SILIKA

Silica Sand Mining & Real World Asset Tokenization

WHITE PAPER

We unlock the full value of silica resources to power next-generation industries.

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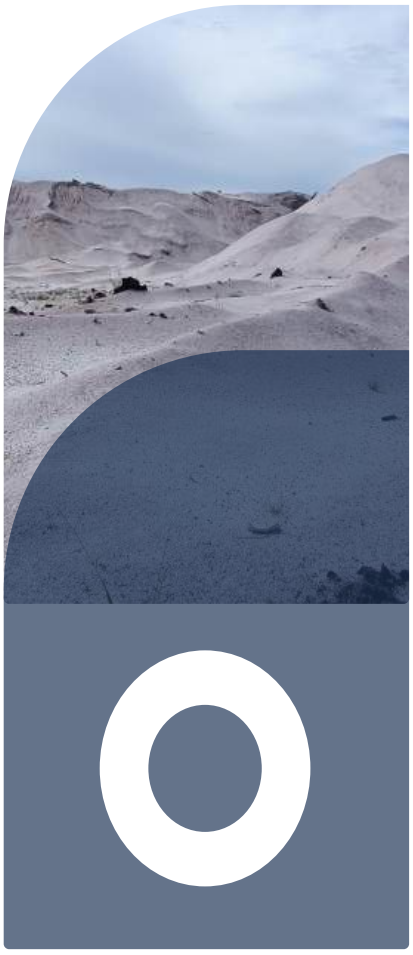
EXECUTIVE SUMMARY

As demand for high-purity silica rises alongside the growth of AI, renewable energy, and digital infrastructure, global supply remains constrained. SILIKA addresses this gap by providing tokenized access to 137.77 million cubic meters of proven silica reserves, positioning itself as a strategic gateway to a critical material powering next-generation industries.



Integrated Value Strategy

- Early cash flow generation from initial production phases
- Scalable quality progression toward high-purity silica products
- Significant margin expansion across premium market segments

Investment Thesis

SILIKA sits at the intersection of:

- AI & Semiconductor: Growth demand for high-purity silica
- Energy Transition: solar glass expansion
- RWA Tokenization: new investment access

Backed by large reserves and a scalable model, SILIKA provides exposure to next-generation industries.

Tokenized Asset Advantage

SILIKA combines silica reserves with blockchain to enable transparent access, while value flows through buyback, revenue sharing, and staking.

INVESTMENT SNAPSHOT

SILIKA presents a compelling investment opportunity:

Tokens

SILIKA (BEP-20, BSC)

Asset Backing

137.77 Million m^3 Silica Reserves

Reserve Life

20+ Years (159-Year Potential)

Total Supply

2,500,000,000

PROBLEM STATEMENT

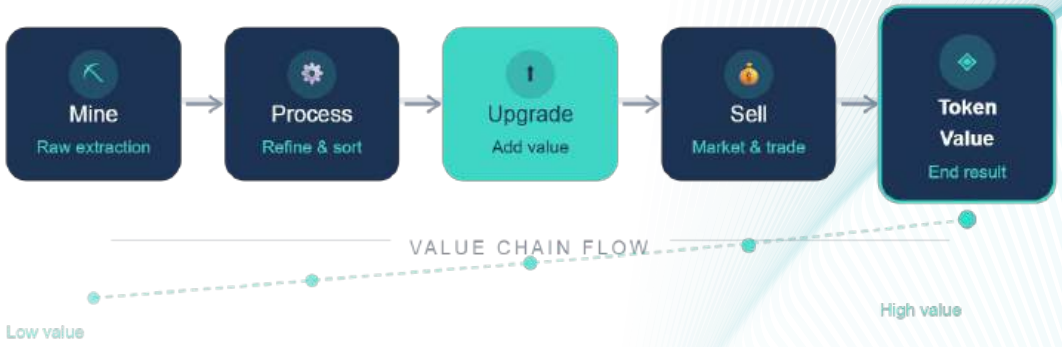
High-purity silica supply is constrained by:

- Only ~5% of silica deposits meet ≥99.5% purity requirements
- Limited high-grade processing capabilities
- Rising demand from AI, semiconductor, and solar industries
- Environmental and regulatory constraints on new supply

SOLUTION OVERVIEW

SILIKA addresses this opportunity through a structured and integrated approach:

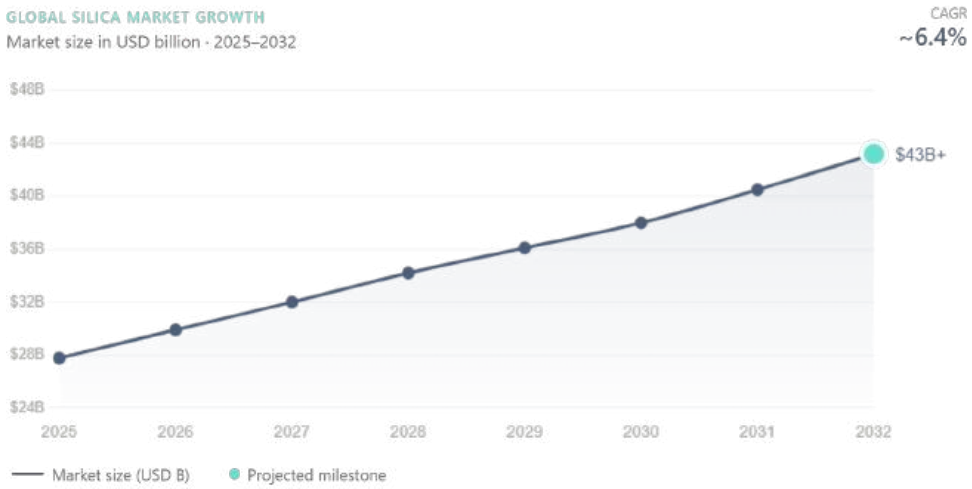
- Large-scale proven reserves ensuring long-term supply stability
- Vertical integration across the value chain.
- Tokenized ownership model enabling transparent access to real-world assets



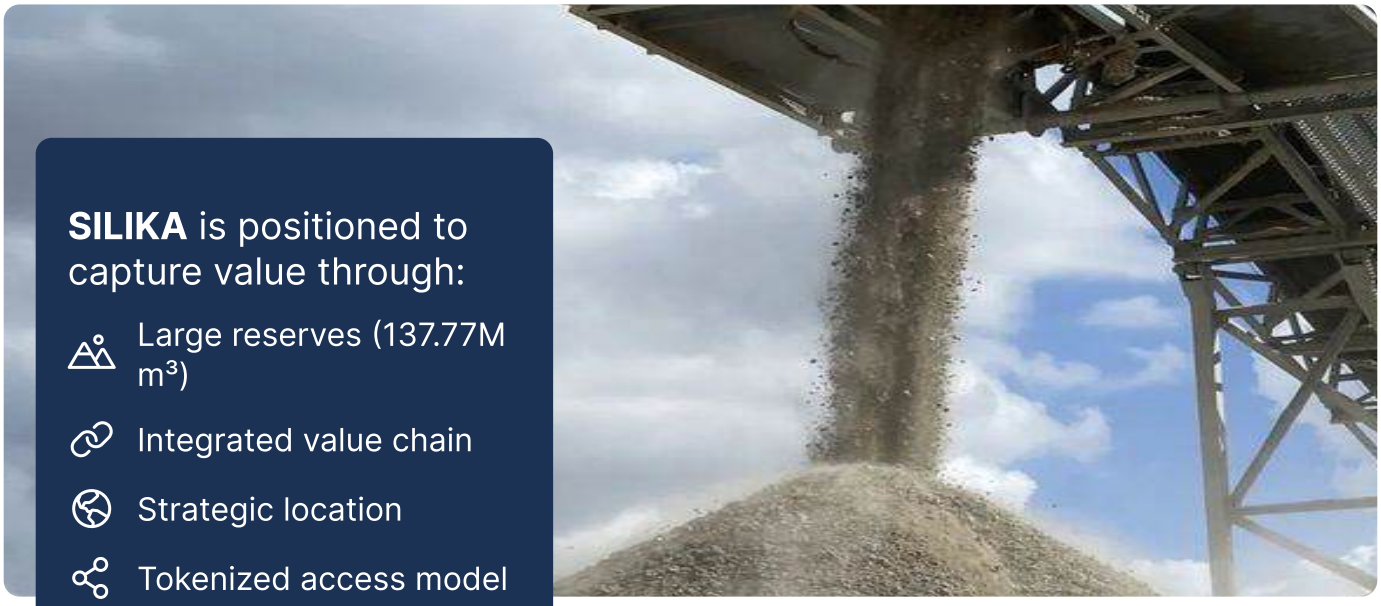
MARKET OVERVIEW & DEMAND DRIVERS

The global silica market is expanding, driven by rising industrial demand:

- Market size: $27.77B (2025) projected to exceed $43B by 2032
- Solar glass demand: growing at 29.5% CAGR
- Semiconductor industry: expanding at over 19%



COMPETITIVE ADVANTAGE



SILIKA is positioned to capture value through:

- Large reserves (137.77M m^3)
- Integrated value chain
- Strategic location
- Tokenized access model

These advantages position SILIKA to capture long-term value in a high-growth, supply-constrained market.

With strong reserves and an integrated operating model, SILIKA is able to capture value across the full silica lifecycle, from extraction to high-value applications.

Supported by a tokenized access model, SILIKA provides a scalable and efficient gateway to participate in the global silica market.

Comparison with Traditional Mining

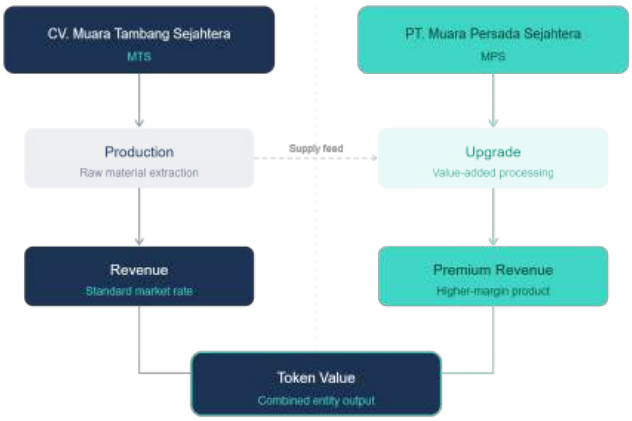
Feature	SILIKA	Traditional Mining
Access	Tokenized access	Restricted access
Liquidity	Continuous	Limited
Transparency	On-chain	Limited visibility
Entry Barrier	Lower	Higher
Value Exposure	Direct	Indirect

SILIKA combines physical assets with digital access, creating a more efficient, transparent, and accessible investment model.

PROJECT STRUCTURE

SILIKA operates through a dual-entity structure designed to balance early revenue and long-term value creation:

- CV. Muara Tambang Sejahtera (MTS)
- PT. Muara Persada Sejahtera (MPS)



Revenue Drivers

Silica Sales

Multi-grade products across market segments

Margin Expansion

Higher value through product upgrading

Token Value

Buyback, staking, and revenue mechanisms

BUSINESS MODEL

Integrated Operations
From extraction to high-purity applications

Multi-stream Revenue
From silica sales, premium products, and token mechanisms

Scalable & Transparent
Efficient and transparent value creation

RESOURCE RESERVES

SILIKA is supported by a substantial silica reserve base, enabling long-term production stability and supply continuity across multiple market segments.

137.77M m^3
Proven silica reserves

Supporting long-term production and supply stability

Long-Term Production

Sufficient reserves to support multi-decade extraction and processing operations

Supply Stability

Consistent raw material availability across different product grades

Scalable Resource Base

Enabling gradual expansion into higher-value silica applications

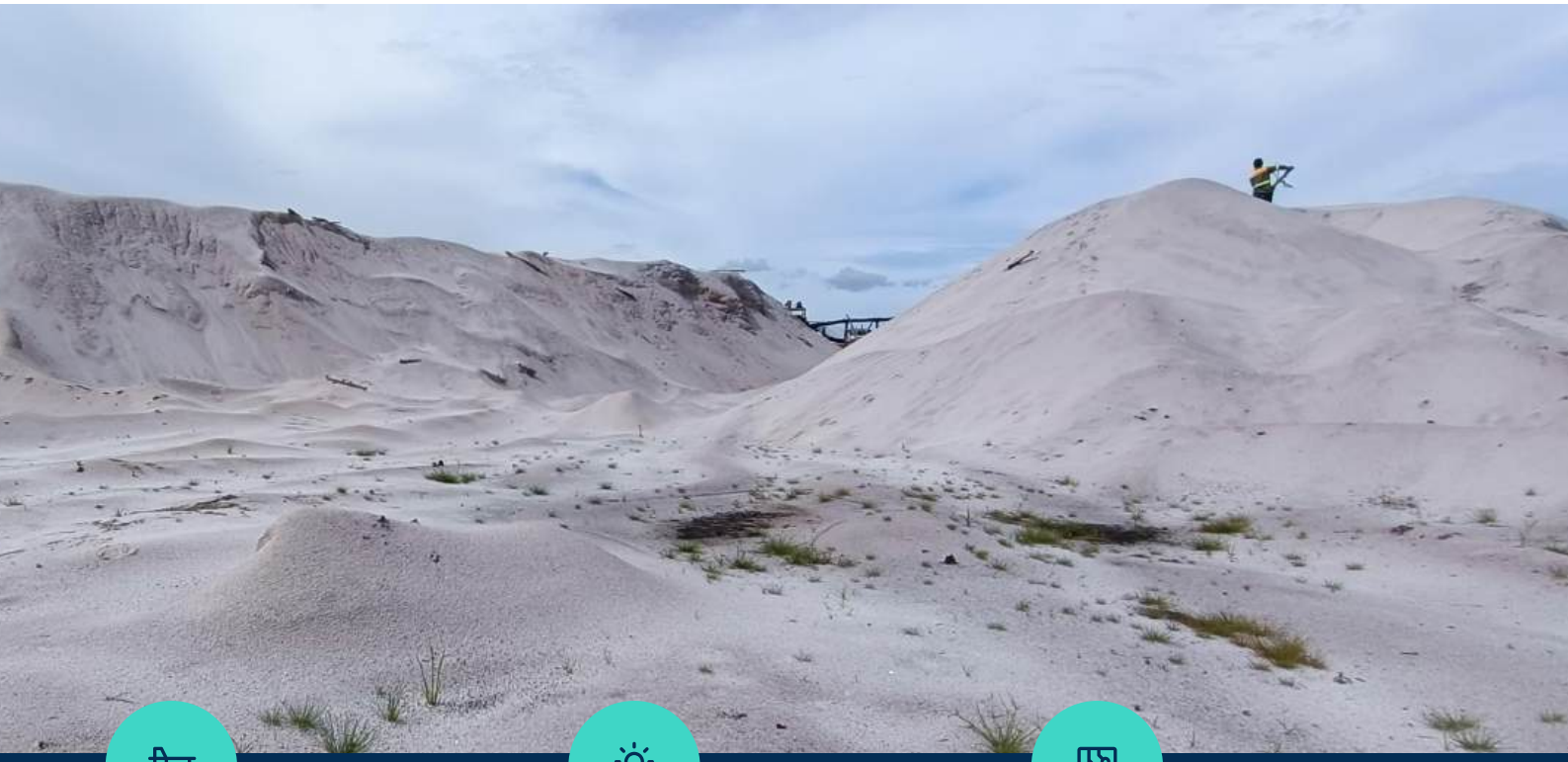
PRODUCT STRATEGY (PURITY LADDER)

SILIKA follows a progressive product strategy, upgrading silica across increasing purity levels to capture higher-value markets.

Product Grade	Application	Value Level	Market Segment
Construction	General use	Low	Mass market
Glass	Industrial glass	Medium	Manufacturing
Solar	Solar panels	High	Renewable energy
Semiconductor	Chips & electronics	Very High	Advanced tech

GO-TO-MARKET STRATEGY

SILIKA is supported by a substantial silica reserve base, enabling long-term production stability and supply continuity across multiple market segments.



Initial Phase - Construction Grade

Focus on high-volume, lower-purity silica to generate early and stable revenue, while establishing operational capabilities and consistent production output.

Expansion Phase - Glass & Solar

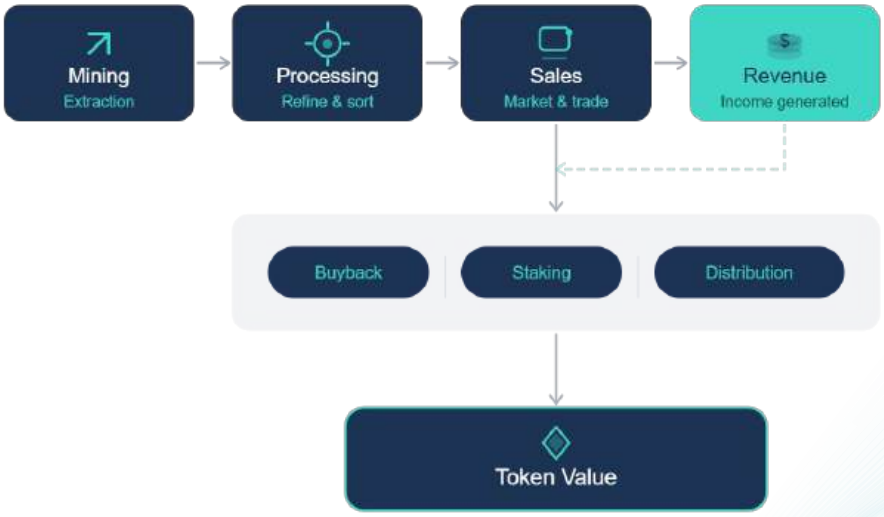
Expand into higher-purity segments serving industrial manufacturing and renewable energy markets, enabling access to broader demand and improved value margins.

Long-Term Phase - Semiconductor

Target ultra-high-purity silica for advanced technology applications, positioning SILIKA in premium markets with significantly higher value potential.

TOKEN UTILITY & VALUE ACCRUAL

SILIKA connects real-world production with blockchain to build a transparent, scalable ecosystem. Value is captured and redistributed through revenue and token incentives, aligning performance with token growth



Buyback & Burn

A portion of revenue is used for token buyback and burn, reducing supply and supporting long-term value.

Revenue Sharing

A share of operational profits is distributed to token holders, linking real-world performance to token value.

Staking Rewards

Token holders earn rewards through staking, supporting long-term participation and ecosystem stability.

Operational Value

Token value is directly tied to mining and production performance across the silica value chain.

DeFi Utility

Tokens can be used in DeFi for liquidity, lending, and yield generation, improving capital efficiency.

Ecosystem Participation

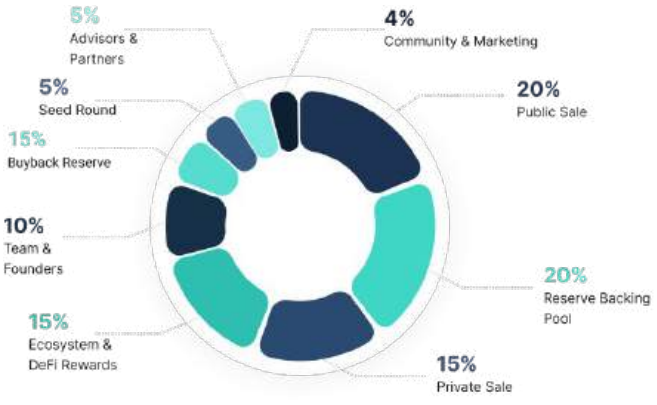
The token enables access to governance, staking tiers, and broader ecosystem participation.

TOKENOMICS

SILIKA tokenomics is structured around fixed supply, controlled distribution, and long-term value alignment with real-world production.

SILICA Mining Resources Token Name	**SILIKA** Symbol	**Binance Smart** Network	**(BEP-20)** Chain
0×7212111067A4C5B56D064c6dE85eB16266D416f1 Contract Address	**2,500,000,000 SILIKA** Total/Max Supply	**8** Decimals	
Standard BEP-20 Token Type	**All tokens minted at deployment** Initial Distribution		

Token Allocation



Public Sale	20%	500,000,000
Reserve Backing Pool	20%	500,000,000
Private Sale	15%	375,000,000
Ecosystem & DeFi Rewards	15%	375,000,000
Team & Founders	10%	250,000,000
Buyback Reserve	6%	150,000,000
Seed Round	5%	125,000,000
Advisors & Partners	5%	125,000,000
Community & Marketing	4%	100,000,000

Supply dynamics

Fixed Supply

Fixed supply with no additional token minting.

Controlled Release

Gradual vesting ensures market stability.

Deflation Support

Buyback mechanisms reduce supply and support long-term value.

FINANCIAL PROJECTIONS

Financial Snapshot

Year 1 Revenue

Early-stage revenue from initial production

Year 3 Revenue

Growth supported by scaling operations and product upgrading

Year 5 Revenue

Full value capture across higher-grade silica markets

Year 5 EBITDA

$24.9M

Revenue Growth

From $2.6M to $62.7M in 5 years

Net Income Growth

Scaling to $18.2M by Year 5

Growth Outlook

SILIKA's financial growth is driven by a phased scale-up strategy, leveraging reserve strength and product upgrading to expand into higher-value markets, with revenue and profitability expected to increase significantly.

Financial Objectives

- Scale revenue through phased growth
- Increase margins via higher-purity upgrades
- Enhance profitability in premium markets

CAPEX, OPEX & UNIT ECONOMICS

Capital Expenditure (CAPEX)

- ~$30M initial investment
- Supporting mining, processing, and infrastructure

Operating Cost (OPEX)

- Operating cost defined per ton
- Efficiency improves with scale

Unit Economics

- Margin expansion through product upgrading
- Higher-value segments drive profitability

PROFITABILITY METRICS

Return Profile

- IRR: 17.4%
- Payback Period: 4.2 years

Financial Strength

- Scalable margin structure
- Strong long-term return potential

CAPEX
$30M

IRR
17.4%

Years Payback
4.2

USE OF FUNDS

Capital is strategically allocated to support core infrastructure, expand processing capabilities, and strengthen operational scalability, enabling efficient production growth and long-term value creation across the silica value chain.

INVESTMENT TERMS

- Focus on core infrastructure and processing
- Supporting scalable production capacity
- Ensuring operational efficiency

TEAM & ADVISORS

SILIKA is supported by an experienced team across mining, operations, and digital asset development.

GOVERNANCE, LEGAL & COMPLIANCE

SILIKA operates under a structured legal and regulatory framework, supported by a valid mining license (IUP) and aligned with Indonesian regulatory authorities, including OJK, ensuring compliance and operational legitimacy.

TRACTION & PROJECT PROGRESS

Project Traction

SILIKA has demonstrated clear project progress, supported by verified silica reserves of 137.77M m^3, establishing a strong resource foundation. The dual-entity structure (MTS & MPS) has been put in place to support both early revenue generation and long-term value creation, while the project roadmap continues to progress in line with its phased development strategy.

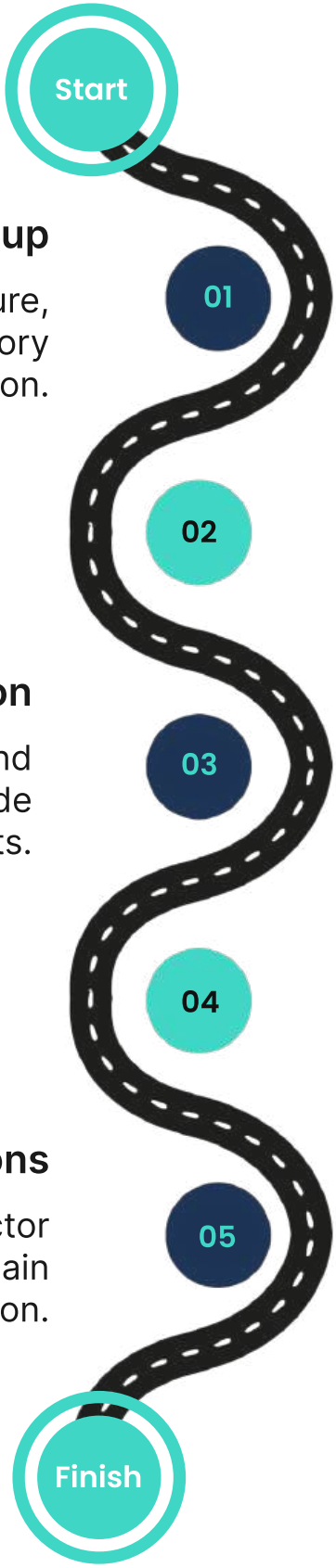
The project has established a solid operational and structural foundation, positioning it for continued growth and execution across the silica value chain.

RISK MANAGEMENT & ESG COMMITMENT

- Regulatory risk monitoring and compliance
- Environmental and operational standards adherence
- Ongoing risk mitigation across operations

SILIKA ROADMAP

A five-phase development strategy progressing from early-stage operations to high-value silica applications and global market positioning.



Foundation & Setup

Establishing structure, reserves, and regulatory foundation.

Operational Entry

Launching early production and generating initial revenue.

Scaling & Expansion

Expanding capacity and moving into higher-grade markets.

High-Purity Development

Advancing processing into high-purity applications.

Advanced Applications

Entering semiconductor markets with full value chain integration.

SOURCE VALIDATION & CONCLUSION

Real Asset Foundation

SILIKA represents a convergence of real-world asset backing, supported by large-scale silica reserves and a structured operational model.

Market Opportunity

Positioned within high-growth industries, the project benefits from increasing global demand across construction, solar, and semiconductor sectors.

Tokenized Access

By integrating blockchain-based access, SILIKA enables a more transparent and scalable approach to participating in the silica value chain.

It is not merely an investment in silica, but in the infrastructure powering the future.

TECHNICAL ECOSYSTEM

SILIKA integrates physical reserves, operational data, and blockchain into a unified RWA ecosystem, where each layer continuously validates the others from geological verification to production and token distribution ensuring transparency, reliability, and system-wide integrity.

Core Ecosystem Layers

Physical Asset Layer

Silica reserves provide real-world backing and intrinsic value.

Data & Validation Layer

Geological and production data are continuously verified for accuracy and reliability.

Blockchain & Tokenization Layer

Validated data is recorded on-chain and converted into tokens and NFTs for transparency and accessibility.

Value & DeFi Layer

Value flows through revenue and DeFi mechanisms, linking production to financial outcomes.

Ecosystem Flow

GEOLOGICAL ORACLE (DRTR)

SILIKA's Geological Oracle converts physical reserve data into verifiable on-chain information, forming the foundation of its asset-backed ecosystem. Updated quarterly for accuracy and transparency, the system ensures reserve data remains aligned with ongoing operations.

Geological validation combines field surveys, laboratory testing, and standardized reserve modeling before being submitted through a decentralized oracle and recorded on-chain via smart contracts, ensuring reliability and auditability.

The Dynamic Reserve-to-Token Ratio (DRTR) continuously recalculates reserve backing against circulating supply, while built-in safeguards such as threshold alerts and circuit breakers ensure system stability and protect against abnormal fluctuations.

Core Ecosystem Layers

Quarterly Verification

Reserves updated quarterly for accuracy.

Data Validation

Data cross-verified across sources.

Oracle System

Data submitted via decentralized oracle.

On-Chain Updates (DRTR)

Reserve data recorded on-chain continuously.

Risk Safeguards

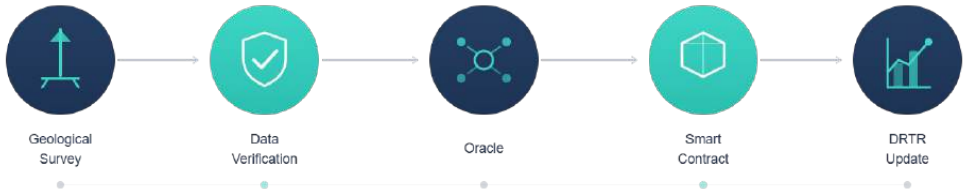
System protected by automated alerts.

Geological Oracle Flow

PROOF OF PRODUCTION (POP)

SILIKA's Proof of Production (PoP) ensures mining activity is accurately recorded on-chain using IoT, GPS, and satellite data. Validated through multiple layers, it enables reliable production events for revenue tracking, reserve updates, and value distribution.

Proof of Production Flow



Key Mechanisms

IoT Sensor Network

Production data captured from sensors, GPS, and satellite.

Multi-Layer Validation

Data verified across multiple independent sources.

On-Chain Recording

Validated data recorded via smart contracts.

Production Events

Each verified output triggers on-chain production events.

Data Validation Layers

COMMODITY- LINKED NFT (CL-NFT)

Commodity-Linked NFTs (CL-NFTs) represent verified silica reserves as digital assets on-chain, enabling transparent ownership, traceability, and integration with financial mechanisms. Each NFT is backed by specific reserve data, linking physical assets to programmable digital value.

Key Components

Reserve Representation

Each NFT represents a specific portion of silica reserves.

Verified Metadata

Includes volume, purity, and location data.

Tier Structure

NFTs are categorized into tiers based on scale and quality.

CL-NFT Flow

SUPPLY CHAIN NFT PASSPORT

The Supply Chain NFT Passport provides a verifiable digital identity for each silica shipment, ensuring full traceability from extraction to final delivery. By recording origin, quality, and movement data on-chain, it enables transparency, compliance, and trust across the entire supply chain.

Key Components

End-to-End Tracking

Tracks material flow from extraction to final buyer.

Verified Data Passport

Stores key data such as origin, quality, and shipment details.

On-Chain Transparency

All records are securely stored and verifiable on-chain.

Premium Market Access

Enables higher pricing through verified and trusted supply data.

Data Validation Layers

CARBON CREDIT INTEGRATION

SILIKA integrates carbon credit mechanisms by measuring emissions, applying offsets, and recording results on-chain, ensuring transparency, accountability, and alignment with global sustainability standards.

Key Components

Emission Measurement

Production-related emissions are continuously monitored and quantified.

Offset Mechanism

Carbon impact is reduced through verified offset programs.

On-Chain Tracking

All carbon data is recorded on-chain for transparency and auditability.

Sustainable Integration

Carbon management is embedded within the overall production and value system.

VALUE IMPACT

ESG Alignment

Supports compliance with global sustainability standards.

Transparency & Traceability

Carbon data is recorded and verifiable on-chain.

Environmental Responsibility

Encourages measurable emission reduction and offset practices.

Premium Market Positioning

Enhances value through sustainable and responsible operations.

Carbon Credit Flow

RESERVE-BACKED LENDING (RBL)

SILIKA's Reserve-Backed Lending (RBL) introduces a dual-collateral model that combines token value with underlying silica reserves, creating a stronger and more reliable foundation for lending within the ecosystem, while enhancing security, reducing risk exposure, and enabling more stable and efficient access to liquidity.

Key Benefits

Reduced Lending Risk

Lower exposure through dual-backed collateral structure.

Improved Collateral Strength

Stronger security supported by both token and reserve value.

More Stable Liquidity

Enhanced stability for borrowing and lending activities.

Key Components

Dual Collateral

Loans are backed by both token value and physical reserves.

Risk Control

Structured safeguards manage volatility and default risk.

Lending System

Enables borrowing and liquidity access within the ecosystem.

Value Stability

Dual backing strengthens overall collateral reliability.

Dual Collateral Flow

TOKEN VALUE & ACCRUAL

SILIKA's value model captures and redistributes revenue from real-world operations through structured token mechanisms, ensuring economic output is reflected within the token ecosystem. This approach aligns token growth with underlying performance, supporting long-term value and ecosystem stability.

Key Mechanisms

Buyback

Supports token value through strategic repurchases

Revenue Sharing

Distributes operational profits to participants

Staking Rewards

Incentivizes long-term participation and engagement

Value Flow Diagram

DEFI ECOSYSTEM INTEGRATION

SILIKA integrates with decentralized finance platforms to expand token utility, liquidity, and accessibility across the digital asset ecosystem. This integration enables interaction with DeFi services, supporting efficient capital usage and wider market participation.

Key Mechanisms

DEX & Liquidity Access

Enables trading and liquidity through decentralized exchanges.

Lending & Yield Opportunities

Supports borrowing, lending, and yield generation within DeFi.

RESERVE-BACKED LENDING (RBL)

SILIKA implements a decentralized governance model that enables token holders to participate in key decision-making processes. Through a structured system of proposals and voting, the ecosystem ensures transparency and accountability.

This approach promotes community participation and decentralized control, supporting a more open and collaborative ecosystem.

Key Components

Proposal System

Participants can submit proposals for ecosystem improvements.

Voting Mechanism

Token holders vote to approve or reject proposals.

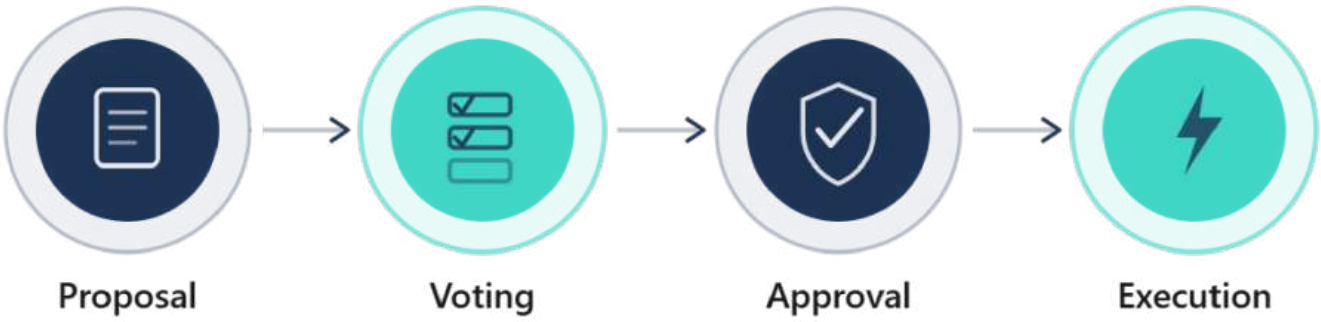
Governance Structure

Decisions follow a defined process to ensure fairness and consistency.

Execution Process

Approved proposals are implemented through smart contracts.

Governance Flow



TECHNICAL ROADMAP & MILESTONES

Q1 2026 — Foundation

System setup, licensing, infrastructure

Q3 2026 — Operational Entry

Initial production & market entry

2027 — Scaling & Expansion

Capacity growth & partnerships

2028 — High-Purity Development

Advanced processing & higher-grade silica

2029+ — Advanced Applications

Global market & premium segments

SILIKA

Transforming silica into value for tomorrow’s technologies

Contact Us

info@silikaproject.com
silikaproject.com
@silikaproject