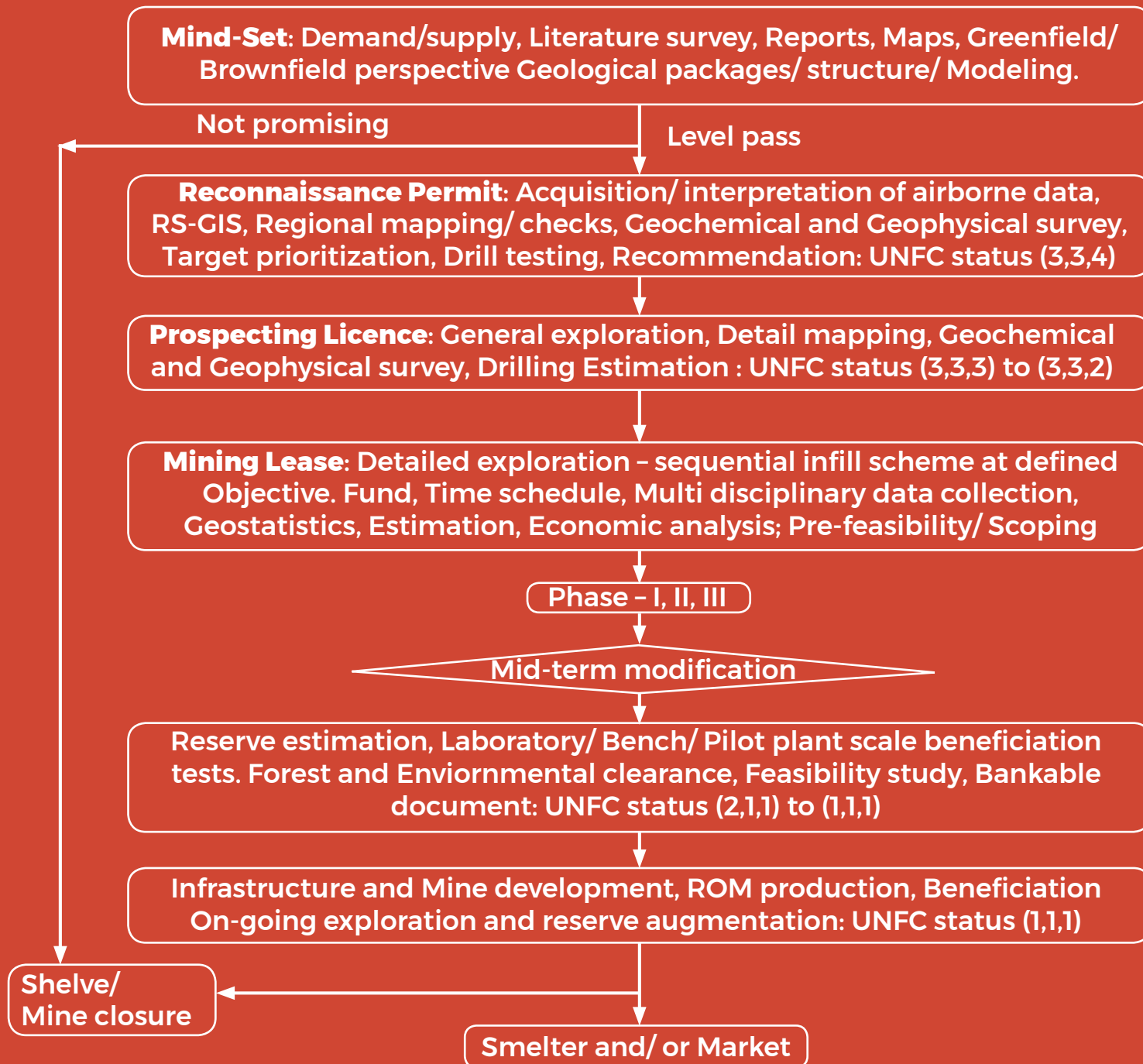
Notified Exploration Agency (Category-A) under Ministry of Mines



Discovery of New Minerals

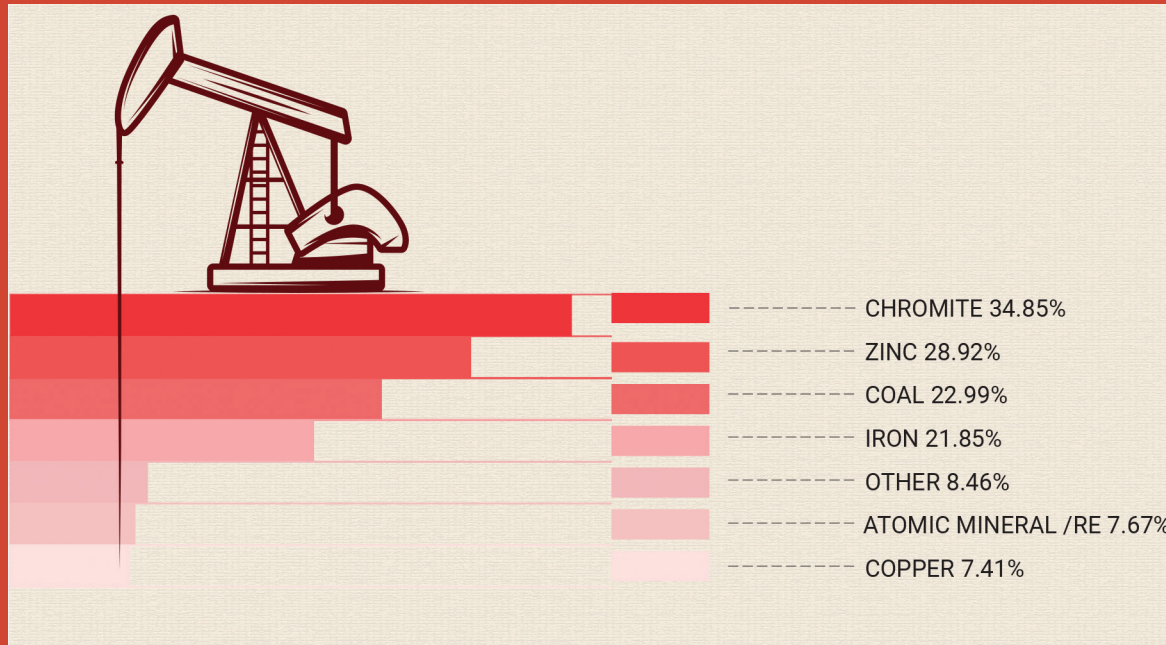
- The MMDR amendment 2021 showed promise as a harbinger of game-changing reforms by allowing private agencies to undertake mineral prospecting operations
- Mineral, may be found as surficial deposits or as concealed deposits, Both categories require detailed exploration but deep-seated minerals require state-of-the-art technologies
- Aero geophysics with state of art magnetic and radiometric sensors can be the first step to identify potential blocks.
- This is supposed to be followed up by detailed electromagnetic and gravity gradiometric studies



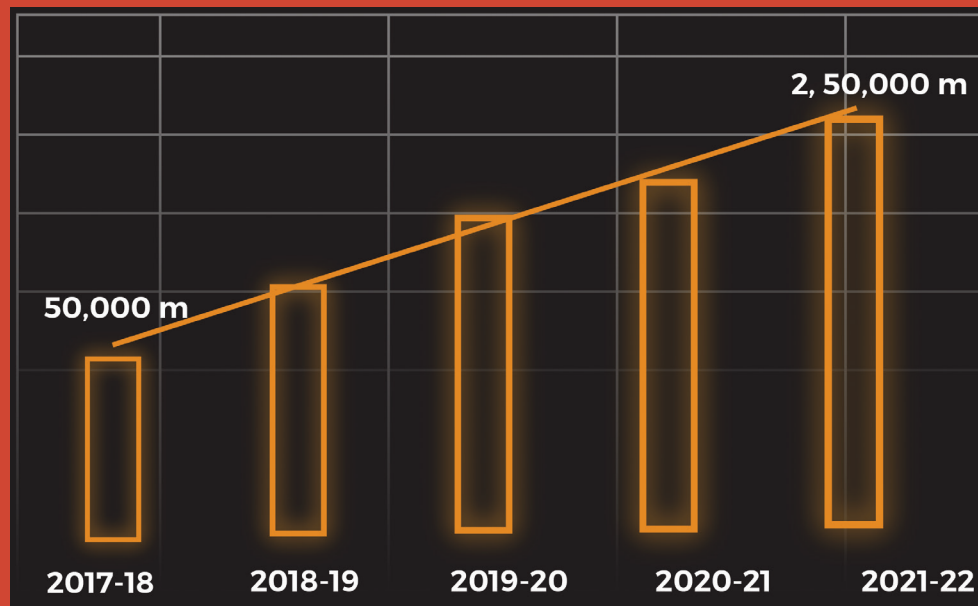


DRILLING SERVICES

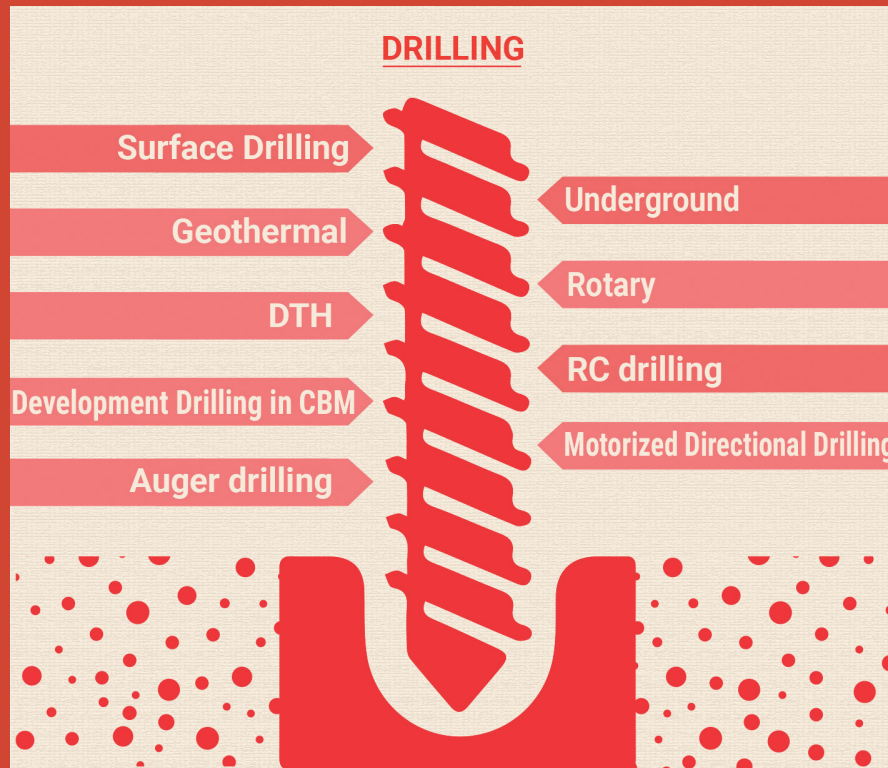
Minerals We Explored



Growth Profile (Yearwise Drilling Progress)



Our Exploration Services



Type of rig	Capacity	Nos.
Hydrostatic	NQ-1800m	60
Semi-hydrostatic	NQ upto 1200m	75
Man portable rigs/ DTH/Rotary		06



Manportable rigs



This rig is designed to be easily disassembled, hand carried and transported in sections to the drilling site and rebuilt there, that conventional machines cannot access. They are super-efficient, versatile, and durable and can work in any challenging environment. They are suitable for jungles, mountainous regions, forests, hilly regions, remote areas and several other complex places without harming the environment

Successfully executed Geothermal borehole of 1000 meter at Manuguru for GSI with temperature more than 80°C generating around 800 lom water on which a 20KW thermal power plant will be commissioned shortly.





Bore Hole Geophysics

Undertaken several prestigious projects by ensuring accurate data quality. Capable of detailed geophysical logging of bore hole.

Logging Technology extensively uses:

- Natural Gamma
- Spectral Gamma
- Normal Resistivity
- Focussed Resistivity
- SP
- Induced Polarization
- Dual Density
- Single / 3 Arm Caliper
- Neutron
- Sonic
- Borehole Deviation
- Temperature
- ATV / OTV



Hydrogeology & Geotechnical Services

MMPL offers complete solution for Hydrogeology:

- Pumping Tests
- Aquifer Test
- Slug Test
- Constant Head Test
- Discharge rate / Drawdown Test
- Packer Testing / Permeability Test



Geotechnical

- PMP Tests
- RQD, RMR Ground condition
- Slope stabilization
- Ground improvement
- Rock & soil anchors





The Central Engineering Works (CEW) is a state-of-the-art facility wherein MMPL refurbishes heavy machineries and their components. With the use of best-in-class testing machinery and just-in-time delivery, we deliver the machine and machinery components



with best reliability and performance at lowest cost.

The Workshop constitutes of different divisions of fabrication, electrical, engine & assembly shop driven with a team of expert technocrats and first class infrastructure.

Additionally the central warehouse is an icing on the cake which has an automated system of material condition, tagging & bin cards which helps MMPL deliver right materials in right time through strategic procurement at lowest price.

The CEW also has an in-house facility of engine and hydraulic test beds, rock bolt manufacturing, drill manufacturing unit along with a heat treatment plant.

To help a check on quality aspects our team includes experts personnel who work round the clock in our in house quality lab with all kind of testing facility.



SOME REFURBISHMENT WORK



Before



After



On-Site service support for repairing of components and fleet management through Computerized Maintenance Management System (CMMS). We track equipments in real time to ensure zero breakdowns.

Training (On site & Off Site) for all our customers so that we deliver dedicated workforce equipped with both technical skills and good



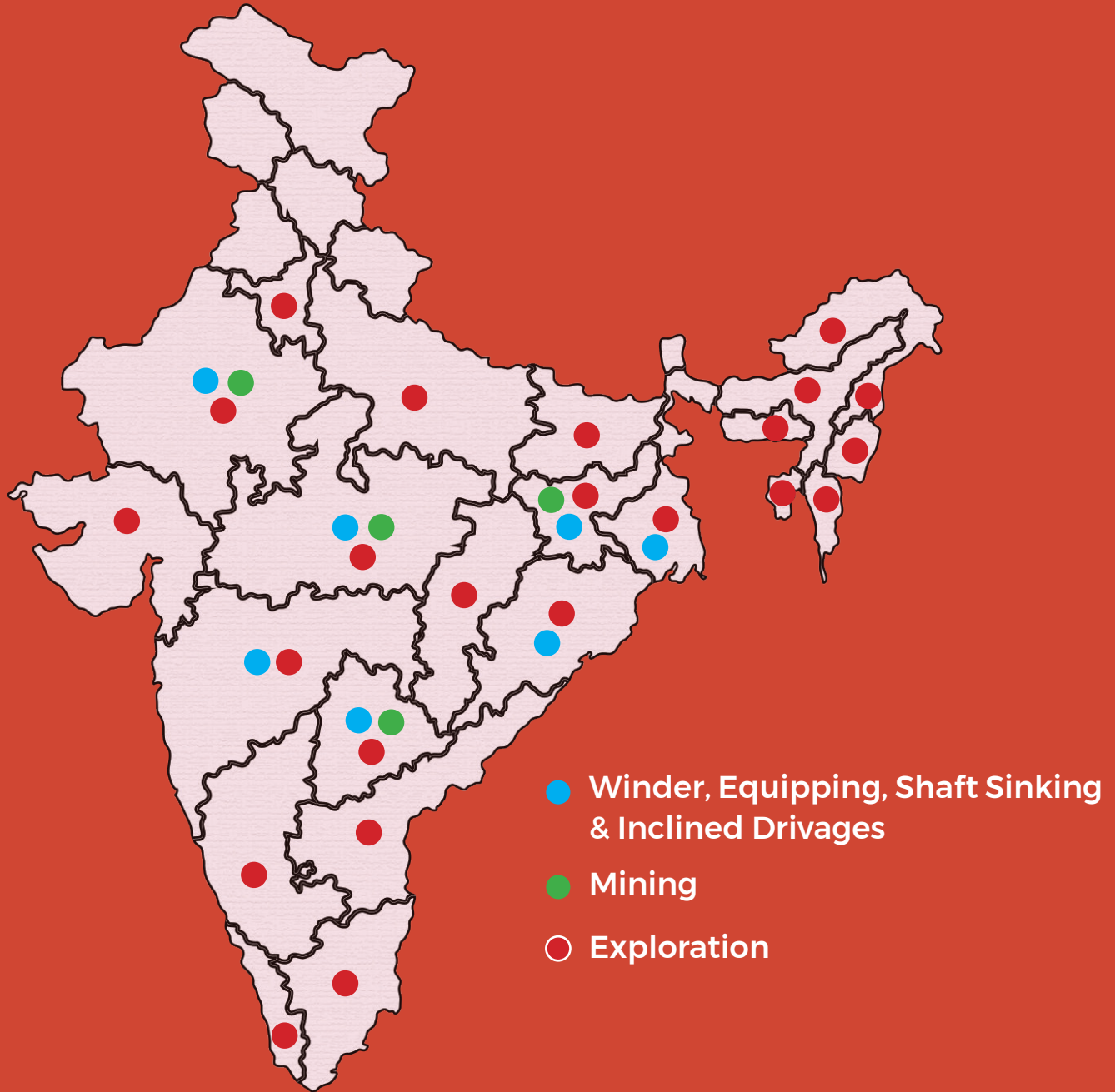


prudence in team building. MMPL is also planning to introduce AR/VR based trainings in a dedicated training hall at CEW.

Digitization of assets through on-board diagnostics tool and iIoT to optimize workforce efficiency, improve utilization of mechanical assets and detect failures early and build a robust data infrastructure to track all information in one dashboard.



Our Activities



Our Clients



BOARD MEMBERS

Mr. RAJIV GANERIWALA

Managing Director
B.E. (CIVIL)
31 Years of Experience



Mr. SANJIV GANERIWAL

Joint Managing Director
B.E. (ECE)
32 Years of Experience

Mr. NARESH BAGRODIA

Executive Director
MBA (Marketing)
31 Years of Experience



Mr. JAYARAM S. KAUSHIK

President
(Geotechnical & Mining)
M. Tech (Geology),
IIT Mumbai
33 Years of Experience

Mr. BISWANATH PAN

President
B.E (Electrical) Ex-CMD (BCCL),
Advisor (Coal) Govt. Of India
40 Years of Experience



Mr. NAGENDRA MATHUR

Sr. Vice President (E&M)
B.E. (Electrical & Mechanical)
Ex- HZL
35 Years of Experience

Mr. M BHADURI

Executive Director
Chartered Accountant
Ex- Chairman,
Hindustan Steel Works
35 Years of Experience



Mr. AMBIKA P. SAMANTARAY

Vice President (Exploration)
M.Sc (Applied Geology),
IIT, Kharagpur
37 Years of Experience



Mr. PRANSHU GANERIWALA

Executive Director
B.Tech (Mechanical)
5 Years of Experience



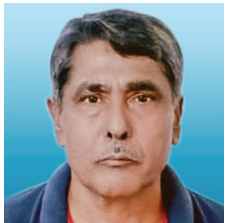
OUR KEY MEMBERS



Mr. P. TARAFDAR
ADVISOR- GEOLOGY
(Ex-GSI Deputy Director General)
18 Years of Experience



Mr. RADHESHYAM DEHRIA
GM (Mining)
BE (Mining)
32 Years of Experience



Mr. DILIP KUMAR BANERJEE
Associate Vice President
44 Years of Experience



Mr. VINAY KUMAR LAL
GM (Geology & Geophysics)
MSc Tech (Geophysics)
17 Years of Experience



Mr. RAJENDRA PRASAD AGARWAL
Commercial Head
PGDM (XLRI)
Ex- TATA STEEL
30 Years of Experience



Dr. SATYENDRA KUMAR SINGH
Consultant
PhD, MBA, MTech, B Tech (IIT-ISM)
Ex- Chief Scientist &
Professor (AcSir), CMPDIL
32 Years of Experience



Mr. R. K. JAIN
Consultant Geology
MSc (Geology)
50 Years of Experience



MR. JONNALAGADDA PRABHAKARUDU
ADVISOR- GEOPHYSICS
Ex-ONGC
35+ Years of Experience



AWARDS & RECOGNITION

MAHESHWARI MINING
is listed among the
Fastest Growing Companies in India



First Prize for Overall Performance and Welfare amenities & use of PPEs at the ODISHA METALLIFEROUS MINE SAFETY WEEK, 2015, 2019



First Prize for Contractual Working Training, Health and Safety at the ODISHA METALLIFEROUS MINE SAFETY WEEK, 2017



HIGHEST JOB CREATOR by ET BENGAL CORPORATE AWARDS, 2014



years
50

The logo for Maheshwari, consisting of a stylized red 'M' shape with a central vertical bar and two horizontal bars, is centered within the zero of the large '50'.

Maheshwari
Global Technologies. Ecological Mining.

Since 1972

VISION #100

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