

---

## INDUSTRY OVERVIEW

---

*The information and statistics set out in this section and other sections of this document were extracted from the Frost & Sullivan Report prepared by Frost & Sullivan, which was commissioned by us, and from various official government publications and other publicly available publications. We engaged Frost & Sullivan to prepare the Frost & Sullivan Report, an independent industry report, in connection with the [REDACTED]. The information from official government sources has not been independently verified by us, the Joint Sponsors, [REDACTED], any of their respective directors and advisers or any other persons or parties involved in the [REDACTED], and no representation is given as to its accuracy.*

### STATUS AND EVOLUTION OF THE HEAVY-DUTY TRUCKING MARKET

Heavy-duty trucking is a critical component of global trade and industrial supply chains. According to Frost & Sullivan, the gross transaction value (“GTV”) of the global heavy-duty trucking industry exceeded RMB18 trillion in 2025, with more than 20 million heavy-duty trucks in operation worldwide. Due to their high payload capacity, long-haul capabilities and adaptability across multiple operating scenarios, heavy-duty trucks have long served as the backbone of the road freight industry and are widely used in industrial production, commercial circulation and resource transportation.

The road freight industry remains highly fragmented, with freight rates fluctuate with supply and demand. According to the World Bank and Frost & Sullivan, global logistics costs were approximately 15% of global GDP in 2025 and are largely passed through to commodity prices. Improving logistics efficiency therefore supports goods circulation and broader economic activity.

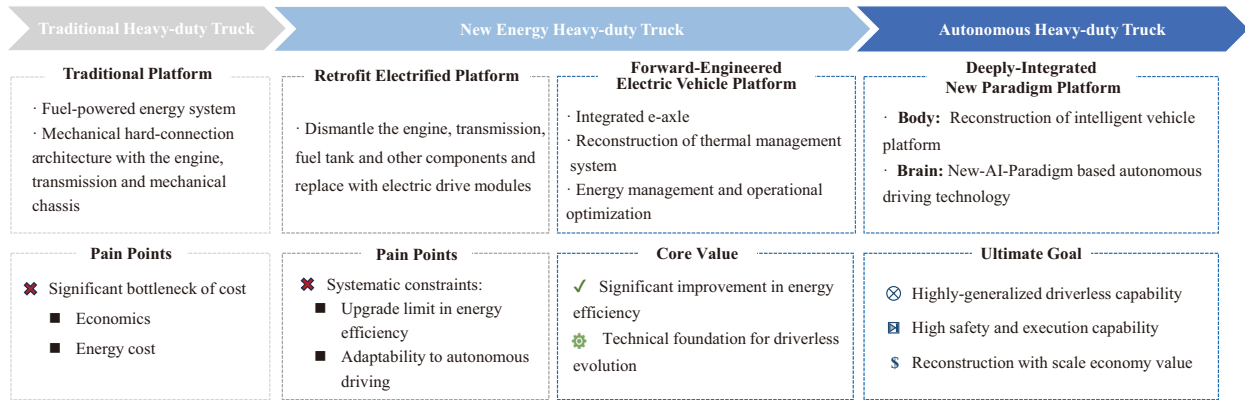
### Pain Points of the Heavy-Duty Trucking Industry

Transportation operators rely on continuous improvements in two core areas, namely, energy efficiency and operational efficiency. Improvements in efficiencies are ultimately translated into measurable total cost of ownership (“TCO”) advantages over the vehicle lifecycle. For conventional fuel-powered heavy-duty trucks, energy consumption and labor costs are typically the two largest components of TCO, generally accounting for more than 60% in aggregate.

Conventional fuel-powered heavy-duty trucks are gradually approaching the physical limits of drivetrain efficiency, while operations management remains heavily reliant on the experience and judgment of drivers and fleet managers, with limited access to vehicle status and operational data. As a result, further efficiency gains remain constrained. These challenges are further exacerbated by tightening driver supply and an aging workforce.

Against this backdrop, the industry’s technological evolution has followed a clear trajectory: from traditional fuel-powered heavy-duty trucks to electrified and digitalized new energy intelligent heavy-duty trucks, and ultimately toward autonomous heavy-duty trucks with end-to-end operations. New energy platforms enable system-level optimization in efficiency, energy management, and digitalization, and provide a more suitable foundation for large-scale deployment and long-term operation of autonomous driving systems.

## INDUSTRY OVERVIEW



### Forward-Engineering New Energy Heavy-Duty Trucks Enhance Energy Efficiency and Establish the Foundation for Autonomous Driving

Energy efficiency is typically the primary determinant of heavy-duty truck TCO and directly affects fleet profitability and resilience. The industry has historically relied on two vehicle platform approaches: (i) conventional fuel-powered heavy-duty trucks, which are constrained by the physical limits of engine thermal efficiency and transmission losses, leaving limited room for further improvement; and (ii) retrofit electrified heavy-duty trucks, which replace the powertrain on an existing fuel-powered chassis, while the transmission architecture, thermal management system and control strategies remain constrained by the existing platform architecture, limiting improvements in energy consumption and driving range performance.

Accordingly, manufacturers need forward-engineered new energy platforms purpose-built around electric powertrain characteristics. This also requires native re-architecture and coordinated optimization of key vehicle systems to improve overall energy efficiency. Specifically:

- ***Integrated e-axle:*** The e-axle sits at the core of the powertrain and directly affects how efficiently energy is converted into tractive force at the wheels. An integrated e-axle combines the electric motor, transmission and axle, among others, into a single unit, effectively shortening the power transmission path and reducing intermediate losses. This, in turn, improves powertrain efficiency and overall energy utilization at the vehicle-system level.
- ***Reconstructed thermal management systems:*** Thermal management system helps improve energy utilization efficiency under varying operating conditions and extend the lifespan of critical components, thereby optimizing driving range and charging efficiency while reducing lifecycle costs.
- ***Energy management and operational optimization:*** Energy-consumption strategies can be implemented based on routes, payloads and operating condition. Combined with the continuous accumulation of engineering data through vehicle data platforms, they enable iterative control optimization and extend benefits from single vehicles to fleet-level efficiency.

---

## INDUSTRY OVERVIEW

---

Forward-engineered new energy platforms also support autonomous driving deployment and long-term operations. Electric-drive architectures strengthen drive-by-wire consistency, provide system-wide power and interfaces for sensors and computing units, support system redundancy, and enable more centralized collection and management of vehicle-status data.

### **Vertically Integrated Autonomous Heavy-Duty Trucks Unlock Operational Efficiency Enhancement**

In heavy-duty operations, drivers manage multiple critical tasks beyond driving including condition assessment, fault handling, and energy management. Accordingly, autonomous operations create value not only by reducing reliance on single driver, but also by shifting dispatch and maintenance from experience-driven to data-driven models and improving scale efficiency.

The commercial deployment of autonomous heavy-duty trucks fundamentally depends on the deep integration between the vehicle itself and the “brain,” the autonomous driving system. The autonomous driving system is responsible for perception, computation and decision-making, while the vehicle hardware and electrical/electronic architecture (EEA) provide the execution capability and safety redundancy.

- **Autonomous driving systems:** Next-generation autonomous driving technologies based on end-to-end foundation models and other advanced artificial intelligence paradigms are improving system generalization capabilities in complex operating environments and enhancing the handling of long-tail scenarios, while also potentially reducing large-scale deployment costs. However, transforming decision outputs into stable and controllable vehicle actions still depends on the capabilities of the vehicle-side execution platform.
- **Vehicle platform:** Vehicle-platform robustness is a prerequisite for meeting safety and operational responsibilities. However, its key value is often underestimated. According to Frost & Sullivan, in 2025, investment in vehicle platforms accounted for approximately 20% of global autonomous-driving-related investment, while investment in autonomous driving systems accounted for more than 70%.
- **Performance:** Autonomous driving requires actuators such as steering, braking and propulsion systems to deliver stable, continuous and predictable responses. Electrified platforms are more conducive to implementing drive-by-wire and centralized EEA, thereby providing a more consistent control foundation for autonomous driving systems.
- **Safety:** Under heavy loads and long-duty cycles, failures are more likely and consequences more severe for heavy-duty trucks. In driverless operation, the vehicle platform must support continuous health monitoring, safety-critical data logging/transmission, fault diagnosis, and risk prediction, while enabling fallback and minimum-risk maneuvers.

Accordingly, autonomous heavy-duty trucks are not simply conventional vehicles equipped with externally added autonomous driving systems, but rather vertically integrated system centered on the deep integration of the “brain” and the vehicle.

---

## INDUSTRY OVERVIEW

---

Vertical integration serves as an important metric for assessing new energy intelligent heavy-duty trucks’ capabilities. In general, a higher degree of vertical integration enables more effective cross-system data interoperability and more coordinated control strategies. It can also reduce redundant hardware and lower integration costs. As a result, overall vehicle performance may improve, including in energy consumption, reliability, and upgrade/iteration capability. This, in turn, helps lay the foundation for large-scale operations and continued technological evolution of autonomous heavy-duty trucks.

### OVERVIEW OF THE NEW ENERGY HEAVY-DUTY TRUCK MARKET

#### Definition and Classification of the New Energy Heavy-Duty Truck Market

New energy heavy-duty trucks refer to heavy-duty trucks equipped with new energy power systems that replace traditional diesel internal combustion engine propulsion through electrification and other alternative technologies. Based on differences in vehicle design architecture, new energy heavy-duty trucks are generally classified into retrofit electrified heavy-duty trucks and new energy intelligent heavy-duty trucks.

- Retrofit electrified heavy-duty trucks refer to heavy-duty trucks converted from conventional fuel-powered trucks by removing components such as engines, transmissions and fuel tanks and replacing them with electric drive modules. This design approach inherently limits the platform architecture and functional modules from fully accommodating the requirements of electrified systems, resulting in constraints in areas such as energy efficiency and transmission efficiency. In addition, their distributed system architecture restricts system coordination and response capabilities, making further upgrades toward autonomous heavy-duty trucks difficult.
- New energy intelligent heavy-duty trucks adopt forward-engineered pure electric platforms with architectures specifically designed around the requirements of electrified systems. Such forward-engineered pure electric platforms provide the necessary hardware foundation for the deployment of autonomous driving systems and serve as the cornerstone for the transition of heavy-duty trucks toward autonomous operation.

The value chain of the new energy heavy-duty truck industry consists of upstream suppliers providing core components, including battery systems, electric drivetrain systems, chassis systems and other critical modules; midstream participants engaged in vehicle design, manufacturing and integration; and downstream applications covering various heavy-duty trucking transportation scenarios. Certain technologically advanced companies extend upstream through in-house development of core modules, enabling a higher degree of vertical integration in overall vehicle design.

#### Drivers and Trends of the New Energy Heavy-Duty Truck Market

##### *Accelerated Replacement of Conventional Fuel-Powered Heavy-Duty Trucks by New Energy Heavy-Duty Trucks*

Against the backdrop of increasing industry focus on operational economics within the heavy-duty trucking sector, new energy heavy-duty trucks are expected to accelerate the replacement of conventional fuel-powered heavy-duty trucks due to their TCO advantages. Energy cost represents one of the most significant advantages of new energy heavy-duty trucks compared with conventional

---

## INDUSTRY OVERVIEW

---

fuel-powered heavy-duty trucks. In conventional fuel-powered heavy-duty trucks, energy costs can account for more than 30% of total TCO, making them the largest cost component. By replacing fuel consumption with electricity, new energy heavy-duty trucks can reduce the proportion of energy costs in total TCO to approximately 20%. Accordingly, driven by these cost advantages, downstream customers are increasingly inclined to adopt new energy heavy-duty trucks.

### *Technology Upgrade Centered on Forward-Engineered Platforms*

The new energy heavy-duty truck industry is rapidly transitioning from retrofit electrification platforms toward new energy intelligent heavy-duty trucks centered on forward-engineered architectures. As a transitional solution, retrofit electrification platforms face significant bottlenecks in terms of performance and upgrade potential. New energy intelligent heavy-duty trucks are expected to become the dominant development trend in the future.

New energy intelligent heavy-duty trucks feature higher levels of system integration and vehicle intelligence, as well as more integrated vehicle architectures and core hardware modules, including e-axes, thermal management systems and electronic control systems. These capabilities provide a solid vehicle hardware foundation for autonomous heavy-duty trucks and are more aligned with the industry’s technological evolution. Going forward, the penetration rate of new energy intelligent heavy-duty trucks is expected to increase rapidly.

### *Further Advancement Toward Autonomous Heavy-Duty Trucks*

As the heavy-duty trucking industry continues to evolve toward autonomous operation, requirements relating to the reliability, controllability, diagnosability and maintainability of vehicle platforms are expected to increase further. Accordingly, vehicle design for new energy heavy-duty trucks is also evolving toward compatibility with autonomous driving system deployment, thereby facilitating deeper integration between the vehicle body and the “brain” (i.e., the autonomous driving system).

Increasing vertical integration represents a key development trend for new energy intelligent heavy-duty trucks. Vehicle-level intelligent design promotes deep adaptation among core hardware systems and close coordination between software systems and execution units, thereby further improving vehicle operability, safety and operational efficiency. Enhancing vertical integration is expected to become a core competitive advantage for industry participants.

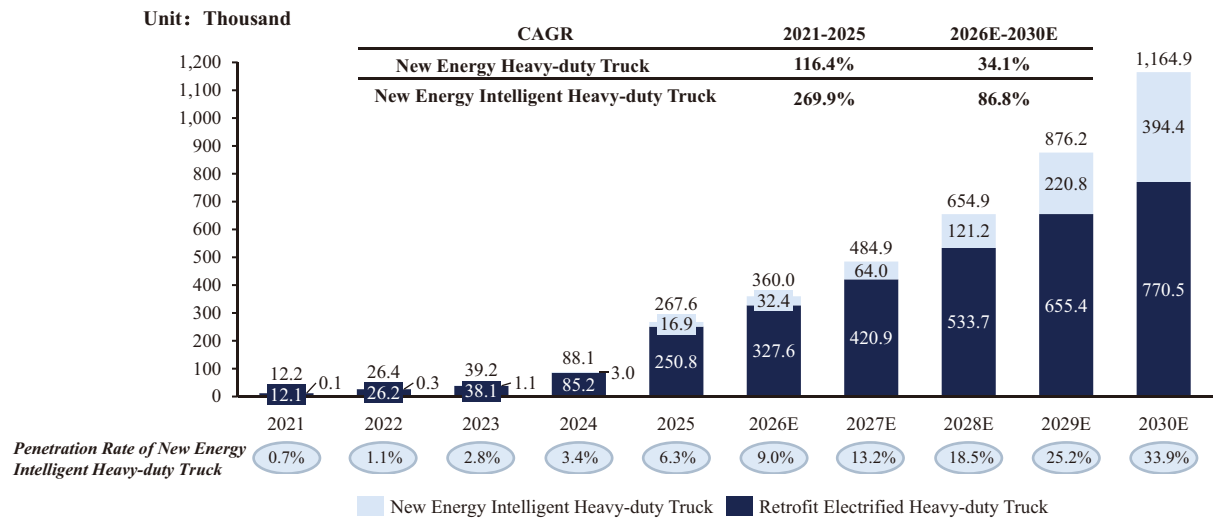
### **Market Size of the New Energy Heavy-Duty Truck Market**

Driven by the growing demand for cost reduction and efficiency improvement in heavy-duty truck operation, as well as the continuous advancement of new energy heavy-duty truck manufacturing technologies, the global market size of new energy heavy-duty trucks increased from 12.2 thousand units in 2021 to 267.6 thousand units in 2025 by sales volume, representing a CAGR of 116.4% from 2021 to 2025, according to Frost & Sullivan.

## INDUSTRY OVERVIEW

In the future, continued upgrades in core technologies of new energy heavy-duty trucks and the gradual improvement of energy replenishment infrastructure will promote the penetration of new energy heavy-duty trucks. According to Frost & Sullivan, the global market size of new energy heavy-duty trucks is expected to grow from 360.0 thousand units in 2026 to approximately 1.2 million units in 2030 by sales volume, representing a CAGR of 34.1% from 2026 to 2030. New energy intelligent heavy-duty trucks are expected to experience rapid growth and accelerate the replacement of retrofit electrified heavy-duty trucks, which primarily serve as transitional solutions. By 2030, the penetration rate of new energy intelligent heavy-duty trucks within the overall new energy heavy-duty truck market is expected to increase from 6.3% in 2025 to 33.9% in 2030, representing a CAGR of 86.8% from 2026 to 2030.

**Global Market Size of New Energy Heavy-duty Truck, by Sales Volume**



Source : OICA , CAAM , Relevant Company Annual Reports, Expert Interviews, Frost & Sullivan






### Competitive Landscape of the Global New Energy Heavy-Duty Truck Market

Players in the global new energy heavy-duty truck market mainly include traditional enterprises such as traditional heavy-duty truck manufacturers and construction machinery manufacturers, as well as emerging new energy heavy-duty truck companies (“**New Force**”). Compared with traditional heavy-duty truck manufacturers and construction machinery manufacturers, New Force companies have generally adopted forward-looking technological strategies aligned with the industry’s transformation pathway toward forward-engineered new energy intelligent heavy-duty truck platforms.

The global market size of new energy heavy-duty trucks reached 267.6 thousand units by sales volume in 2025. Among them, traditional enterprises accounted for more than 80% of the market share, benefiting from mature production systems, abundant engineering experience and comprehensive sales networks. In recent years, the market of the New Force participants has been rapidly increasing.

## INDUSTRY OVERVIEW

The table below sets forth the competitive landscape of global New Force participants in the new energy heavy-duty truck market in 2025. Among such companies, the Company achieved the highest level of integration of mass-produced e-axle, the fastest ramp-up to annual deliveries of 1,000 units since establishment and the highest sales growth rate during the past year among New Force participants.

Ranking	Company	Sales Volume, in Units, 2025	Integration Level of Mass-produced E-axle <sup>5</sup>	Establishment to Annual Delivery of 1,000 Units <sup>6</sup>	Sales Growth in the Past Year
1	Company A <sup>1</sup>	~ 8,000		Approx. 4 years (Established for 6 years)	~170%
2	The Company	1,191		Approx. 3 years (Established for 4 years)	>300%
3	Company B <sup>2</sup>	< 300		Not yet (Established for 9 years)	~50%
4	Company C <sup>3</sup>	~ 200		Not yet (Established for 4 years)	- <sup>7</sup>
5	Company D <sup>4</sup>	~ 100		Not yet (Established for 4 years)	- <sup>7</sup>

Source: Relevant Company Annual Reports, Relevant Company Annual Websites, Expert Interviews, Frost & Sullivan

Notes:

- Company A is a company focused on the R&D, production, and sales of new energy heavy-duty trucks, covering trunk logistics, closed-scenario automated transportation, and other fields. It was founded in 2020 and is headquartered in Anhui, China.
- Company B is a company engaged in the R&D, production, and sales of new energy vehicles (including heavy-duty trucks), energy equipment, and intelligent software services, covering passenger vehicles, commercial vehicles, and other fields. It was founded in 2003, is headquartered in the United States, and was listed on the NASDAQ Stock Market in 2010.
- Company C is a company providing R&D, production, and sales of complete vehicle solutions for new energy heavy-duty trucks. It was founded in 2022 and is headquartered in Jiangsu, China.
- Company D is a company focused on the R&D, production, and sales of new energy commercial vehicles, powertrain systems, and fleet operation management systems. It was founded in 2022 and is headquartered in Fujian, China.
- The integration grade of mass-produced e-axles refers to the extent to which core modules, including motors, gearboxes, e-axles and power take-off systems, are integrated into a single e-axle assembly that has achieved mass production. Higher e-axle integration improves vehicle structural optimization as well as transmission and thermal management efficiency.
- Time from establishment to annual delivery of 1,000 units refers to the period required for a New Force participant to achieve annual deliveries of 1,000 new energy heavy-duty trucks in a single year after establishment. Within the new energy intelligent heavy-duty truck industry, annual deliveries of 1,000 units are generally regarded as a milestone marking the transition from research and smallscale operation to large-scale commercialization.
- As the sales volumes of Company C and Company D in 2024 were fewer than 100 units, they were not included in the statistics.

## INDUSTRY OVERVIEW

Vertical integration is a crucial metric for assessing the capabilities of new energy heavy-duty trucks, and serves as the foundation for the future development towards autonomous heavy-duty trucks. The chart below illustrates the comparison between Our Company and industry peers in the new energy heavy-duty truck industry in terms of key technical dimensions of vertical integration. Overall, Our Company outperforms in terms of vertical integration.

Technical Dimension	The Company	Industry Peers
<b>Electric Driving System . . . . .</b>	Self-developed electric driving system with four-in-one deep integration of motor, gearbox, e-axle and power take-off, enabling weight reduction, volume optimization and system simplification.	Adopt integration of motor and gearbox, with separately deployed e-axle and power take-off, suffering from low integration and excessive dead weight.
<b>Thermal Management System . . . . .</b>	Self-developed multi-source heat pump thermal management system, realizing full-range thermal regulation and effectively improving vehicle range and all-scenario operational stability.	Independent temperature control for single battery system and cockpit, with relatively high energy consumption under low-temperature conditions and low heat recovery efficiency.
<b>Autonomous Driving System. . . . .</b>	End-to-end architecture and pure-vision solution, reducing hardware and data annotation costs with stronger scenario generalization and algorithm iteration efficiency.	Multi-LiDAR fusion schemes, with relatively high overall costs of hardware, mapping and data annotation for large-scale deployment.
<b>Data Management System . . . . .</b>	Comprehensive data management platform with multi-dimensional perception of whole vehicle, applying for driving habit optimization, vehicle system iteration and fleet operation management.	On-board data management platforms for statistics of basic vehicle operational data.

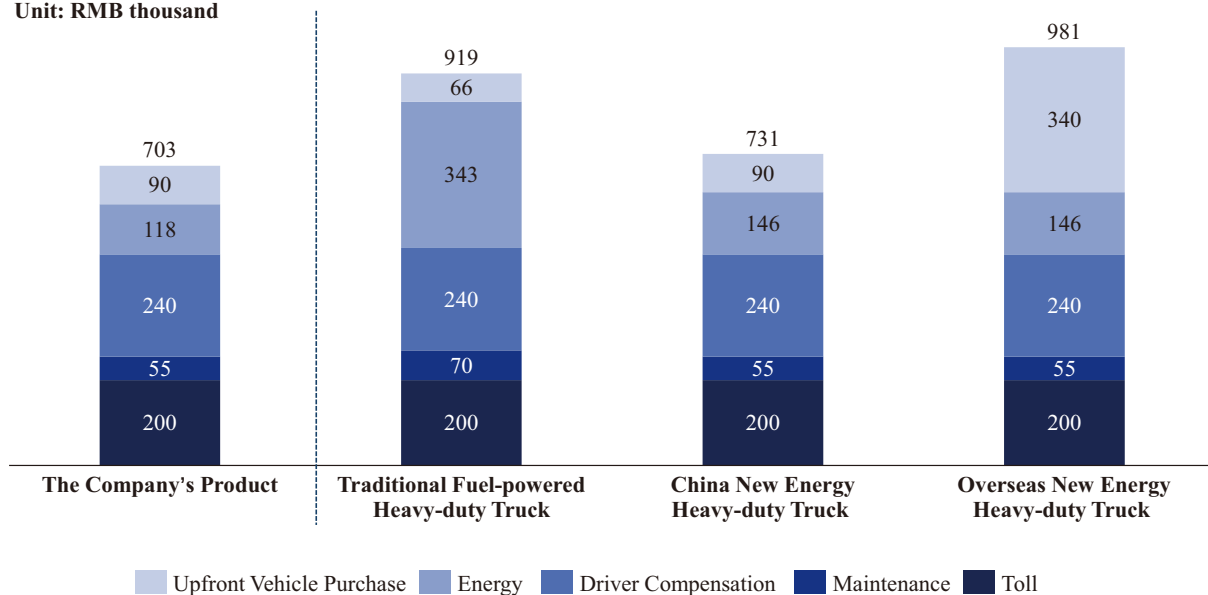
*Source: Relevant Company Annual Reports, Relevant Company Annual Websites, Expert Interviews, Frost & Sullivan*

The chart below illustrates annual TCO comparison of traditional fuel heavy-duty trucks, China new energy heavy-duty trucks, global new energy heavy-duty trucks and the Company’s vehicles. The annual TCO consists of upfront vehicle purchase, energy cost, driver compensation, maintenance and toll fees. Overall, the Company’s vehicles demonstrates significant TCO advantages against traditional fuel heavy-duty trucks and global new energy heavy-duty trucks, and relatively outperform the average annual TCO of China new energy heavy-duty trucks.

## INDUSTRY OVERVIEW

### Annual TCO Comparison of Heavy-duty Truck

Unit: RMB thousand



Source: Public Information of Relevant Companies, Frost & Sullivan

Notes:

1. Assuming that the average holding period for vehicles is five years.
2. The annual TCO of traditional fuel-powered heavy-duty trucks, China new energy heavy-duty trucks and overseas new energy heavy-duty trucks are calculated by the average cost of heavy-duty truck industry.

### Barriers to Entry in the New Energy Heavy-Duty Truck Market

#### Vehicle Design Barriers

New energy heavy-duty trucks are built upon electrified powertrain systems, requiring companies to possess core technological capabilities relating to three-electric systems integration, vehicle electrification and related technologies. The research, development and manufacturing logic of such vehicles differs substantially from that of conventional fuel-powered heavy-duty trucks. Relevant technological capabilities require long-term research and development accumulation as well as validation under real-world operating conditions.

#### Supply Chain Barriers

New energy heavy-duty trucks impose stringent requirements on the stability, cost control and delivery capability of core components, while the supply chain for key components is characterized by a high degree of specialization and concentration. Leading industry participants have accumulated strong resource integration capabilities and established stable and cost-efficient supply chain systems. New entrants generally face difficulties in rapidly establishing mature supply chain networks.

---

## INDUSTRY OVERVIEW

---

### *Technology Upgrade Barriers*

As the industry evolves toward new energy intelligent heavy-duty trucks centered on forward-engineered pure electric platforms, higher requirements are being imposed on vehicle platform forward-design capabilities. At the same time, the in-house development and systematic integration of core hardware modules, including e-axles, thermal management systems and electronic control systems, together with software modules such as digital platforms and autonomous driving systems, require strong system-level research and development capabilities. It is difficult for new entrants to establish such technological capabilities within a short period of time and thereby achieve the design and development of new energy intelligent heavy-duty trucks.

## OVERVIEW OF THE AUTONOMOUS HEAVY-DUTY TRUCK SOLUTION MARKET

### **Definition of Autonomous Heavy-duty Truck**

Autonomous heavy-duty truck refers to heavy-duty trucks equipped with L4 or above driverless technology. It achieves full-process unmanned autonomous driving via multi-sensor fusion, autonomous driving algorithms and by-wire chassis. Autonomous heavy-duty truck represents the ultimate development direction of technological evolution in the heavy-duty truck industry.

The traditional road freight industry continues to face challenges such as low operational efficiency and limited scalability. Autonomous heavy-duty truck utilize intelligent algorithms and systems to build efficient and integrated intelligent freight system, effectively address industry pain points, and reshape the operating model of the traditional road freight industry. With the business model of autonomous heavy-duty truck sales and driverless technology service for freight enterprises, autonomous heavy-duty truck solutions will become a new automated and intelligent paradigm for the global road freight industry.

### **Market Size of the Autonomous Heavy-duty Truck Solution**

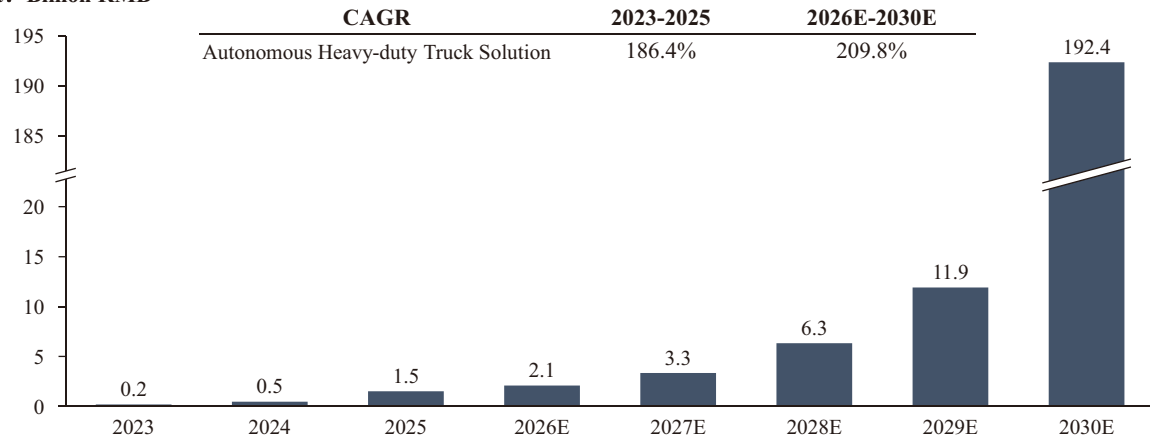
According to Frost & Sullivan, the global market size of autonomous heavy-duty truck solution exceeded RMB1.5 billion by revenue in 2025. The continuous maturity of driverless technology has steadily enhanced autonomous heavy-duty truck’s capabilities in perception, decision-making, control and system collaboration. Meanwhile, major economies including China, the U.S. and the EU have published supportive policies for autonomous heavy-duty truck technical validation and commercialization, supporting its shift from pilot verification to large-scale deployment.

Driven by further technological maturity and regulatory opening, the application of autonomous heavy-duty truck in freight scenarios will scale up substantially. According to Frost & Sullivan, the global market size of autonomous heavy-duty truck solution is projected to maintain rapid growth, reaching RMB192.4 billion by revenue in 2030, with a CAGR of 209.8% from 2026 to 2030. 2030 will act as a critical acceleration node, as the orderly opening of road rights and large-scale deployment in open scenarios will boost industry expansion, accelerate the intelligent and scaled development of the global road freight market, and fundamentally reshape the freight market landscape. By 2035, the global market size of autonomous heavy-duty truck solution are expected to reach over RMB 1 trillion.

## INDUSTRY OVERVIEW

### Global Market Size of Autonomous Heavy-duty Truck Solution, by Revenue

Unit: Billion RMB



Source: Relevant Company Annual Reports, Expert Interviews, Frost & Sullivan

### Barriers to Entry in the Autonomous Heavy-Duty Truck Solution Market

#### *Vehicle Adaptation Barriers*

Unlike passenger vehicles, heavy-duty trucks operate in driving scenarios characterized by long braking distances, substantial variations in vehicle mass and complex motion systems, typically consisting of both tractors and trailers. Accordingly, autonomous driving systems for heavy-duty trucks must achieve long-range perception, tracking and prediction capabilities, highly coordinated module execution and control, and motion control algorithms specifically adapted to heavy-duty trucking scenarios.

These characteristics impose extremely high requirements on both the intelligence level of vehicle hardware systems and the design of autonomous driving algorithms. New entrants are generally unable to accumulate sufficient technological capabilities within a short period of time, nor can autonomous driving technologies developed for passenger vehicles be directly transferred to heavy-duty trucking applications.

#### *Algorithm and Data Barriers*

The development of autonomous driving algorithms and models involves substantial technological barriers, with high overall research and development thresholds and long technology iteration cycles. Autonomous driving systems require extremely high levels of algorithmic accuracy, latency control and generalization capability across perception, control and decision-making processes. The continuous improvement of such capabilities depends on the accumulation of massive amounts of real-world operational data.

Companies must establish a full-cycle closed-loop data infrastructure encompassing data collection, annotation, model training and algorithm optimization. New entrants generally face significant challenges in building competitive algorithmic and data capabilities within a short timeframe.

---

## INDUSTRY OVERVIEW

---

### **Drivers and Trends of the Autonomous Heavy-Duty Truck Solution Market**

The rapid development of the autonomous heavy-duty truck solution market is driven by three core factors: cost, safety and operational efficiency. These factors reinforce one another and form a positive feedback loop, thereby establishing a solid foundation for the large-scale commercial deployment of autonomous heavy-duty trucks.

#### ***Significant Cost Advantages***

By reducing reliance on human drivers through autonomous driving algorithms and systems, autonomous heavy-duty trucks fundamentally address operational efficiency pain points within the traditional freight transportation industry and optimize full-process operating costs. Electrified chassis platforms and by-wire chassis systems simplify mechanical structures and improve modularization, thereby reducing maintenance frequency and lifecycle depreciation costs and further strengthening cost advantages.

#### ***Improved Safety Performance***

Autonomous heavy-duty trucks utilize multi-sensor fusion, real-time perception and active obstacle avoidance functions, thereby fundamentally reducing accidents caused by human error. The precise control capabilities of electric chassis systems, combined with the high reliability of by-wire chassis architectures and optimized autonomous driving algorithms, enable standardized driving operations and improve operational stability and safety.

Enhanced safety performance reduces accident-related losses, improves market acceptance and creates the necessary preconditions for large-scale deployment.

#### ***Improvement in Operational Efficiency***

Autonomous heavy-duty trucks substantially improve vehicle utilization and transportation efficiency. Intelligent centralized management systems expand fleet management scope, reduce driver-to-vehicle ratios and improve overall management efficiency. Through deep integration with logistics dispatch systems, autonomous heavy-duty trucks can optimize the matching of vehicles, cargo and routes, thereby reducing empty-load mileage and improving overall fleet efficiency.

In addition, the massive operational data accumulated through large-scale deployment provides continuous feedback for algorithm iteration and further optimization of autonomous heavy-duty truck operating systems.

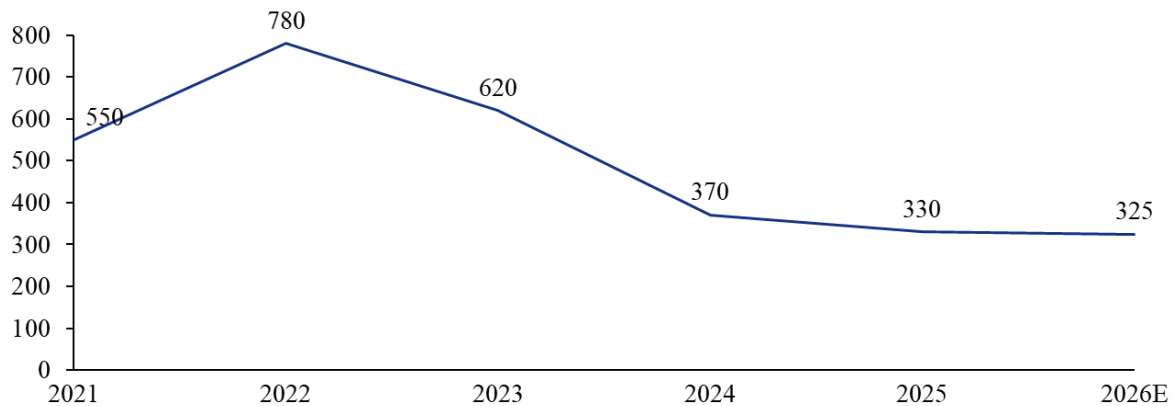
### **PRICE ANALYSIS OF COMPONENTS**

LFP battery is one of the major components for new energy heavy-duty. According to Frost & Sullivan, the price of LFP battery cells increased from 2021 to 2022, mainly due to higher lithium salt and other upstream raw material prices. From 2023 to 2025, the price of LFP battery cells gradually declined as the price of raw material fell, while the production capacity and the maturity of related supply chain positively improved. In the future, the price of LFP battery cells is expected to move from rapid adjustment to a more stable low-level range. Further declines will mainly come from higher production efficiency, process optimization and economies of scale. Overall, the price of LFP battery cell are expected to maintain a stable status.

## INDUSTRY OVERVIEW

### Price of LFP Battery Cells

Unit: RMB per KWh



Source: Shanghai Metals Market, Frost & Sullivan

### SOURCE OF INFORMATION

We engaged Frost & Sullivan, an independent market research consultant, to conduct an analysis of, and to prepare a report on, the spatial design software industry in China for use in this document (the “**F&S Report**”). We have agreed to pay a fee of RMB650,000 to Frost & Sullivan in connection with the preparation of the F&S Report. We have extracted certain information from the F&S Report in this section, as well as in “Summary,” “Risk Factors,” “Business,” “Financial Information,” and elsewhere in this document to provide our potential [REDACTED] with a more comprehensive presentation of the industries in which we operate.

During the preparation of the F&S Report, Frost & Sullivan performed both primary and secondary research, and obtained knowledge, statistics, information, and industry insights on the industry trends of the spatial design software market in China. Primary research was conducted via interviews with key industry experts and leading industry participants. Secondary research involved analyzing data from various publicly available data sources. The information and data collected by Frost & Sullivan has been analyzed, assessed, and validated using Frost & Sullivan’s in-house analysis models and techniques.

The F&S Report was compiled based on the following assumptions: (i) the overall social, economic, and political environment in China is expected to remain stable during the forecast period, (ii) related key industry drivers are likely to continue driving growth in the spatial design software industry during the forecast period, and (iii) there will be no extreme force majeure or unforeseen industry regulations in which the market may be affected in either a dramatic or fundamental way during the forecast period.