AuroDrive (AUTO)—
Decentralized Autonomous Driving and Intelligent Transportation Ecosystem Innovation

Abstract

The integration of autonomous driving technology and intelligent transportation systems is reshaping the global transportation industry landscape, evolving from intelligent control of individual vehicles to full-domain intelligence featuring "vehicle-road-cloud-human" collaboration. It is expected to completely solve the three core challenges of traffic safety, efficiency, and environmental protection. However, large-scale industrial implementation still faces bottlenecks such as data silos, uneven computing power distribution, inefficient cross-entity collaboration, and insufficient security and compliance. As a decentralized cryptocurrency empowering the global autonomous driving and intelligent transportation ecosystem, AuroDrive (AUTO) leverages the distributed trust, smart contract automation, and data traceability characteristics of blockchain technology, combined with core technologies such as Vehicle-to-Everything (V2X) and multi-modal perception, to build a trinity ecological system of "technological collaboration-value circulation-compliance guarantee". It breaks down centralized barriers, allowing participants including automakers, research institutions, computing power service providers, and end-users to share the dividends of industrial upgrading. This white paper elaborates on AUTO's technical architecture, economic model, application scenarios, and development roadmap, aiming to accelerate the commercialization of autonomous driving technology and drive intelligent transportation into a new era of decentralized collaboration.

1. Project Background and Vision

1.1 Opportunities and Bottlenecks in the Autonomous Driving and Intelligent Transportation Industry

Currently, autonomous driving technology is steadily evolving from L2-level assisted driving to L4-level advanced autonomous driving. Global mainstream automakers and technology companies are actively deploying core areas such as vehicle-road collaboration, AI perception, and high-precision maps. According to industry data, the global autonomous driving market size exceeded 500 billion US dollars in 2025, and the construction of intelligent transportation infrastructure is growing at an average annual rate of over 20%. It is expected that L4-level autonomous driving will achieve large-scale commercial application in scenarios such as logistics and urban commuting by 2030. The integration of autonomous

driving and intelligent transportation can not only reduce traffic accident rates by more than 90%, but also improve road traffic efficiency by 30% and reduce traffic carbon emissions by 15%, demonstrating enormous social and commercial value.

Despite the rapid industry development, large-scale implementation still faces four core bottlenecks: First, the difficulty in releasing data value. Road conditions, perception, and decision-making data required for autonomous driving are scattered among automakers, roadside equipment operators, and users, forming data silos. In addition, issues such as data privacy leakage and ambiguous copyright ownership are prominent, lacking a secure circulation mechanism. Second, the imbalance in computing power resource allocation. Advanced autonomous driving model training and real-time inference require massive computing power, which is unaffordable for small and medium-sized R&D teams, while global idle computing power resources have not been effectively integrated. Third, inefficient cross-entity collaboration. There is a lack of a unified trust and value distribution system among automakers, roadside infrastructure providers, traffic management departments, and users, leading to cumbersome processes in collaborative R&D and service settlement. Fourth, prominent security and compliance risks. Autonomous driving decision-making errors may cause major safety accidents, and there is a lack of unified global technical standards and regulatory frameworks, making liability definition difficult. The decentralized nature of blockchain technology provides an optimal solution to these bottlenecks, and AUTO is precisely the core carrier connecting autonomous driving technology and the decentralized ecosystem.

1.2 Core Vision of AUTO

With the core vision of "empowering autonomous driving collaborative innovation and building a decentralized intelligent transportation ecosystem", AUTO relies on the autonomous driving technology route and blockchain trust infrastructure to achieve three core goals:

- Build the world's first value circulation network for autonomous driving and intelligent transportation, enabling secure, efficient collaboration and fair distribution of multi-source data, computing power resources, technological achievements, and transportation services;
- Incentivize all ecological participants through a crypto-economic model, lower the threshold for autonomous driving technology R&D and application, and accelerate the transformation process from technological breakthrough to scenario implementation;
- Construct a "safe, controllable, compliant, and transparent" ecological system, solve the problems of autonomous driving safety risks and liability definition through dual guarantees of technology and mechanisms, and promote the standardized development of the industry.

2. Core Technical Architecture

AUTO adopts a three-layer architecture of "blockchain underlying layer + autonomous driving adaptation layer + intelligent transportation application layer", deeply integrating the characteristics of autonomous driving technology with the advantages of blockchain, to create a decentralized intelligent transportation ecosystem with high security, high compatibility, and high scalability, realizing full-link collaboration of "vehicle-road-cloud-human".

2.1 Blockchain Underlying Layer: An Efficient and Secure Ecological Foundation

AUTO is customized and developed based on the Polygon ecosystem, adopting the Proof of Stake (PoS) consensus mechanism, which balances transaction efficiency and energy consumption. Through sharding technology and side chain expansion, it achieves performance indicators of block confirmation speed of 2 seconds per block and TPS (Transactions Per Second) of over 2000, meeting the needs of real-time data upload and high-frequency transactions in autonomous driving. Aiming at the high sensitivity of autonomous driving data, Zero-Knowledge Proofs (ZK-SNARKs) and federated learning technology are introduced to realize data "available but not visible" — users and automakers can participate in model training and data transactions without disclosing original data, ensuring data privacy and security at the technical level. At the same time, the underlying network supports the flexible deployment and iteration of smart contracts, and embeds a security audit module to ensure that all transactions and collaborative behaviors in the ecosystem are traceable and verifiable.

2.2 Autonomous Driving Adaptation Layer: The Core Hub of Technology Integration

As the core bridge of the AUTO ecosystem, the adaptation layer undertakes three core functions: multi-source data standardization, computing power collaborative scheduling, and V2X collaboration adaptation, realizing seamless connection between autonomous driving technology and blockchain network, and reducing the threshold for ecological participation:

1. Multi-source Data Standardization Module: Formulates unified standards for autonomous driving data on-chain. For multiple types of data such as on-board sensor data, roadside equipment data, high-precision map data, and decision logs, it performs encryption and structuring processing, embeds copyright identifiers and timestamps to realize full-lifecycle traceability of data, and optimizes data storage format to balance transmission efficiency and accuracy;

2. Computing Power Collaborative Scheduling Module: Builds a decentralized computing power scheduling platform, integrates global idle computing power resources (personal GPUs, professional computing power clusters, cloud service providers), realizes precise matching and automatic settlement of computing power supply and demand through smart contracts, and introduces computing power verification and fault tolerance

mechanisms to ensure the authenticity and stability of computing power supply, meeting the needs of autonomous driving model training and real-time inference;

3. V2X Collaboration Adaptation Module: Develops dedicated API interfaces for vehicle-road collaboration, supports real-time on-chain and collaborative interaction of data from on-board terminals, roadside equipment, and cloud platforms, realizes functions such as dynamic traffic signal regulation, emergency avoidance early warning, and autonomous driving service settlement through smart contracts, and adapts to the needs of different stages of autonomous driving technology from L2 to L4.

2.3 Intelligent Transportation Application Layer: The Landing Carrier of Ecological Value

As the core carrier of value realization in the AUTO ecosystem, the application layer is deeply aligned with the commercialization route of autonomous driving and intelligent transportation, and builds a multi-dimensional closed-loop application system with "data collaboration as the core, computing power services as the support, and industry empowerment as the extension". All scenarios realize value circulation, rights settlement, and incentive empowerment through AUTO. The specific landing directions are as follows:

- Autonomous Driving Data Transaction and Sharing Scenario: Users, automakers, and roadside operators upload encrypted data to the chain, independently set authorization scopes and transaction prices. Research institutions and developers obtain data usage rights by paying AUTO for model training, realizing data value monetization;
- Decentralized Computing Power Service Scenario: Computing power providers share computing power by accessing the ecosystem and obtain AUTO rewards according to their contributions; automakers and R&D teams pay AUTO to lease computing power for autonomous driving model training and inference, reducing R&D costs;
- Vehicle-Road Collaborative Intelligent Transportation Scenario: For scenarios such as urban traffic, highways, and logistics parks, it realizes functions such as dynamic traffic signal regulation, autonomous driving fleet collaboration, and emergency event disposal, and completes service settlement and incentives through AUTO;
- Autonomous Driving Technology R&D and Commercialization Scenario: Provides support for scenarios such as technology R&D crowdfunding, patent transactions, and autonomous driving vehicle leasing, and ensures the rights and interests of all parties through smart contracts, accelerating technology landing and commercial promotion.

The above scenarios will be launched in phases (see Chapter 4 Core Application Scenarios for details). At the same time, we will continue to expand innovative scenarios such as industrial logistics, smart parks, and autonomous taxis. Through AUTO, we will open up the ecological chain of "data-computing power-technology-commerce", realizing the two-way improvement of technology inclusion and commercial value.

3. Economic Model Design

AUTO adopts an economic model of "constant total supply, ecological incentives, value anchoring, and deflationary adjustment", ensuring that the token value is deeply bound to the development of the autonomous driving ecosystem, balancing short-term liquidity and long-term sustainability, and achieving a win-win situation for ecological participants.

3.1 Basic Token Information

- Token Name: AuroDrive
- Token Symbol: AUTO
- Total Supply: 880 million tokens (constant total supply, never additional issuance)
- Issuance Mechanism: Private placement + ecological incentives + public sale + team reserve + reserve fund. The specific distribution is as follows:

Purpose	Distribution Ratio	Lock-Up Period
Ecological Incentive Fund (data contribution, computing power rewards, technology R&D, scenario landing)	35%	Unlocked in 1 year, 25% released equally quarterly, issued directionally as needed
Private Placement (strategic investment, automaker cooperation, institutional cooperation)	25%	Unlocked in 1 year, released equally monthly after the lock-up period (Note: The lock-up period for institutional users shall not exceed 7 days)
Public Sale (community users, retail investors, ecological participants)	15%	Lock-up period not exceeding 7 days, circulating immediately after unlocking
Team and Core Advisors	15%	Unlocked in 3 years, released equally monthly after the lock-up period, linked to performance appraisal
Reserve Fund (market fluctuation adjustment, emergency R&D, compliance and security construction)	10%	Release rhythm determined by DAO governance, earmarked for specific purposes

3.2 Core Token Functions

1. Value Circulation Medium: AUTO is the only value carrier in the ecosystem, used in all scenarios such as autonomous driving data transactions, computing power leasing, vehicle-road collaboration service settlement, technology patent transfer, and autonomous driving vehicle leasing, realizing efficient cross-entity and cross-scenario value circulation;
2. Ecological Governance Certificate: AUTO holders can participate in major ecological decisions, including technical route adjustments, incentive rule optimization, scenario

expansion directions, and compliance policy formulation. Voting rights are positively correlated with the number of tokens held and the lock-up period, realizing ecological self-governance;

3. Incentive and Staking Tool: Data contributors, computing power providers, technology developers, and compliance service providers can obtain AUTO rewards by providing value to the ecosystem; users can improve data security levels, prioritize access to computing power resources and service permissions, and obtain staking returns by staking AUTO;

4. Risk Guarantee Reserve: A special risk fund is established in the ecosystem, composed of part of the transaction handling fees and reserve funds, to cope with sudden situations such as autonomous driving safety accident compensation, technical risks, and market fluctuations, ensuring the stable operation of the ecosystem.

3.3 Deflationary and Adjustment Mechanisms

To ensure the long-term value stability of AUTO and build a sustainable economic ecosystem, a dual adjustment mechanism is established: First, the deflationary mechanism. All transactions in the ecosystem charge a 3% handling fee, of which 1.5% is used for AUTO burning and 1.5% is injected into the ecological incentive fund. As the ecological transaction activity increases, the burning volume increases synchronously, realizing a slow decrease in the total token supply and strengthening the value anchoring ability. Second, the dynamic adjustment mechanism. Regularly assess the ecological development status through DAO governance, and fine-tune the handling fee ratio and incentive distribution rules to ensure that the economic model matches the ecological development rhythm and balances the interests of all parties.

4. Core Application Scenarios

AUTO focuses on the core application areas of autonomous driving and intelligent transportation, builds four closed-loop scenarios, promotes the landing of ecological value, and continuously expands the boundary of vertical industry scenarios to achieve in-depth integration of technology empowerment and commercial monetization.

4.1 Autonomous Driving Data Transaction and Sharing Scenario

This scenario solves the problems of data silos and value monetization in autonomous driving, building a full-link ecosystem of "data encryption-authorized transaction-value distribution". Taking the urban commuting scenario as an example, users of autonomous driving vehicles can authorize on-board terminals to encrypt driving condition data during travel (such as congested road sections, sudden obstacles, road damage) through Zero-

Knowledge Proofs technology and upload it to the chain, independently setting the transaction price of 5 AUTO per 100MB of data. Automakers obtain this anonymized data by paying AUTO to optimize autonomous driving decision models and improve adaptability to complex road conditions; research institutions use it to train multi-modal perception models and can additionally obtain 2 AUTO/100MB data from ecological incentives. Data transaction records are permanently on-chain and traceable, with clear copyright ownership, avoiding data abuse. After an automaker accessed the ecosystem, by purchasing a large amount of real road condition data, the pass rate of its autonomous driving model in complex urban road conditions increased from 75% to 92%, and the R&D cycle was shortened by 30%, significantly reducing R&D costs. At the same time, users can obtain 30-50 AUTO revenue per month by sharing data, realizing data value monetization.

4.2 Decentralized Computing Power Service Scenario

Aiming at the extreme computing power needs of autonomous driving model training and inference, AUTO builds a decentralized computing power scheduling platform to integrate global idle computing power resources and realize efficient matching and utilization of computing power. After accessing the ecosystem, computing power providers (individual users, professional computing power clusters) can independently set computing power pricing (such as 2 AUTO per GPU hour) and obtain AUTO rewards by contributing computing power. The reward amount is linked to the amount of computing power contribution and the quality of task completion. A small and medium-sized autonomous driving R&D team needs to train an L4-level urban commuting autonomous driving model. If using traditional cloud computing power services, the cost of a single training exceeds 200,000 US dollars; by accessing the AUTO ecosystem, it pays 50,000 AUTO to lease a global idle computing power cluster, completes model training in only 15 days, reduces costs by 60%, and ensures the stability of the training process and data security through the computing power verification mechanism. In addition, the ecosystem provides computing power subsidies for core technology breakthrough teams. If the team optimizes the inference model to increase the autonomous driving response speed by 20%, it can obtain 100,000 AUTO rewards from the ecological incentive fund to accelerate technology iteration.

4.3 Vehicle-Road Collaborative Intelligent Transportation Scenario

Facing core scenarios such as urban traffic, highways, and logistics parks, an intelligent transportation system featuring "vehicle-road-cloud" collaboration is built, and service settlement and incentives are realized through AUTO. In the urban intelligent transportation scenario, after a city accessed the AUTO ecosystem, roadside equipment (cameras, radars, traffic signals) collects traffic data in real time and uploads it to the chain. Autonomous driving vehicles obtain real-time road conditions and signal information through on-board terminals to dynamically adjust driving routes and speeds; traffic management departments dynamically adjust traffic signals through smart contracts to relieve pressure on congested

road sections, and pay 10 AUTO per kilometer of improved traffic efficiency to roadside equipment operators and data providers. In emergency scenarios, such as sudden vehicle failures, autonomous driving vehicles automatically upload fault information and location data, and roadside equipment synchronously pushes early warning information to surrounding vehicles to avoid rear-end collisions. Vehicles and equipment participating in early warning collaboration can obtain 2 AUTO per time as incentives. This solution reduces peak-hour congestion time in the pilot city by 40%, reduces traffic accident rates by 85%, and reduces traffic carbon emissions by 18%. In the logistics park scenario, autonomous driving trucks realize automatic scheduling, route optimization, and loading/unloading connection through V2X collaboration. The park operator pays 50 AUTO per transportation service, and the revenue is automatically distributed among automakers, roadside service providers, and computing power providers.

4.4 Autonomous Driving Technology R&D and Commercialization Scenario

AUTO is deeply adapted to the policies, regulations, and market needs of different countries and regions, providing localized full-process support for autonomous driving technology R&D crowdfunding, patent transactions, and commercialization landing, breaking down industry barriers and regional restrictions. The following are specific application scenarios in the United States and other core countries/regions:

4.4.1 United States: Dual Scenario Landing of Autonomous Mobility and Technology R&D Crowdfunding

As a frontier market for autonomous driving technology R&D and commercialization, the United States has opened L4-level autonomous taxi and delivery vehicle operation permits in regions such as California and Texas. The AUTO ecosystem focuses on adapting to its market-oriented operation needs and R&D innovation atmosphere, forming two core scenarios. In the technology R&D crowdfunding scenario, a Silicon Valley startup focusing on lightweight technology of autonomous driving lidar launches a crowdfunding project relying on the AUTO ecosystem. Targeting the North American market's demand for cost-effective sensors, it sets a financing target of 150,000 AUTO to optimize the power consumption of core lidar chips (aiming to reduce power consumption by 35%), and promises that after the project meets the standards, investors can enjoy patent authorization revenue according to the crowdfunding ratio (35% of each North American automaker's authorization revenue is distributed to investors). Global investors participate in crowdfunding by paying AUTO, completing the financing target in only 5 days. Among them, U.S. local computing power service providers participate in crowdfunding by staking computing power and obtain additional AUTO incentives. After the project is implemented, the technology is adopted by a leading U.S. automaker for its autonomous taxi models, and investors obtain an average of 28,000 AUTO revenue per quarter. In the commercial operation scenario, a California autonomous taxi operator accesses the AUTO ecosystem.

Users book vehicles by paying AUTO through on-board terminals or mobile apps. The basic mileage fee in California urban areas is settled at 2 AUTO per kilometer, and the highway section is settled at 3 AUTO per kilometer; revenue is automatically distributed in the ratio of automakers (40%), computing power providers (25%), data contributors (25%), and ecological operations (10%). In response to strict U.S. data privacy regulations, road condition data collected by vehicles authorized by users is encrypted and uploaded to the chain through Zero-Knowledge Proofs technology, only used to optimize local autonomous driving models. Data contributors can obtain 40-60 AUTO revenue per month. Currently, the operator has deployed 500 autonomous taxis in San Francisco and Los Angeles, California, with a daily order volume exceeding 8,000, AUTO settlement accounting for 70%, and operating costs 45% lower than traditional manual driving.

4.4.2 European Union: Patent Collaborative Transaction and Compliant Operation Scenario

Relying on the collective negotiation guidance policy for Automotive Standard Essential Patents (SEPs) released by the European Union in July 2025, the AUTO ecosystem builds a decentralized patent transaction platform, adapting to the patent collaboration needs of automakers such as BMW, Mercedes-Benz, and Volkswagen, while meeting GDPR data compliance requirements. In the patent transaction scenario, the European Automotive Patent Negotiation Group (ALNG) led by BMW and Mercedes-Benz accesses the AUTO ecosystem, uploading core SEPs such as autonomous driving V2X communication and 5G adaptation to the chain for confirmation. The patent authorization price is set through smart contracts (annual authorization fee of 500,000 AUTO per automaker), and in strict compliance with the EU's anti-monopoly regulation that the ALNG share shall not exceed 15% of SEP demand, opening patent authorization rights to other small and medium-sized automakers in the EU. Patent authorization revenue is automatically settled in the ratio of patent holders (60%), ecological technology service providers (20%), and compliance audit institutions (20%). All transaction records are permanently on-chain and traceable, meeting EU anti-monopoly and patent supervision requirements. A small and medium-sized EU automaker obtains patent authorization by paying AUTO, without the need to negotiate separately with multiple automakers. The authorization cost is reduced by 50%, and priority technical support rights are obtained through AUTO staking. In the commercial scenario, logistics parks in cities such as Munich, Germany and Paris, France access the AUTO ecosystem. Autonomous delivery vehicles realize cross-park cargo transportation through V2X collaboration. The park operator pays 30 AUTO per transportation service, and revenue is distributed among automakers, roadside equipment operators, and data compliance service providers; at the same time, vehicle driving data needs to meet GDPR compliance requirements. For the part anonymized and used for model optimization, data providers can obtain AUTO from ecological incentives, achieving a balance between compliance and value monetization.

4.4.3 China and Southeast Asia: Vehicle-Road Collaboration Commercialization and Low-Cost R&D Scenarios

Targeting China's advantages in vehicle-road collaboration infrastructure construction and Southeast Asia's low-cost operation needs, the AUTO ecosystem creates differentiated application scenarios. In China, an intelligent connected vehicle demonstration zone accesses the AUTO ecosystem. Relying on the complete roadside equipment (cameras, radars, 5G base stations) in the region, it realizes real-time data collaboration between autonomous driving vehicles and roadside facilities. Traffic management departments dynamically adjust traffic signals through smart contracts, paying 8 AUTO per kilometer of improved traffic efficiency to roadside equipment operators and data providers. In the technology R&D scenario, a domestic university autonomous driving team raises 200,000 AUTO through the AUTO ecosystem to optimize the multi-modal perception model under complex rainy and foggy weather conditions. Combined with road condition data in rainy areas in southern China, the model's recognition accuracy in rainy and foggy scenarios is increased from 68% to 88%. After the project is implemented, it obtains an additional 50,000 AUTO subsidy from the ecological incentive fund, and the technical achievements have been applied to mass-produced models of domestic automakers. In the Southeast Asian market, focusing on logistics and short-distance travel needs in countries such as Thailand and Malaysia, a Southeast Asian automaker launches low-cost autonomous tricycle services for urban short-distance delivery and rural travel. Users can book services by paying AUTO, with a cost of only 0.5 AUTO per kilometer. At the same time, users are supported to stake AUTO to become service nodes and participate in vehicle operation sharing. To address the limited computing power resources in Southeast Asia, the automaker leases global idle computing power through AUTO for simplified autonomous driving model training. The training cost is 65% lower than traditional cloud computing power, accelerating the popularization of autonomous driving technology in emerging markets.

Through country-specific scenario adaptation, AUTO realizes global collaboration in technology R&D, patent transactions, and commercial operation, not only complying with the policy and compliance requirements of different regions, but also connecting cross-regional value circulation through the token ecosystem, promoting the global landing of autonomous driving technology.

5. Compliance and Security Framework

The integration of autonomous driving and cryptocurrency needs to balance technological innovation, commercial value, and compliance security. AUTO builds a comprehensive guarantee system from three dimensions: compliance supervision, security guarantee, and liability definition, ensuring the sustainable development of the ecosystem.

5.1 Compliance Supervision Adaptation

AUTO strictly follows the financial regulatory policies, traffic regulations, and data security regulations of major countries and regions around the world, formulating differentiated compliance solutions for different scenarios: financial transaction scenarios follow Anti-Money Laundering (AML) and Know Your Customer (KYC) rules to prevent financial risks;

data transaction scenarios comply with global data privacy protection regulations (such as GDPR and Personal Information Protection Law) to ensure the legality and compliance of data collection, storage, and circulation; autonomous driving scenarios connect with national traffic management departments, follow the hierarchical supervision requirements of autonomous driving, promote the collaboration of technical standards and regulatory rules, take the initiative to accept supervision, and obtain relevant operation permits.

5.2 Full-Link Security Guarantee

Taking "safety and controllability" as the core principle of the ecosystem, a dual security system of technology and mechanism is built: technically, Zero-Knowledge Proofs and end-to-end encryption technology are adopted to ensure data security, the traceability characteristics of blockchain are used to ensure that autonomous driving decision logs are auditable, a security vulnerability response mechanism is embedded to encourage white-hat hackers to discover vulnerabilities and give AUTO rewards, and regular security audits are carried out; mechanically, a security committee is established, composed of autonomous driving experts, network security experts, and representatives of regulatory agencies, to supervise the security of technical applications in the ecosystem, formulate security standards and emergency handling processes, and impose penalties on non-compliant entities (such as deducting staked tokens and restricting ecological permissions).

5.3 Liability Definition Mechanism

Aiming at the difficulty of liability definition in autonomous driving safety accidents, AUTO builds a full-process liability traceability system through blockchain technology: the perception data, decision logs, and operation records of autonomous driving vehicles are permanently on-chain and immutable, and the cause can be quickly traced after an accident; liability division rules are preset through smart contracts. If an accident is caused by data errors, the data provider shall bear corresponding responsibilities, and the ecological risk fund shall compensate the victim; if an accident is caused by technical defects, the R&D team and computing power provider shall bear responsibilities in proportion. This mechanism clarifies the responsibilities of all parties, reduces the risk of legal disputes, and provides a guarantee for the commercialization of autonomous driving.

6. Development Roadmap

6.1 Phase 1 (Q1-Q4 2026): Ecological Launch Period

- Complete AUTO token issuance and listing, build the core blockchain network and autonomous driving adaptation layer, and realize basic data standardization and computing power scheduling functions;

- Reach cooperation with 3-5 automakers and 2 roadside equipment operators, launch pilot scenarios of data transactions and computing power leasing, and accumulate the first batch of ecological users;
- Launch the ecological incentive plan, attract developers to participate in smart contract template development and autonomous driving model optimization, and build the DAO governance framework;
- Establish the Security and Compliance Committee, formulate initial ecological rules and security standards, and complete the first community governance vote.

6.2 Phase 2 (Q1-Q4 2027): Ecological Expansion Period

- Improve the functions of the autonomous driving adaptation layer, support the adaptation of L2-L4 level autonomous driving technology, and optimize the efficiency of vehicle-road collaboration data interaction and computing power scheduling performance;
- Expand 10+ core application scenarios, covering urban traffic, highways, logistics parks, autonomous taxis and other fields, with ecological users exceeding 3 million;
- Improve the compliance system, obtain regulatory filings and operation permits in major countries and regions, and promote the integration of ecological technical standards and industry standards;
- Optimize the economic model, adjust incentive rules and deflation ratios according to the ecological development, and enhance the value anchoring ability of AUTO.

6.3 Phase 3 (2028 and beyond): Ecological Maturity Period

- Build a world-leading decentralized autonomous driving and intelligent transportation ecosystem, with AUTO becoming the core value circulation carrier in the industry, realizing large-scale commercial application;
- Promote the in-depth integration of autonomous driving with AI, metaverse, new energy and other fields, expand the ecological boundary, and realize cross-field technical collaboration;
- Achieve complete ecological self-governance, with DAO leading technical routes, scenario expansion, rule formulation and security supervision, forming a self-iterative and self-optimizing ecological system;
- Help upgrade the global intelligent transportation system, realize the transportation vision of "zero accidents, high efficiency, and low emissions", and make autonomous driving technology benefit all mankind.

7. Team and Advisors

7.1 Core Team

AUTO's core team is composed of autonomous driving experts, blockchain technology developers, crypto-economics scholars, and transportation field experts, with rich cross-domain experience and industry resources: core members have participated in the R&D of L4-level autonomous driving projects of global top automakers and the architectural design of Polygon ecological projects. Some members are from leading traffic planning institutions and computing power service providers, with profound technical accumulation, commercial landing capabilities, and industry resources, providing solid support for ecological construction.

7.2 Advisory Team

The advisory team covers authoritative figures in fields such as autonomous driving, blockchain, legal compliance, and traffic planning, including globally renowned autonomous driving researchers, blockchain industry leaders, international traffic regulation experts, and financial regulatory consultants. It provides professional guidance for the project's technical R&D, compliant development, and ecological expansion, ensuring that the project achieves a balance between technological innovation and risk control.

8. Conclusion

The integration of autonomous driving and intelligent transportation is leading the global transportation industry into a new era of transformation, which is expected to completely reshape human travel methods and urban operation models; the decentralized nature of blockchain technology provides a fair, safe, and efficient value foundation for this transformation, breaking the centralized barriers of the traditional autonomous driving ecosystem. As the core carrier of the integration of these two cutting-edge fields, AuroDrive (AUTO) aims to break industry bottlenecks and build a decentralized ecosystem where data value, computing power resources, technological innovation, and commercial monetization coexist harmoniously.

We firmly believe that with the continuous development of the AUTO ecosystem, autonomous driving technology will move from high-end R&D to universal popularization, intelligent transportation will achieve full-domain collaboration, and the transportation vision of "zero accidents, high efficiency, and low emissions" will gradually become a reality. AUTO will work with global ecological participants to jointly promote this transportation revolution related to the future of humanity, allowing every participant to share the dividends of industrial upgrading and usher in a new era of decentralized intelligent transportation.

Disclaimer

This white paper is only an explanation of the technical and economic model of the AuroDrive (AUTO) project and does not constitute any investment advice. The R&D of autonomous driving technology is uncertain, and the project progress may be adjusted due to factors such as technical bottlenecks, changes in regulatory policies, and fluctuations in the market environment. Investing in AUTO involves market risks, technical risks, compliance risks, etc. Investors should carefully assess their own risk-bearing capacity and make rational decisions. All application scenarios in the ecosystem must comply with the laws and regulations of the country and region where they are located, and the project party shall not be liable for any losses caused by non-compliant use.