The information and statistics set out in this section and other sections of this document were extracted from the 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, the* [**REDACTED**]*, the* [**REDACTED**]*, the* [**REDACTED**]*, the* [**REDACTED**]*, the* [**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.*

VAST MOBILITY MARKET AND ABUNDANT GROWTH OPPORTUNITIES IN CHINA AND GREATER BAY AREA

China has the largest urban population in the world. The urbanization rate reached 66.2% in 2023 and is expected to reach 71.3% in 2028 and 72% in 2035. The per capital annual disposable income in China increased from RMB28.2 thousand in 2018 to RMB39.2 thousand in 2023. As one of the fastest-growing city clusters in China, the Greater Bay Area ("GBA") has an urban population of 69.1 million in 2023, with an urbanization rate exceeding 87.8%. GDP of the region reached RMB11.0 trillion in 2023, accounting for 8.7% of the country's economic aggregate. The per capita annual disposable income of the GBA was RMB66.7 thousand in 2023, which was 72% higher than the national average. This number is forecasted to reach RMB86.5 thousand in 2028 and RMB107.8 thousand in 2035, suggesting the GBA population's strong spending power that sustains the region's demand for high-quality mobility services. The total spending on mobility services in China, including public transit, ride-hailing, taxi and other mobility services, reached RMB5.2 trillion in 2023. It is projected to rise to RMB8.7 trillion by 2028, with the GBA accounting for over 11% of the total expenditure in that year. Total spending on mobile services in China is expected to reach RMB10.1 trillion by 2035.

However, residents in China are facing many challenges or pain points with respect to mobility:

- *Traffic congestion*. China's average urban population density is 2.9 thousand people per km^2, which is significantly higher than that of the U.S. (around 0.95 thousand people per km^2). Such high urban population density has led to traffic congestion, especially in rush hours. The average commute time in major cities such as Beijing, Guangzhou and Shenzhen was more than 37 minutes in 2023.

- *Environmental pollution.* Currently, traditional Internal Combustion Engine ("ICE") vehicles remain dominant among registered, privately-owned vehicles in China. Penetration rate of New Energy Vehicles ("NEVs") in terms of the number of vehicles in 2023 was only 34.6%. A vast majority of the vehicles on the road still use fossil fuels and emit GHG and other pollutants.

- *Low utilization rate of privately-owned vehicles*. Privately-owned vehicles are typically parked for long hours and are used mostly for daily commute. Consequently, the average utilization rate of privately-owned vehicles in China is less than 30%, while their values continuously depreciate during useful lives, causing significant waste of resources.

- *Stringent registration and utilization policies.* Many cities in China, such as Beijing and Shanghai, have executed vehicle registration or utilization restriction policies, which limit the number of vehicles that can be registered and operated within central areas. Due to the high demand for vehicles and the limited supply of license plates, many potential vehicle owners have to participate in a lottery system or an auction to obtain a vehicle registration. This process can be time-consuming, costly and uncertain.

Driven by continuous technological advancement, including Internet technologies, big data analytics, Internet of Things ("IoT") and Artificial Intelligence ("AI"), new trends and growth opportunities have emerged in recent years with the potential to address the aforementioned problems:

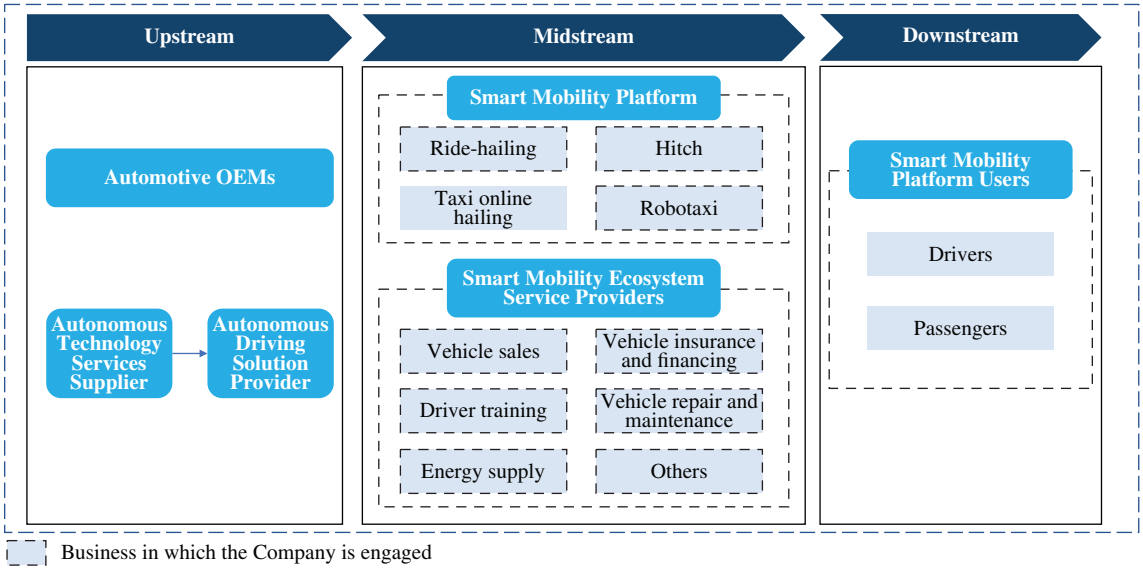
- *Sharing economy and platform economy.* Driven by technological advancement and increasing consumer purchasing power, the sharing economy and the platform economy have grown to a multitrillion-RMB market in China. Influenced by the principle of the sharing economy and platform economy, smart mobility service platforms endeavor to introduce affordable mobility options.

- *Electrification in automobile industry.* Electrification has become a growing trend in the automobile industry, both in China and worldwide. Major economies, including China, the EU and the U.S., are committed to accelerating the adoption of NEVs. The penetration rate of NEVs in terms of sales volume is expected to reach 72.1% in 2028 in China, up from 34.6% in 2023, primarily due to favorable policies and technological advancement. The penetration rate of NEVs in China is expected to reach 86.0% by 2035.

- *Autonomous driving in mobility industry.* Driven by the goal of cost reduction, Robotaxi is a new trend in transportation services. It leverages the principles of sharing economy and platform economy to provide affordable mobility options. With autonomous driving technology, Robotaxis operate without human drivers, reducing labor costs and offering round-the-clock service availability. Technological advancements and increasing acceptance of autonomous vehicles have facilitated the emergence and growth of Robotaxi services. This innovative approach to transportation has the potential to revolutionize travel, providing a more cost-effective and efficient mobility solution.

SIGNIFICANT MARKET POTENTIAL OF SMART MOBILITY INDUSTRY IN CHINA

Smart mobility encompasses innovative solutions for passenger vehicles including ride-hailing, hitch, taxi online hailing and Robotaxis, utilizing technology to enhance transportation efficiency, sustainability and user experience. These services, enabled by digital platforms, offer convenient, personalized and eco-friendly travel options. Smart mobility integrates new technologies, including electric powertrain, wireless communication, Internet technologies, big data analytics and AI, making transportation safer and more efficient. The chart below illustrates the value chain of the smart mobility industry:



Source: Frost & Sullivan Analysis

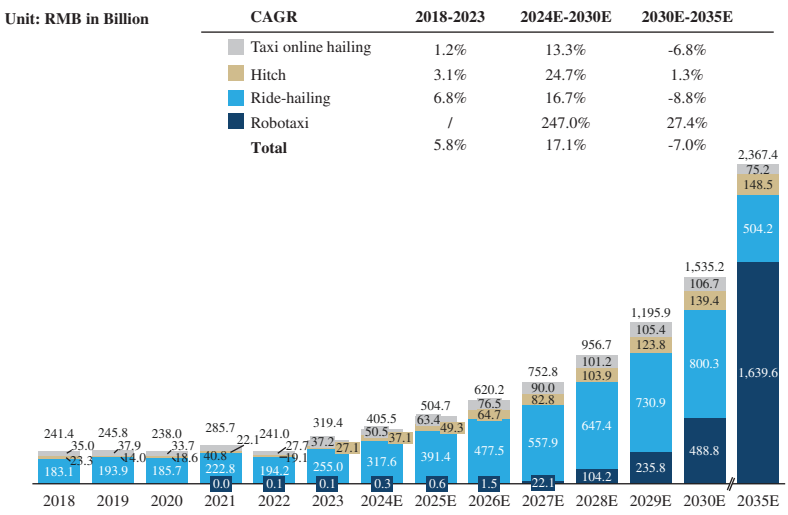
The following chart sets forth a comparison of the key aspects of ride-hailing, hitch/carpooling, taxi online hailing and Robotaxi services.

	Ride-hailing	Hitch/Carpooling	Taxi online hailing	Robotaxi (in 2023)	Robotaxi (in future)
Definition	• Ordering a personalized ride online via mobile applications, which are provided by ride-hailing platforms – a type of third party that mediates the service between the driver and the passenger.	• Collaborative use of a private car by several individuals traveling along the same or similar itinerary at mutually compatible times • In the smart mobility industry, "hitch" and "carpooling" essentially refer to the same concept, but the terms are sometimes interchangeably used in practice.	• Ordering a traditional taxi online via mobile applications, which are provided by ride-hailing platforms –a type of third party that mediates the service between the taxi driver and the passenger.	• A driverless shared mobility vehicle built-in with L4 and L5 autonomous driving technology	
Transport Capacity Supply	• Mainly from car rental companies or car financial leasing companies (>50%) • Private car owners	• Generally private car owners	• Generally taxi companies	• Robotaxi platforms • Autonomous Driving Solution Providers	• Robotaxi platforms • Robotaxi fleet
Drivers	• Professional drivers	• Generally private car owners	• Professional drivers	• Driverless	• Driverless
Operating Permit in Transportation Industry	Platform: Ride-hailing Operation Permit (網絡預約出租汽車經營許可證) Vehicle: Ride-hailing Vehicle Permit (網絡預約出租車運輸證) Driver: Ride-hailing Driver Permit (網絡預約出租汽車駕駛員證)	• Vehicle: no permit requirement • Driver: no permit requirement	Vehicle: Road Transportation Permit (道路運輸證) Driver: Cruising Driver Permit (巡遊出租汽車駕駛員證)	Platform: **General operating permit:** • Ride-hailing Operation Permit (網絡預約出租汽車經營許可證) **Regional operating permit (non-exhaustive):** • Beijing: Unmanned Passenger Demonstration Application Notification Letter (無人化載人示範應用通知書) • Guangzhou: Unmanned Autonomous Passenger Service Testing Permit (無人駕駛遠程載客測試許可); Robotaxi Operation Permit (自動駕駛車輛出租車運營許可) • Pudong, Shanghai: Driverless Autonomous Connected Vehicle Road Testing Permit (無駕駛人智能網聯汽車道路測算許可證)	• N/A
Nature of the Mobility Mode	Commercial	Collaborative	Commercial	Commercial	Commercial
Pricing	Generally 0.8x to 4.0x of local taxi price based on different service types	0.3x-0.5x of local taxi price	1.0x of local taxi price	1.0x of local taxi price	Less than 1.0x of local taxi price

Source: Frost & Sullivan

Smart mobility platforms offer a more efficient and convenient mobility experience. Users are able to order a customized ride service through their smartphone applications and travel to the designated location within a few minutes. The market size of China smart mobility services fluctuated from 2020 to 2022, mainly attributable to the travel restrictions and reduced mobility caused by the COVID-19 pandemic. Going forward, the lifting of travel restrictions is expected to create a positive outlook for the smart mobility market in China. As people resume their daily commute, the demand for relevant services is expected to rebound. With the continual advancement of autonomous driving technologies, Robotaxi has the potential to offer a more cost-effective and safer travel experience to passengers, driving the growth of the smart mobility market in China. The chart below illustrates the growth prospects of the China smart mobility market.

China Passenger Vehicle Smart Mobility, GTV, 2018-2030E, 2035E



Notes:

1. The projected size of China passenger vehicle smart mobility market is determined by various factors, such as Chinese population, the China's urbanization rate, per capita traveling expenses, issuance of compliance certificates for ride-hailing vehicles, government regulations, and advancements in Robotaxi related technology.

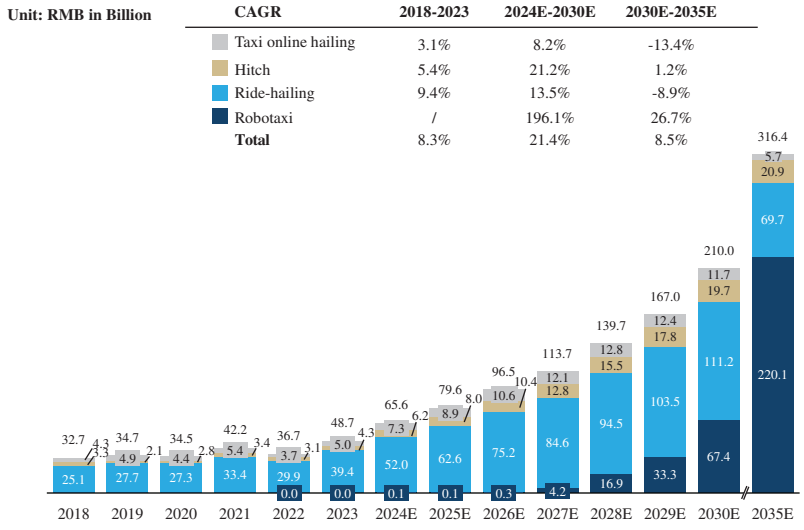
2. The estimation of the market size for each smart mobility category is determined by the total number of orders within that category multiplied by their average prices per order.

3. The methodology takes into consideration the expected growth in overall demand for smart mobility services. This growth is influenced by economic development and a higher level of urbanization in the population. Additionally, the average prices per order for different smart mobility categories are anticipated to steadily increase in tandem with economic development and rising per capita traveling expenses.

Source: Listed companies' public filings, Government statistics, Expert Interview and Frost & Sullivan Analysis

As one of the five major city clusters and one of the most developed regions in China, the GBA shows strong demand potential for mobility services. The chart below shows the total GTV of smart mobility services in GBA:

The Greater Bay Area passenger vehicle smart mobility market size by GTV, 2018-2030E, 2035E

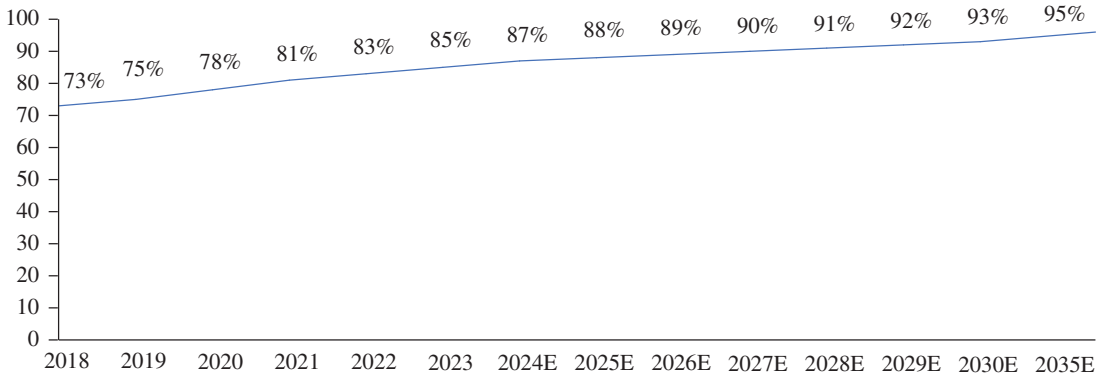


Note: The projected size of GBA passenger vehicle smart mobility market is determined by various factors, such as the population of the GBA, the GBA's urbanization rate, GBA's per capita traveling expenses, issuance of compliance certificates for ride-hailing vehicles, government regulations, and advancements in Robotaxi related technology.

Source: Listed companies' public filings, Government statistics, Expert Interview and Frost & Sullivan Analysis

The Response Rate in the China Smart Mobility Market measures the efficiency of ride-hailing services in promptly meeting user transportation requests. Due to China's vast territory and dense population, difficulties in accessing transportation services persist in remote areas and during peak hours in densely populated regions. While the industry's Response Rate has improved from around 73% in 2018 to 85% in 2023, achieving a 100% Response Rate would lead to significant idle capacity, making it challenging for drivers to earn a sustainable income. As a result, some drivers may choose to leave the industry before reaching this threshold. With the anticipated introduction of robotaxi services, the industry's Response Rate is expected to peak at around 95%, balancing service efficiency and driver livelihood sustainability.

The Response Rate of China Smart Mobility Market, 2018-2030E, 2035E



Source: Frost & Sullivan

In recent years, the proportion of ride-hailing orders from third-party mobility service platforms has been increasing. Third-party mobility service platforms aggregate multiple service providers, efficiently connecting users with more drivers simultaneously. This effectively reduces passenger waiting times, improves industry response rate and customer experience, and makes these platforms the preferred choice for many travelers. According to Frost & Sullivan, orders from third-party mobility service platforms accounted for less than 20% of the total ride-hailing orders in 2021. Since July 2022, when the MOT began publishing monthly order volumes from third-party mobility service platforms, this share has risen from 22.0% in July 2022 to 28.9% in December 2023. For the full year of 2023, the percentage of orders from third-party mobility service platforms reached 27.6%. Excluding Company A, the largest ride-hailing company in China, the share of ride-hailing orders from third-party mobility service platforms in the industry has increased from 45%-50% in 2021 to 70%-75% in 2023. The Company's GTV generated from orders placed on third-party mobility service mobility service platforms amounted to RMB209.7 million, RMB504.4 million and RMB1,617.5 million, respectively, representing 16.0%, 28.7% and 59.6% of the total GTV from ride-hailing services, respectively, which is in line with the industry trend.

Growth Drivers of China Smart Mobility Market

- *Increasing demand for convenient and high-quality mobility services.* Driven by the increasing urban population and household disposable income in China, more users are expected to use the more convenient, comfortable and efficient smart mobility services. In addition, compared to the cheaper means of transportation, such as public transit or two-wheelers, using more convenient, comfortable and efficient smart mobility services represents the trend of consumption upgrade.

- *Advanced technologies enhancing quality of mobility services.* The evolution of advanced technologies, particularly in autonomous driving, serves as a pivotal driver propelling the growth of the China Smart Mobility Market. Innovations such as big data analytics, the Internet of Things (IoT), and artificial intelligence (AI) are

revolutionizing the automotive and mobility industry, fostering increased efficiency and elevated service standards. By harnessing big data analytics and AI algorithms, companies enhance route planning precision and optimize order dispatching, resulting in heightened service efficiency and reduced response times across smart mobility platforms. This emphasis on technological advancement not only enhances operational capabilities but also stimulates market expansion by meeting evolving consumer demands for smarter, more efficient transportation solutions. Moreover, the growing recognition of the transformative potential of autonomous driving technology services and fleet sale and maintenance solutions among industry stakeholders underscores their instrumental role in shaping the future trajectory of the smart mobility sector.

- *Environmental Sustainability and Urban Planning*. The focus on environmental sustainability and urban planning initiatives further propels the smart mobility industry. As cities grapple with congestion, pollution, and the need for efficient transportation systems, smart mobility solutions offer an eco-friendly alternative. Electric vehicles, shared mobility options, and integrated transportation systems contribute to the broader goal of creating sustainable, eco-conscious urban environments. Government efforts and public awareness campaigns promote the adoption of green and intelligent mobility solutions as integral components of modern urban planning. Government policies outlined in key documents such as the "14th Five-Year Plan for Digital Economy Development" and the "New Energy Vehicle Industry Development Plan (2021-2035)", published by the State Council of the People's Republic of China in 2022 and 2020 respectively, drive market development across sectors including ride-hailing, new energy vehicles, and intelligent connected vehicles. Prioritizing environmentally friendly transportation solutions, these policies promote electric vehicles and shared mobility options to address urban congestion and reduce air pollution.

- *Technological innovations reducing operating costs.* The labor cost of drivers constitutes a significant portion of smart mobility services cost. However, autonomous driving is developing rapidly and is committed to substitute drivers, lowering the cost of mobility services and expanding the potential user base by attracting price-sensitive users.

Development Trends of China Smart Mobility Market

- *Consumption upgrade.* Due to the increasing disposable income of consumers and growing demand from business travel customers, the smart mobility market is experiencing the consumption upgrade. In response, service providers focus on service enhancements, integrating new technologies and offering tailored solutions to meet the evolving needs and expectations of customers. This upgrade aims to provide safer, more efficient and personalized transportation experiences, catering to the preferences of a more affluent and discerning user base.

- *Regulatory enhancement.* The PRC government has accelerated the enhancement of the regulatory environment for the smart mobility industry since 2016. For instance, *Managerial Regulations on the Supervision Information Interactive Platform of Vehicles for Ride-hailing* (《網絡預約出租汽車監管信息交互平台運行管理辦法》) and *Notice on Strengthening the Joint Supervision on Vehicle Rental Industry* (《關於加強網絡預約出租汽車行業事中事後聯合監管有關工作的通知》), which were issued by MOT in May 2022 and May 2018, respectively, aimed to increase the level of supervision and standardization in the industry to improve the experience and safety of drivers and riders. This enhancement shall continue as higher compliance becomes one of the key areas of competition for smart mobility services providers.

- *Wider adoption of NEVs in smart mobility operation.* Promoting the development of the NEV industry has become the national strategy of the PRC government. Developing the NEV industry is a crucial initiative in achieving carbon neutrality and transformation of the automobile and mobility industry. Driven by the increasing sales volume of NEVs and the relevant favorable policies in China, NEVs are expected to become the mainstream smart mobility fleet in the future.

- *More intelligent and efficient mobility services.* Big data analytics, IoT and AI technologies are expected to reshape the smart mobility industry and the entire mobility industry, by developing autonomous driving capabilities, substitute human drivers and commercializing the operation of Robotaxi. Compared to traditional smart mobility services, Robotaxi is a more efficient innovative smart mobility mode with lower energy consumption.

Entry Barriers of China Smart Mobility Market

- Licensing and Regulations. The smart mobility industry is subject to strict regional and national regulations, requiring new entrants to comply with various licenses and regulations for lawful operation. The complexity and regional variations of these regulations raise entry barriers, demanding significant time and resources to meet regulatory requirements.

- Capital Requirements. The smart mobility industry is capital-intensive, with new entrants needing substantial funding to develop technology, conduct market promotion, and provide customer support. This capital demand makes it challenging for new entrants to compete with established competitors who have already built a financial advantage, limiting market entry.

- Brand Recognition and Network Effects. Early entrants in the market have established strong brand recognition, making it challenging for new entrants to attract customers and drivers. Additionally, network effects mean that more users and drivers using a particular platform enhance its attractiveness, but establishing such effects takes time and resources for new platforms.

- Technology and Data. The smart mobility industry relies on advanced technology support, including mobile applications, real-time data analytics, and intelligent dispatch systems. Having a degree of advanced technology and data analytics capability is crucial for gaining a competitive edge in the industry, presenting a technological barrier that new entrants must overcome.

Threats and Challenges of China Smart Mobility Market

- Regulatory and Compliance Risks. The smart mobility industry is subject to complex regulations and compliance requirements, which may vary by provinces and cities. Non-compliance may result in fines, suspensions, or legal disputes. Therefore, market participants need to closely monitor regulatory changes and ensure compliant operations to mitigate regulatory risks.

- Intense Competition. The smart mobility market is highly competitive, with many market participants vying for limited driver and passenger resources. This can lead to price wars and profit margin pressures, posing challenges to a company's profitability. Market participants with strong brand recognition and large user bases are typically more competitive, making it difficult for new entrants to establish market share.

- Cost Management and Profitability. The ability to manage costs associated with driver compensation, technology platform development, and routine operation can be critical. Sustained capital investment may be required to survive and excel from intense market competition, before yielding returns. Hence, effective cost management and profitability strategies are crucial for smart mobility service providers.

- Navigating New Technological Challenges. As technology continues to advance, industry participants face a dual challenge. Continuous technological advancement is crucial for maintaining competitiveness, and the upgrading of technologies presents challenges on various fronts. For instance, the proliferation of autonomous driving may constrain opportunities for traditional drivers, giving rise to social issues. Additionally, the substantial costs linked to technology implementation pose operational hurdles. In these dynamically evolving times, the adaptability of the smart mobility industry is paramount for effectively addressing these challenges.

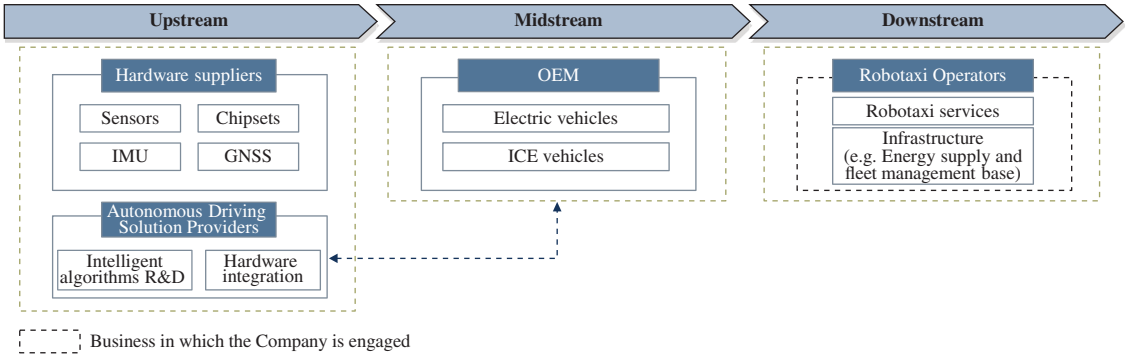
ROBOTAXI – THE FUTURE OF SMART MOBILITY

The Robotaxi represents a driverless smart mobility vehicle equipped with advanced L4 or L5 autonomous driving technology. This technology relies on an array of sensors for environmental perception, supported by machine learning algorithms within the computer systems to make decisions, while the vehicle control system executes these choices, ensuring secure navigation along predetermined routes. This paradigm shift hinges on technological advancements such as intelligent sensors and algorithms. In China, more than 90% of fatal

accidents are attributed to human error, as per the Ministry of Public Security. Robotaxi's cutting-edge technology enhances emergency decision-making, thus ensuring safer mobility services. Moreover, its adoption can lead to reduced operational expenses, consequently enhancing the affordability of mobility solutions.

Robotaxi, as the future of smart mobility, has garnered interest from various industries. The chart below outlines its value chain, including hardware suppliers, vehicle OEMs, autonomous driving solution providers, and Robotaxi operators.

Value Chain of Robotaxi

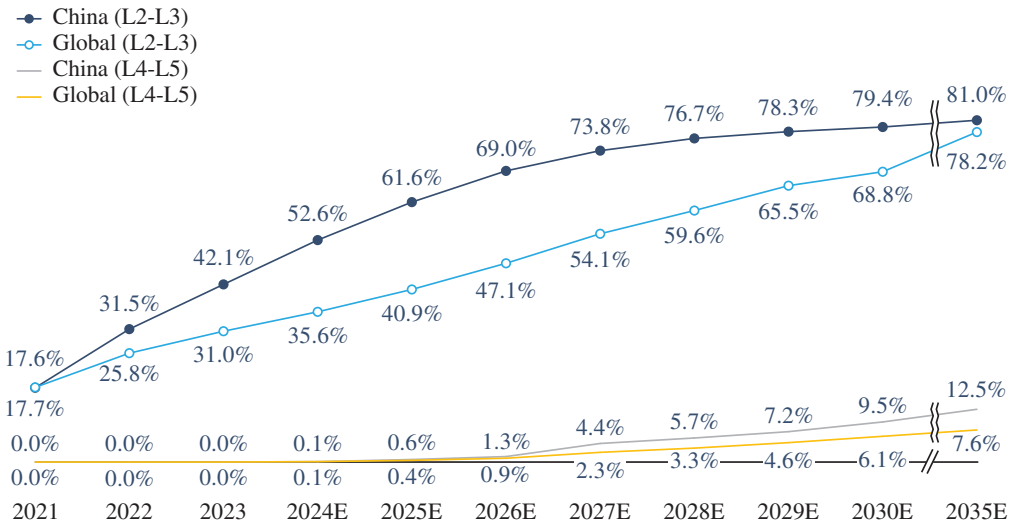


Source: Literature Research, Expert Interview and Frost & Sullivan Analysis

Robotaxi is in its initial stages, currently undergoing real-world trials and commercial pilot programs in selected regions. Its development is driven by two primary factors: the increasing integration of autonomous driving technology in vehicles, which enhances Robotaxi's market potential, and the anticipated reduction in manufacturing and operational costs as autonomous technology matures and scales up. The large-scale commercialization of Robotaxi is projected to occur by 2026.

L2-L3 vehicles are currently feasible and popular with consumers, offering enhanced safety and user experience. The chart below shows the penetration rates for various smart driving technologies, including L2-L3 and L4-L5 vehicles.

Global and China L2-L3 vehicles and L4-L5 vehicles Penetration Rates, 2021-2030E, 2035E



Notes:

1. The projected size of penetration rate is determined by various factors, including advancements in technology, pricing trends, consumer preferences, government regulations, and the business plans of OEMs.

2. Government development plans, industry white papers, relevant news, publicly available information from major industry players, strategic development objectives of core component suppliers, and the industry players' assessments and expectations regarding the development of the market has been considered during the calculation of the penetration rates growth.

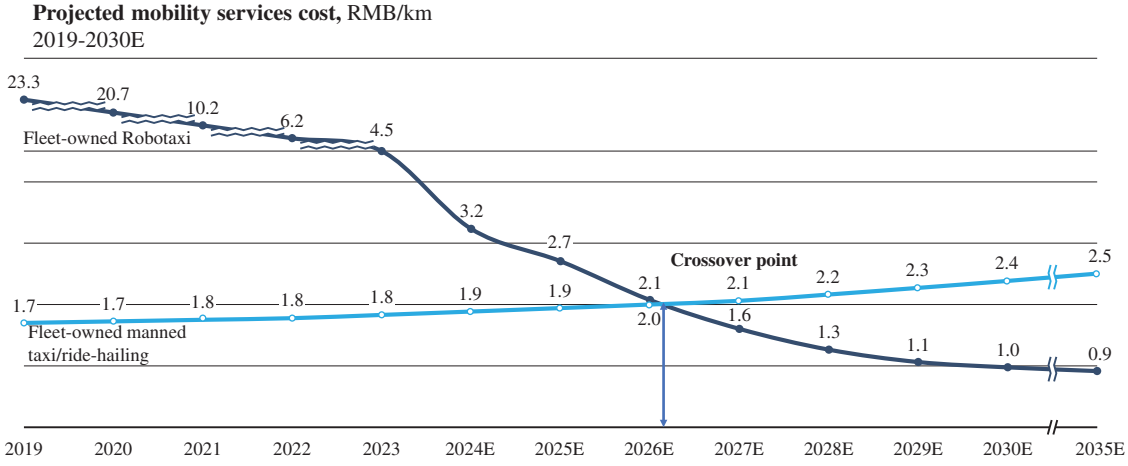
Source: Listed companies' public filings, Expert Interview and Frost & Sullivan Analysis

Currently, Robotaxi's operating costs are higher than those of manned smart mobility services like ride-hailing and taxis, mainly due to expensive hardware, software, human safety drivers, and safety redundancies, with LiDAR alone contributing to over 50% of hardware expenses. However, the cost of LiDAR has substantially dropped and is expected to continue declining due to the wider adoption of semi-solid state or solid-state LiDAR technology and economies of scale through mass production. This ongoing cost reduction will make LiDAR more affordable for various applications, including autonomous driving.

The commercialization of Robotaxi is expected to become a reality by 2026, influenced by several key factors. First, a cost per kilometer comparison between Robotaxi and manned ride-hailing services shows that their costs will be similar by 2026, with Robotaxi's cost per kilometer expected to be lower afterwards. This similarity is an important sign of Robotaxi's economic feasibility. Second, continuous advancements in technology, especially in autonomous driving, are set to increase operational efficiency, thus accelerating the commercialization process. Third, significant government support, shown by the introduction of favorable policies and the creation of operational demonstration zones in different regions, provides a strong base for the widespread use of Robotaxi services. These factors create a positive environment for the commercial achievement of Robotaxi from 2026 onwards.

The cost of a manned taxi increased from RMB1.7/km in 2019 (with fixed overheads, vehicle depreciation and contracting fees, of RMB0.5/km and operating expenses of RMB1.2/km) to RMB1.8/km in 2023 (with fixed overheads of RMB0.4/km and operating expenses of RMB1.4/km). It is projected to reach RMB2.0/km in 2026 (with fixed overheads of RMB0.4/km and operating overheads RMB1.6/km) and RMB2.4/km in 2030 (with fixed overheads of RMB0.6/km and operating overheads RMB1.8/km). In contrast, Robotaxi costs decreased from RMB23.3/km in 2019 (with fixed overheads of RMB12.2/km and operating expenses of RMB11.1/km) to RMB4.5/km in 2023 (with fixed overheads of RMB1.4/km, operating expenses of RMB3.1/km). It is projected to reach RMB2.1/km in 2026 (with fixed overheads of RMB0.5/km and operating overheads RMB1.6/km), and RMB1.0/km by 2030 (with fixed overheads of RMB0.3/km and operating overheads RMB0.7/km).

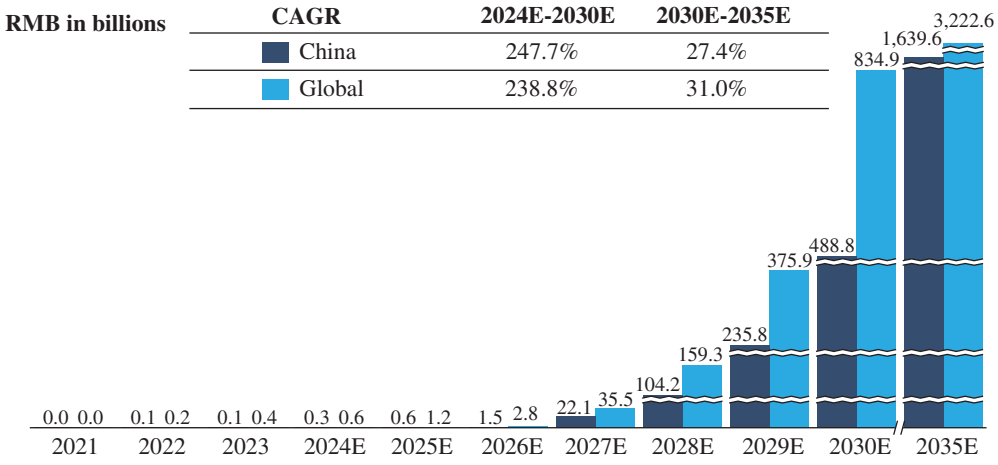
Manned Taxi/Ride-hailing and Robotaxi cost per km, 2019-2030E



Source: Frost & Sullivan Analysis

With technological advancements, favorable policies and cost reductions, Robotaxi is expected to reach large-scale commercialization around 2026, targeting individuals who currently use private vehicles or public transportation. Initially, Robotaxi is expected to enter the smart mobility market, offering improved safety and competitive pricing. This early success may drive market expansion, and by 2030, it is expected to be widely adopted worldwide. This scale will lower operating costs and improve efficiency, enticing private vehicle users to switch to Robotaxi services. The penetration of Robotaxi in smart mobility in China is expected to reach 31.8% in 2030 and 69.3% in 2035.

Global Market Size of Robotaxi by GTV, 2021-2030E, 2035E



Notes:

1. The projected size of Robotaxi market is determined by various factors, including advancements in technology, pricing trends, consumer preferences, government regulations, and the business plans of the Robotaxi companies.

2. The market size of Robotaxi is determined by multiplying the total number of Robotaxi by the daily average order per vehicle, average order distances, price per kilometer, and the number of days in a year (365).

3. The calculation methodology considers the rapid expansion of Robotaxi operational areas, facilitated by decreasing per-vehicle costs, technological advancements, and the gradual normalization of policies. Simultaneously, the increasing acceptance among passengers is expected to lead to a significant growth in fleet numbers, daily average orders, and average order distances. Regarding the cost per kilometer, it is anticipated to experience a slight decline due to the scale of fleet development and the reduction in per-vehicle costs. After achieving large-scale commercialization, it is projected to maintain stable fluctuations.

Source: Listed companies' public filings, Expert Interview and Frost & Sullivan Analysis

Market Trends and Growth Opportunities of Robotaxi Market

- Market Growth and Adoption. The Robotaxi market is growing fast, thanks to better autonomous driving tech and rising demand for shared mobility. This trend will keep going, creating investment opportunities for market participants to expand their services and meet the growing demand.

- Integration with Smart Cities. Robotaxi is set to integrate with smart cities and transportation systems, making urban mobility more efficient and sustainable. This involves connecting with traffic signals, road signs and other urban planning information. Market participants offering such integration can help build the future mobility system and tackle urban traffic congestion.

- User Experience and Safety Improvements. To attract more passengers and build loyalty, Robotaxi providers will keep enhancing user experiences and safety. This means improving ride comfort, vehicle safety, and autonomous driving performance. Innovations and tech investments in these areas can help market participants gain market share and user trust, driving industry growth.

Entry Barriers of Robotaxi Market

- Technology Expertise. Robotaxi relies on advanced autonomous driving technology, demanding significant expertise and funding for development and testing. Leading tech companies and automakers have invested heavily, giving them a technological advantage. New entrants must overcome this hurdle to create reliable autonomous systems.

- Data Accumulation. Autonomous systems need vast amounts of data for training and testing to improve performance and safety. Market participants with existing autonomous vehicle fleets have gathered valuable data, aiding ongoing system improvement. Newcomers require time and resources to accumulate sufficient data and establish effective data collection and analysis processes.

- Safety Testing and Certification. Autonomous driving systems must pass rigorous safety tests and certifications to ensure safe operation in various conditions. This involves complex procedures and compliance requirements, requiring specialized knowledge and substantial resources. New entrants must meet these requirements to obtain crucial safety certifications for entering the Robotaxi market.

Threats and Challenges of Robotaxi Market

- Safety and Liability. Safety is paramount in the Robotaxi industry as autonomous vehicles navigate complex traffic and road conditions. Accidents involving them raise intricate legal and ethical liability questions that could hinder industry progress. Ensuring Robotaxi safety is paramount.

- Regulatory Complexity. Regulations for autonomous vehicles are evolving, with varying standards across regions and countries. Compliance involves complex approval processes, testing, and certification. These regulatory differences and changes create uncertainties and challenges for market access and deployment.

- Technical Complexity. Developing and maintaining autonomous driving systems involves addressing intricate technical challenges. Ensuring their reliable operation in diverse conditions, including weather and traffic scenarios, is an ongoing issue. Continuous research and development efforts are needed to enhance performance and safety.

Growth Drivers of Robotaxi Market

- Autonomous Driving Technology Advancements. The continuous progress in autonomous driving technologies serves as a fundamental driver for the Robotaxi industry. Breakthroughs in autonomous driving capabilities, sensor technologies, and real-time data processing enhance the safety, reliability, and efficiency of Robotaxi services. Advancements in machine learning and sensor fusion contribute to creating highly sophisticated and safe autonomous vehicles, fostering the growth of the Robotaxi sector.

- Cost Reduction through Technological Advancements and Mass Production. The continuous technological upgrades and the scale of mass production contribute to a substantial decline in the per-vehicle cost of Robotaxi. As advancements in autonomous driving technologies become more widespread and production processes mature, the unit costs associated with manufacturing, technology implementation, and maintenance decrease. This cost reduction not only enhances the economic viability of Robotaxi but also accelerates their commercialization, fostering a more cost-effective and accessible environment for the widespread adoption of Robotaxi services.

- Urban Mobility Challenges and Traffic Congestion. Escalating urban mobility challenges and the increasing burden of traffic congestion in cities drive the demand for efficient and convenient transportation solutions like Robotaxi. With populations concentrated in urban areas, there is a growing need for intelligent mobility options that can navigate congested traffic, reduce commuting times, and provide a seamless urban travel experience. Robotaxis, equipped with smart route optimization and real-time traffic analysis, address these challenges.

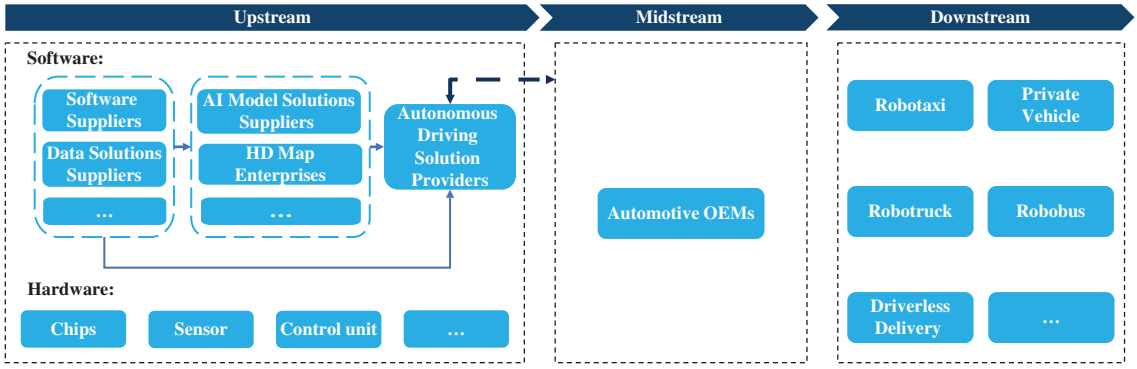
- Enhanced Government Regulation and Establishment of Demonstration Zones. As governments have progressively strengthened regulation of Robotaxi operations and established demonstration zones in several cities across the country (including commercial operations in major cities such as Guangzhou and Beijing), there has been a significant increase in the acceptance of autonomous driving vehicles and their integration into the mainstream transport system. This favourable regulatory environment has facilitated the expansion and commercialisation of Robotaxi services.

AUTONOMOUS DRIVING TECHNOLOGY SERVICE INDUSTRY IS EXPECTED TO EMBRACE NEW GROWTH OPPORTUNITIES ALONG WITH THE FAST ROLL-OUT OF L2-L3 VEHICLES AND L4-L5 VEHICLES

Autonomous driving technology encompasses environmental perception, behavior decision-making, and control. These areas require expertise in computer science, data analysis, simulation, remote sensing mapping, and more. Safety is paramount in autonomous driving, necessitating extensive real-world data-based training and learning processes. Leveraging

autonomous driving technology services is crucial for accelerating and optimizing autonomous driving solutions. Currently, these services fall into four main segments: AI data solutions, AI model solutions, HD maps, and other technology services. In the upstream segment, various suppliers, including software providers, AI data solutions, AI model solutions, HD map companies, and autonomous driving solution providers, collaborate to create foundational products for the industry. In the midstream, automobile OEMs develop their technology services with varying technical capabilities, leading to different product performances in different vehicles. The downstream primarily consists of vehicle users, including individuals and enterprises such as smart mobility service providers.

Value Chain of Autonomous Driving Industry Upstream Midstream Downstream



Source: Frost & Sullivan Analysis

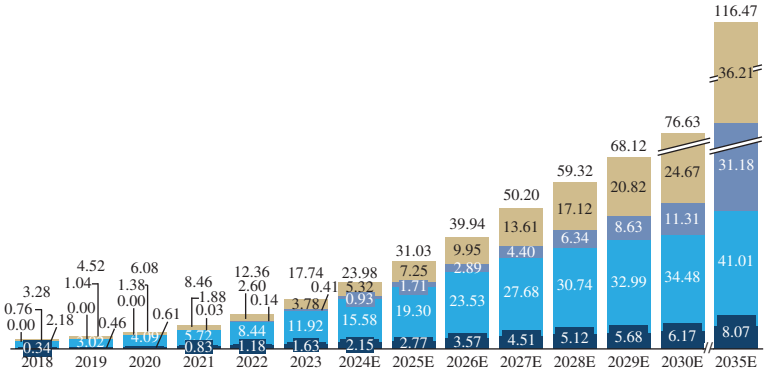
China's autonomous driving technology service market has rapidly expanded due to the maturation and commercialization of autonomous tech, with AI data solutions, AI model solutions, and HD maps growing in tandem with increased sales of L2 and above autonomous vehicles. Between 2018 and 2023, the AI data solutions market grew from RMB0.76 billion to RMB3.78 billion (CAGR: 37.8%), while the HD map market grew from RMB2.18 billion to RMB11.92 billion (CAGR: 40.5%). As the global penetration of L2 and above autonomous vehicles continues to rise, so does the market for autonomous driving tech services, which grew from RMB3.28 billion in 2018 to RMB17.74 billion in 2023 (CAGR: 40.2%).

With the ongoing expansion of autonomous driving technology and the commercialization of higher-level systems, China's autonomous driving tech services market is expected to grow from RMB23.98 billion in 2024 to RMB76.63 billion in 2030 (CAGR: 21.4%). HD maps will dominate this market, while AI model solutions will exhibit the most rapid growth. By 2035, the market size is anticipated to reach RMB116.47 billion. See the chart below for a visual representation of China's autonomous driving technology service market.

China Autonomous Driving Technology Service Market Size, 2018-2030E, 2035E

RMB in billions

CAGR	2018-2023	2024E-2030E	2030E-2035E
AI Data Solutions	37.8%	29.1%	8.0%
AI Model solutions	/	51.6%	22.5%
HD Map	40.5%	14.2%	3.5%
Other	36.8%	19.2%	5.5%
TOTAL	40.2%	21.4%	8.7%



Notes:

1. The market size comprises solely the software value within automated driving technology services, excluding hardware value.

2. Others mainly include OTA upgrade tools, vehicle fault diagnosis tools, etc.

3. The projected size of China autonomous driving technology service market size are determined by various factors, including the penetration rates of autonomous driving, advancements in technology, pricing trends and the business plans of the OEMs and autonomous driving solution providers.

4. For the AI Data solution service market, it is determined by the total ownership of L2-5 vehicles and the annual expenditure on data processing per vehicle. The AI Model solutions service market size is influenced by the ownership of L2+-5 vehicles and the annual subscription fee for a single vehicle. The HD map service market size calculation involves the ownership of L2-5 vehicles and the annual cost associated with a single vehicle.

5. The calculation methodology considers rapid development of technology and the increasing emphasis on intelligence by original equipment manufacturers (OEMs), which will lead to higher levels of intelligence in new models. At the same time, the penetration of new vehicles with L2 and L2+ or higher configurations is expected to increase rapidly as the cost of intelligence is gradually reduced, leading to overall ownership growth. In terms of unit price, with the development of intelligent technology, it is expected that companies will strengthen their investment in data and models. In terms of unit price for HD maps, it is expected that the commercialisation of HD maps will gradually reduce the unit price.

Source: Expert Interview and Frost & Sullivan Analysis

Market Trends and Growth Opportunities of Autonomous Driving Technology Service Market

- Continuous Technological Advancements. The ongoing progress in autonomous driving technology is a key trend in the industry. Emerging technologies such as advanced sensors, machine learning algorithms, and artificial intelligence applications continue to enhance the performance and safety of autonomous driving systems. This presents opportunities for technology service providers to innovate and improve continuously.

- Data-Driven Business Models. Data plays a pivotal role in autonomous driving technology services. Data collection, analysis, and utilization are crucial for the development and optimization of autonomous systems. Consequently, data management and analytics services are poised to become growth areas within the industry.

- Smart Cities and Mobility Services. Autonomous driving technology not only impacts individual vehicles but also influences urban transportation and mobility services. The rise of autonomous taxis, shared mobility services, and unmanned public transportation presents significant opportunities for technology service providers to meet the demands of urban mobility.

Entry Barriers of Autonomous Driving Technology Service Market

- Technical Barriers. Autonomous driving technology is a highly complex and specialized field that requires advanced algorithms, sensors, and hardware components. New entrants need substantial R&D investments and resources to develop reliable autonomous driving technology service solution. The presence of established competitors with technological expertise creates a significant technical barrier.

- Data Accumulation Barrier. Autonomous driving technology service rely on large datasets for training and testing to ensure safety and performance. Existing competitors have accumulated extensive datasets, while newcomers need time to gather sufficient data resources. This can limit the competitive strength of new entrants in the market.

- Capital Requirement Barrier. The development and deployment of autonomous driving technology service demand substantial capital investments. New entrants must secure adequate funding to support R&D, testing, market promotion, and operations. Capital requirements can pose a significant barrier for startups.

Threats and Challenges of Autonomous Driving Technology Service Market

- Technical Instability. The rapid evolution of autonomous driving technology means that solutions must constantly adapt to new technologies and standards. This can lead to technical instability, requiring continuous updates and improvements to meet new technical requirements.

- Competition Pressure. The industry is highly competitive, with many competitors offering similar solutions. This can result in price wars and market share battles, putting pressure on profit margins.

- Cost Management. Providing solutions for the development of autonomous driving technology requires significant capital investment. Lowering costs and improving efficiency to ensure profitability is a challenge. Market participants need to continually reduce the costs of their solutions to attract more customers.

Growth Drivers of Autonomous Driving Technology Service Market

- Growing Demand for Advanced Autonomous Solutions. The increasing need for sophisticated autonomous driving solutions propels the growth of the Autonomous Driving Technology Service Market. As industries and consumers seek more advanced and reliable autonomous features, service providers experience a surge in demand for cutting-edge technologies that enhance safety, efficiency, and overall driving experience.

- Integration of Artificial Intelligence and Machine Learning. The integration of artificial intelligence (AI) and machine learning (ML) technologies plays a pivotal role in driving the autonomous driving market. AI and ML enable vehicles to process vast amounts of data, make real-time decisions, and continually improve their performance. This integration enhances the intelligence and adaptability of autonomous driving systems, fostering a more capable and reliable ecosystem.

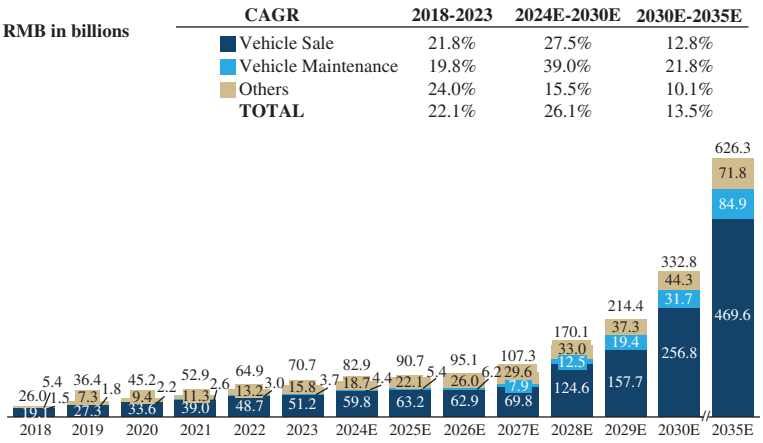
- Collaborations and Partnerships in the Industry. Collaborations and partnerships within the autonomous driving industry drive innovation and market expansion. As companies join forces to combine expertise, resources, and technologies, the collective effort accelerates the development and deployment of autonomous solutions. Collaborative initiatives foster a synergistic environment that benefits the industry as a whole, driving progress and addressing challenges more effectively.

SMART MOBILITY FLEET SALE AND MAINTENANCE MARKET SEES GREAT POTENTIAL

Smart mobility fleet sale and maintenance refer to a suite of vehicle and driver support solutions, including vehicle purchase and lease assistance, vehicle maintenance, repair and emergency rescue.

Due to the expanding scale of the smart mobility services fleet and the increasing number of mobility services drivers, the market size of the smart mobility fleet sale and maintenance in China reached RMB70.7 billion in 2023, representing a CAGR of 22.1% from 2018, among which vehicle sales and leasing were the major components. Going forward, this market is expected to further grow to RMB332.8 billion in 2030 and RMB626.3 billion in 2035.

China Smart Mobility Fleet Sale and Maintenance Market Size, 2018-2030E, 2035E



Notes:

1. Others mainly include entertainment services, and energy supplement.

2. The projected size of China smart mobility fleet sale and maintenance market size are determined by various factors, including the ownership of ride-hailing vehicles, advancements in technology, pricing trends and the business plans of the ride-hailing service platforms.

3. The market size for vehicle sales services is determined by the sales volume of new smart mobility vehicles multiplied by their average price. Simultaneously, the market size for vehicle maintenance services is calculated based on the number of smart mobility vehicles leased through platforms multiplied by the annual maintenance cost per vehicle.

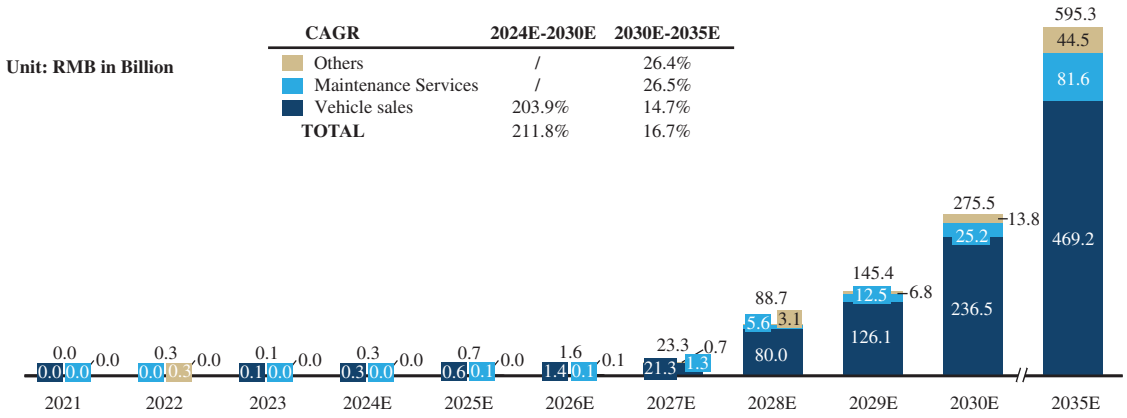
4. The calculation methodology considers the gradual standardization of regulations and the growing market share of professional passenger cars, which is expected to increase both new sales of smart vehicles and the number of smart vehicles leased through the platform. In terms of pricing, prices are expected to remain stable as conventional vehicles have reached a stage of maturity in terms of pricing.

Source: Expert Interview and Frost & Sullivan Analysis

The Robotaxi fleet sale and maintenance market, including Robotaxi sales, vehicle maintenance and other related services, is an emerging market with promising growth potential in China. The commercialization of Robotaxi is expected to lead to the rapid growth of the Robotaxi fleet sale and maintenance market.

The Robotaxi fleet sale and maintenance market in China is expected to reach RMB275.5 billion by 2030, with vehicle sales reaching RMB236.5 billion and maintenance services reaching RMB25.2 billion. In addition, new Robotaxi fleet sale and maintenance categories are expected to emerge in the market. The future of the Robotaxi fleet sale and maintenance market in China is promising and has tremendous growth potential. In 2035, the Robotaxi fleet sale and maintenance market in China is expected to reach RMB595.3 billion, with vehicle sales reaching RMB469.2 billion and maintenance services reaching RMB81.6 billion.

China Robotaxi Fleet Sale and Maintenance Market Size, 2021-2030E, 2035E



Notes:

1. Others mainly include entertainment services, and innovative businesses.

2. The projected size of China Robotaxi smart mobility fleet sale and maintenance market size are determined by various factors, including the ownership of Robotaxi, advancements in technology, pricing trends, government regulations and the business plans of the ride-hailing service platforms and Robotaxi fleets.

3. The market size for Robotaxi sales services is determined by the sales volume of new Robotaxi units multiplied by their average price. The market size for Robotaxi maintenance services is calculated based on the total ownership of Robotaxi multiplied by the annual maintenance cost per vehicle.

4. The calculation methodology considers the expected growth in the scale of the Robotaxi fleet, driven by the gradual improvement of industry laws and regulations and the continuous maturation of technology. Simultaneously, as the industry achieves large-scale deployment, the cost of Robotaxi is anticipated to gradually decline, leading to a decrease in both the selling price and maintenance costs.

Source: Literature Research, Expert Interview and Frost & Sullivan Analysis

Market Trends and Growth Opportunities of Smart Mobility Fleet Sale and Maintenance Market

- Growth of Shared Mobility Models. Smart mobility services like ride-hailing and Robotaxi continue to expand, presenting growth opportunities for vehicle leasing and charging service providers, supporting the proliferation of shared mobility models.

- Vehicle Maintenance and Servicing. With the increasing adoption of shared mobility and electric vehicles, there is a rising demand for vehicle maintenance and servicing. Market participants offering efficient maintenance and servicing solutions may have a competitive edge.

- Data Analysis and Smart Optimization. Big data analysis and smart algorithms can be employed to optimize vehicle dispatching, route planning, and maintenance schedules. Market participants providing data analysis and smart optimization services are poised to enhance operational efficiency.

Entry Barriers of Smart Mobility Fleet Sale and Maintenance Market

- Technological Complexity. Providing smart mobility fleet sale and maintenance requires a high degree of technical sophistication, including remote vehicle control, data analytics, and intelligent route planning. New entrants need to possess these technical capabilities or establish strategic partnerships with technology providers.

- Capital Requirements. Establishing and expanding smart mobility fleet sale and maintenance entails significant capital investment, including vehicle procurement, charging infrastructure development, data analytics platforms, and more. Capital requirements can be a hurdle for startups unless they secure substantial investment or financing support.

- Market Competition. The presence of large and established competitors, such as well-known ride-sharing platforms and automotive manufacturers, means that new entrants must face intense market competition. To succeed, they need to offer differentiated services or technologies to attract customers.

- Brand Building. Establishing a strong brand and reputation in the smart mobility market requires time and resources. New entrants may need to invest significant efforts in building trust and recognition.

Threats and Challenges of Smart Mobility Fleet Sale and Maintenance Market

- Difficulty in Resource Integration. Smart mobility fleet sale and maintenance involve various segments of the industry chain, including vehicle procurement, maintenance, and charging infrastructure. Integrating these resources and segments poses a significant challenge to businesses, requiring a high degree of coordination and management.

- Technology and Innovation. The industry is continually evolving with new technologies and trends. Staying at the forefront of technology and innovation to meet changing market demands is a significant challenge. Market participants must invest in research and development and adapt swiftly to technological advancements.

Growth Drivers of Smart Mobility Fleet Sale and Maintenance Market

- The Increase in Vehicle and Driver Demands. With the rising demand for mobility, the market for fleet sale and maintenance has witnessed rapid growth. The increasing need for services related to vehicle purchase, leasing, maintenance, and emergency assistance has been a driving force behind the development in this field.

- Enhanced Service Experience. As users demand an elevated experience in their travel services, fleet sale and maintenance are required to offer more comprehensive and user-centric solutions. From vehicle acquisition to maintenance and emergency rescue, providing a high-quality service experience serves as a driving factor for market growth.

KEY SUCCESS FACTORS

The key success factors of a smart mobility service platform include:

- *Industry integration.* Industry integration can reduce the cost of utilizing a vehicle per km, through the integration of the resources of various industry participants, including vehicle OEMs, autonomous driving solution providers, fleet sale and maintenance providers and user entrances across the value chain. By integrating industry participants, an industry integrator can also provide users with a higher quality and more diversified service. For example, launching customized vehicles for ride-hailing services through cooperating with vehicle OEMs is expected to help improve a mobility service platform's service quality and profitability by reducing vehicle acquisition costs and lowering operating costs, while improving driving and ride comfort and operational compliance.

- *Openness of platform and its compatibility*. Whether operating manned ride-hailing or progressively commercializing Robotaxis, smart mobility platforms need to actively collaborate with transportation partners, leveraging and integrating the strengths of existing allies to achieve rapid market expansion. Amid varying autonomous driving policies and technological progress across regions, a robust and open smart mobility service platform can cater to diverse needs, cooperate various autonomous driving solution providers, and seamlessly connect Robotaxis from different solution providers.

- *Brand recognition and customer mindshare*. By offering high-quality services to platform users and addressing their pain points, a platform can enhance its brand recognition and customer mindshare. The brand recognition and customer mindshare translate into increased wallet share from existing customers and word-of-mouth referrals for acquiring new customers with lower sales and marketing spending.

- *Operational know-how*. Operational know-how is important for identifying diversified customer needs and increasing service quality. It is also critical for platforms to adopt customized and innovative user acquisition and pricing strategies across different geographic regions and service segments. Also, better operational know-how can help improve operational efficiency and optimize supply-demand relationships.

- *Technology and data capabilities*. Cutting-edge technologies such as autonomous driving and big data analytics can help platforms enhance their operational abilities. The rapid development of AI has changed the technological landscape of the industry, enabling platforms to better meet the diverse needs of users.

COMPETITIVE LANDSCAPE

In terms of GTV in 2023, the GBA represented 15.2% of the total market share in China's mobility service market, which includes ride-hailing, hitch, taxi online hailing and Robotaxis services. In line with the overall competitive landscape of China's mobility service market, the leader in the GBA has a significant market leadership. GBA's mobility service market is highly concentrated, with the top five players accounting for a market share of 74.0%. In terms of GTV in 2023, Company A ranked first in GBA's mobility service market with a market share of 56.5%, significantly ahead of our 5.6% market share. This dominance is primarily attributed to its early market entry, expansive coverage, significant user base, and evident first-mover advantage. We are equipped with all the aforementioned key success factors and rank second in the GBA in terms of our market share. In 2023, our mobility service GTV was RMB2,741.0 million, and our market share was 5.6% in the GBA, placing us ahead of our most of competitors in this region. The table below sets forth the ranking of smart mobility service platforms in the GBA.

Ranking	Company	[REDACTED] Status	Description	GTV (RMB in billions)	Market Share (%)
1	Company A	NO	Founded in 2012, headquartered in Beijing and previously listed in the U.S. Company A is a mobility service platform primarily offering ride-hailing and other types of mobility services.	27.5	56.5%
2	**The Company**		**Founded in 2019 and headquartered in Guangzhou, the Company is a mobility service company in China, Its business segments include smart mobility services primarily focusing on ride-hailing and Robotaxi.**	**2.74**	**5.6%**
3	Company B	NO	Founded in 2015 and headquartered in Suzhou, Company B primarily offers ride-hailing services in China.	2.5	5.1%
4	Company C	NO	Founded in 2019 and headquartered in Nanjing, Company C primarily offers ride-hailing services and other types of mobility services in China.	2.2	4.5%
5	Company D	NO	Founded in 2014 and headquartered in Beijing, Company D primarily offers Hitch service.	1.5	3.1%
	Others	–	–	12.26	26.0%
	Total		**–**	**48.7**	**100.0%**

Note:

(1) Include over 100 smart mobility service platform companies licensed in at least one GBA city.

Source: Expert Interview and Frost & Sullivan Analysis

The Company mainly offers ride-hailing services in the smart mobility market with ride-hailing accounting for 99.0% of its total smart mobility services. Ride-hailing is the dominant segment, comprising 80.9% of the GBA market. As of 2023, the Company holds a 6.9% market share in the GBA's ride-hailing sector, ranking second.

The GBA market constitutes a pivotal element within the realm of intelligent transportation in China, accounting for approximately 15.5% of the entire market. In 2023, the Company holds a 1.1% market share in the China ride-hailing market, securing the eighth position nationwide. The table below sets forth the GTV rankings for Chinese ride-hailing service platforms in 2023.

Ranking	Company	[DEDACTED] Status	Description	GTV (RMB in billions)	Market Share (%)
1	Company A	NO	Founded in 2012, headquartered in Beijing and previously listed in the U.S. Company A is a mobility service platform primarily offering ride-hailing and other types of mobility services.	192.4	75.5%
2	Company C	NO	Founded in 2019 and headquartered in Nanjing, Company C primarily offers ride-hailing services and other types of mobility services in China.	15.8	6.2%
3	Company B	NO	Founded in 2015 and headquartered in Suzhou, Company B primarily offers ride-hailing services in China.	12.2	4.8%
4	Company F	NO	Founded in 2017 and headquartered in Shanghai, Company F primarily offers ride-hailing services in China. Company F is a subsidiary of a company listed in Hong Kong.	5.5	2.2%
5	Company E	NO	Founded in 2018 and headquartered in Shanghai, Company E primarily offers transportation services.	5.2	2.0%
6	Company G	NO	Founded in 2015 and headquartered in Beijing, Company G is a travel company primarily offering ride-hailing services.	3.2	1.3%
7	Company H	NO	Founded in 2016 and headquartered in Shenzhen, Company H specializes in new transportation, ride-hailing, sales channels, and integrated vehicle networking applications in China.	2.8	1.1%
8	**The Company**		**Founded in 2019 and headquartered in Guangzhou, the Company is a mobility service company in China. Its business segments include smart mobility services primarily focusing on ride-hailing and Robotaxi.**	**2.71**	**1.1%**
9	Company I	NO	Founded in 2015 and headquartered in Beijing, Company I primarily offers ride-hailing services.	1.6	0.6%
10	Company J	NO	Founded in 2015 and headquartered in Beijing, Company J primarily offers ride-hailing, car rental, and corporate fleet services in China.	1.1	0.4%
	Others	-	-	12.49	4.9%
	Total		-	**255.0**	**100.0%**

Source: Expert Interview and Frost & Sullivan Analysis

In terms of ride hailing service compliance, the Company stands as an industry leader. Since December 2020, when the Company was first included in the MOT Order Compliance Rate ranking, and as of December 31, 2023, its MOT Order Compliance Rate ranked first 17 times, ranking second in the total number of times it secured the industry's first position. Currently, the Company is the world's first mobility platform to launch a commercialized hybrid operation of manned ride-hailing and Robotaxi, and is also the first domestic mobility service platform with a proprietary Robotaxi fleet for commercialization.

As Robotaxi industry is currently in an early stage of development, there are only three ride-hailing platforms independently operating Robotaxi services, namely the Company, Company A (including its autonomous driving subsidiary) and Company F. The ride-hailing platform companies understand the needs of riders better, and the hybrid operation mode of manned ride-hailing and Robotaxi can better optimize the pain points in the usage scenarios and effectively improve riders' experience. As of December 31, 2023, the Company ranked first with 281 vehicles among the ride-hailing platforms in terms of the number of the platform connected Robotaxi vehicles.

The Company has significant competitive advantages in two key areas:

- ***Higher-than-industry-average compliance rate.*** Currently, the Company is an industry leader in order compliance. With the increase in the order compliance rate required by regional policies in the ride-hailing market, the advantage of higher-than-industry-average compliance rate will facilitate the Company's ability to obtain local ride-hailing platform licences in more geographical markets.

- ***Rich service matrix.*** The Company's service matrix includes mobility services, technology services, and fleet sale and maintenance, providing users with comprehensive services. This can effectively attracts new users and enhances the Company's existing operational capabilities.

The following table sets forth a comparative analysis of the Company's key operating data of its ride-hailing services and the industry level for the period indicated:

	Year ended December 31, 2023	
	the Company	Industry Level
GTV *(RMB in millions)*	2,714.0	N/A[(2)]
Order volume *(millions)*	97.3	N/A[(2)]
Daily order volume *(thousands)*	266.7	N/A[(2)]
Average monthly active riders *(thousands)*	996.9	N/A[(2)]
Average monthly active drivers *(thousands)*	36.8	N/A[(2)]
Response rate	88.9%	85%
Average ride frequency *(orders per rider)*	9.0	7.2
Annual rider retention rate	27.8%	23.0%
Average GTV per order *(RMB)*	27.9	25.0
Average take rate	66.8%	N/A[(3)]
Average net take rate	(4.3)%	N/A[(3)]
Incentives to rider per order[(1)] *(RMB)*	5.28	3.3
Incentives to driver per order *(RMB)*	1.46	1.55

Notes:

(1) In 2023, the Company's incentives to rider per order were higher than the industry level, primarily because (i) the Company was continuously adopting its geographical expansion strategy to penetrate into new cities, resulting in a higher investment in incentives within such regions; and (ii) the Company's average GTV per order was slightly higher than industry level, because it primarily conducted its ride-hailing services in the GBA, one of the most developed regions in China.

(2) GTV, order volume, daily orders, average monthly active drivers and average monthly active riders are closely tied to a platform's operational coverage area and scale. The ride-hailing industry comprises numerous companies, each covering a different number and variety of cities and service types, leading to significant variations in these metrics. Therefore, the statistic is not available and the comparison is not meaningful.

(3) The statistics of industry level of average take rate and net take rate represents the collective take rates and net take rates from a broad spectrum of mobility service platforms within the industry. Due to the varied revenue recognition methods employed by different platforms (whether on a net or gross basis), these statistics may not provide an accurate representation of the industry level. Therefore, the comparison is not meaningful.

Source of Industry Level: Expert Interview and Frost & Sullivan Analysis

REPORT COMMISSIONED BY FROST & SULLIVAN

In connection with the [**REDACTED**], we have engaged Frost & Sullivan to conduct a detailed analysis and to prepare an industry report on the markets that we operate in. Frost & Sullivan is an independent global market research and consulting company founded in 1961 and is based in the United States. Services provided by Frost & Sullivan include market assessments, competitive benchmarking and strategic and market planning for a variety of industries.

We have included certain information from the Frost & Sullivan Report in this Document because we believe such information facilitates an understanding of the market that we operate in for potential [**REDACTED**]. Frost & Sullivan prepared its report based on its in-house database, independent third-party reports and publicly available data from reputable industry organizations. Where necessary, Frost & Sullivan contacts companies operating in the industry to gather and synthesize information in relation to the market, prices and other relevant information. Frost & Sullivan believes that the basic assumptions used in preparing the Frost & Sullivan Report, including those used to make future projections, are factual, correct and not misleading. Frost & Sullivan has independently analyzed the information, but the accuracy of the conclusions of its review largely relies on the accuracy of the information collected. Frost & Sullivan research may be affected by the accuracy of these assumptions and the choice of these primary and secondary sources.

We have agreed to pay Frost & Sullivan a fee of RMB740,000 for the preparation of the Frost & Sullivan Report. The payment of such amount was not contingent upon our successful [**REDACTED**] or on the content of the Frost & Sullivan Report. Except for the Frost & Sullivan Report, we did not commission any other industry report in connection with the [**REDACTED**]. We confirm that after taking reasonable care, there has been no adverse change in the market information since the date of the report prepared by Frost & Sullivan which may qualify, contradict or have an impact on the information set forth in this section in any material respect.