

#### 01. THE COMPANY

History

Structure

Achievements

Quality

Software

Main Clients

Core Competence

#### 02. FIELDS OF EXPERTISE

#### 03. EXPERIENCE SNAPSHOTS

Major International Infrastructure Projects
Major Greek Infrastructure Projects
Project Management Services
Major Mining Projects

#### 04. VISION





01. The Company





#### HISTORY - PHILOSOPHY



- Civil & Structural Engineering
- Geotechnical Engineering
- Tunnelling Engineering
- Mining Engineering
- Independent Engineering & Construction Follow Up
- Tender Documents, Procurements & Permitting
- BIM Concept & Implementation
- Project Management







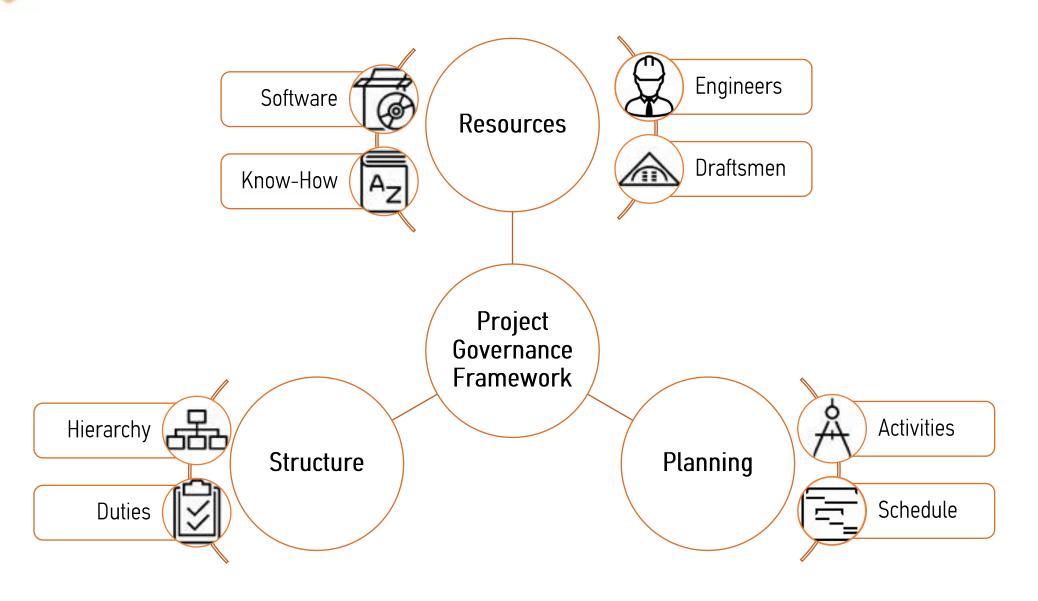
Complex Engineering

Design & Project Management Services

❖ Major Infrastructure and Mining Projects either in Greece or abroad



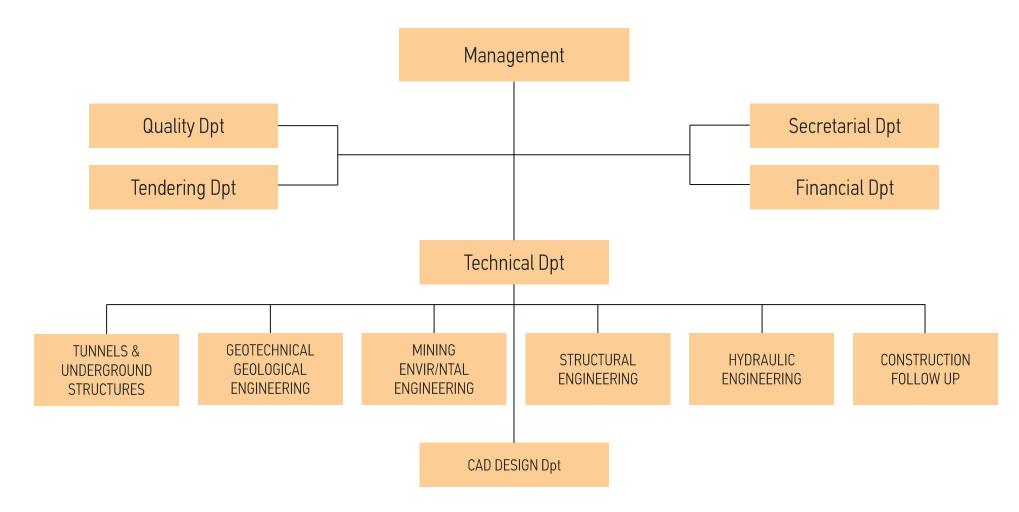








#### **STRUCTURE**









Consulting services in more than 15 countries

UAE, Albania, India, Qatar, Bulgaria, Serbia, Montenegro, Venezuela, Israel, Germany, Romania, Cyprus, Slovakia, FYROM, Lithuania, Russia, Ethiopia, Ghana

Originally based in Athens,
Greece but with branch
offices also Romania, India,
UAE

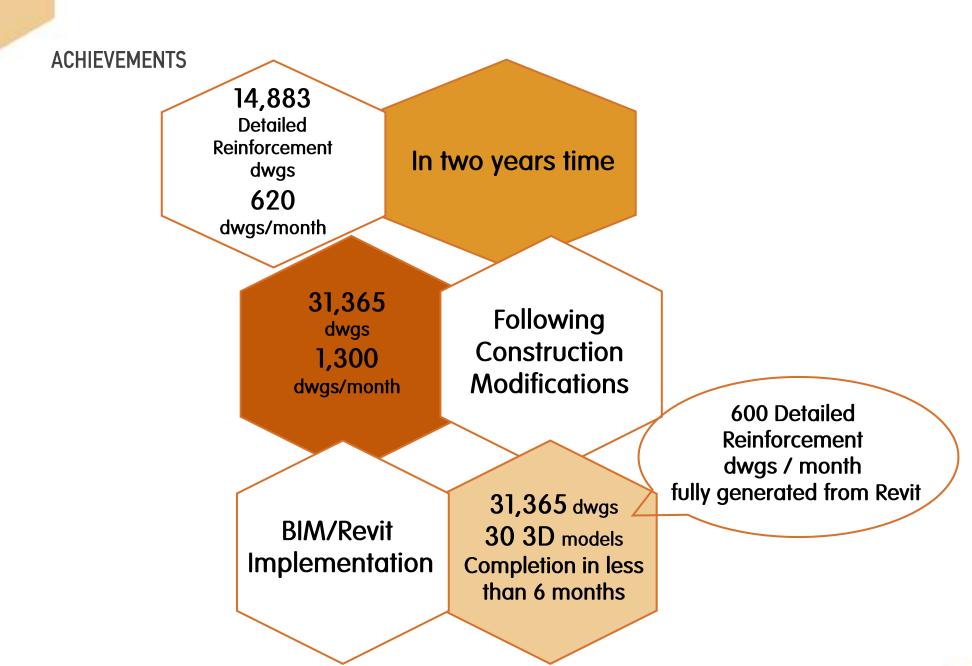
50 employees



Turnover 8 M € annually









#### QUALITY





#### PROFESSIONAL LIABILITY



## Min. Indemnity Limits:

- > 1 M.€ (per event)
- > 2.5 M. € (in the aggregate)

#### **SOFTWARE**

Sofistik

Midas Gen

Key

Robot Structural Analysis

Tekla

**SCIA** Engineer

Advance Steel

Larix

Fides

**Revit Structure** 

Flac 2D. 3D

Wintube

Wedge

Unwedge

Sofiplus

Slide

Rocplane

Rockfall

Phase

AutoCAD

Auto CAD Civil 3D

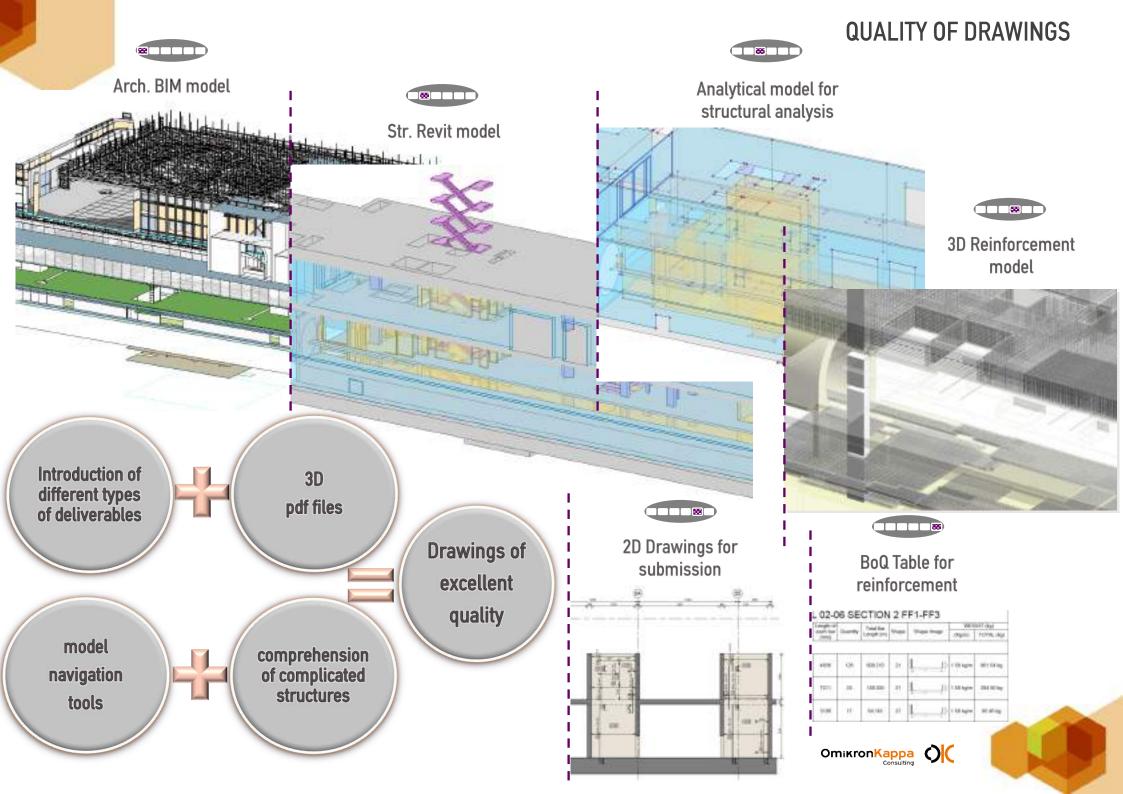
Autodesk Bridge Design

AutoDesk Robot

MS Office







Cultivating relationships based on trust and honesty with the belief that this approach creates win-win partnerships

#### **MAIN CLIENTS**













Hellasson



ΠΕΡΙΦΕΡΕΙΑ

NOTIOY AIFAIOY





































































OK has succeeded in entering and stepping a strong foot in the new "era" of megaproject management and execution







02. Fields of Expertise





#### What we do

# **Key Activities**

Conceptual Design

Feasibility

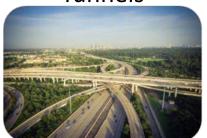
Planning/Predesign

**Detailed Design** 

#### **Project Management Services**



Tunnels



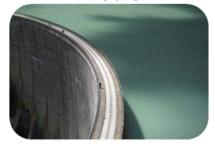
Highway



Industrial Plants & Buildings



Metro



Water-Hydro



Construction Follow-Up



Rail



Mining

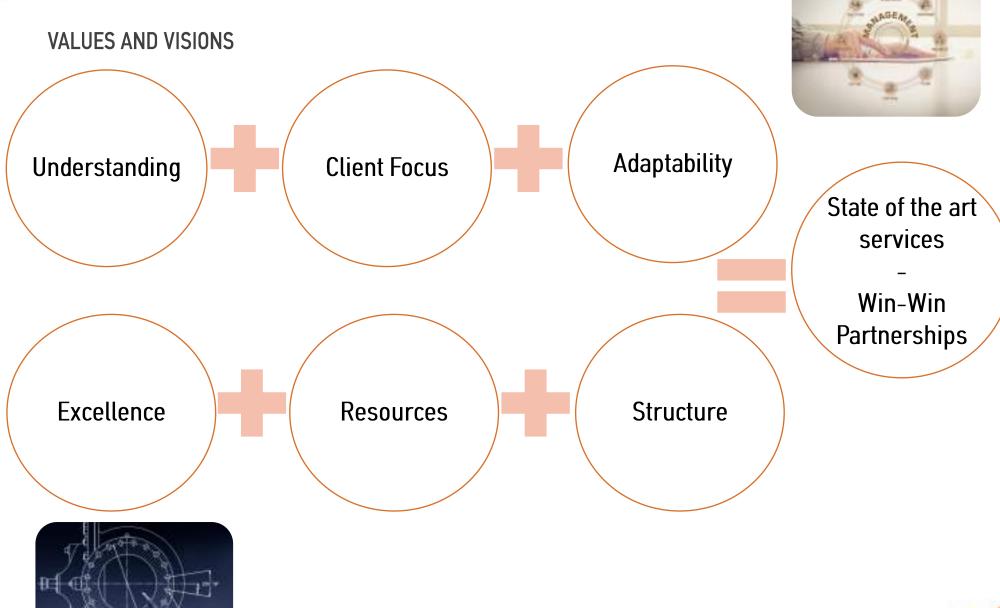


Consultancy –

Expert Advice

Omikron Kappa
Consulting







OmikronKappa Consulting

# Tunnels and underground works (metro, railway, highway and hydraulic tunnels)

- Preliminary design, final and execution design
- TBM or NATM methodology
- Planning
- Geotechnical and geological engineering
- Subsoil improvement, surface and underground support
- Stability analysis
- Structural designs
- Bridges
- Buildings and industrial developments

- Alignment selection and optimization
- Documentation and construction supervision of tunnels
- Metro stations
- Rock mass monitoring
- Rock and soil mass behaviour analysis
- Geological and geotechnical mapping and evaluations

• Strength evaluation - Rehabilitation design of infrastructure and buildings





### Mining Studies — Environmental Designs

- Orebodies evaluation and analysis
- Design of surface and underground mines
- Geotechnical evaluation
- Project management
- Mine investment analysis
- Mining methods

- Mine support
- Mine safety and health
- Mine development
- Mine ventilation
- Landscape rehabilitation
- waste disposal areas

Procurement Services — Special Consulting Services — Construction Supervision & Follow Up





03. Experience Snapshots





# 03. Experience Snapshots

Major
International
Infrastructure
Projects





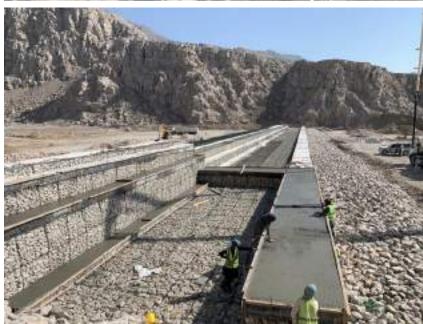
# **United Arab Emirates**





Dubai — Fujairah Freeway Slope Stability Audit

Slope Stabilization and Rockfall Protection Design





# Dams in various locations in UAE

Recharge Dams and Flood Protection Works





# **QATAR - DOHA**







- 1. Detailed geotechnical structural designs & provision of special consultancy services for metro stations
- 2. Detailed geotechnical structural designs & provision of special consultancy services for tunnels
- 3. Detailed geotechnical structural designs & provision of special consultancy services for subways & underground structures
- 4. Detailed geotechnical structural guideline reinforcement drawings BIM/Revit design & production of 3D reinforcement guideline dwgs of design only stations & subways





















# **QATAR - DOHA**

2. Doha Metro Green Line Extension Tender predesigns metro stations, cut & cover ramps and tunnels







4. Doha Metro Red Line North Extension Tender predesigns for Metro Station, Stabling Yard, 10 ITPS/SPS Buildings, 39 Emergency Exit Facilities, and at grade section

## Gold Line Underground

Tender predesigns for:

Tender predesigns for

2 flagship stations (Education city, Mshaireb)

1. Al Sharq Crossing (formerly Doha Bay Crossing) a major

14 twin bore tunnels-35km

65 pedestrian cross passages

14 UG stations

15 Pedestrian/Ventilation Tunnels

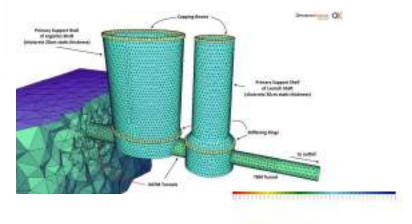
4 switchboxes











#### Musaimeer Pumping Station and Outfall

Check and Review of the detailed final design for the temporary retaining system applied at the excavation of two (2) shafts approximately 43m deep. The two shafts constructed by the sea for the excavation commencement of a hydraulic tunnel (TBM)

below the sea level,





- 1. Falcon 1 project Al Udeid GET GENERIC BY SILVER STATE OF THE PROJECT STATE OF THE PROJECT
- 2. Al Widyan Development Infrastructure interchange 1 & 2
- 3. Stage 2 Etihad Rail Network, Con. No. C0308, Package 2d Design & Build Contract Sharjah to Fujairah
- 4. Prince Sultan Street Extension and Its Intersection with King Abdul-Aziz Road Leading to Raghadan Park
- 5. Clinic Medical Unit in ISF Development camp in Duhail



- 6. E Ring Road North/South Link P008-C2 In Doha, Qatar
- 7. Pilot Commercial And Light Industrial Developments At Umm Al Houl Manateq
- 8. Fan Villages Master Planning, Qatar

9.





10. Update Studies to Development of Dams and Breakers in Shawkah-Fili & Al Mounaei Basins in Ras Al Khaimah & Sjarjah Emirates









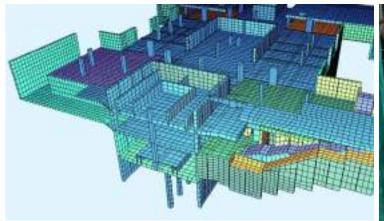


**India DELHI Metro** 

Prebid engineering and detailed design for "DMRC Package CC-23 — Delhi Metro Project" 8 km TBM metro tunnels // 0.2 km NATM metro tunnels // One (1) UG metro station // One (1) building JV FEMV – PRATIBHA













#### India JAIPUR Metro

Tender Predesigns & Detailed Design of

Two (2) TBM tunnels (2x2,17km)

Two (2) underground metro stations

Two (2) C&Cs

Two (2) shafts

of the Jaipur Metro Project on East-West Corridor of Jaipur Metro (Stage 1B) at Jaipur, Rajasthan

CEC INT'L CORP INDIA PVT. LTD









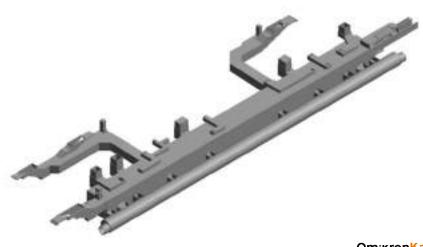
# India — MUMBAI Metro Line 3, Package 5

Detailed designs for JV J. Kumar Infraprojects Ltd./ China Rly No.3 Engg Group

Services include detailed designs for:

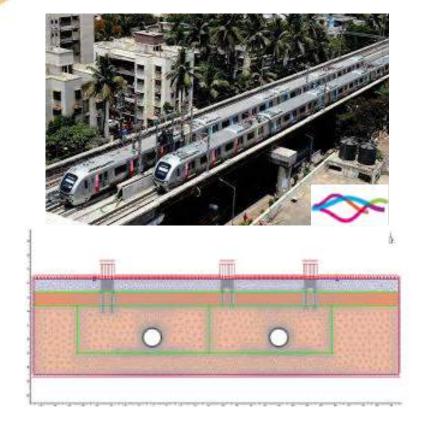
- Two (2) TBM tunnels ~8km
- Four (4) Underground Stations
- NATM sections
- One (1) Mid-Ventilation Shaft
- BIM/Revit











India – MUMBAI Metro Line 3, Package 7

Evaluation and verification of the impact on existing viaduct of Line 1 of Mumbai Metro due to the under-passing of TBM tunnel of Metro Line 3

Mumbai Metro One Private Limited Joint Venture

#### India DELHI Metro

Archaeological Impact Assessment Study for ancient monuments/structures of Delhi Metro Phase IV due to the construction of at grade and cut & cover stations and of TBM bored tunnels for metro

Delhi Metro Rail Corporation Limited India (DMRC)















#### DELHI Metro / DMRC — CC04 Contract

Mukundpur - Yamuna Vihar corridor of MTRS project of Phase III

Technical Consultancy Services and Detailed Design of:

- Revalidation review and repair of the segmental design and of the TBM tunneling (two tubes – 2\* 1.15km)
- Ten (10) cross passages (NATM)
- Construction impact/building protection cross passages and tunnel drive
- Design of Rescue Shaft
- Design of Emergency Escape Shaft

for the CC04 Metro Project of Delhi Metro Phase III, CEC - CICI JV



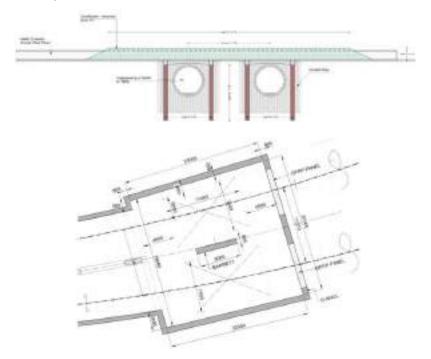


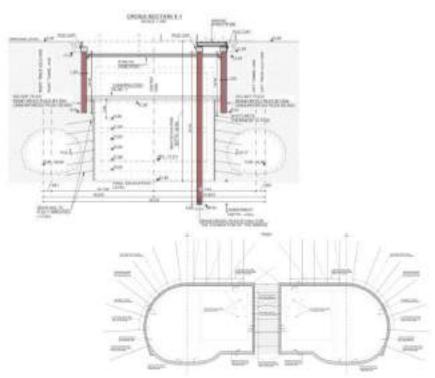
India Prebid Engineering & Tender Predesigns for "MMRC Mumbai Metro Line 3" Packages 1, 2, 3, 5, 6, 7

JV J. Kumar Infraprojects Ltd./ China Rly No.3 Engg Group

Services included tender predesigns for:

- Twenty four (24) underground stations
- Six (6) including NATM parts due to surface space restrictions
- 20 km of TBM tunneling and associated NATM tunnelling parts





# LUCKNOW Metro Tunnels & Stations Prebid Engineering & Tender Predesign for Lucknow Metro Contract LKCC-06 (Stations, TBM, C&C & Ramps) Lucknow / Larsen & Toubro Construction (L&T)

Services included tender predesigns for:

- Two (2) underground stations
- 3.7 km (2\*1.8km) of twin bore TBM tunneling and associated NATM tunneling parts
- Under-passing of Hyder Ali Canal by the TBMs
- Two (2) ramps
- Two (2) C&C tunnel portions



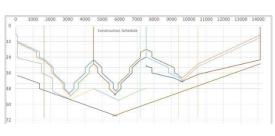


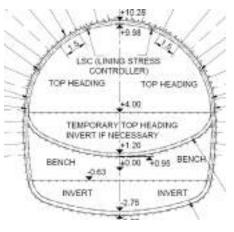
## Pre-bid Engineering & Tender Design Consultancy Services for "Zojila" Tunnel in Jammu & Kashmir Reliance Infra. Ltd — Dogus Construction

Services included pre-bid design services for:

- 14.1 km single tube road tunnel (two traffic lanes in bidirectional traffic) with NATM construction.
- 14.2 km parallel egress tunnel with NATM construction.
- 2 intermediate shafts (dia=14 m, depth=850 m) with drill and blast construction.
- Intermediate shaft (dia=6 m, depth=210 m) with "raise boring".
- 3 ventilation caverns (A<sub>excav</sub>=185 m<sup>2</sup>, L=35 m)
- Portals at elevation approx. 3000 m
- Portal structures, shaft ventilation structures.
- Techno-economical evaluation of tunnel construction activities.
- BOQs and Cost Estimate (rate analysis).
- Risk assessment
- Design and Construction Specifications
- Construction schedule abiding by seasonal work due to weather conditions.







Construction budget approx. € 1.00 Billion





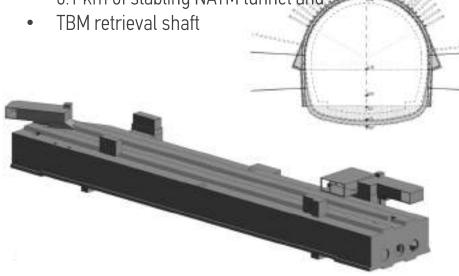
## Metro tunnels & stations, Bangalore, India Prebid Engineering & Tender Predesign for Bangalore Metro Rail Project, Phase-2, contracts RT-02 & RT-03

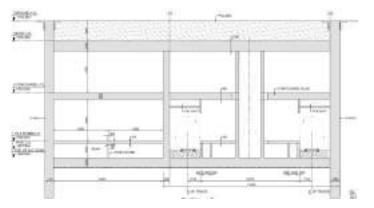
Services included tender predesigns for:

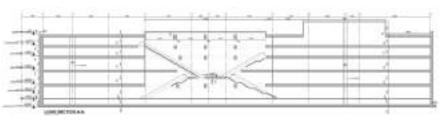
• Five (5) metro stations

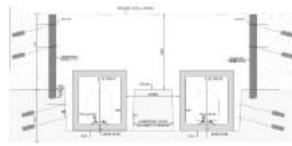
• 9.2 km of TBM tunneling

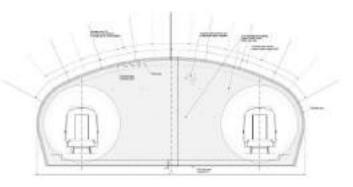
• 0.1 km of stabling NATM tunnel and











## Metro tunnels & stations, Pune, India Prebid Engineering & Tender Predesign for Pune Metro Line 1 UGC-01 (Stations, TBM, NATM, C&C & Ramps)

Services included tender predesigns for:

- Two (2) stations
- 5.8 km of TBM tunnelling
- 0.4km of underground ramp and
- 0.4 km of C&C sections





# India



On Site Geological Mapping Services for "Kiratpur Nerchowk Tunnels" M/s ITNL



#### Other Involvements in India:

- Targeted tendering for "Sivok- Rangpo tunnels" 6 km tunnels, IRCON International
- Targeted tendering for "Kalanagar underpass tunnels in Mumbai" (2.6 km Urban tunnels), MMRDA

Prebid Engineering for Delhi Metro Project / DMRC package CC-34 (8.5 km TBM Metro tunnels) JV CEC-CICI





# Albania





Krrabe tunnel
Detailed geological,
geotechnical, structural,
hydraulic designs for a
5km tunnel





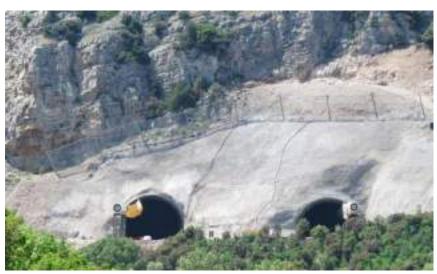
Tirana — Elbasan Roadway Highway Earthworks, Retaining Structures, Culverts, Hydraulic Works

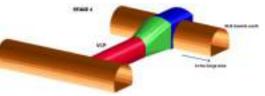




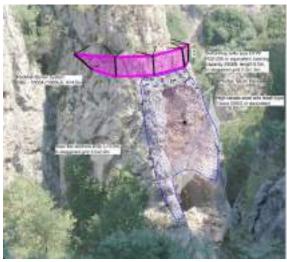
# **Skopje**, Demir Kapija-Smokvica Motorway, Section of European Corridor 10 & Part of the National Road M-1 (E-75)

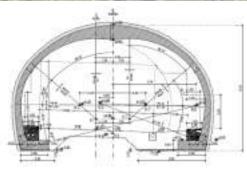
RockFill Highway Embankments & Protection - Slope Support Works - Twin Bore Highway Tunnel T1

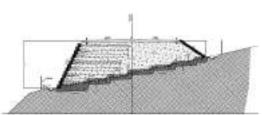






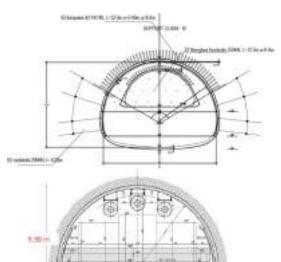






# Romania

Tunnels & Earthworks
(Cuts & Embankments)
of the Comarnic – Brasov
Motorway
(Tender design)



# Israel

#### Cross Israel Northern

Twin Bore 3 – Lane Tunnels of Road Sections 3 & 7



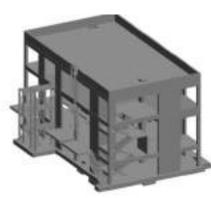


# **GHANA**

#### Bridge Power Generation Plant in Tema—Accra Ghana, Detailed Designs

Detailed final design of various elements such as: foundations, structures, buildings (concrete and steel) etc. required for the construction and commissioning of a 200MW fast track energy project with LPG, gas and diesel fuels in the Tema region, 16 miles east of Accra. Services also include development of Revit Models and 3D Reinforcement Drawings

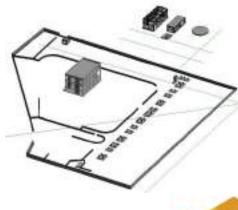
















# Albania



# Titan Antea Cement Plant Facilities

Engineering services for internal road network system, hydraulic surface drainage system and the water treatment reservoirs



**Hydraulic tunnels for water transfer** Rrapuni Librazhd

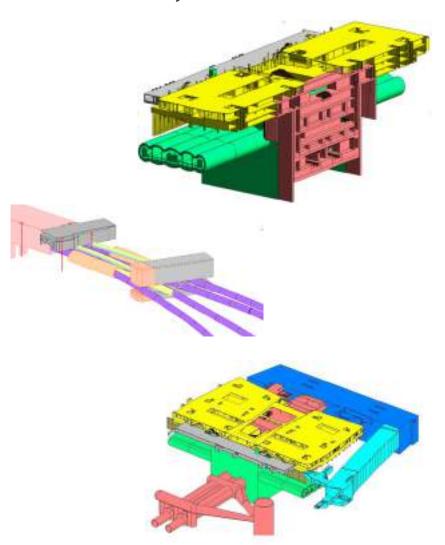




### **GERMANY**

### 3D Models Designs for:

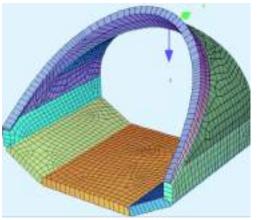
Underground **Metro Line U9**, New Metro Station and Crossing Lines **S-Bahn Railway & U4/U5 Metro in Munich-Germany** 

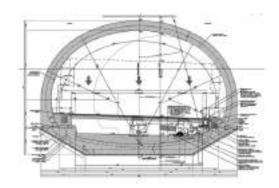


**Boyneburg Tunnel, Germany** of the highway project in Germany BAB 44 highway between Kassel and Herleshausen.

- Structural Design and Analyses of North and South Cut & Cover Structures at East and West Portal Areas.
- Detailed Formwork Drawings of North and South Cut & Cover Structures at East and West Portal Areas.
- Reinforcement Drawings for the North Cable Collector at the tunnel's exit.













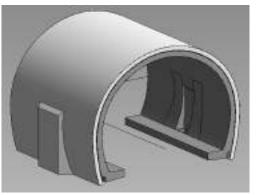
### **GERMANY**

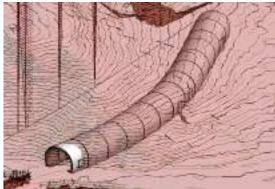
Diez Tunnel of the highway road axis B417 in Germany:

- BIM Model elaboration of Tunnel Concrete Blocks
- Production of Detailed Formwork Drawings

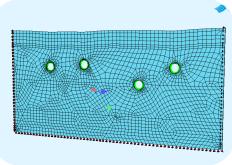












# Calculations Analysis Technical Checking:

- Stuttgart 21 Railway Tunnels
- Munich Metro Line 3, Section 2:

  Moosach Station
  - Freising Highway Tunnel
  - Starnberg Highway Tunnel





# INT Targeted tendering of various projects



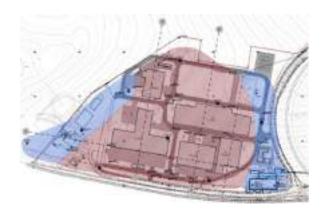


### Bulgaria

### Trakia Highway







Waste Treatment Plant Sadinata Site, Sofia

**Ljulin Motorway – Sofia**Ring road to Daskalovo Junction

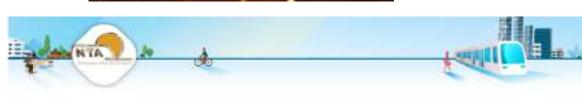


SEETO road route 4 investment plan Montenegro Bar — Boljare Motorway



Venezuela
Final designs for
hydraulic tunnel
Yacambu - Quibor





### Lithuania

Geotechnical predesigns for the foundation of the Chemical Plant Facilities of Herakles PTA — Plant





### Israel

Tunneling Experience Provider in the Prequalification Tender for the TEL AVIV LRT RED LINE PROJECT





**Cyprus**Pafos – Polis Motorway



### Romania



### Slovakia

Services and Technical Assistance for the Financing of the High Priority Flood Protection Measures from the EU Cohesion Fund / Feasibility Study of a Hydraulic Tunnel



Russia

Waste Disposal Facilities



- Comarnic Brasov Motorway
- Metro Line 5 Bucharest
- Constanta By-Pass
- Razoare Junction







Geotechnical, Geological, Structural Designs for:

Green & Tei Lake Development // Rehabilitation Project for Iacobeni — Sadova Motorway // Rehabilitation Project for Bistrita Nasaud / Suceava Motorway // Rehabilitation Project for Ilovita — Bahna — Ciresu Motorway





# 03. Experience Snapshots

Major

Greek

Infrastructure

**Projects** 











Elefsina - Korinthos - Patras - Pyrgos - Tsakona Motorway, Concession Project, Greece

Detailed tunnel designs, 4 Twin Bore Highway Tunnels, 10 km length

Detailed structural, geotechnical, geological designs for earthworks (cuts – embankments), global stability, lane covers, bridges, retaining walls, culverts & on site consultancy services

OmikronKappa
Consultance



Central Greece Motorway E65, Concession Project, Greece

Detailed tunnel designs, 4 Twin Bore Highway Tunnels, 14 km length & on site consultancy services



### Maliakos — Kleidi Motorway, Concession Project, Greece

Detailed tunnel designs, 3 Twin Bore Highway Tunnels, 21,5 km length

Detailed designs for earthworks (cuts—embankments), rockfall protection design, landslide rehabilitation, retaining walls, underpasses, culverts & on site consultancy services

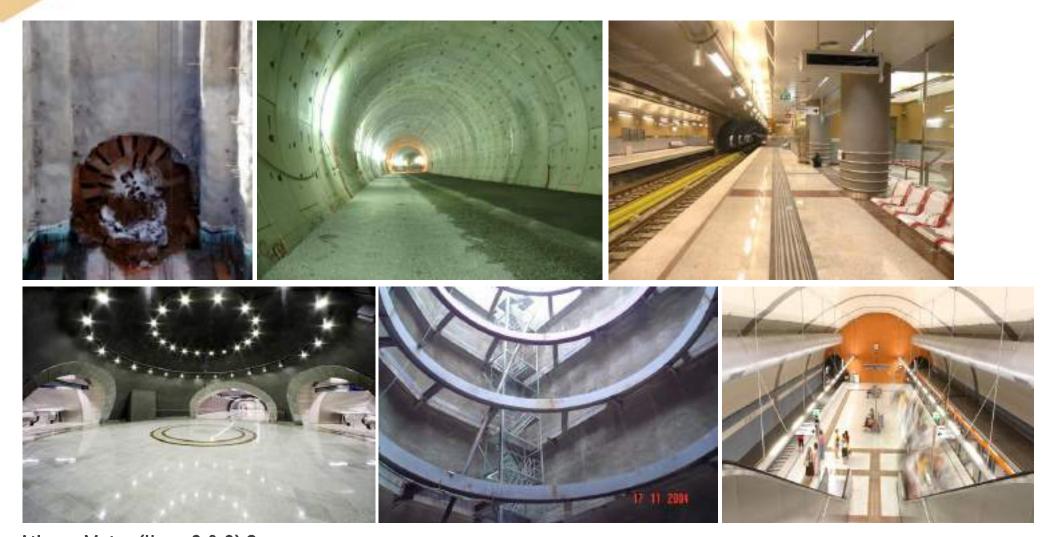












Athens Metro (lines 2 & 3) Greece

Detailed designs for tunnels 7km (TBM & NATM), 4 Metro stations, 8 shafts, excavations 500.000m<sup>3</sup>, retaining structures, on site consultancy services





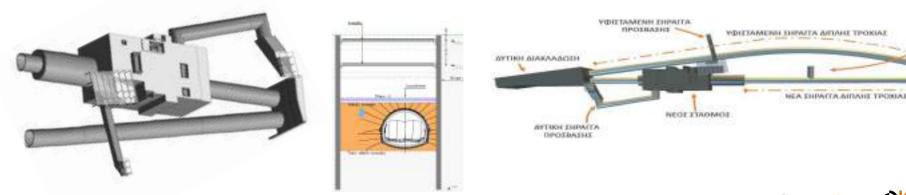
### Athens Metro Line 4 Greece

Tender predesigns for Athens Metro Line 4 /Alsos Veikou — Goudi for eight (8) NATM Metro Stations, one (1) Forestation, twenty (20) Shafts and one (1) TBM tunnel



### Athens Metro Line 3 Greece

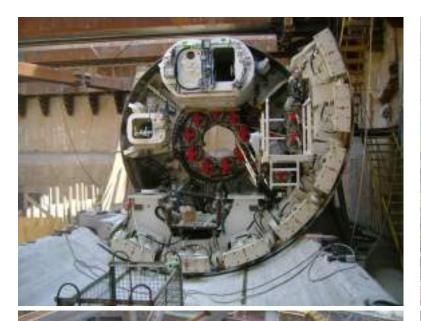
Feasibility Study for the construction of Metro Station "AUA Station" at the existing Metro Line 3 (Agia Marina — Doukissis Plakentias) of Athens Metro, located at the Agricultural University of Athens.







ANATOARH AIAKAAAREH







Thessaloniki Metro – Extension to Kalamaria, Thessaloniki, Greece

Detailed designs for

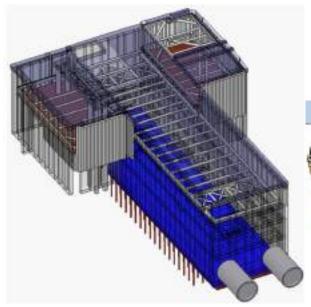
two (2) single track TBM tunnels 7km long

one (1) station

one (1) forestation

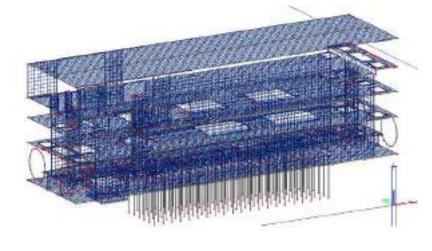












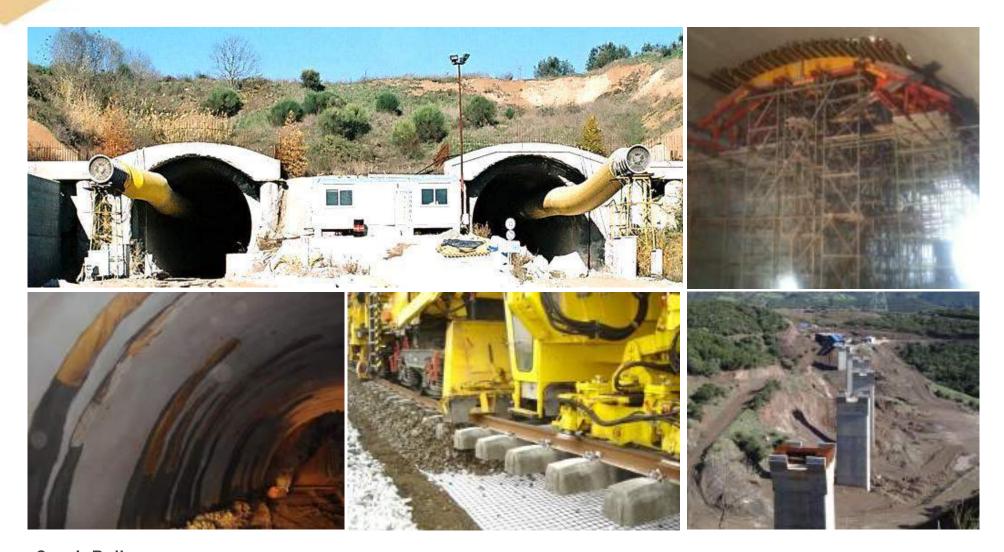
## Thessaloniki Metro Greece - Venizelos Metro Station

BIM Model elaboration of Venizelos Metro Station complex:

- Main box and two entrances, including Temporary Retaining Works and Permanent Structure
- South Entrance including
   Temporary Retaining Works,
   Permanent Structure and
   Reinforcement Detailed Design of Diaphragm Walls
- BIM implementation at construction stages simulation
- BIM Model of archaeological findings at the underground area integrated with the final project.
- BIM implementation at construction stages simulation.







**Greek Railways** 

Detailed designs for 15 tunnels 33km, retaining structures, embankments, cuts, bridges, retaining walls, cut & cover structures, on site consultancy services











Egnatia Motorway, Greece

Detailed designs for 12 tunnels 40km, retaining structures, bridges, shafts, cut & cover structures, on site consultancy services











**Greek Ministry of Public Works** 

Final designs for tunnels 30km total length, earthworks, rockfall protection, embankments, bridges, geological designs









### Dams — Hydraulic — Waste Disposal Designs in Greece

Final designs for dams (Aposelemi Dam — Crete, Setta Mania Dam — Evia) and other hydraulic and waste disposal works







# 03. Experience Snapshots

Project

Management

Services





### PROJECT MANAGEMENT SERVICES

### Greece

### **River West Mall Expansion**

Project Management (PM) Services for River West Mall Expansion and development of surrounding area Mouzaki.

The project involves the expansion of the complex's facilities as well as the development of its surrounding area (total expansion area 24.000 m<sup>2</sup>). Technical and Consultancy Services – Design Services.













Project Management (PM) Services for INFINITY TOWERS located at Amathus area of Limassol Cyprus. It is a luxury residential project developed on a prime 37,892 m² site in the area of Amathus on the Eastern side of Limassol. It consists of two (2) signature residential towers sitting atop a three (3) level podium, a landscaped public plaza with gardens showcasing the preserved and protected archaeological findings that lie beneath. Both towers accommodate 110 apartments







# 03. Experience Snapshots

Major

Mining

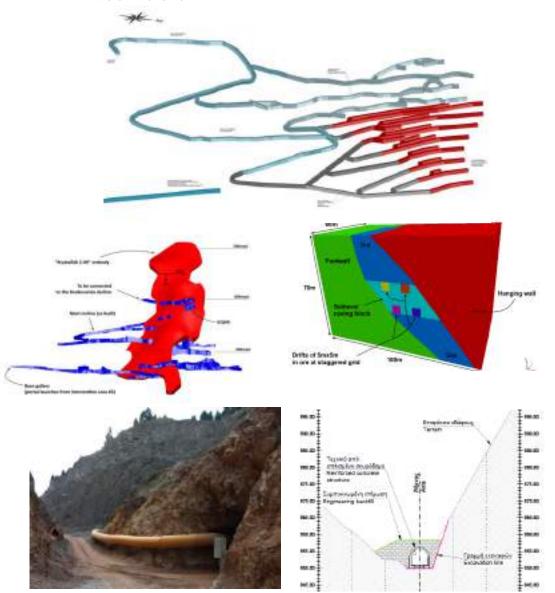
Projects





# Koukouvista 1A-5 & Krystallidi 2-49 Underground Bauxite Mines

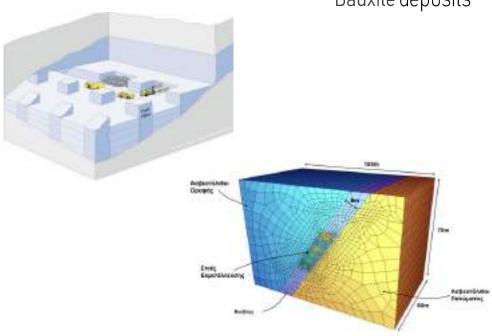
Design and Consultancy Services for the optimization / modification of the underground mining method of Bauxite Ore





# Underground Mining of Bauxite at "Kaniani Z" underground mine

Technical Study for the Underground mining of Bauxite deposits

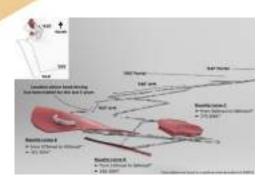


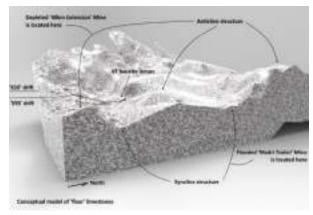
# Koukouvista 1A-5 Underground Mine Portal Area

Optioneering and conceptual design of solutions to safeguard access to the portal and dump areas





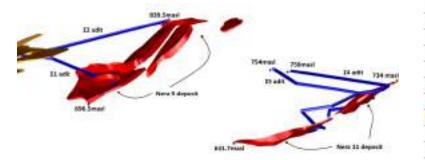


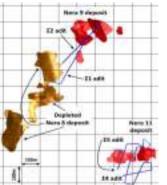


### Nera 9 & 11 Underground Mines

Optioneering methodology on potential mining scenarios to put the mines

into production the soonest possible





### Vorioi Fakoi Underground Mine

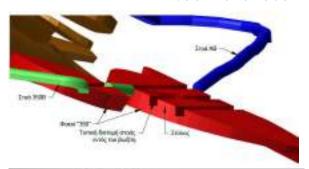
Calculation of groundwater inflows — Dewatering design

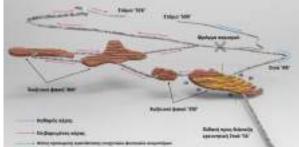




### S-SW Nera 3 Underground Mine

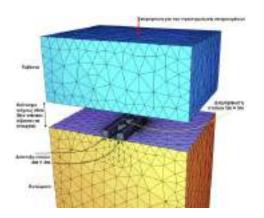
Mine design for permitting the development of newly discovered bauxite lenses



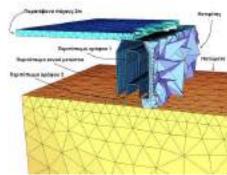


# Prefeasibility Study of Underground Mining of Nickel Mine Deposits in Evia Island

- Prefeasibility study for the potential of underground mining of nickel deposits
- Selection of the most suitable mine for the transition from surface to underground mining
- Geotechnical Investigation & Assessment
- Technical & Economical Analyses for the implementation of underground mining Investment viability













### Basic Engineering, Final detailed designs and Permitting studies of:

- 1. Kokkinolakas Tailings Management Facility
- 2. Skouries Tailings Management Facility

in Kassandra Mines Development in Halkidiki, Northern Greece









### Final detailed designs of:

Earthworks for the Skouries Process Plant in Kassandra Mines Development in Halkidiki, Northern Greece

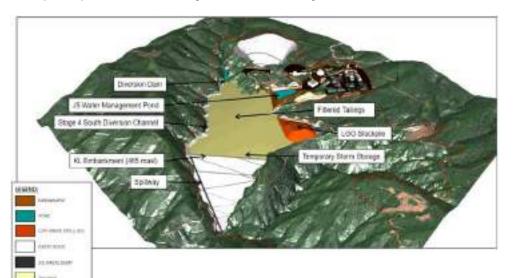
HELLAS GOLD (ELDORADO GOLD CA Subsidiary)



# Basic Engineering and detailed design for the Integrated Waste Management Facility (IWMF) at Skouries Gold project

to accommodate the filtered tailings (FT) (@86% solids w/w) from ore processing and waste rock (WR) surplus from the

open pit and underground mining:







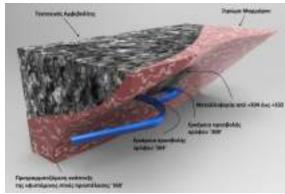


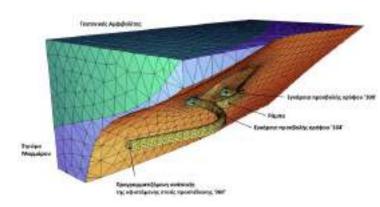
# Kassandra Mines Development in Halkidiki HELLAS GOLD (ELDORADO GOLD CA Subsidiary)

### **Mayres Petres Mine**

Special Feasibility Study for the investigation of Mavres Petres Mine expansion, above the absolute elevation of +300







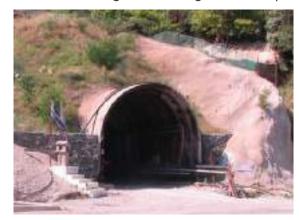
### **Mavres Petres Mine**

Final designs for a new access tunnel

Design of Kokkinolakkas' diversion tunnel for the protection of dry stacking Tailings Management Facility area, produced at Mavres Petres underground mixed sulphide ore mine

Technical economical feasibility study for the mining of underground deposits / Detailed technical & permitting mining design



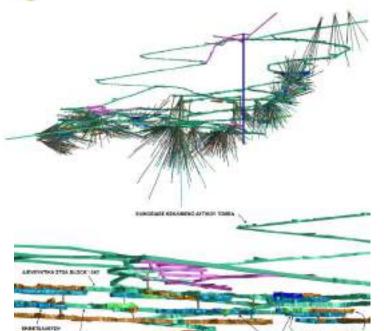


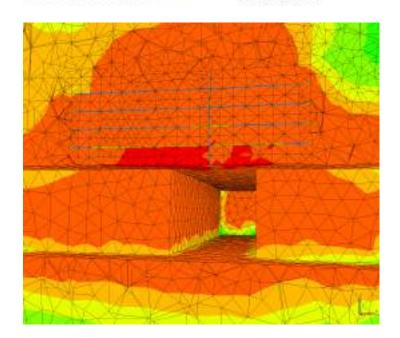






Kassandra Mines Development in Halkidiki HELLAS GOLD (ELDORADO GOLD CA Subsidiary)





### Olympias Mine

Special design for the determination of the minimum allowable strength of the backfilling material and elaboration of the related modification annex of the technical mining study for Olympias mine

### Olympias Mine

Modification of the technical mining study for Olympias Mine

Preliminary designs for Olympias mine main & secondary access tunnels

Technical studies and detailed designs for the construction permitting



















Construction Follow up (Design)
Services, Application Designs
and Development of Data
Management System for the
project:

"Construction of:

- 1. Olympias main tunnel
- 2. Olympias secondary access tunnel
- 3. Kokkinolakas diversion tunnel
- 4. Skouries spiral decline" (FIDIC Conditions of Contract)

Elaboration of Technical Studies and Designs for the Construction Permitting of the 1st Phase Works included in the Kassandra Mining Facilities Halkidiki

HELLAS GOLD (ELDORADO GOLD CA Subsidiary)





### Kassandra Mines Development in Halkidiki, HELLAS GOLD (ELDORADO GOLD CA Subsidiary)



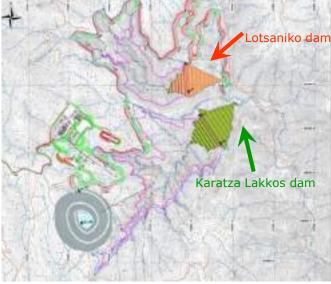


Final designs for a new inclined access tunnel in Mavres Petres Mine



Hydraulic tunnel for the diversion of Kokkinolakkas stream





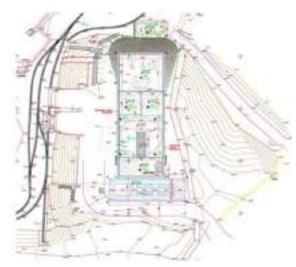
Permitting design of the tailings dams in Skouries mine



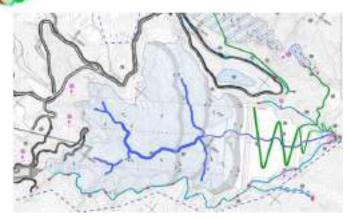


# Positioning and Foundation Pre-Design of Skouries Ore Processing Plant





New unit of water processing for the mining waters of "Mavres Petres" (construction of tanks and installationoperation of filter press)



Filtered tailings dry stack pre-feasibility study at Skouries to include Tailings Storage Facility (TSF) and Waste Rock Dump (WRD) sites



Design of the inclined exploration adit in Skouries TVX GOLD





Preliminary assessment of the mining value of magnesite mines, Greece, TERNA



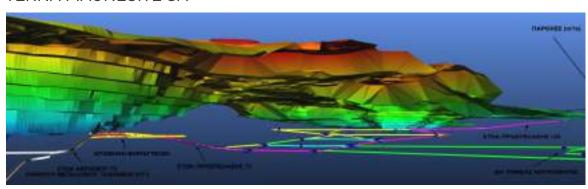
### Perama Hill Gold Project - Mine Waste Management Facility (MWMF)

Front — End Design of the Mine Waste Management Facility (MWMF) Geological - geotechnical interpretation report of Perama Hill process plant Detailed engineering design of the main access road to the plant site THRACEAN GOLD MINING S.A.



### "Xomandri" and "Kakavos 5" Mines

Feasibility Study, Detailed Design, Environmental Impact Assessment and Mining Study of Underground Magnesite Deposits TERNA MAGNESITE SA





### Achlada lignite mines Reserves estimation Mining design TERNA – AKTOR







TITAN, Feasibility study for the construction of a 240 acre water basin at the clay quarry of Skourta mine, Viotia



TITAN Antea Cement Plant Facilities Albania

VIOLIGNIT, Slope stability for the open pit mine at Vegora area



AGET IRAKLIS, Cement plant facilities drainage system Chalkida







### Vevi Lignite Mine

Detailed business plan to explore and exploit Vevi lignite mine. AKTOR



### Kastri Quarry

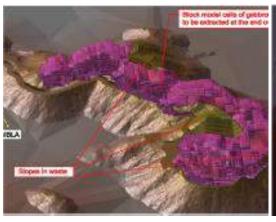
Evaluation and Assessment of "Kastri" Calcium Carbonate Industrial Mineral Quarry Veria, AKTOR — Hellenic Quarries

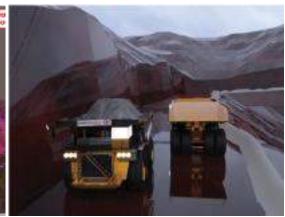




### **Oman Quarry**

Khatmat Malaha, Oman — Quarry Development and Operation . <u>Tender designs</u>: Mining design, access roads and connections AKTOR — General Engineering Technologies / G.E.T.



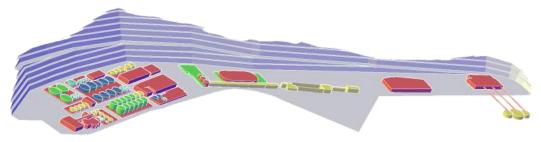


Detailed designs for the arrangement, construction and operation of the landfill facilities for a new waste disposal unit, Greece, HELEKTOR





General & Detailed Design Bauxite Red Mud Dry Stack Deposit Viotia, MYTILINEOS Group of Companies





### Prosilio Mine, Kozani

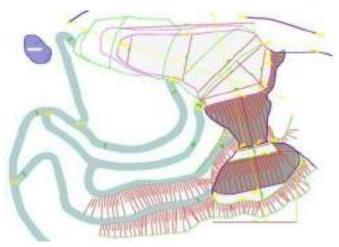
Underground & surface mining of the lignite deposits / Geotechnical design of access & transverse connection galleries, METE







Ag. Nikolaos Viotia Processing Facilities: new facilities of bauxite processing, red mud disposal, MYTILINEOS Group of Companies



"Kleisoura" Open Pit Mine Rehabilitation, Parnassos, MYTILINEOS Group of Companies





### Milos Island, S&B INDUSTRIAL MINERALS



Final geotechnical landslide designs and slope stability designs of **Aggeria open pit mine** 



Bentonite open pit mine designs in **Aggeria area** 

Pre-design of 4 vertical shafts for bentonite storage





Technical mining designs and environmental impact assessment studies of open pit mines:

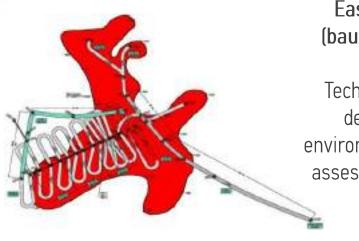
- Tsigrado pearlite open pit mine
- Trachilas pearlite open pit mine

Hydrogeological studies in the areas of Saint Irini - Aggeria - Koufi bentonite open pit mines





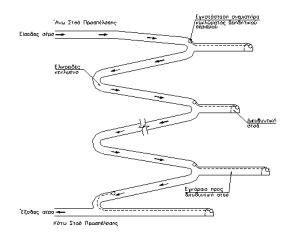




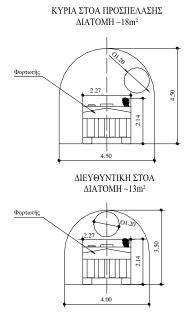
East Kefali 90
(bauxite open pit mine)
Technical mining designs and environmental impact assessment studies

"Aspro Chorio" Milos Environmental Impact Assessment Studies

**S&B INDUSTRIAL MINERALS** 



Parnassos Bauxite Mining Works
Technical — Economical Mine Design
Koukouvista 5A & 1B / Kristalidi 2





Itea bauxite processing plant
Final design of a road tunnel for the connection of
the logistics facility with the plant







# Common Vision





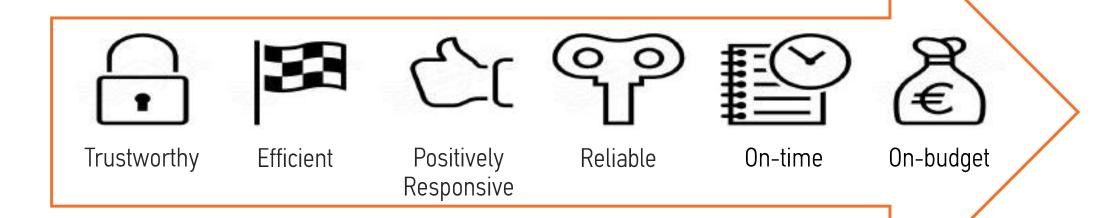








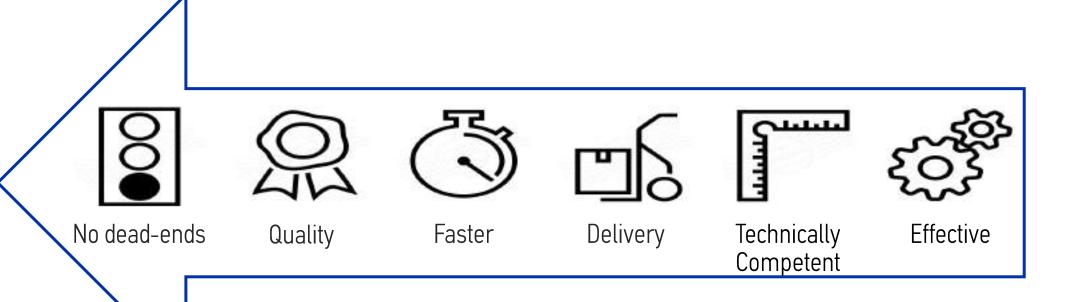






















- Explore the possibilities to enhance cooperation and to detect the optimum pattern to realize this in terms of reliability and "win to win" strategies
- Value engineering approach tailor made designs
- Targeted tendering of forthcoming projects
- Effective contribution to the successful completion of the currently running projects











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