



Ministry of Industry
& Mineral Resources

The Mining Sector:

Third Pillar of Saudi Arabia's Industrial Economy

Overview on Mining Strategy and Key Initiatives

January 2024

Deputyship for Mining Development

Saudi Arabia is a leading G20 nation that continues to demonstrate robust economic growth

1st

population growth rate over the next 5 years among G20

25.88%

share of Investments to GDP, 6th among G20

2nd

Largest GDP per capita (PPP) among the G20

2nd

highest Road Connectivity Index worldwide, trailing USA

48%

of the GCC economy

4%

CAGR over the past 10 years

18th

largest economy in the world



ACHIEVEMENTS SO FAR FRPM VISION 2030..

A VIBRANT SOCIETY

10.1%

Unemployment rate in Q1 2022
decreased from 12%

2.3%

FDI as % of GDP in 2021
up from 1.3%

60%

Home ownership achieved in
2020 from a baseline of 47%

A THRIVING ECONOMY

\$57.1BN

non-oil government
revenue in H1 2022
up from \$43 bn

33.6%

Saudi women's participation in the
workforce in Q1 2022 up from 22%

AN AMBITIOUS NATION

\$620BN~

Public Investment Fund's assets
under management by the end of
Q1 2022 up from \$160bn

409K

The number of volunteers
annually in 2020 from a baseline
of 11,000

Mining Sector in Saudi Arabia relies on 3 sources of competitive advantage creating massive opportunities across many industries



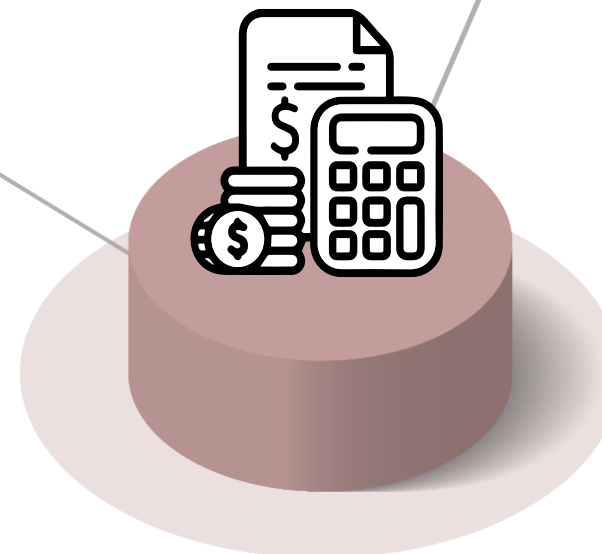
Geological Endowment

\$1.3 Trillions of Mineral Reserves value



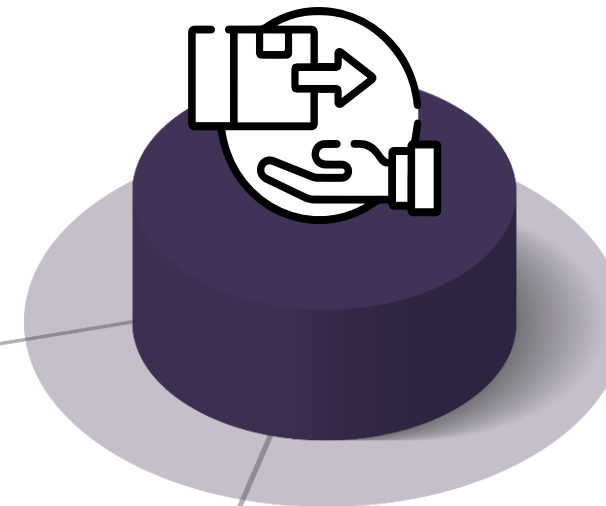
Cost Advantages

e.g. Energy, Natural Gas, Water, Infrastructure

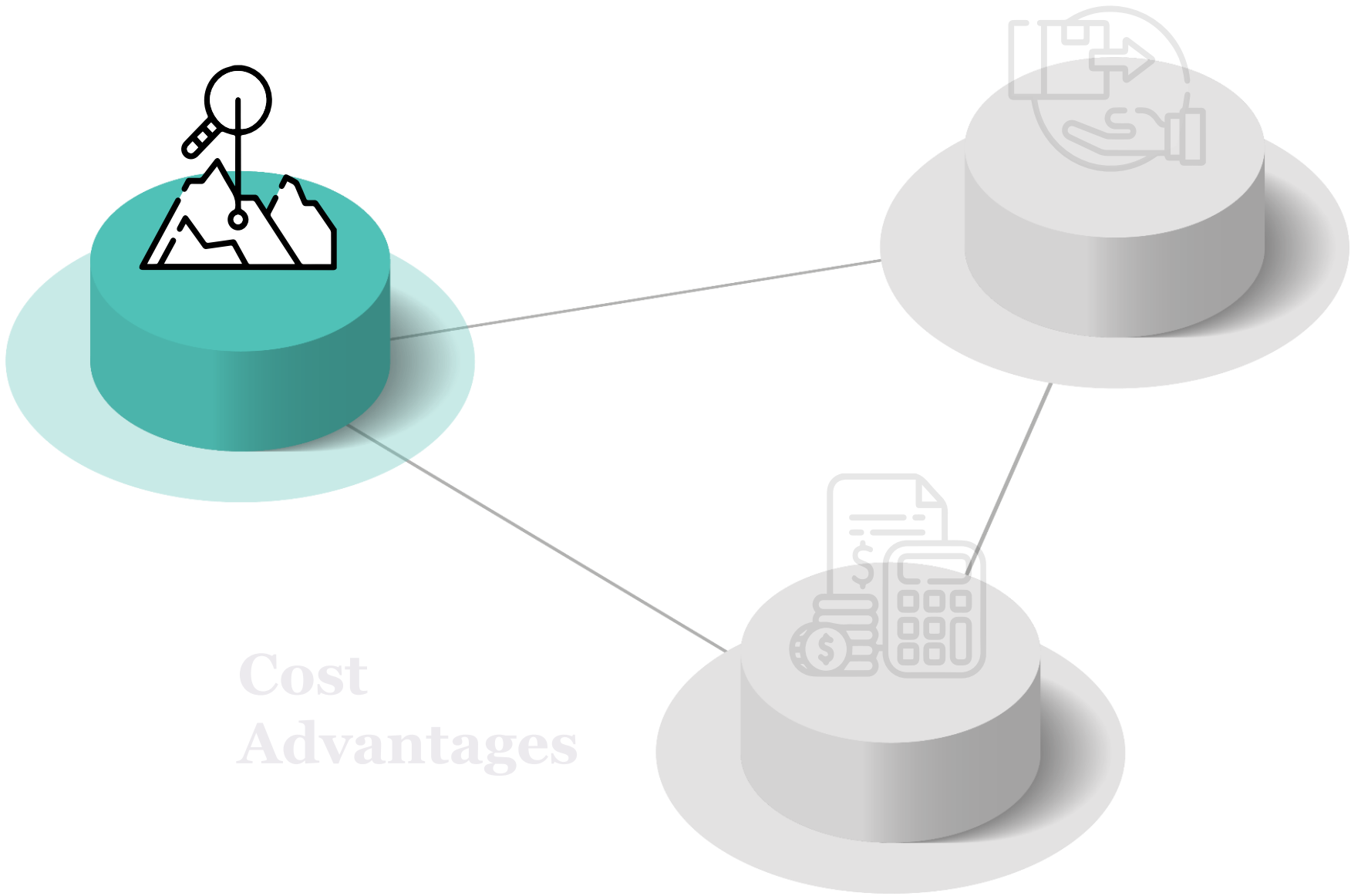


Local Demand

11 mega projects, exceeding US\$1 trillion



**Geological
Endowment**



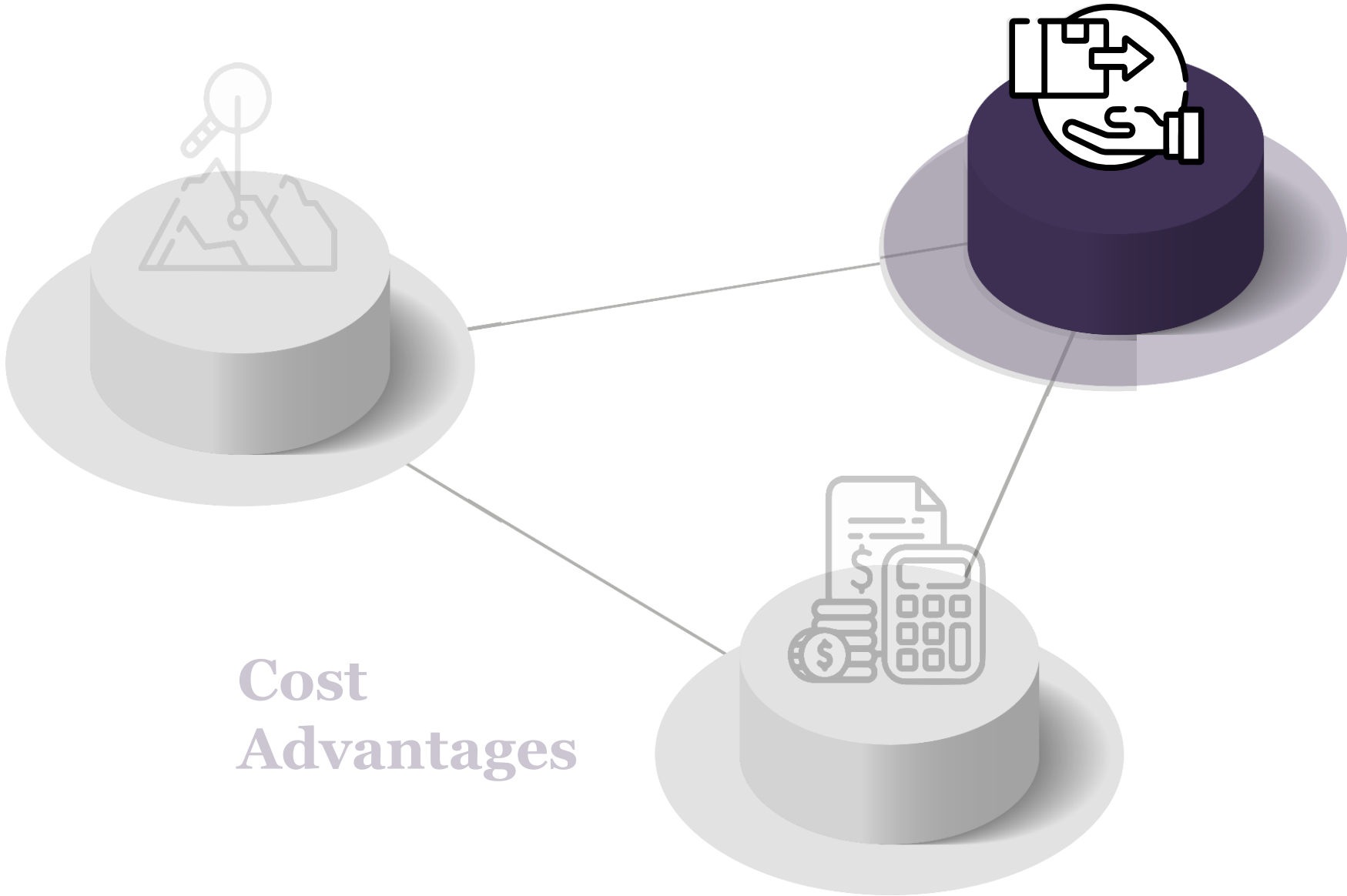
**Local
Demand**

**Cost
Advantages**

Geological
Endowment

Local
Demand

Cost
Advantages



Saudi Arabia has a substantial and rapidly growing demand, matched by exceptional growth in supply.

Overview of KSA demand trends

Large demand

Saudi Arabia has large demand for mineral products as indicated by its ranking in mineral consumption.

#2 in precious metals

#3 in copper

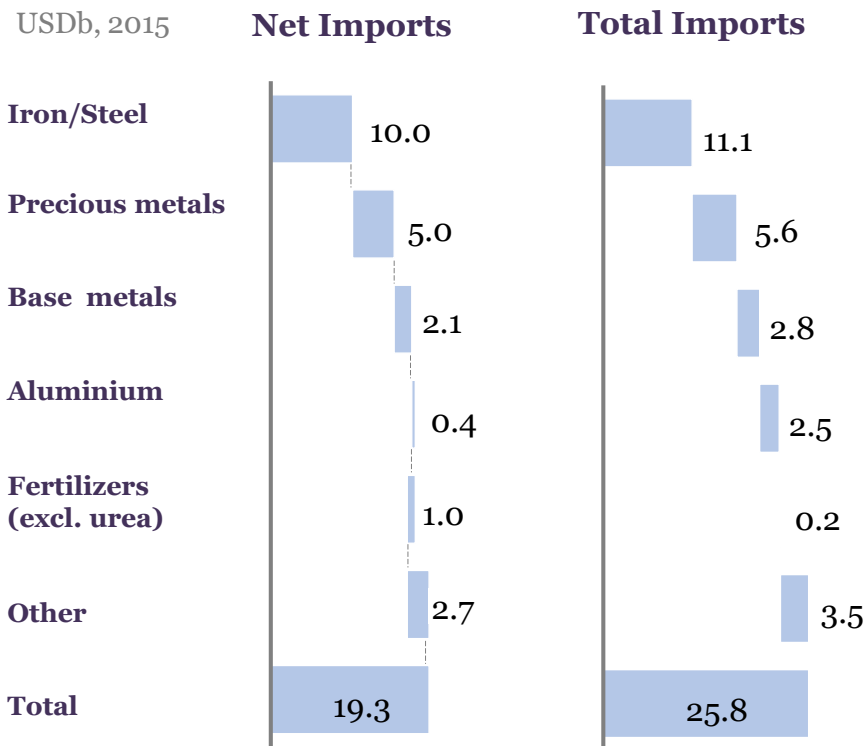
#5 in ceramic tile

#12 in sodium carbonates

#15 in steel and aluminum

Supply gap

Demand exceeds local supply, reflected in a large amount of imported resources. leading to multi-billion-dollar investment opportunities and value chain integration



Projected growth in demand

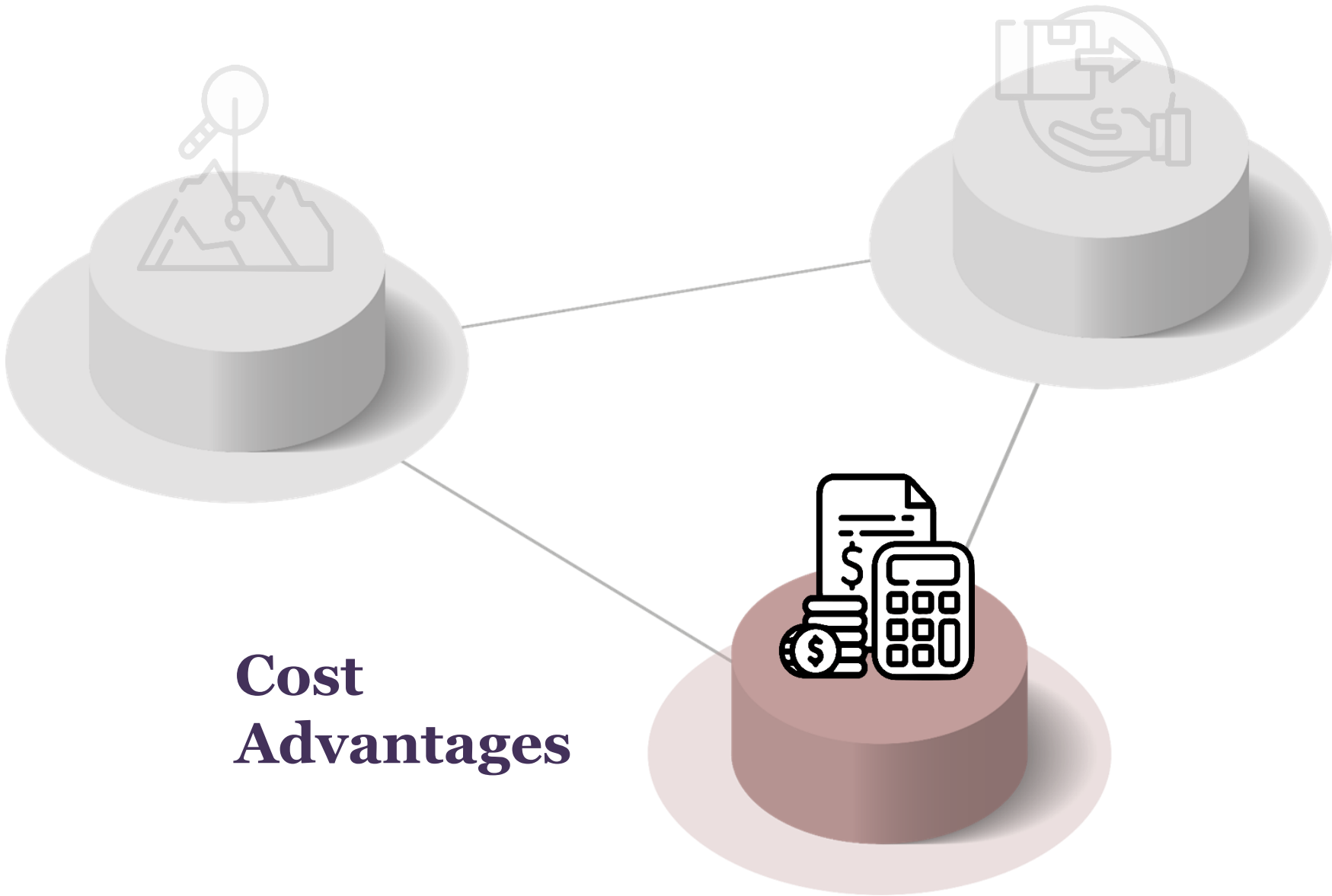
Demand across many value chains is rising due to economic and industrial growth, supported by mega and giga projects, new local content policy and localization programs.



Geological
Endowment

Local
Demand

Cost
Advantages



The Kingdom offers additional incentives and enablers to attract mining investments

Up to **75%**

Co-funding CAPEX

5 Years

Royalty fees exemption

30%

Discounts for each local downstream processing up to 90%

20%

Corporate TAX

100%

foreign direct **ownership** allowed

Additional initiatives:



- Human Resources Development Fund (HRDF) covers monthly salaries of up to 30-50 % for Saudi employees (extra 10 % for females) for 2 years



- Customs duties exemptions on imported machinery, equipment, raw materials and spare parts if they are for industrial use

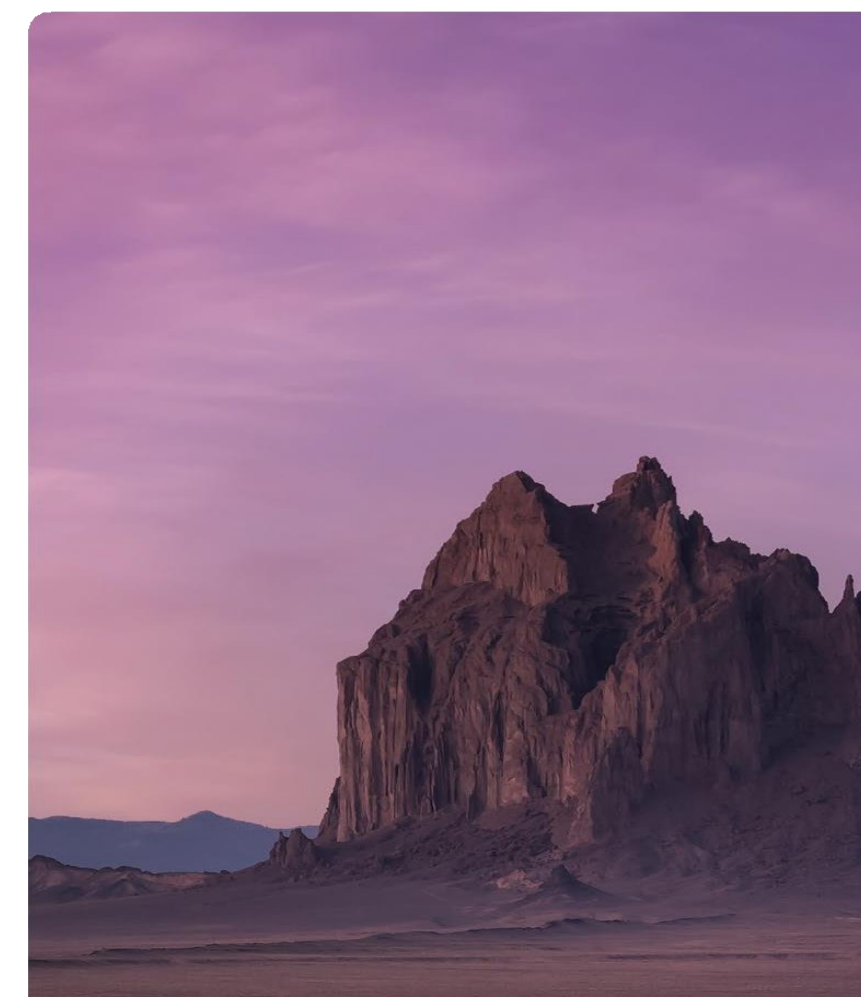
Local content Initiatives programs:



- IKTVA is a program created by Saudi Aramco to baseline, measure and support increased levels of localization in the Kingdom



- Nusaned by SABIC a program that brings together the public and private sector, helping small and medium sized enterprises (SMES) get started while enabling more established ones to grow further






Access to world class industrial infrastructure



40+ locations across the Kingdom with competitive land & utility prices



| Authority | Utility | Rates |
|--|-------------|---|
|  Modon 35+ Cites | Land lease | Starting at \$0.3 / m ² |
| | Water | <ul style="list-style-type: none">• Drinking Water: \$ (1-3) /m³• Waste Water: \$ (0.7-1) /m³• Renewable Water: \$ (0.5-0.9) /m³ |
|  Royal commission of Jubail & Yanbu 4 Cites | Land lease | \$ 1.2 /m ² (15-30 years) |
| | Water | <ul style="list-style-type: none">• Seawater cooling: \$ 16.8/1000 m3• Process water (Yanbu): \$ 2 /m3• Sanitary Wastewater (SWW): \$ 0.8 /m3 |
|  Water & Electricity regularity authority | Electricity | <ul style="list-style-type: none">• Conventional industries: \$ 0.048/kwh• Intensive industries* :\$ 0.032/kwh |

* Industries whose percentage of el`ectricity cost to operating costs without raw material costs is (20%) or more. *



Mining under Vision 2030



- Ambitious Plan
- Major initiatives
- Mining Platform
- Mining Law
- Mineral Exploration opportunities

The mining sector is set to become the 3rd Pillar of the Saudi Industry by 2030





Saudi Arabia's ambition is to achieve tremendous growth to become a leading player in several mineral value chains globally

Fertilizers



Among top 3

Increasing production to over 7.5 million tons (P2O5 basis) to become a top 3 global phosphate producer

Copper



3x mining output

Increasing mining output 3 times while creating fully-integrated value chain

Ceramics



Among top 10

Achieve self-sufficiency in ceramic industry across application markets

Other

New value chains

Expansion in new value chains (uranium, rare earth elements, energy transition minerals (Lithium, Cobalt, etc.), Niobium / Tantalum, basalt fibers, mineral-based catalysts)

Aluminum



Among top 10

Become a top 10 producer of primary aluminium metal and an exporter of high value added downstream products

Gold



3x mining output

Increasing gold mining output over 3 times relative to today

Inorganic compounds



Pioneer in Innovation

Becoming an innovator in inorganic chemical manufacturing

Titanium



Among top 3

Increasing sponge production to become a top 5 global titanium metal producer

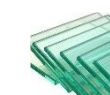
Iron



2x in production

More than doubling the production of steel to meet full long steel demand and 80%+ self-sufficiency in flat products

Glass



2x in production

Maintain current net export position in float glass and container glass while achieving self-sufficiency in fiber glass

Saudi Arabia is already a major metallic commodity producer, yet there is potential to further develop and integrate value chains

Metals

| | Upstream | Midstream | Downstream | | | |
|---|--|---|--|--|--|--|
|  Iron |  – No Current Mining Production |  – Crude steel output of between 12 - 13 million tons per year |  – Local production focuses on rebars while more than 50% of flat steel products imported | | | |
|  Aluminum |  – Current production is a fully integrated Aluminum value chain |  – An integrated plant (Alumina and Primary Aluminum) with a production capacity around 1 Mn tons |  – Local production focuses on extruded products and can sheet – Future high potential demand for Automotive and other high specialty products | | | |
|  Copper / Zinc |  – Production of ~ 100K tons/year – Tremendous untapped resources |  – No zinc and/or copper smelting or refining |  – Significant wire and cable production – Limited production of flat and other long products | | | |
|  Titanium |  – Potential resources of Ilmenite of with initial resources estimation of 191 million tons – No mining production |  The kingdom is 5th Titanium Sponge producers globally – Titanium slag (500 ktpa) – Titanium dioxide (140 ktpa) – Titanium sponge (15 ktpa) |  – Large existing pigments industry. – No production of Titanium metal downstream products. | | | |
|  Precious metals (Gold) |  – Tremendous untapped resources – Production reached 500K ounces/year |  – No current accredited local gold refinery |  – Importing a large share of gold to meet local demand | | | |
| | % local production of local demand |  No production |  Less than 25% |  ~50% |  ~75% |  100% or exported |

Also, Saudi Arabia is playing a major role in non-metallic commodities, at both local and global scales, with growth potential



The newly introduced mining regime is aligned to global benchmarks to deliver concrete outcomes

Participants in
developing
new Mining Law



Governance & Transparency

- Allows **100% foreign ownership**
- Improves the **investor journey** and utilizes technologies to increase efficiencies
- Transparent technical guidelines and **licensing process**

Investment Attractiveness

- Enshrines **security of tenure** for investors
- Permits mining **license mortgage**
- **Extended** exploration license **duration**
- Offers a competitive **mining fiscal regime**

World-class Sustainability

- **Provision of security for rehabilitation costs** – Flexibility based on creditworthiness (e.g. parent guarantee vs. escrow)
- **Mandatory plan for community engagement** and local content
- **Streamlining of environmental and social reporting requirements**

An online portal that brings together in one place more than 80 years' worth of geological and geochemical data of the Arabian Shield



>99% of the licensing procedures follow 1st come 1st serve basis



هيئة المساحة الجيولوجية السعودية
SAUDI GEOLOGICAL SURVEY
www.sgs.org.sa



Ministry of Industry
& Mineral Resources

Exploration licensing rounds

Success Stories

A success story: The Kingdom's first licensing round at Khnaiguiyah has been awarded in a record 8 months following a fully transparent process

Khniaguiyah licensing round overview

The Kingdom's first mineral licensing round for Khnaiguiyah opened a **new chapter in our journey towards unlocking our country's vast mineral resources** by fast-tracking exploration activity



353.85 KM²

License area
to be allocated



>100,000M

Drilling



04

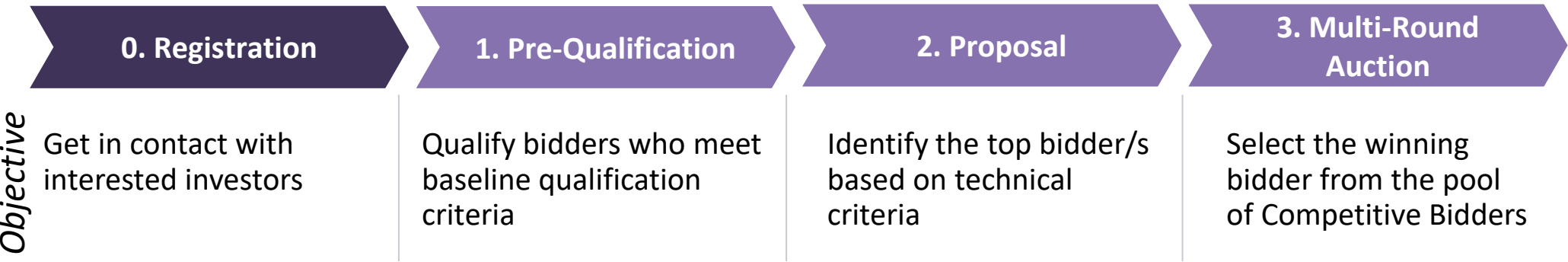
Mineralized bodies
within ~10km²



24.8MT @
4.11% ZN 0.56%CU

Mineral resource
(non-compliant) Zone 1-4

Khniaguiyah licensing round transparent process overview







Source: Ministry of Industry and Mineral Resources

Khnaiguiyah exploration is to be awarded to Ajan & Bros Holding and Moxico Resources consortium



Consortium commitments:

-  Drilling more than 90,000 in meters
-  Production stage in approx. 3 years
-  Health program to cover local medical needs
-  New school building

A success story: The Kingdom's second licensing round at Umm Ad Damar has been awarded in 6 months following a fully transparent process

Umm Ad Damar overview

Umm Ad Damar is an **early exploration project** hosted in area of the Sayid Formation of the Arj Group, with geological similarities to the Jabal Sayid deposit



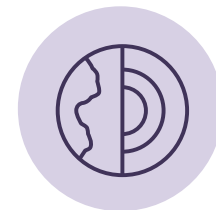
40 KM²

License area allocated



Cu/Au/Ag/Zn

Commodities



4

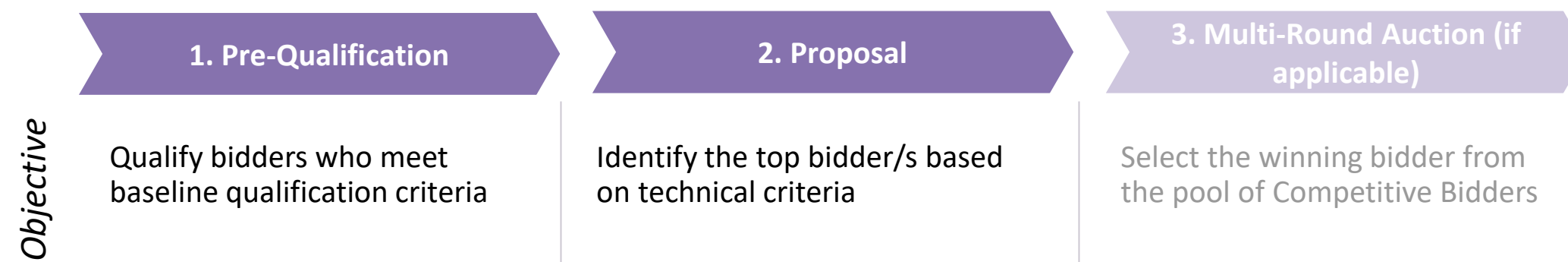
Mineralized prospects
within ~30km²



**0.86 % Cu for
110,000 tonne/slag**

Umm Ad Damar licensing round transparent process overview

Umm Ad Damar licensing round ended at the proposal stage given no proposal scored in a comparative range from the top bidder



Source: Ministry of Industry and Mineral Resources

Umm Ad Damar exploration is to be awarded to Saudi Arabian Mining Company and Barrick Gold T7



Consortium commitments:

- Drilling more than 54,000 in meters
- Upgrading the local technical college
- On-the-job training of six undergraduates
- Sponsorship for a school science program

Exploration licensing rounds

Licensing Rounds

Overview of the 5th round of Exploration licensing in KSA, Q1 - 2024

| | Al miyah | Makman Hijab | Jabal Qarn | Halahilah | An Namas | Alhijrah |
|----------------|--------------|--------------|--------------|---------------|--------------|--------------------|
| Mineralization | Cu/Au/Zn | Ag | Au/Cu/Pb | Zn/Cu (Pb/Au) | Au/Ag/Cu | Au/Ag/Cu/Zn/Pb/ Ag |
| Location | Makah | Riyadh | Najran | Asir | Asir | Asir |
| Size | 237 km2 | 118 km2 | 46 km2 | 34 km2 | 222 km2 | 274 km2 |
| Bidding stage | Registration | Registration | Registration | Registration | Registration | Registration |

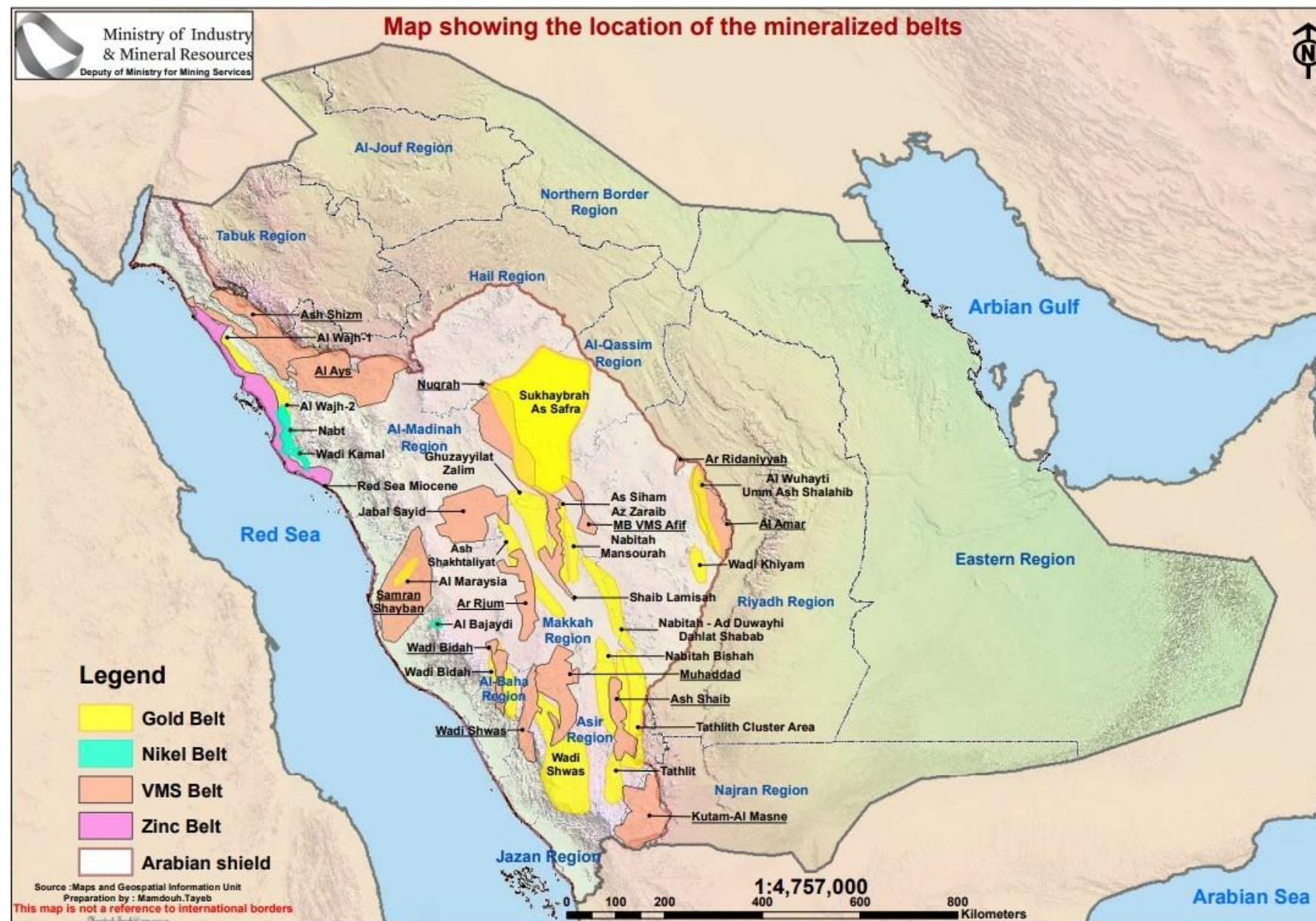
Future rounds of Exploration licensing in KSA Q2-Q4 2024

| # | Site Name | Region | Area (Km2) | Major | Minor | Minor2 | Minor3 |
|----|---------------------------------|---------|-----------------|----------|----------|----------|--------|
| 1 | Samrah | Riyadh | 291 | Silver | Lead | Zinc | |
| 2 | HAZM SHUBAT | Makkah | 93 | Gold | | | |
| 3 | SHAIB MARQAN | Riyadh | 92 | Gold | Copper | | |
| 4 | Shuaib Al-Lewi | Madinah | 92 | Lead | Zinc | | |
| 5 | Wadi Khyam | Riyadh | 92 | Gold | Zinc | Silver | Copper |
| 6 | Al Kushaymaiyah | Riyadh | 30 | Lead | Silver | Zinc | |
| 7 | WADI AD DAWSH (AL FARAH) | Asir | 94 | Gold | Silver | Copper | |
| 8 | WADI AL JUNA | Asir | 94 | Silver | Copper | Zinc | Gold |
| 9 | Wadi Al Lith | Makkah | 93 | Copper | Gold | | |
| 10 | JABAL MINYAH | Riyadh | 90 | Gold | Tin | Tungsten | |
| 11 | Ad Dimah | Makkah | 93 | Copper | | | |
| 12 | Umm Qusur | Riyadh | 20 | Gold | Silver | Lead | Copper |
| 13 | DILAN SUMAR AL HAR (JABAL AQAB) | Hail | 89 | Copper | Gold | Silver | Lead |
| 14 | Al Numrahniyah | Madinah | 103 | Gold | Silver | Lead | |
| 15 | Jabal al Khekah North | Riyadh | 98 | Silver | | | |
| 16 | Jabal Baudan | Makkah | 93 | Copper | | | |
| 17 | ABRAQ ABBAB | Riyadh | 92 | Gold | | | |
| 18 | Ashab Adh Dhiab | Riyadh | 57 | Gold | Copper | Zinc | |
| 19 | Jabal al Khelah South | Riyadh | 19 | Silver | | | |
| 20 | Jabal Al Sairah Al Baida | Asir | 3 | Quartz | | | |
| 21 | Al Kushbi | Riyadh | 157 | Gold | Silver | | |
| 22 | Jabal sabha | Riyadh | 121 | Cobalt | | | |
| 23 | As Shumta | Riyadh | Under expansion | Gold | Sliver | | |
| 24 | Shaib Abu Marwrah North | Riyadh | Under expansion | Sliver | Copper | Lead | Zinc |
| 25 | Shaib Abu Marwrah South | Riyadh | Under expansion | Sliver | Lead | Zinc | |
| 26 | Jabal Ketnah | Najran | 99 | Gold | Copper | Zinc | |
| 27 | Jabal Idsas | Riyadh | 55 | Iron ore | Vanadium | Gold | |

Exploration licensing rounds

VMS Belt

The Arabian shield includes 35 Mineralized belts covers around 14% of the Kingdom's area, 15 of them are Sulfides belts with VMS deposits



KSA Mineralized Belts

 Covers around 305,000 sq km

 About 75% of the mineral resource in the Kingdom

 16 belts for gold, 15 sulfides belts, 3 Nickel belts and one Zinc belt

 9 belts are in the west part of the Arabian Shield

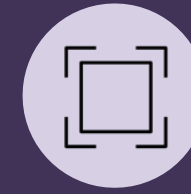
Jabal Sayid VMS Belt which includes an available area of more than 4,000 sq.km



Zn/Cu/Au
Commodities



Exploration stage
Early exploration



4,327 KM²
Available belt area



Mines and projects
Jabal Sayid mine



1954-1994

ARGAS, BRGM, USGS and
Riofinex explore



150 KM

Located NE of Madinah



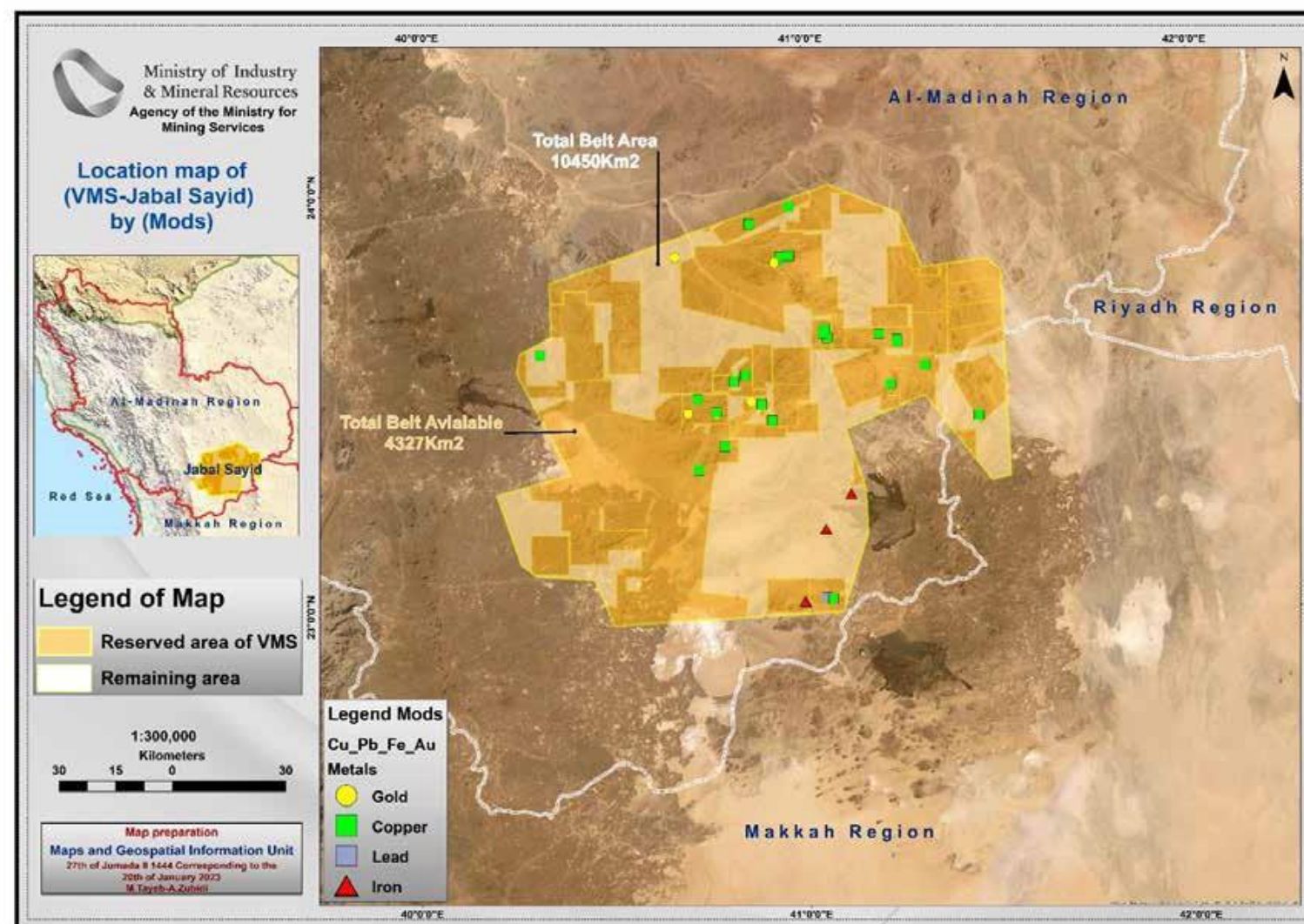
**Exploration
activities**

Geological mapping and
Geophysical survey



Nearest airport/ Port

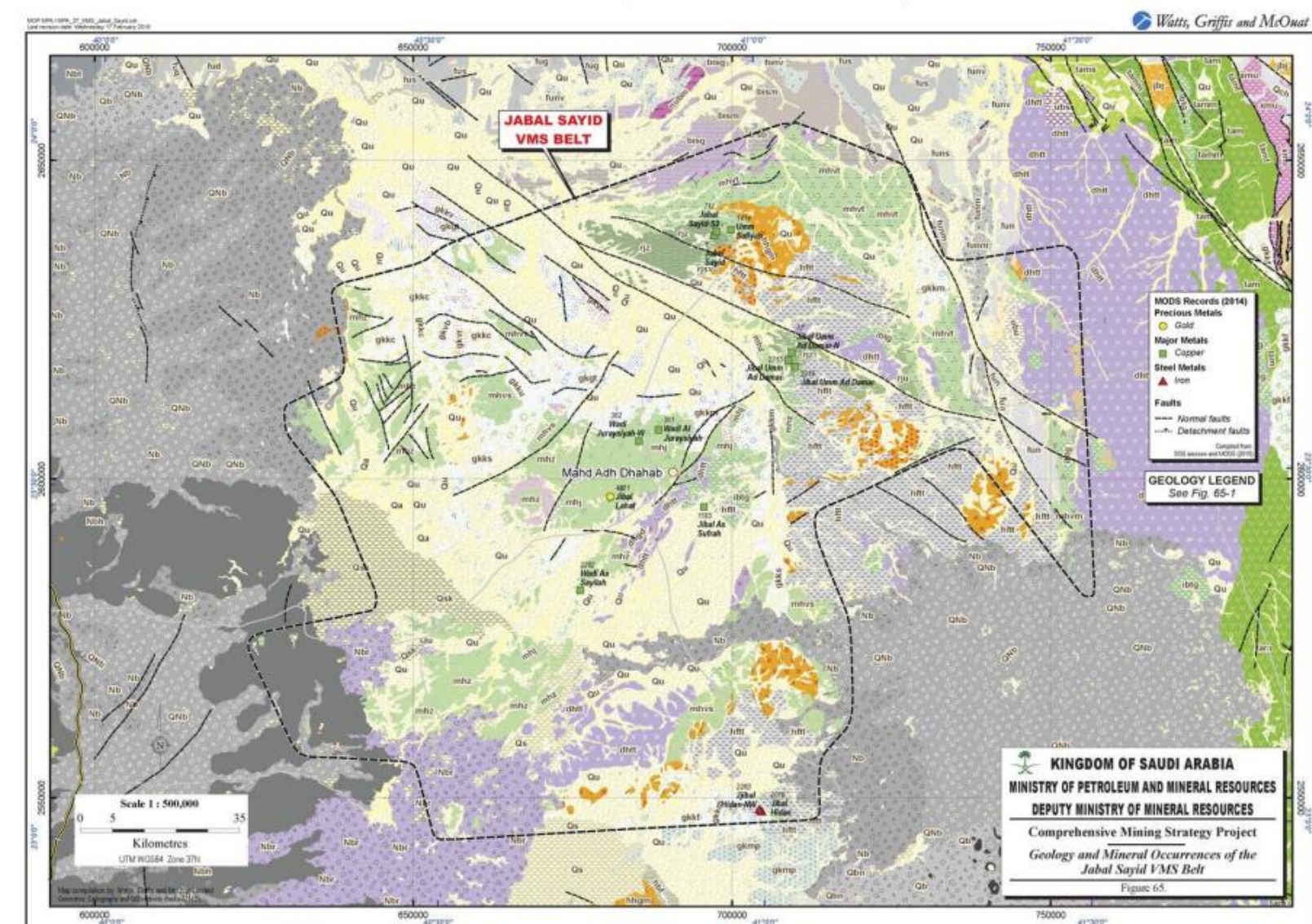
Madinah 150 KM
Yanbu 350 KM



Geology and Minerals Occurrences of the Jabal Sayid VMS Belt.

Geology & Mineralization

- The Jabal Sayid belt contains two known VMS deposits of which the Jabal Sayid Mine is developed on a large world class deposit that is currently in production, and the Umm ad Damar deposit that is not yet being exploited at this time. Jabal Sayid Belt is a copper-rich, volcanic-hosted sulphide deposit, hosted by felsic volcanic rocks that include extrusive, intrusive and fragmental rhyolites. The host rocks are NE-trending and dip almost vertically.
- Aside from the producing Jabal Sayid Mine the most prospective occurrence is at Umm Ad Damar. The mineralization is hosted by the Arj Group of volcanic and associated rocks near the margin of a paleohorst at the intersection of two depositional troughs filled with felsic to intermediate lavas and associated pyroclastic rocks (Beziat and others, 1989).
- The mineralization at the Umm ad Damar North prospect occurs at the top of a felsic volcanosedimentary unit which is underlain by dacitic to andesitic volcanic rocks and overlain by mafic to intermediate volcanic rocks. In the vicinity of mineralization, fragmental lithologies result from explosive volcanic activity predominate (Ransom, 1982). In this sense, the setting is classic Kuroko-type volcanism. The top of the host unit is marked by thin and discontinuous chert, jasper and carbonate beds together with an associated pyrite-rich graphitic zone (Howes, 1984). Mineralization is spatially associated with the intersection of north and northeast-trending features. These structures overprint easterly striking fractures and north-easterly trending penetrative schistositys. Continuity is broken by later north-south faults, northeast-trending shears, and northwest-striking Najd faults.



Exploration Incentives Program (EIP)

Exploration Incentives Program (EIP)

The Program will be launched in April 2024

Promoting the pivotal role of mineral exploration in fueling economic growth and local content and fulfilling its commitment to the objectives of Saudi Vision 2030, the Ministry of Industry and Mineral Resources (MIM) in association with Ministry of Investment (MISA) has unveiled a transformative initiative—the **Exploration Incentives Program**.

The focus of the program will be on Greenfield Exploration sites for companies with an active exploration license in the Kingdom with less than 5 years duration.

The Exploration Incentives Program has been designed to attract mineral exploration companies to de-risk mineral exploration activities in strategic and critical minerals in KSA and partake in a shared journey of knowledge exchange and mutual growth. This will increase the geological understanding and accelerate new discoveries in the Kingdom.

- Budget of **685 million SAR** for the entire program (2 Mn \$ per license)
- The program will run from **2024 to 2030**

Incentives Under the Program

| Cost Items | Threshold, % | Cap, SAR |
|--|---|--|
| Drilling, Lab Testing and Geoscientific Studies | Up-to-25% of total drilling, lab testing and geoscientific studies costs | 4 million (max 15 applications per company) |
| Talent / Labor | Up-to-15% of salary costs of employees’ resident in KSA | 1.5 million (max 5 applications per company) |
| Talent / Labor: Additional cash incentive to cover local salary costs beyond HRDF coverage | (70% of total local salary costs in the first 2 years) (100% of total local salary costs post 2 years) | 1.5 million (max 5 applications per company) |
| Total | 20-25% of total costs | 7.5 million |

- The total Cap per exploration project is up to **7.5 million SAR**.

Unveiling Saudi Arabia's New Mineral Exploration Incentives Package

Ministry of Industry and Mineral Resources and the Ministry of Investment launched a Mineral Exploration Incentives package to foster exploration activities in KSA.

Objectives:



Stimulate mineral exploration activities in strategic and critical minerals in KSA



Enhance geological knowledge with at innovative data acquisition with world class standards



Identify new frontiers of mineral potential on green field areas



Expand the capability local talent in the field of exploration

Eligibility Criteria:

1- Active Mineral Exploration License.

- Valid Exploration license with less than 5 years.

2- Comprehensive Greenfield Exploration Program.

- Specify minerals selected and activities to be undertaken
- Identify outsourced activities and talent requirements
- Provide a detailed budget breakdown

3- Priority Class-A Minerals Focus.

- Select minerals for exploration from the prioritized class-A list (e.g., Copper, Lithium, Nickel)

4- Local Capability Building.

- Commit to nurturing local talent and expertise in the mining sector

5- Commitment to Local Service Providers.

- Prioritize engagement with local service providers for exploration activities

6- Proven Expertise and Track Record.

- Demonstrate the availability of technical experts with a successful track record in greenfield exploration
- Showcase experience in end-to-end exploration projects within or outside KSA

Web Links & Contacts

Web Links & Contacts

The Ministry of Industry and Mineral Resources aims to advance the industrial and mining sectors and contribute to achieving sustainable development in line with the Kingdom's Vision 2030, which adopted strategic options to diversify the national economy and raise the mining contribution to the GDP.

The Saudi Geological Survey is responsible for all specialized earth science works in the Kingdom of Saudi Arabia, from the basic works on geologic mapping to the conduct of applied geoscientific studies, especially on mineral and groundwater explorations and the development of mineral resources, including the provisions of investment opportunities in the field of mining.

Web links

Saudi Invest:

<https://investsaudi.sa/en/>

Ministry of Industry and Mineral Resources:

<https://mim.gov.sa/>

Ministry of Investment of Saudi Arabia:

<https://www.misa.gov.sa/en/>

Saudi Geological Survey:

<https://sgs.org.sa/en>

National Geological Database:

<http://ngp.sgs.org.sa>

Taadeen:

<https://mining.mim.gov.sa/>

Email for Licensing Round:

Miningbidding@mim.gov.sa

Email for Incentives:

ExplorationIncentives@mim.gov.sa





Ministry of Industry
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THANK YOU

Oct 2023