



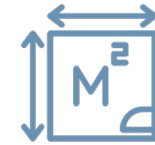
# “Uzbekistan's Critical Minerals: Unlocking Investment Opportunities for the Clean Energy Transition”

**Kuhinur Shukurjonov**

Head of Division for major investments coordination

Ministry of Mining Industry and Geology of the Republic of Uzbekistan

# THE REPUBLIC OF UZBEKISTAN: FURTHER UNLOCKING POTENTIAL IN THE MINING INDUSTRY



**448.9K** km  
Area



**90.9 bn USD (2023)**  
GDP  
**(12.1 % mining industry)**



**37.0 Mln**  
Population



**24.4 bn USD (2023)**  
Export  
**(40.1 % mining industry)**



**~50%**  
Urbanization



**62.5 bn USD (2023)**  
Foreign trade turnover



The Republic of Uzbekistan is a double landlocked country located in Central Asia.



Uzbekistan has a rich history dating back to ancient times. It was a significant part of the Silk Road trade route, connecting Asia and Europe.



Uzbekistan has a diversified economy, including agriculture, mining, manufacturing, and services.

# WHO WE ARE

## Ministry of Mining Industry and Geology

Established in December 2022

### KEY FUNCTIONS



Development and restoration of the base of mineral raw materials



Sustainable growth of mineral extraction volumes



Subsoil use oversight and ensuring industrial safety



Broad involvement of local and foreign investors in the industry



Development of science and personnel training in the field

### Vision

Creating a geological and mining-metallurgical industry that is the basis for sustainable economic growth through the rational use of mineral resources and becoming a regional leader in the field



### Mission

Ensuring sustainable development of the mining industry and geology, effective exploration, extraction and management of mineral resources

### PRIORITY ACTIVITIES



Geological research and exploration



Development of the mining and metallurgical industry



Providing quality public services



Supporting education and innovation

# ESTABLISHING A STRONG FOUNDATION FOR A SUSTAINABLE MINING SYSTEM

## 1. NEW MINING CODE

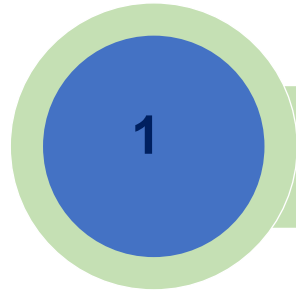
Expected by the first half of 2024

New Mining code

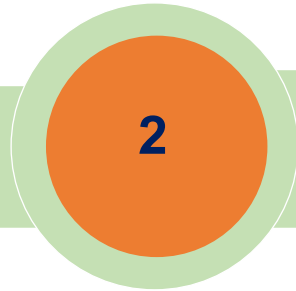
Investor friendly taxation

World class market players

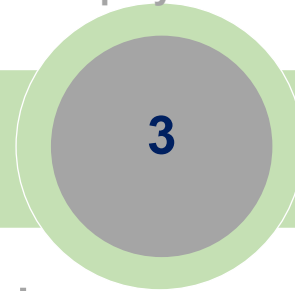
Vast geological and mining potential



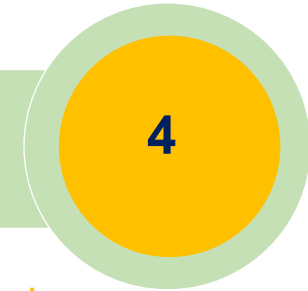
Implementation of **block system** for exploration works on principle "**First come - First served**"



Optimization of the **tax policy**, including reductions and abolitions of certain tax rates







Licenses based on **tenders**:  
1. technical qualification.  
2. commercial proposals.



Transition to **JORC code**, support for **junior mining**, ownership rights guarantee, **ESG**

## 2. INVESTOR FRIENDLY TAXATION SYSTEM

Country	Subsoil use tax:					Corporate income tax
	Tungsten	Gold	Iron	Copper	Uranium	
 Uzbekistan	2.2%	7%	2%	7%	8%	15%
 Russian Federation	2.7%	6%	4.8	8%	8%	20%
 Kazakhstan	7.8%	7.5%	3.64%	8.55%	6%	20%
 Australia	2.7%	2.5% - 5.0%	2.75% - 7.5%	2.5% - 7.5%	5%	25% - 30%

### 3. World class market players

#### Navoi mining and metallurgical company



- Au** Gold **92 tons**
- Ag** Silver **20.4 tons**
- ↗** Ranked **fourth** in global gold production
- 🪙** **5+ B** USD revenue

#### Almalyk mining and metallurgical complex



- Cu** Copper **148,500 tons**
- Au** Gold **17.5 tons**
- Zn** Zinc **76 tons**
- Ag** Silver **163 tons**
- 🪙** **2.5 B** USD revenue



#### “Navoiuranium” State Company

- U** Uranium **4.0 M tons**
- ↗** **0.5 B** USD revenue

#### Production volume increase by 2030



**Gold**  
**175 tons**



**Uranium**  
**10 K tons**



**Silver**  
**600 tons**



**Coal**  
**10 M tons**



**Copper**  
**500 K tons**

# 4. Geological and mining potential of Uzbekistan

## Main production minerals

**Copper**  
Reserve:  
**24,8 M tons**

**Silver**  
Reserves:  
**27 K tons**

**Gold**  
Reserve:  
**6,76 K tons**

**Uranium**  
Reserve:  
**95,2 K tons**

**Coal**  
Reserve:  
**1,5 B tons**

**31 minerals**

## Critical minerals



**Germanium**  
**74.6 tons**



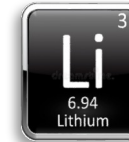
**Tungsten**  
**2.6 K tons**



**Vanadium**  
**112.7 tons**



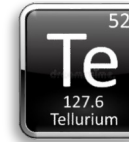
**Indium**  
**38.9 tons**



**Lithium**  
**178.5 K tons**



**Rhenium**  
**804.2 tons**



**Tellurium**  
**2.8 K tons**



**Graphite**  
**1.3 M tons**



**Molybdenum**  
**373.4 K tons**



**Selenium**  
**26.3 K tons**

# Mineral resources and mining industry development strategy 2030



## 1 Prioritizing reconnaissance surveys

- in the conduct of state policy in the field of geological exploration, priority should be given to determining the types of mineral-raw materials important for **reconnaissance surveys (up to detailed survey)** and the development of national industry.

## 2 Integration to international standards

- introduction of **international standards** in geological prospecting and evaluation of mineral reserves, transformation of national standards for quality increase developing the market for services in the field.

## 3 Improving operational efficiency and profitability in mining and metallurgical companies

- radically improving technical procedures, increasing **operational efficiency**, reducing product costs, increasing production volume by implementing short-term and long-term investment programs.

## 4 Critical, rare metals and rare earth elements sector development

- acceleration of **geological research** work on critical, rare metals and rare earth elements, application of innovations in the introduction of mining and enrichment technology, development of mining of rare metals and rare earth elements at the expense of modern scientific research;

## 5 Promotion of Investment Potential in Mining and Geology

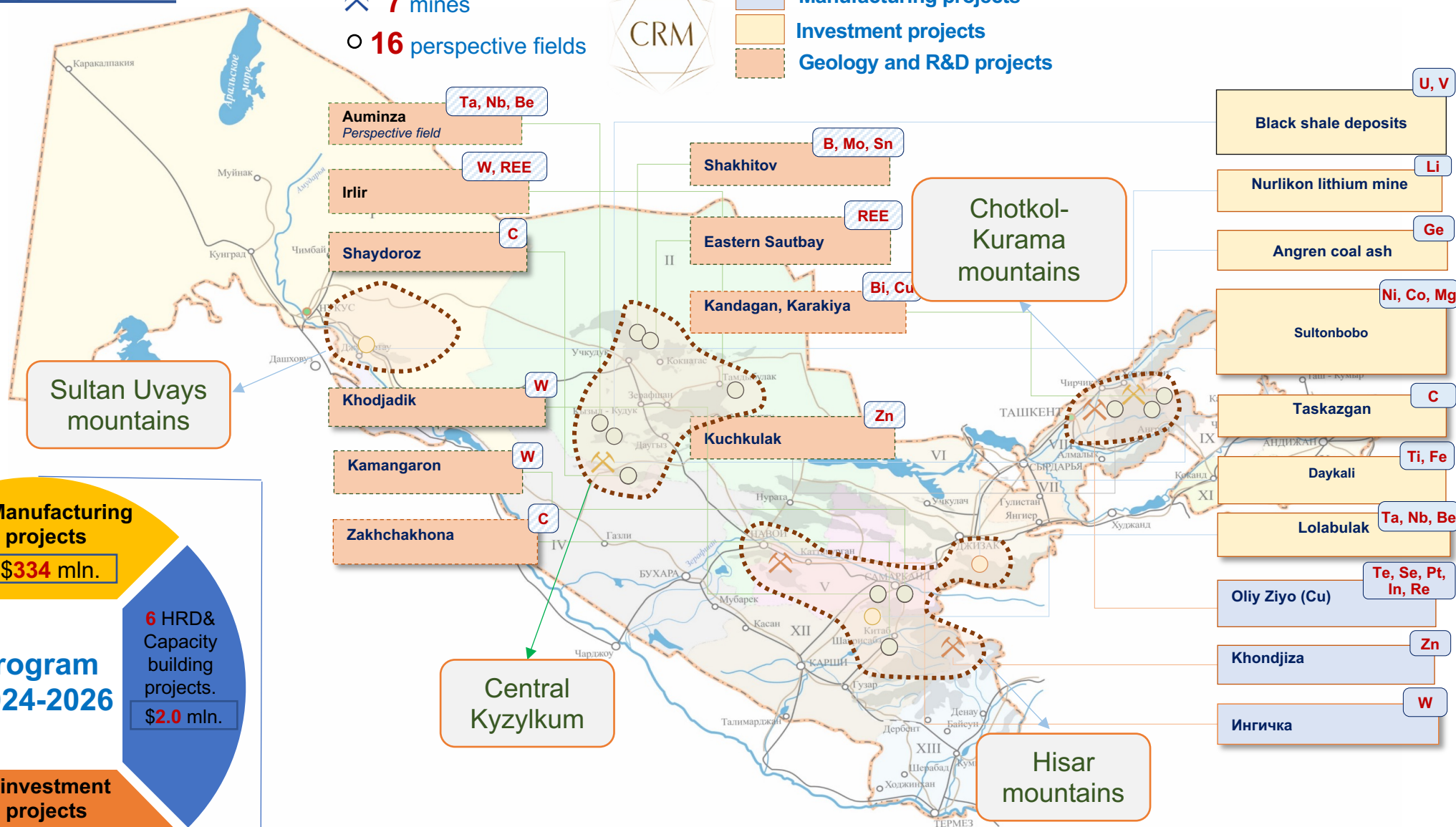
- Active promotion of **investment potential** based on the experience of leading foreign countries in the field of mining and geology, further improvement of the investment environment due to the introduction of an attractive and competitive tax regime for investors

# Investment potential

⚡ **7** mines  
 ○ **16** perspective fields



■ Manufacturing projects  
 ■ Investment projects  
 ■ Geology and R&D projects



→ The investment portfolio consists of **20** projects and is expected to be valued at **\$1.7 billion**.



## Integration to international standards



All work and any economic activity must comply environmental standards established in Uzbekistan and International standards, primarily the Law “**On Environmental Protection**”. The law establishes the legal, economic and organizational basis for environmental protection and rational use natural resources.



**Sustainable development reports** based on GRI standards in mining companies has been publishing.



International ISO 50001:2018 "**Energy Management System**", ISO 14001:2015 "**Environmental Management System**" and ISO 45001:2018 "**Occupational health and safety management**" certificates were received



Realization of action plans to get **ESG ratings** by **3** mining companies.



Construction **Solar** and **wind** power plants, shifting to **EV** in mining operations



To ensure **sustainable mining** in Uzbekistan alignment to **CRIRSCO** standards for exploration reporting and reserve estimates will protect the environment while satisfying investors through increased project confidence and compliance.



**27** instructions and methodological recommendations were integrated to the JORC code and approved by the DZK.



**48** specialists were trained according to the JORC Code



## Challenges

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### Where we are:

#### 1. Limited domestic manufacturing capabilities

- *Uzbekistan currently has a limited industrial base for manufacturing clean energy components and technologies, which creates a strong reliance on imports.*

#### 2. Infrastructure constraints and geographical limitations of Uzbekistan

- *Upgrading roads, railways, and power grids will be crucial but can be capital-intensive and time-consuming.*

#### 3. Skill gaps and workforce development

- *Lack of highly skilled internationally experienced specialists*
- *Gap between education institutions and companies R&D*



## 4.1 Challenges

### What we are planning:

#### 1. Diversification of domestic manufacturing capabilities

• **Copper cluster:** increasing domestic manufacturing of copper (**300 thousand tons** by 2030) and produce cable and wire products, electronic devices, copper foils

• **Lithium-ion batteries:** Uzbekistan has an estimated **60-70%** of the mineral resources needed to produce lithium-ion batteries domestically

#### 2. Infrastructure improvement

• implementation of **18** major projects based on partnership, covering **1.6 thousand kilometers** of **roads** of international and national significance.

#### 3. Capacity building

- Cooperation with international and foreign universities in R&D;
- Implementing training programs to build relevant skills;
- Upskilling and reskilling current employees.

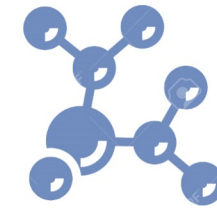


# “Nurlikon” lithium project



## Resume of the project

- An investment project is being implemented by the **Ministry of Mining Industry and Geology** in order to develop the Nurlikon lithium mine.
- The Nurlikon lithium deposit was **discovered** and explored in detail in the 1990. Lithium is currently being considered by the government of Uzbekistan as a strategic resource.
- The project plan provides for **open-pit mining**. Processing plant and tailings pond will be located in an industrial area.



## Main mineralogical composition

Lithium oxide	Rubidium oxide	Cesium oxide
Li <sub>2</sub> O	Rb <sub>2</sub> O	Cs <sub>2</sub> O
0.51%	0.037%	0.015%



## Ore characteristics:

97% of **lithium** contains in clay-mica materials, in the form of the mineral **polyolithionite**, and 3% in the form of the mineral **tainiolite**.

## Works performed within the “Nurlikon” lithium project



✓ A project (MRE) was developed based on JORC standards (*September, 2023*)



✓ A prefeasibility study condition project was developed for estimating the reserves of the Nurlikon lithium mine (*November, 2023*)








✓ Laboratory research based on a new method of processing lithium-containing ores was conducted.





# “Nurlikon” lithium project.

## Parameters of (PFS) project

### Resources and geological parameters

 ORE	Ore reserve	<b>26.7 M.t</b>
	Lithium "Li" Concentration	<b>0.51%</b> Li <sub>2</sub> O
	Lithium "Li" Reserves	<b>178.5</b> thousand tonnes Li <sub>2</sub> O
	Depth	<b>0-250</b> m
	Occurrence conditions	Stratiform deposits, dip angle <b>10-40°</b>

### Potential production parameters

	Ore processing per year	<b>1500</b> thousand ton.
	Potential annual production of carbonate lithium	<b>14</b> thousand ton.
	Project lifetime	<b>20</b> years
	Construction period	<b>2</b> years

## Next steps of the project



✓ Basic engineering development **2024**



✓ Project implementation **2025-2026**

## FURTHER OPPORTUNITY



✓ The damp rock formed as a result of quarrying contains iron and silicon oxides, which can be further utilized in the production of construction materials such as gravel and cement.



# “Taskazgan” graphite project .

## Parameters of the project

Area	Ore (thousand tons)	Average grade (%)	Resources/reserves (thousand tons)
North Taskazgan	912	14	800 (category P <sub>1</sub> )
South Taskazgan	9 171.3	14.8	1 325.4 (category C <sub>1</sub> )



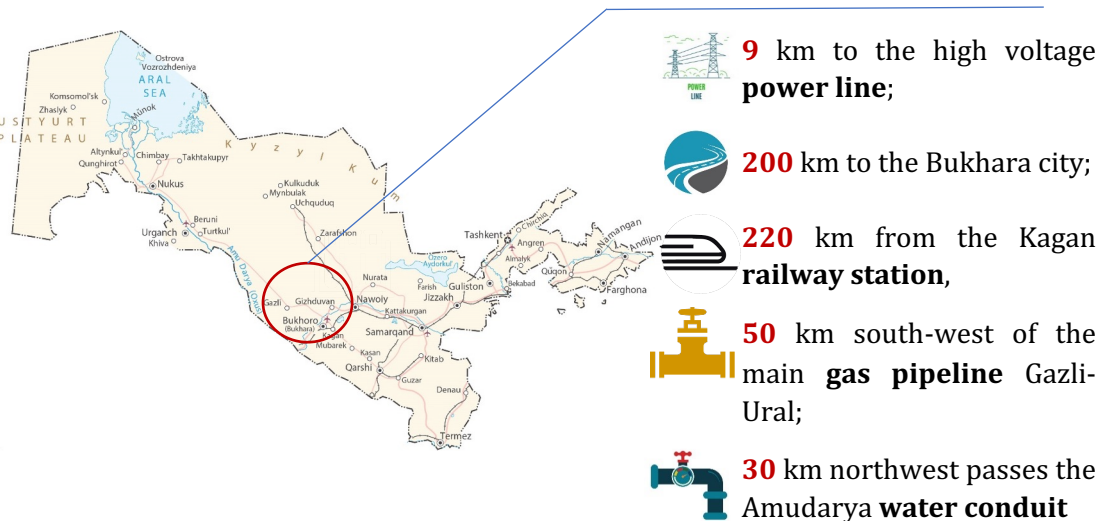
✓ Topographic picture of the mine (*February 2024*)



✓ Evaluation of the results of laboratory studies (*May, 2024*)

## Location and infrastructure:

The Taskazgan field is a graphite ore deposit located in the Peshku district of the Bukhara region.



## Next steps of the project



✓ Completion of drilling operations: wells – **15 400 m** (*June, 2024*)



✓ Development of PFS (*September, 2024*)



✓ Project implementation **2025-2026**

# THANK YOU FOR YOUR ATTENTION



**MINISTRY OF MINING INDUSTRY AND GEOLOGY OF THE REPUBLIC OF UZBEKISTAN**

100060, Uzbekistan, Tashkent city, Taras Shevchenko street, 11

Tel: +998 (71) 256-86-53

Fax: +998 (71) 256-22-75

Website: [www.uzgeolcom.uz](http://www.uzgeolcom.uz)

Email: [info@mingeo.uz](mailto:info@mingeo.uz)

