



# GPTBank Whitepaper

# Preface



The rapid evolution of global financial technology is being defined by the convergence of decentralized finance (DeFi) and artificial intelligence (AI). This fusion is transforming the future of financial services. GPTBank was born as a decentralized, AI-powered financial service platform in this transformative era. Its mission is to harness state-of-the-art AI technology to revolutionize the financial industry, bridging the gap between traditional finance and DeFi. Guided by the principles of "intelligence, inclusivity, and efficiency," GPTBank delivers personalized, intelligent financial solutions that enhance the precision of transactions and investment decisions and significantly improve the transparency and accessibility of financial services.

GPTBank's mission is to break the limitations of traditional financial systems, enabling more people worldwide to enjoy fair and efficient financial services. Through a decentralized structural design, GPTBank eliminates intermediaries, reducing transaction costs. Additionally, its powerful AI capabilities in data processing and prediction assist users in making optimal decisions in rapidly changing market conditions. Furthermore, GPTBank focuses on building a secure and sustainable ecosystem, ensuring the safety of users' funds while driving technological innovation in the financial sector to create a truly inclusive and intelligent financial future for all.

This marks a paradigm shift for traditional finance and a groundbreaking evolution in the DeFi space. GPTBank's vision is to become the world's premier decentralized AI financial platform, delivering intelligent, seamless, and accessible financial services to users everywhere.

# Table of Contents

<b>Introduction</b>	02
<b>I. Overview of GPTBank</b>	
1.1 Vision and Positioning of GPTBank	05
<b>II. G7 System AI-Driven Financial Services</b>	
2.1 Market Demand and the Birth of G7	07
2.2 Definition and Key Features of the G7 System	08
2.3 Technical Architecture of the G7 System	08
2.4 Business Processes of the G7 System	09
<b>III. Value Proposition of the G7 System</b>	
3.1 Digital Identity and Credit Management	12
3.2 Cross-Border Financial Services and Green Finance	12
3.3 Insurance, Wealth Management, and Guarantee Services	12
3.4 Supply Chain Finance and Investment Support	13

#### **IV. In-Depth Analysis of the G7 System Architecture**

4.1 Data Layer . . . . .	14
4.2 Model Layer . . . . .	15
4.3 Decentralized G7 System . . . . .	16
4.4 API Interfaces and Applications . . . . .	17

#### **V. GPTBank Token: The G7 Economic Ecosystem**

5.1 G7 Token Overview . . . . .	18
5.2 G7 Consensus Mechanism . . . . .	18
5.3 G7 Token Burn Mechanism and Value Support . . . . .	20

#### **VI. Future Prospects of the G7 System**

6.1 Integration into Traditional Banking . . . . .	21
6.2 Green Financial Products . . . . .	21
6.3 Financial Services Network . . . . .	22
6.4 New Financial Transaction Scenarios . . . . .	22
Conclusion . . . . .	23

# I. Overview of GPTBank

GPTBank is the world's first AI-driven fintech company, co-founded by the core technology teams from BNY Mellon, Two Sigma, and Renaissance Technologies.

GPTBank is committed to revolutionizing the global financial ecosystem through cutting-edge artificial intelligence (AI) and natural language processing (NLP) technologies. Leveraging state-of-the-art ChatGPT models and technologies, GPTBank empowers users to achieve consistent returns across global stock, futures, and cryptocurrency markets.



## 1.1 Vision and Positioning of GPTBank

The vision of GPTBank is to establish an intelligent and decentralized global financial system powered by advanced AI technologies, fundamentally transforming the operation of both traditional and emerging financial models. As a leader in global financial innovation, GPTBank aims not only to provide financial services but also to drive the industry's transition toward smarter, more efficient, and inclusive practices, ensuring fairer and more transparent financial services for all.

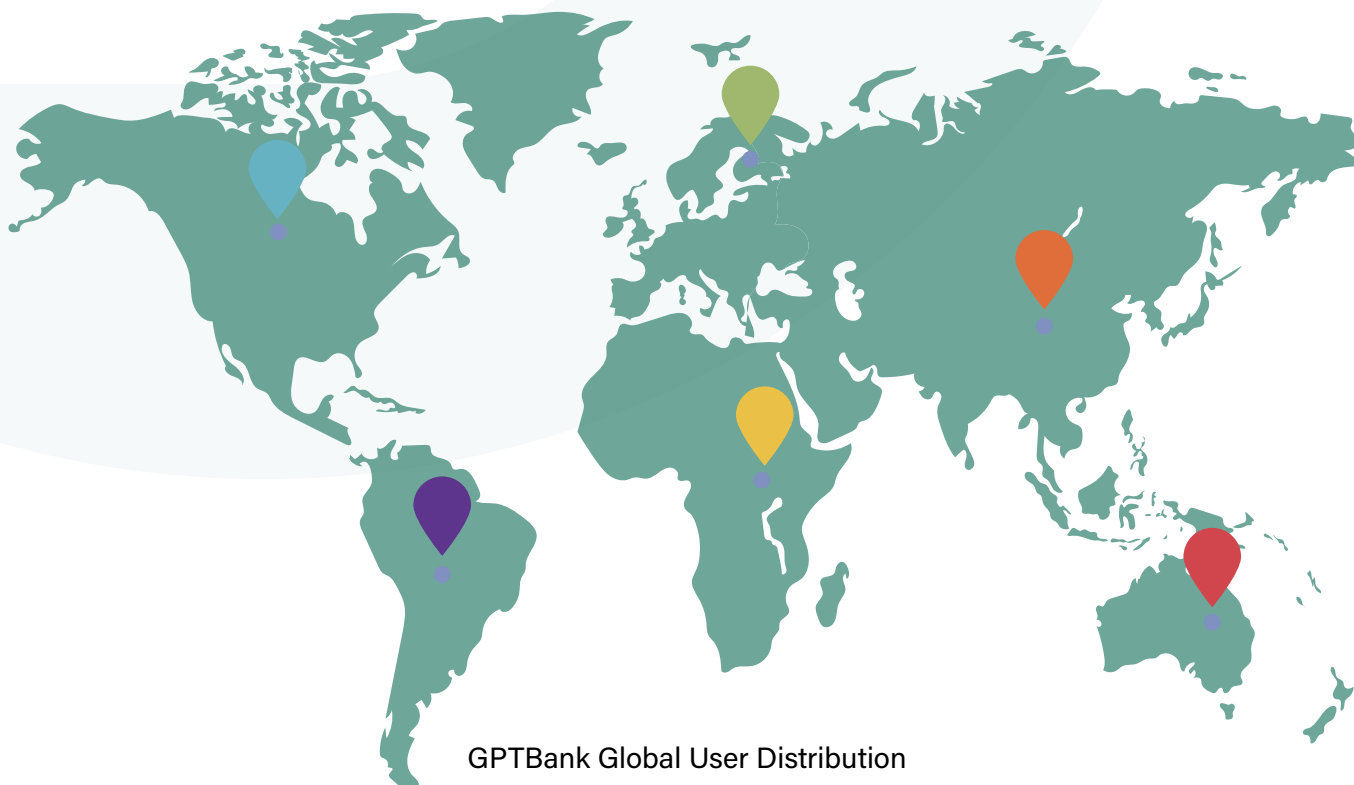
Guided by this vision, GPTBank's positioning focuses on the following aspects:

**Global Financial Empowerment:** Through AI technologies and quantitative tools, GPTBank aims to provide users worldwide with opportunities to navigate complex financial markets and grow their wealth more smartly.

**Promoting Financial Inclusion:** We strive to eliminate the high barriers and inequalities inherent in traditional financial systems, enabling more people—especially marginalized groups—to participate in financial activities and benefit from modern financial services.

**Building an Open Financial Ecosystem:** GPTBank is not just a technology developer but also an innovator in the financial sector. We aim to collaborate with fintech companies, governmental organizations, and blockchain projects to create a global open financial ecosystem and drive economic democratization.

GPTBank remains committed to technological innovation at its core, consistently pushing the boundaries of AI and decentralized architectures. By doing so, we aim to propel global financial markets toward greater intelligence, transparency, and sustainability—key elements of our vision and positioning.



## II. G7 System AI-Driven Financial Services

### 2.1 Market Demand and the Birth of G7

As global financial markets evolve rapidly, traditional financial systems face numerous challenges, such as low transaction processing efficiency, high market volatility, and reliance on manual decision-making. These issues are particularly pronounced in the cryptocurrency market, where high-frequency trading demands faster decision-making and accurate trend forecasting. Additionally, the growing need for automated and intelligent financial tools has intensified the demand for efficient, intelligent, and cost-effective solutions to navigate market complexity and volatility.



In response, the G7 High-Frequency Quantitative Trading System emerged. Developed by GPT-Bank, G7 integrates cutting-edge AI technology and deep learning algorithms to enable automated trading and intelligent decision-making. **It empowers users to seize market opportunities, optimize asset allocation, and enhance trading efficiency.** By addressing diverse market demands, G7 provides investors with robust tools to mitigate risks and maximize returns.

Challenges in Global Financial Markets and G7 System Solutions	
Challenges in Traditional Financial Systems	Solutions by G7 System
Low transaction processing efficiency	High-efficiency trading
High market volatility	Automated decision-making
Heavy reliance on manual decision-making	Intelligent risk management

## 2.2 Definition and Key Features of the G7 System

G7 is one of GPTBank's flagship products, integrating deep learning technology to perform complex financial modeling and market forecasting.

- **Positioning:** A cutting-edge quantitative trading platform
- **Technological Advantages:** Incorporates ChatGPT and advanced deep learning, now upgraded to the 7th generation
- **Market Access:** Open to users worldwide
- **Core Features:**
  - Predicts market trends
  - Simulates and forecasts the spot and futures movements of the cryptocurrency market over a 2-4 month horizon
  - Executes unprecedentedly complex financial model calculations

## 2.3 Technical Architecture of the G7 System

The G7 system leverages the GPT-4o model for real-time market analysis and intelligent decision-making:

**Real-Time Data Retrieval:** Rapidly collects the latest global market data and news.

**Trend Prediction:** Identifies market trends by combining economic indicators, social media sentiment, and other factors.

**Personalized Strategies:** Provides tailored investment advice based on users' risk tolerance and investment goals.

**Risk Assessment and Alerts:** Continuously monitors portfolio risks and issues timely alerts.

**AI Integration:** Incorporates GPT-4o and other advanced AI technologies to enhance decision accuracy.

**Machine Learning Applications:** Utilizes machine learning to continually optimize model performance, improving analytical and decision-making capabilities.

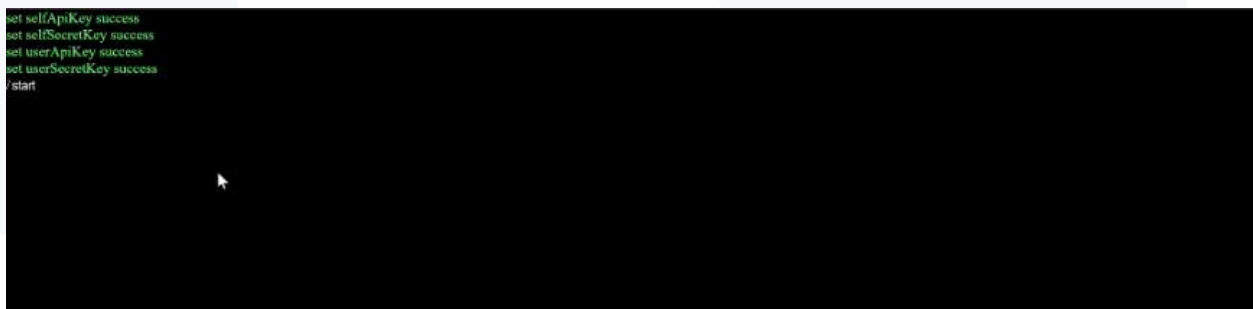


## 2.4 Business Processes of the G7 System

The G7 system's business process aims to provide a simple and efficient operational experience, from service purchasing to automated trading. The specific business process is as follows:

### 1. System Activation

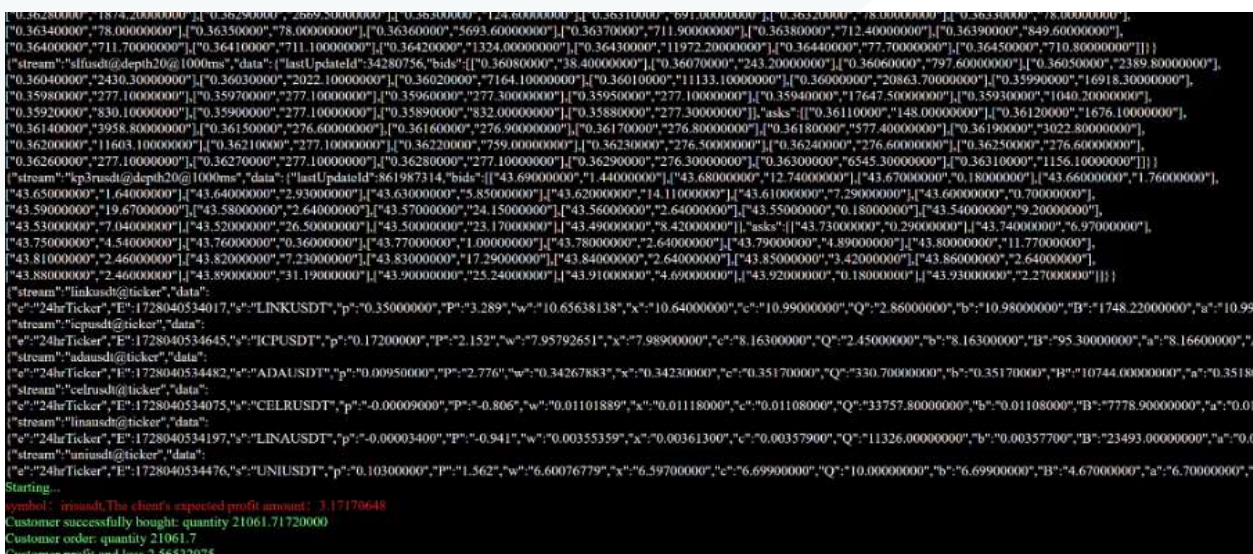
After the G7 system is activated, it begins automatically monitoring and analyzing market data, tracking real-time price fluctuations of cryptocurrencies, and preparing to execute predefined trading strategies.



GPTBank Activates the G7 System

### 2. AI Automatic Order Placement

When the system detects a trading opportunity that matches the strategy, it automatically generates an order, eliminating the need for manual intervention by the customer. The system will automatically purchase cryptocurrencies based on the funds and risk preferences in the customer's account.



G7 System Automatic Order Placement

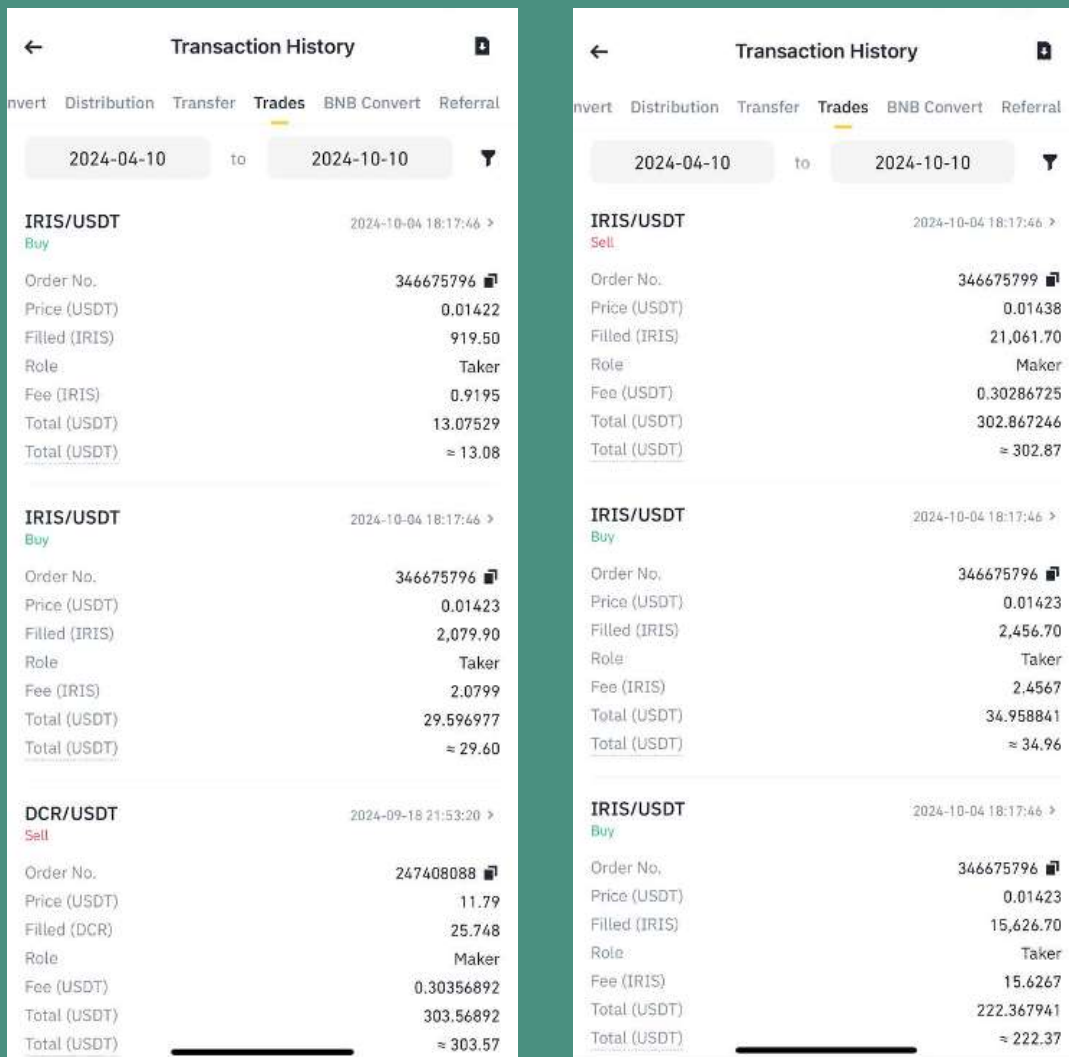
### 3. Automatic Trading

Upon detecting an appropriate buying opportunity, the system immediately executes the cryptocurrency purchase operation.

Example:

Customer successfully sold IRIS: 21,061.71720000

Customer order quantity: 21,061.7



Transaction Type	Order No.	Price (USDT)	Filled (Quantity)	Role	Fee (USDT)	Total (USDT)
Buy (IRIS/USDT)	346675796	0.01422	919.50	Taker	0.9195	13.07529
Sell (IRIS/USDT)	346675799	0.01438	21,061.70	Maker	0.30286725	302.867246
Buy (IRIS/USDT)	346675796	0.01423	2,079.90	Taker	2.0799	29.596977
Sell (DCR/USDT)	247408088	11.79	25.748	Maker	0.30356892	303.56892
Buy (IRIS/USDT)	346675796	0.01423	15,626.70	Taker	15.6267	222.367941

G7 System Automatic Trading Record

#### 4. Monitoring and Optimization

The G7 system continuously tracks market changes and adjusts trading strategies based on real-time data to optimize customer returns. The system will continuously execute this cycle until the customer's trading goals are met or the predefined exit conditions are triggered.

#### 5. Automated Management

The entire process is fully automated, requiring no manual operation by the customer. The system will continuously execute trades and monitor profits and losses in the background, ensuring the implementation of trading strategies and maximizing profits.

Through its robust technological framework and automated trading processes, the G7 system helps users easily participate in the global financial market and achieve sustained profits in a complex and ever-changing market environment.



## III. Value Proposition of the G7 System

### 3.1 Digital Identity and Credit Management

The G7 system provides users with blockchain-based digital identity management, which not only ensures user privacy and data security but also enhances the reliability of credit ratings through transparent and tamper-proof digital records.

The user's transaction behavior, financial assets, and historical records will be incorporated into the system's **credit rating mechanism**, thereby establishing a more comprehensive personal or corporate credit system. This improves credibility in the financial market and secures more favorable financial service conditions.

### 3.2 Cross-Border Financial Services and Green Finance

Leveraging its efficient blockchain technology, the G7 system achieves fast, secure, and low-cost cross-border fund flows. Whether it's cross-border payments, foreign exchange, or investment operations, the G7 system effectively supports users in freely conducting capital operations on a global scale.

Additionally, the G7 system actively promotes **green finance** by utilizing smart contracts and transparent capital flows to help financial institutions and enterprises invest in low-carbon, sustainable development projects. This supports the development of the global green economy. Moreover, the system's efficient trading model reduces resource consumption, aligning with the trend of green finance development.

### 3.3 Insurance, Wealth Management, and Guarantee Services

The G7 system offers comprehensive insurance and wealth management solutions for users. Using AI and blockchain technology, **the G7 system can automatically analyze users' risk preferences and financial situations to develop personalized insurance and investment plans**. Users can obtain suitable insurance products through the platform, ensuring financial security.

In wealth management, the G7 system helps users achieve long-term, stable asset appreciation through intelligent portfolio management. It dynamically adjusts investment strategies based on market changes to optimize returns. Additionally, the system's collateral services use smart contracts to ensure fund security and reduce investment risks, further enhancing users' investment confidence.

### 3.4 Supply Chain Finance and Investment Support

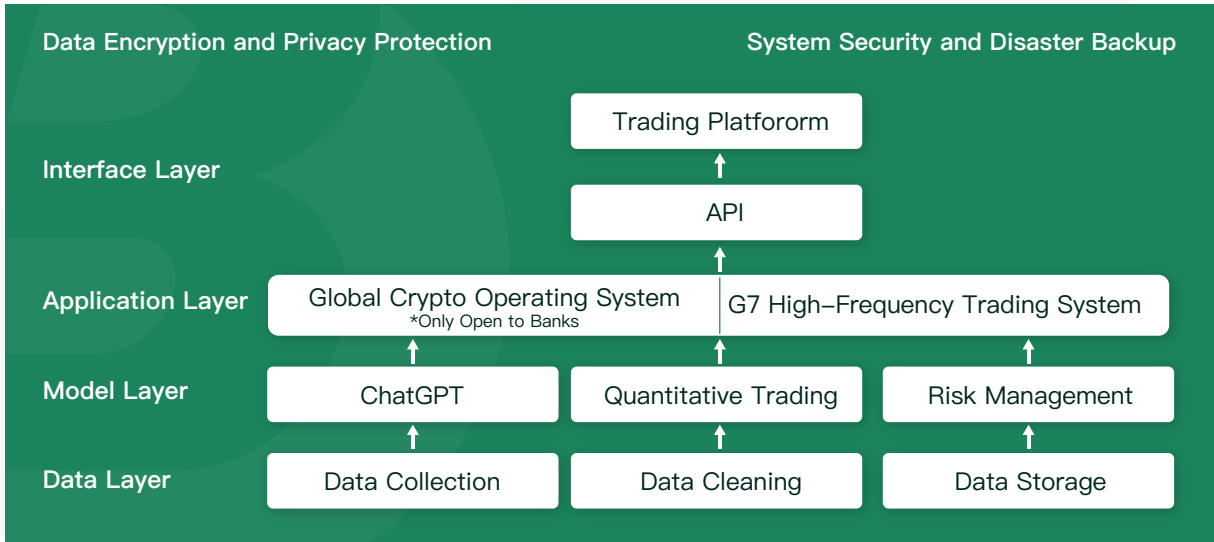
The G7 system provides innovative solutions for supply chain finance through blockchain technology. Traditional supply chain finance faces challenges with credit evaluation and fund transfer efficiency. The G7 system combines digital identity and credit management to conduct comprehensive credit evaluations of enterprises in the supply chain, reducing financing risks. The system also provides automated fund clearing and settlement services, significantly improving fund flow efficiency.

In terms of investment and financing support, the G7 system offers diverse investment opportunities through its efficient quantitative trading capabilities. It combines intelligent risk assessment technology to reduce investment risks. The system supports various financing methods, helping enterprises and individuals secure the necessary funds to support business development and asset appreciation.

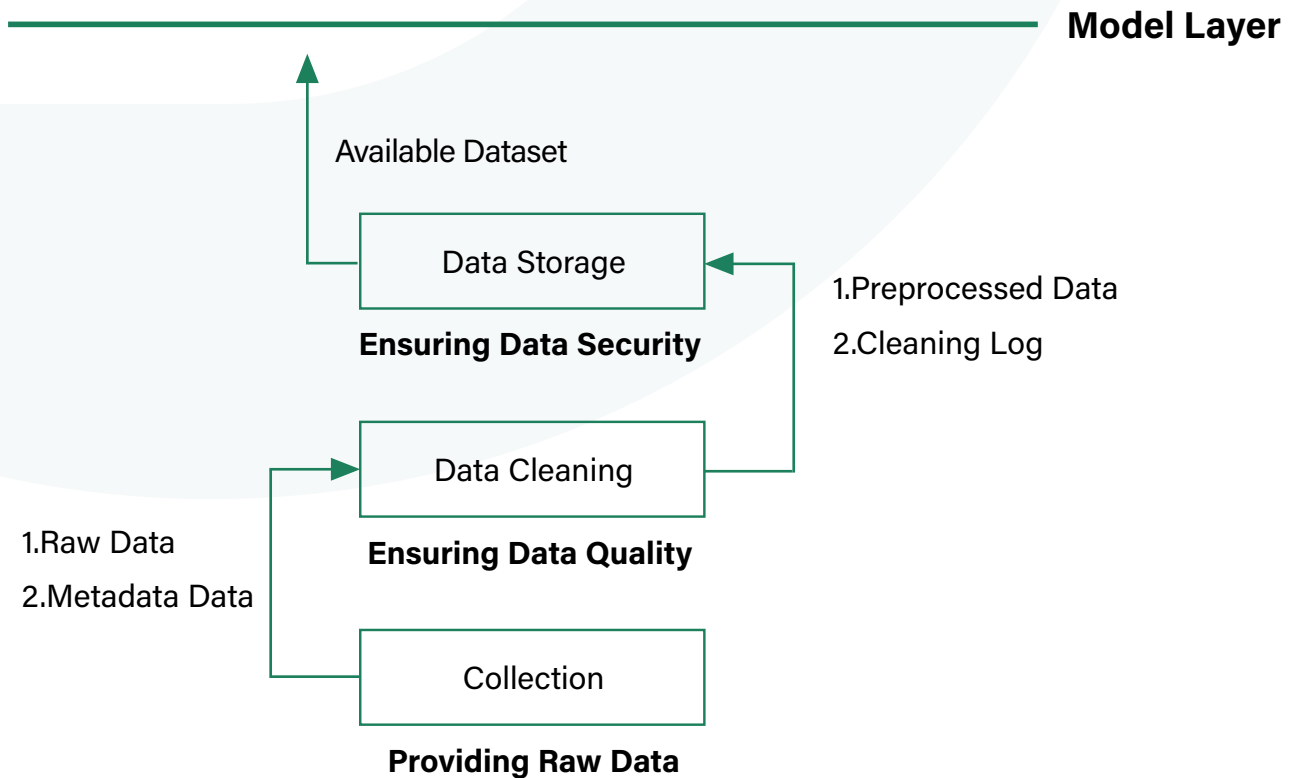


The G7 system accurately predicts market trends

# IV. In-Depth Analysis of the G7 System Architecture



## 4.1 Data Layer



### Data Collection Module:

Utilizing advanced crawler technology and API integration, this module gathers real-time and historical data from various channels worldwide, including financial markets, social media, and news information. The data collected includes but is not limited to stock prices, trading volumes, market sentiment, and macroeconomic indicators.

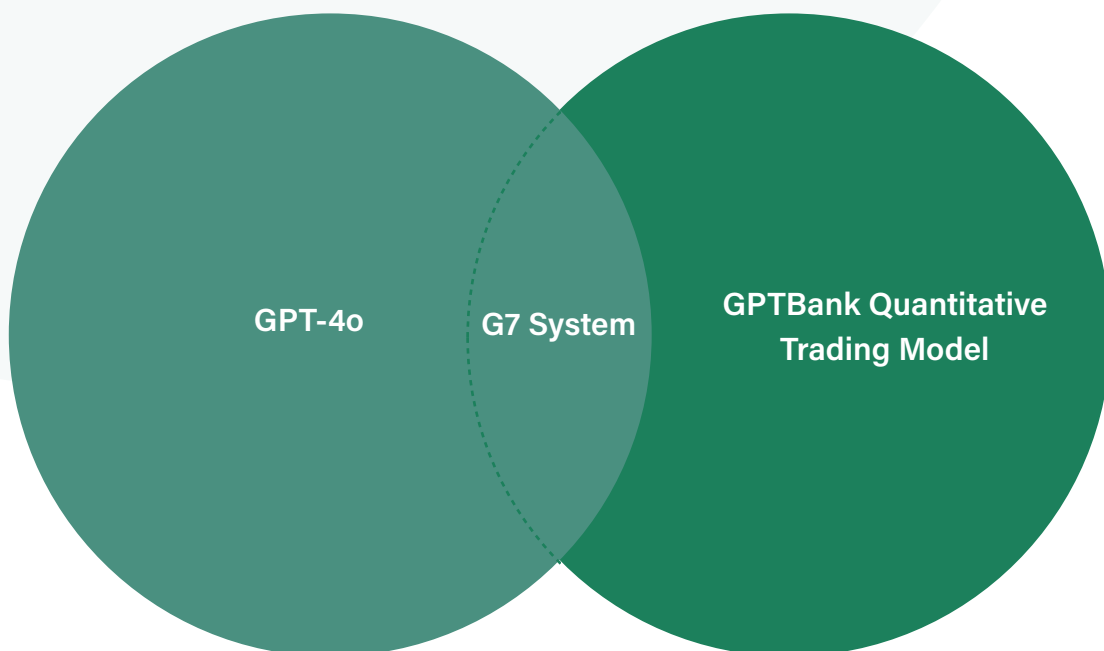
### Data Cleaning Module:

This module employs a combination of automated scripts and manual reviews to ensure the accuracy, completeness, and consistency of the data. By removing noise, filling in missing values, and correcting errors, the raw data is transformed into high-quality, usable data.

### Data Storage Module:

This module uses distributed databases and blockchain technology to ensure data security and traceability. All data is encrypted and stored, with multiple backup mechanisms in place to prevent data loss. Additionally, blockchain technology provides an immutable record of the data's source and change history.

## 4.2 Model Layer



## GPT-4o + GPTBank Quantitative Trading Model

The model layer is the core component of the G7 system. The introduction of the GPT-4o model enhances the model's comprehension and generation capabilities, enabling it to more accurately grasp market dynamics. This model not only inherits the outstanding abilities of ChatGPT (an advanced AI assistant proficient in understanding and generating human language) but also provides users with in-depth market analysis and real-time market information services.

The GPTBank Quantitative Trading Model is built on GPTBank's machine learning and big data analysis technologies. It can automatically identify market trends and uncover potential trading opportunities. Through thorough backtesting of historical data and real-time simulation trading, the model continuously optimizes its parameters and strategies, aiming to achieve stable returns and effective risk control.

The deep integration of GPT-4o with the GPTBank Quantitative Trading Model empowers the G7 system with the ability to generate and optimize trading strategies in real-time based on market dynamics.

## 4.3 Decentralized G7 System

**Decentralization is one of the core features of the G7 system.**

To achieve this goal, we have adopted distributed ledger technology and consensus algorithms to meticulously construct a decentralized network architecture. In this architecture, each node holds a complete copy of the ledger and works collaboratively through a consensus mechanism to ensure the consistency and completeness of the ledger data.

This decentralized design not only significantly enhances the system's security and reliability but also effectively reduces the risk of single-point failures. Additionally, the decentralized architecture provides users with higher transparency and traceability, ensuring that every transaction and operation is publicly visible and tamper-proof. This design philosophy not only strengthens user trust but also lays a solid foundation for the system's long-term stable operation.



## 4.4 API Interfaces and Applications

To facilitate seamless integration with the G7 system for developers and other partners, we have meticulously designed a comprehensive suite of rich API interfaces. These interfaces cover a wide range of critical areas, including data acquisition, model invocation, and trade execution, and are compatible with various programming languages and development frameworks.

Our API interfaces strictly adhere to RESTful design principles, offering simplicity, ease of use, and high scalability. Through these interfaces, developers can effortlessly integrate the various functionalities of the G7 system into their applications, enabling real-time data retrieval, online model invocation, and automated trade execution.



# V. GPTBank Token: The G7 Economic Ecosystem

## 5.1 G7 Token Overview

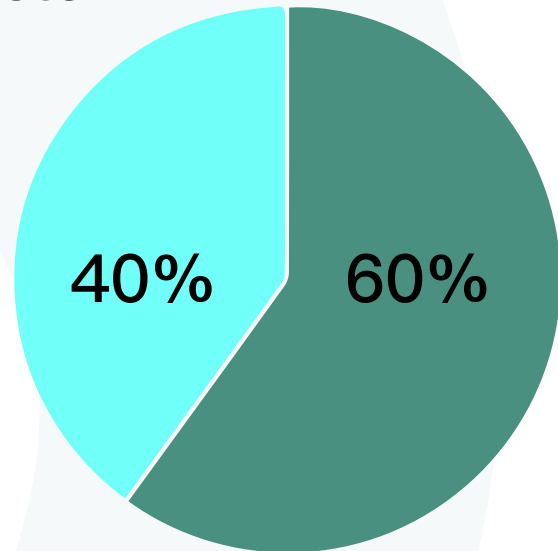
Cryptocurrency Name: G7

Consensus Mechanism: AIDPoS

Total Supply: 210,000,000

Production Method and Proportion:

- 60% produced by the GPTBank ecosystem.
- 40% produced by the joint ecosystem.



## 5.2 G7 Consensus Mechanism

**Consensus Name:** AIDPoS

**Consensus Overview:**

To enhance the network efficiency, security, and fairness of GPTBank's G7 cryptocurrency, we have innovatively designed the AIDPoS (AI-Driven Delegated Proof of Stake) consensus mechanism. This mechanism combines the features of the G7 AI system with existing blockchain consensus models.

**AIDPoS Consensus Features:**

### 1. AI-Assisted Delegated Proof of Stake

**Optimized Witness Election:**

AIDPoS optimizes the **witness election process** in traditional DPoS by incorporating **G7 AI system assistance**. The system selects witnesses based on multiple dimensions of data, including the historical performance of validation nodes, computational assets (such as the number of products purchased and the scale of reinvested assets), and contributions to the promotional network. It also considers real-time market and network conditions for **dynamic recommendations**. This means that the selection of witnesses is no longer solely based on token holder votes but is enhanced by AI model analysis, leading to more rational node selection and significantly improving network fairness and security.

### **Data-Driven Decision Making:**

Although users can still vote for validators through token voting, the list of witness recommendations provided by the G7 AI system offers users more robust data support. This allows new nodes to have the opportunity to win elections based on their technical capabilities, effectively mitigating the risk of overly concentrated voting power.

## **2. Dynamic Validator Weight Adjustment**

### **Dynamic Weight Adjustment:**

The G7 system uses advanced reinforcement learning algorithms to evaluate node performance in real-time and dynamically adjusts their weights. This ensures high-performing nodes have more opportunities while underperforming nodes face reductions or removal.

### **AIDPoS Consensus Advantages:**

#### **Smarter Validator Election:**

AI integration ensures a fairer node election process, reducing centralization risks.

#### **Cross-Asset and Global Governance:**

Aligned with global digital asset market dynamics, it supports various assets and uses AI for automated market-making, enhancing market liquidity.

#### **Explainable AI Enhances Transparency:**

The open and transparent AI decision-making process boosts user trust and compliance.

#### **High-Performance Computing Support:**

Built on an advanced distributed computing architecture, it provides swift transaction confirmation and block generation speeds, enhancing overall network performance.



## 5.3 G7 Token Burn Mechanism and Value Support

We have designed a comprehensive burning mechanism to maintain the value and stability of the G7 cryptocurrency.

### **G7 Burning Mechanism:**

Total Burn Amount: 189,000,000

Burning Methods:

- Each transfer and transaction automatically burns 3% of G7 coins.
- GPTBank periodically conducts buybacks and burns coins.

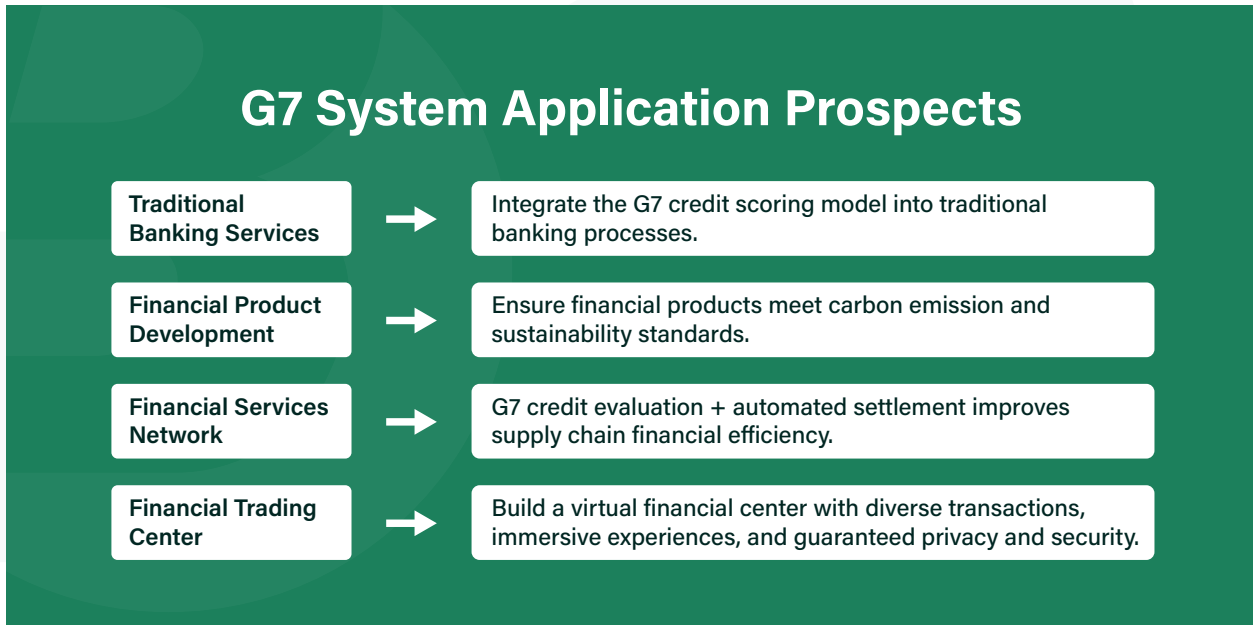
Final Remaining Circulating Supply: 21,000,000

### **Value Support:**

1. GPTBank reduces the circulating supply and enhances the coin's value through regular buybacks and burning G7 coins.
2. The prosperity of the G7 system's ecosystem and the continuous expansion of its application scenarios provide a solid value foundation for the G7 coin.
3. As the user base grows and the partner network expands, the application scope and market demand for the G7 coin will further drive its stable appreciation.



## VI. Future Prospects of the G7 System



### 6.1 Integration into Traditional Banking

We plan to integrate the G7 credit scoring model into traditional banking processes, enhancing credit evaluations by incorporating diverse user data like social media behavior and online consumption habits. This can significantly improve approval efficiency in processes such as credit card applications.

### 6.2 Green Financial Products

We are committed to developing green financial tools, including green bonds and funds, to meet global market demand. The G7 system's tracking capabilities ensure investment projects meet carbon emission and sustainability standards.

## 6.3 Financial Services Network

We will collaborate with core enterprises and supply chain partners to build a comprehensive financial services network. Using blockchain technology, we aim to enhance transaction transparency and efficiency, reducing potential risks and optimizing supply chain financial processes.

## 6.4 New Financial Transaction Scenarios

By integrating technologies like zero-knowledge decentralized metaverse, we are exploring new financial transaction scenarios. Our goal is to provide users with a secure, innovative virtual financial trading environment, such as a virtual financial trading center for diverse financial activities with immersive experiences and guaranteed privacy and security.



## Conclusion

GPTBank has showcased its strong innovative capabilities in the fintech sector across several key areas. Firstly, GPTBank has successfully integrated advanced AI technologies like GPT-4o into its quantitative trading models. This provides users with in-depth market analysis and strategy recommendations, enabling the automatic generation and optimization of trading strategies, and significantly enhancing efficiency and accuracy.

Secondly, GPTBank employs a decentralized network architecture using distributed ledger technology and consensus mechanisms like DPoS. This ensures data security and transparency while enhancing overall system stability and resilience, providing a reliable and secure service environment.

In data processing, GPTBank has established comprehensive mechanisms for data collection, cleaning, and storage, ensuring high data quality and usability. The RESTful API interfaces are simple and easy to use, facilitating developers in integrating GPTBank's functionalities into various applications, enhancing versatility and flexibility.

Finally, GPTBank has designed the G7 cryptocurrency and its burning mechanism to create a token system with practical applications and economic incentives. This maintains the long-term value of the cryptocurrency and supports the healthy development of the ecosystem. Looking ahead, GPTBank will continue to explore emerging fields like zero-knowledge technology to drive fintech industry development and innovation.

