



**GROUP COMPANY  
RUSTITANIUM**



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**R U T I T A N I U M . C O M**

## Mining Project

Construction of the vertically integrated metallurgical and mining complex for processing of titanium ore and quartz (glass) sands of the Pizhensk deposit (Komi Republic, Russia)

### Resource Base:

- 2.4 billion tons of titanium ore (average  $TiO_2$  content is 4.5%)
- 1.1 billion tons of quartz sands (average  $SiO_2$  content is 98%)

## Pizhensk Deposit

- The World largest deposit of titanium and quartz resources
- Containing gold, diamonds, zirconium, rare-earth elements

JSC "RUSTITANIUM" is the only subsoil user at the deposit:

- License for exploration and production of all mineral resources
- Open cast mining (Quarry)

### Resource Assessment as a final product cost:

- More than USD 250 billion

## High Competence

- Prospecting, exploration and production of mineral resources
- Science, Innovation and Technology
- Industrial Design and Construction
- Automation in production and Operation
- Product Certification and Marketing
- Ecological Safety and Environmental Protection
- Staff and Process Management

## Government support

- The Project is included into the National Program of Import Substitution
- The Project is included in the Strategy for Komi development up to 2035
- The Agreement has been signed with the Government of Komi Republic
- The Agreement has been signed with the SC "VNIINM" of SC "Rosatom"
- The Agreement has been signed with the RC "Applied Chemistry" (GIPH)
- The Agreement has been signed with the IMET of the RAS



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## Feasibility study

- NPV - USD 3.034 billion
- IRR - 46%
- CAPEX - USD 1,08 billion
- EBITDA - 65%
- Revenue - USD 1.15 billion
- Resource availability for more than 500 years

## Production

- Concentrates of highly porous rutile and pseudorutile
- Needle like synthetic wollastonite (polymers and ceramics)
- Titanium dioxide pigment (coloring agents and fillers)
- Titanium sponge and metal titanium
- Titanium powders for additive manufacturing (3D printing)
- Iron, zirconium and rare metallic (TR+Y) concentrates
- Quartz glass, molding and fractional sands

## Industry

- aerospace
- shipbuilding
- automotive
- nuclear
- chemical
- paint and varnish
- construction

## Rationale

- Development of the World largest deposit of titanium
- Development of the first titanium production industry in Russia
- Implementation of the National program of import substitution
- Development of productions based on titanium dioxide and wollastonite
- Establishment of new prospective industries
- Ensuring resource security of the country