

# Robotaxi Market by Application (Goods and Passenger), Level of Autonomy (L4 and L5), Vehicle (Cars and Vans/Shuttles), Service (Rental and Station Based), Propulsion (Electric and Fuel Cell), Component and Region - Global Forecast to 2030

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## Abstracts

The global robotaxi market size is projected to grow from USD 0.4 Billion in 2023 to USD 45.7 Billion by 2030, at a CAGR of 91.8%. The robotaxi market is expected to experience growth driven by various factors. High demand for shared transportation, advancements in vehicle technology, rising interest in fuel-efficient public transportation, and improved infrastructure are all predicted to drive market growth. The seamless navigation of self-driving taxis in congested areas and significant innovation costs required by technological advancements, however, could be a barrier to the growth. The widespread use of IoT devices and the data they collect gives fleet managers more power to optimize operations. Increased safety will encourage more passengers to choose autonomous vehicles as level 4 and level 5 autonomous driving systems would reduce traffic incidents. Additionally, to reduce pollution, governments in developing countries would be open to implementing emission-free alternatives. Due to the fact that they are electric vehicles, self-driving cars are an appropriate solution in this case. Additionally, it reduces the amount of private vehicles on the road, thereby lowering traffic and pollution.

"By Application, Passenger transport Segment is projected to be the largest market in the application segment in the forecast."

Due to global initiatives to employ technology to minimize auto ownership, traffic congestion, and accidents, the passenger segment for robotaxis is increasing. Future revenue streams for different automotive and mobility business models should become



available with the introduction of robotaxis as a form of transportation. The main drivers anticipated to propel the passenger transportation market for robotaxis are the desire for emission-free vehicles, growth in ride-hailing services, and decreased transportation costs. In October 2022, EasyMile provided a commercial fleet of autonomous shuttles for a fully driverless service worth USD 3.9 million at the Belgian tourist site Terhills. The shuttles will run 7 days a week for up to 10 years. In May 2023, Waymo LLC and Uber partnered to bring Waymo's autonomous driving technology to the Uber platform. The significant demand for ridesharing/ride-hailing services is expected to primarily drive the robotaxi market for passenger transport.

"Van/shuttle segment is anticipated to witness significant growth during the forecast period."

The shuttle/van segment is expected to grow at significant rate, as these are already commercialized in various parts across the world. Companies are investing significantly in robotaxis for the development of autonomous driving, connectivity, electrification, and shared mobility, which is expected to drive the market. Robotic assistance used for the delivery, supply pick-up, and other routine tasks by autonomous cars for small businesses is expected to be one of the key factors for the increasing adoption of robotaxis. Testing and implementation of robotaxis are underway across the globe. In May 2023, Waymo LLC doubled its commercial robotaxis in several cities to launch a for-profit service in 2023.

The shuttles/vans segment is expected to grow at a significant rate, as they are already commercialized in various parts globally. Navya, EasyMile, and 2getthere (Netherlands) have developed self-driving shuttles. Successful pilot programs for autonomous shuttles worldwide indicate that shuttles could be a practical solution to meet the demands of traditional public transport.

The Asia Pacific region is anticipated to be a technological adopter by quickly accepting new technologies. It is one of the regions with the highest ridesharing usage. Road safety concerns are anticipated to significantly fuel the expansion of the robotaxi market. In China, a few ride-hailing businesses have setup fleets of robotaxis for use in commerce. For instance, the first companies to launch robotaxi fleets in 2021 were Baidu, Inc. and AutoX, Inc. in the Chinese robotaxi market. The Asia Pacific market is anticipated to be driven by rising competition for the testing and deployment of robotaxis. North America is predicted to witness the second-fastest growth in the robotaxis market throughout the forecast period since it is the technological leader in



autonomous driving solutions. Some top technology companies, such as Waymo LLC, Intel Corporation, and Nvidia Corporation, are based in the region. These businesses are putting their attention on the advancement of autonomous technologies. Autonomous car testing has begun in US, which presents prospects for the advancement of robotaxis in the future. Waymo LLC, Optimus Ride, and Lyft, Inc. offer robotaxi services in North America region. The market in Europe is anticipated to expand as a result of rising safety concerns and the presence of technologically cuttingedge automobile and shuttle manufacturers, such as EasyMile, 2getthere, and Navya. These companies are the top suppliers of autonomous shuttles globally.

"North America to be the fastest-growing region during the forecast period"

The country's enormous customer base and high levels of disposable money have spurred demand for autonomous vehicles, leading companies like Waymo LLC, Cruise, Inc., Lyft, Inc., Optimus Ride, and others to ramp up production and testing efforts. The US has let numerous OEMs to test robotaxis in Boston and California. The North American market would be driven by favorable rules combined with a strong EV infrastructure. OEMs and start-ups are now looking to offer robotaxis and shuttles. The US has been a pioneer in the development of autonomous driving technologies. OEMs have been able to test autonomous vehicles because to a strong infrastructure, an enhanced power grid, and government encouragement and backing. Established ridehailing businesses like Uber and Lyft have also invested in developing autonomous vehicles. They want to incorporate robotaxi choices in their services by incorporating autonomous vehicles into their current ride-hailing systems. Autonomous car and robotaxi service testing has occurred in several North American cities. In order to eventually offer robotaxi services to the general public, cities like Phoenix, San Francisco, and Pittsburgh have witnessed considerable testing and pilot programs for autonomous vehicles.

In-depth interviews were conducted with CEOs, marketing directors, other innovation and technology directors, and executives from various key organizations operating in this market.

By Company Type: OEMs - 34%, Tier I - 59%, Tier II - 07%

By Designation: CXOs - 26%, Directors - 43%, and Others - 31%

By Region: North America - 23%, Europe - 36%, Asia Pacific- 30% and RoW-11%



The robotaxi market is dominated by global players such as Waymo LLC (US), Baidu, Inc. (China), Beijing Didi Chuxing Technology Co., Ltd. (China), Cruise LLC (US), and EasyMile (France). These companies adopted new product launches, deals, and other strategies to gain traction in the robotaxi market.

Research Coverage:

The market study covers the Robotaxi Market by Application (Goods and Passenger), Level of Autonomy (L4 and L5), Vehicle (Car and Shuttle/Van), Service (Rental and Station Based), Propulsion (Electric and Fuel Cell), Component, and Region (Asia Pacific, Europe, North America, RoW). It also covers the competitive landscape and company profiles of the major players in the robotaxi market ecosystem.

The study also includes an in-depth competitive analysis of the key players in the market, along with their company profiles, key observations related to product and business offerings, recent developments, and key market strategies.

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall robotaxi market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and to plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (Robotaxis to reduce overall operating costs and increase profit margins for ridesharing companies, Need for enhanced road safety and traffic control, Ridesharing and Mobility-as-a-Service (MaaS), Rise in urbanization and congestion), restraints (Disruption of traditional jobs, High R&D expenditure and complexity in the adoption of robotaxis, Cybersecurity threats), opportunities (Government support, Robotic assistance in goods delivery, Increasing demand for autonomous vehicles, Increasing investments in LiDAR startups), and challenges (Navigation in crowded spaces, Gaining public and individual trust, Lack of required infrastructure in emerging countries) influencing the growth of the robotaxi market



Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the robotaxi market

Market Development: Comprehensive information about lucrative markets – the report analyses the robotaxi market across varied regions

Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the robotaxi market

Competitive Assessment: In-depth assessment of market shares, growth strategies and service offerings of leading players like Waymo LLC (US), Baidu, Inc. (China), Beijing Didi Chuxing Technology Co., Ltd. (China), Cruise LLC (US), and EasyMile (France), among others in the robotaxi market Page 25 of 34 strategies. The report also helps stakeholders understand the pulse of the autonomous vehicle market and provides them information on key market drivers, restraints, challenges, and opportunities.





### **Contents**

#### **1 INTRODUCTION**

1.1 STUDY OBJECTIVES
1.2 MARKET DEFINITION
TABLE 1 ROBOTAXI MARKET DEFINITION, BY VEHICLE TYPE
TABLE 2 ROBOTAXI MARKET DEFINITION, BY SERVICE TYPE
TABLE 3 ROBOTAXI MARKET DEFINITION, BY LEVEL OF AUTONOMY
TABLE 4 ROBOTAXI MARKET DEFINITION, BY APPLICATION TYPE
1.2.1 INCLUSIONS AND EXCLUSIONS
TABLE 5 INCLUSIONS AND EXCLUSIONS FOR ROBOTAXI MARKET
1.3 MARKET SCOPE
FIGURE 1 ROBOTAXI MARKET SEGMENTATION
1.3.1 YEARS CONSIDERED
1.4 CURRENCY CONSIDERED
TABLE 6 CURRENCY EXCHANGE RATES
1.5 STAKEHOLDERS
1.6 SUMMARY OF CHANGES

#### 2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 2 RESEARCH DESIGN

FIGURE 3 RESEARCH METHODOLOGY MODEL

- 2.1.1 SECONDARY DATA
- 2.1.1.1 List of key secondary sources
- 2.1.1.2 Key data from secondary sources

2.1.2 PRIMARY DATA

2.1.2.1 Key data from primary sources

2.1.2.2 List of participating companies for primary research

FIGURE 4 BREAKDOWN OF PRIMARY INTERVIEWS: BY COMPANY TYPE, DESIGNATION, AND REGION

2.1.2.3 Major objectives of primary research

2.1.2.4 List of primary participants

2.2 MARKET ESTIMATION METHODOLOGY

FIGURE 5 RESEARCH METHODOLOGY: HYPOTHESIS BUILDING

2.3 MARKET SIZE ESTIMATION

2.3.1 BOTTOM-UP APPROACH



FIGURE 6 GLOBAL ROBOTAXI MARKET: BOTTOM-UP APPROACH 2.3.2 TOP-DOWN APPROACH FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY FOR ROBOTAXI MARKET: TOP-DOWN APPROACH FIGURE 8 ROBOTAXI MARKET: MARKET ESTIMATION NOTES FIGURE 9 ROBOTAXI MARKET: RESEARCH DESIGN AND METHODOLOGY – DEMAND SIDE FIGURE 10 RESEARCH APPROACH: ROBOTAXI MARKET 2.4 DATA TRIANGULATION FIGURE 11 DATA TRIANGULATION 2.5 FACTOR ANALYSIS 2.5.1 FACTOR ANALYSIS FOR MARKET SIZING: DEMAND AND SUPPLY SIDE 2.6 RECESSION IMPACT ANALYSIS 2.7 RESEARCH ASSUMPTIONS

2.8 RESEARCH LIMITATIONS

## 3 EXECUTIVE SUMMARY

FIGURE 12 ROBOTAXI MARKET: MARKET OVERVIEW FIGURE 13 ROBOTAXI MARKET, BY REGION, 2023–2030 FIGURE 14 CARS SEGMENT ESTIMATED TO LEAD ROBOTAXI MARKET IN 2023

#### **4 PREMIUM INSIGHTS**

4.1 ATTRACTIVE OPPORTUNITIES IN ROBOTAXI MARKET
FIGURE 15 GROWTH OF RIDE-HAILING SERVICES AND INCREASING FOCUS ON
ROAD SAFETY TO BOOST ROBOTAXI MARKET
4.2 ROBOTAXI MARKET, BY REGION
FIGURE 16 ASIA PACIFIC TO ACCOUNT FOR LARGEST MARKET SHARE IN 2023
4.3 ROBOTAXI MARKET, BY VEHICLE TYPE
FIGURE 17 CARS SEGMENT TO LEAD MARKET DURING FORECAST PERIOD
4.4 ROBOTAXI MARKET, BY LEVEL OF AUTONOMY
FIGURE 18 LEVEL 4 SEGMENT TO DOMINATE MARKET DURING FORECAST
PERIOD
4.5 ROBOTAXI MARKET, BY PROPULSION
FIGURE 19 ELECTRIC SEGMENT TO HAVE HIGHER MARKET SHARE (2023–2030)
4.6 ROBOTAXI MARKET, BY SERVICE
FIGURE 20 AR RENTAL SEGMENT TO REGISTER HIGHEST MARKET SHARE
(2023–2030)



4.7 ROBOTAXI MARKET, BY APPLICATION FIGURE 21 PASSENGER TRANSPORT SEGMENT TO ACCOUNT FOR LARGEST MARKET SHARE

#### **5 MARKET OVERVIEW**

- 5.1 INTRODUCTION
- TABLE 7 ROBOTAXI MARKET: IMPACT OF MARKET DYNAMICS
- 5.2 MARKET DYNAMICS
- FIGURE 22 ROBOTAXI MARKET: MARKET DYNAMICS
- 5.2.1 DRIVERS
- 5.2.1.1 Robotaxis to reduce operating costs and increase profit margins for ridesharing companies

TABLE 8 NUMBER OF DRIVERS EMPLOYED BY LEADING RIDE-HAILING SERVICE PROVIDERS

- 5.2.1.2 Need for enhanced road safety and traffic control FIGURE 23 PRELIMINARY NUMBER OF ROAD FATALITIES PER MILLION INHABITANTS, BY COUNTRY, 2022
- 5.2.1.3 Ridesharing and Mobility-as-a-Service (MaaS)
- FIGURE 24 MAAS MARKET BY CAR SHARING, 2021–2027
  - 5.2.1.4 Rise in urbanization and congestion
- FIGURE 25 URBAN POPULATION WORLDWIDE, 2022
- **5.2.2 RESTRAINTS** 
  - 5.2.2.1 Disruption of traditional jobs
- 5.2.2.2 High R&D expenditure and complexity in adoption of robotaxis FIGURE 26 DATA FROM AUTONOMOUS VEHICLE
  - 5.2.2.3 Cybersecurity threats
  - **5.2.3 OPPORTUNITIES**
  - 5.2.3.1 Government support
  - 5.2.3.2 Robotic assistance in goods delivery
  - 5.2.3.3 Increasing demand for autonomous vehicles
- FIGURE 27 VISION SYSTEM OF FULLY AUTONOMOUS VEHICLE
  - 5.2.3.4 Increasing investments in LiDAR startups
  - 5.2.4 CHALLENGES
    - 5.2.4.1 Navigation in crowded spaces
  - 5.2.4.2 Gaining public and individual trust
  - 5.2.4.3 Lack of required infrastructure in emerging countries
- 5.3 FIVE ERAS OF VEHICLE SAFETY
- FIGURE 28 FIVE ERAS OF VEHICLE SAFETY



5.4 SAE DEFINITION OF AUTONOMOUS VEHICLES FIGURE 29 SOCIETY OF AUTOMOTIVE ENGINEERS AUTOMATION LEVELS 5.5 PRICING ANALYSIS FIGURE 30 AVERAGE SELLING PRICE TREND, BY VEHICLE TYPE TABLE 9 AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY VEHICLE **TYPE**. 2022 5.6 ROBOTAXI MARKET ECOSYSTEM FIGURE 31 ROBOTAXI MARKET: ECOSYSTEM ANALYSIS **5.6.1 COMPONENT SUPPLIERS** 5.6.2 SOFTWARE AND PLATFORM PROVIDERS 5.6.3 AUTONOMOUS VEHICLE TECHNOLOGY PROVIDERS 5.6.4 AUTONOMOUS SHUTTLE MANUFACTURERS TABLE 10 ROLE OF COMPANIES IN ROBOTAXI ECOSYSTEM 5.7 SUPPLY CHAIN ANALYSIS FIGURE 32 MAJOR VALUE ADDED TO DELIVERY SYSTEM DURING R&D AND MANUFACTURING PHASES 5.7.1 PLANNING AND REVISING FUNDS 5.7.2 R&D 5.7.3 MANUFACTURING 5.7.4 ASSEMBLY AND INTEGRATION 5.7.5 DELIVERY/DISTRIBUTION **5.7.6 AFTER-SALES SERVICES** FIGURE 33 INVESTMENTS AND PARTNERSHIPS IN AUTONOMOUS CARS AND **RIDESHARING COMPANIES 5.8 AUTONOMOUS VEHICLE DEVELOPMENTS** 5.9 CASE STUDY 5.9.1 CASE STUDY 1: RIDEFLUX EXPANDED OPERATIONS AND INCREASED ODD COVERAGE BY 5X 5.9.2 CASE STUDY 2: SIMULATION TO DRIVE TOYOTA'S AUTOMATED DRIVING SYSTEM **5.10 PATENT ANALYSIS** TABLE 11 IMPORTANT PATENT REGISTRATIONS RELATED TO ROBOTAXI MARKET **5.11 TECHNOLOGY ANALYSIS** 5.11.1 IOT AND 5G IN ROBOTAXI MARKET

FIGURE 34 IOT DEVICES IN AUTONOMOUS VEHICLES

5.11.1.1 4D LiDAR

5.11.2 SENSORS AND THEIR IMPORTANCE IN AUTONOMOUS VEHICLES FIGURE 35 SENSORS AND THEIR IMPORTANCE IN AUTONOMOUS VEHICLES



FIGURE 36 VISION SYSTEM OF FULLY AUTONOMOUS VEHICLE 5.11.3 CONNECTED VEHICLES FOR AUTONOMOUS DRIVING FIGURE 37 CONNECTED VEHICLES FOR AUTONOMOUS DRIVING 5.11.4 ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN ROBOTAXI MARKET

FIGURE 38 AI APPLICATIONS IN AUTOMOTIVE INDUSTRY

5.11.5 CYBERSECURITY AND DATA PRIVACY

5.11.6 CELLULAR VEHICLE-TO-EVERYTHING (C-V2X)

TABLE 12 CUMULATIVE GAIN WHILE USING 5G NR (NEW RADIO) C-V2X

5.11.6.1 LTE-V2X

5.11.6.2 5G-V2X

5.11.6.3 Development of robotrucks

5.12 TARIFF REGULATORY OVERVIEW

5.12.1 KEY REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

5.12.1.1 Enacted legislation and executive orders in US FIGURE 39 ENACTED LEGISLATION AND EXECUTIVE ORDERS IN US FIGURE 40 AUTONOMOUS VEHICLE REGULATION ACROSS US

5.12.1.2 Autonomous vehicle testing in China

FIGURE 41 AUTONOMOUS VEHICLE TESTING IN CHINA

5.12.1.3 Autonomous vehicle testing in Germany

FIGURE 42 AUTONOMOUS VEHICLE TESTING IN GERMANY

5.12.1.4 Autonomous vehicle testing in Singapore

FIGURE 43 AUTONOMOUS VEHICLE TESTING AREA IN SINGAPORE

5.13 KEY CONFERENCES AND EVENTS IN 2023-2024

TABLE 13 ROBOTAXI MARKET: DETAILED LIST OF CONFERENCES AND EVENTS 5.14 ROBOTAXI MARKET, SCENARIOS (2023–2030)

5.14.1 MOST LIKELY SCENARIO

TABLE 14 MOST LIKELY SCENARIO: ROBOTAXI MARKET, BY REGION, 2023–2030 (USD MILLION)

5.14.2 OPTIMISTIC SCENARIO

TABLE 15 OPTIMISTIC SCENARIO: ROBOTAXI MARKET, BY REGION, 2023–2030 (USD MILLION)

5.14.3 PESSIMISTIC SCENARIO

TABLE 16 PESSIMISTIC SCENARIO: ROBOTAXI MARKET, BY REGION, 2023–2030 (USD MILLION)

#### 6 ROBOTAXI MARKET, BY VEHICLE TYPE



6.1 INTRODUCTION

FIGURE 44 KEY FEATURES OF ROBOTAXIS FIGURE 45 CARS TO HOLD LARGER MARKET SHARE IN VEHICLE TYPE SEGMENT DURING FORECAST PERIOD

TABLE 17 ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS) TABLE 18 ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) TABLE 19 ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (USD MILLION) TABLE 20 ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (USD MILLION) TABLE 21 POPULAR AUTONOMOUS SHUTTLES FROM COMPANIES WORLDWIDE 6.2 CARS

6.2.1 RISE IN DEVELOPMENT OF RIDESHARING MARKET TO INCREASE DEMAND

TABLE 22 CARS: ROBOTAXI MARKET, BY REGION, 2018–2022 (UNITS) TABLE 23 CARS: ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) TABLE 24 CARS: ROBOTAXI MARKET, BY REGION, 2018–2022 (USD MILLION) TABLE 25 CARS: ROBOTAXI MARKET, BY REGION, 2023–2030 (USD MILLION) 6.3 VANS/SHUTTLES

6.3.1 INCREASING FOCUS ON PUBLIC TRANSPORT TO BOOST MARKET TABLE 26 VANS/SHUTTLES: ROBOTAXI MARKET, BY REGION, 2018–2022 (UNITS) TABLE 27 VANS/SHUTTLES: ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) TABLE 28 VANS/SHUTTLES: ROBOTAXI MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 29 VANS/SHUTTLES: ROBOTAXI MARKET, BY REGION, 2023–2030 (USD MILLION)

FIGURE 46 KEY PRIMARY INSIGHTS

#### 7 ROBOTAXI MARKET, BY APPLICATION TYPE

7.1 INTRODUCTION

FIGURE 47 PASSENGER TRANSPORTATION SEGMENT TO HOLD LARGEST MARKET SHARE DURING FORECAST PERIOD

TABLE 30 ROBOTAXI MARKET, BY APPLICATION TYPE, 2018–2022 (UNITS) TABLE 31 ROBOTAXI MARKET, BY APPLICATION TYPE, 2023–2030 (UNITS) TABLE 32 POPULAR ROBOTAXIS USED FOR PASSENGER TRANSPORTATION WORLDWIDE

7.2 GOODS TRANSPORTATION

7.2.1 INCREASING E-COMMERCE SERVICES AND UTILIZATION OF TRANSPORT TO DRIVE SEGMENT

TABLE 33 GOODS TRANSPORTATION: ROBOTAXI MARKET, BY REGION,



2018–2022 (UNITS) TABLE 34 GOODS TRANSPORTATION: ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) 7.3 PASSENGER TRANSPORTATION 7.3.1 RISING URBANIZATION TO FUEL SEGMENT TABLE 35 PASSENGER TRANSPORTATION: ROBOTAXI MARKET, BY REGION, 2018–2022 (UNITS) TABLE 36 PASSENGER TRANSPORTATION: ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) FIGURE 48 KEY PRIMARY INSIGHTS

#### **8 ROBOTAXI MARKET, BY LEVEL OF AUTONOMY**

8.1 INTRODUCTION

FIGURE 49 LEVEL 4 SEGMENT TO GROW AT HIGHER RATE DURING FORECAST PERIOD

TABLE 37 ROBOTAXI MARKET, BY LEVEL OF AUTONOMY, 2018–2022 (UNITS) TABLE 38 ROBOTAXI MARKET, BY LEVEL OF AUTONOMY, 2023–2030 (UNITS) 8.2 LEVEL 4

8.2.1 LOWER RISK AND RAPID DEVELOPMENTS IN LEVEL 4 TO DRIVE MARKET TABLE 39 LEVEL 4: ROBOTAXI MARKET, BY REGION, 2018–2022 (UNITS) TABLE 40 LEVEL 4: ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) 8.3 LEVEL 5

8.3.1 TECHNICAL ADVANCEMENTS TO PROPEL SEGMENT GROWTH TABLE 41 LEVEL 5: ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) FIGURE 50 KEY PRIMARY INSIGHTS

#### 9 ROBOTAXI MARKET, BY PROPULSION TYPE

9.1 INTRODUCTION

FIGURE 51 ELECTRIC SEGMENT TO HOLD PROMINENT MARKET SHARE DUE TO RAPID ADVANCEMENTS IN ELECTRIC VEHICLES

TABLE 42 ROBOTAXI MARKET, BY PROPULSION TYPE, 2018–2022 (UNITS) TABLE 43 ROBOTAXI MARKET, BY PROPULSION TYPE, 2023–2030 (UNITS) TABLE 44 FEW POPULAR ELECTRIC AUTONOMOUS SHUTTLES OFFERED BY COMPANIES WORLDWIDE

FIGURE 52 COMPARISON OF NATURAL GAS REQUIRED TO PROPEL ELECTRIC VEHICLE TO 300 MILES AGAINST FCEV TRAVELING 300 MILES TABLE 45 SUMMARY OF FCEV ATTRIBUTES COMPARED TO ADVANCED



ELECTRIC VEHICLES FOR 200 MILES AND 300 MILES 9.2 ELECTRIC

9.2.1 RISING DEMAND FOR ELECTRIC CARS TO BOOST MARKET TABLE 46 ELECTRIC: ROBOTAXI MARKET, BY REGION, 2018–2022 (UNITS) TABLE 47 ELECTRIC: ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) 9.3 FUEL CELL

9.3.1 FOCUS ON CURBING EMISSIONS EXPECTED TO RAISE MARKET SHARE TABLE 48 ZERO-EMISSION LIGHT-DUTY VEHICLES REFERENCE COMPARISON: BEV CHARGING VS. FCEV HYDROGEN FUELING

FIGURE 53 INITIAL INVESTMENT FOR VARIOUS FUEL INFRASTRUCTURE, 2022 FIGURE 54 COMPARISON OF BEV AND FCEV

TABLE 49 FUEL CELL: ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) FIGURE 55 KEY PRIMARY INSIGHTS

#### **10 ROBOTAXI MARKET, BY SERVICE TYPE**

10.1 INTRODUCTION

FIGURE 56 CAR RENTAL SEGMENT TO HOLD PROMINENT MARKET SHARE DURING FORECAST PERIOD

TABLE 50 ROBOTAXI MARKET, BY SERVICE TYPE, 2018–2022 (UNITS) TABLE 51 ROBOTAXI MARKET, BY SERVICE TYPE, 2023–2030 (UNITS) TABLE 52 CAR RENTAL AND STATION-BASED AUTONOMOUS

VEHICLE/ROBOTAXI PROVIDERS

10.2 CAR RENTAL

10.2.1 INCREASE IN TRAFFIC CONGESTION TO DRIVE MARKET TABLE 53 CAR RENTAL: ROBOTAXI MARKET, BY REGION, 2018–2022 (UNITS) TABLE 54 CAR RENTAL: ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) 10.3 STATION-BASED

10.3.1 FOCUS ON PUBLIC SAFETY EXPECTED TO BOOST MARKET TABLE 55 STATION-BASED: ROBOTAXI MARKET, BY REGION, 2018–2022 (UNITS) TABLE 56 STATION-BASED: ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) FIGURE 57 KEY PRIMARY INSIGHTS

#### 11 ROBOTAXI MARKET, BY COMPONENT TYPE

11.1 INTRODUCTION11.2 CAMERAS11.3 LIDAR11.4 RADARS

Robotaxi Market by Application (Goods and Passenger), Level of Autonomy (L4 and L5), Vehicle (Cars and Vans/Sh...



#### 11.5 ULTRASONIC SENSORS

#### **12 ROBOTAXI MARKET, BY REGION**

12.1 INTRODUCTION

FIGURE 58 AUTONOMOUS VEHICLES TO TRAVEL ABOUT 66% OF TOTAL PASSENGER KILOMETERS IN 2040 FIGURE 59 ASIA PACIFIC TO HOLD LARGE MARKET SHARE DUE TO RAPID TECHNOLOGICAL DEVELOPMENTS IN AUTOMOTIVE INDUSTRY TABLE 57 ROBOTAXI MARKET, BY REGION, 2018–2022 (UNITS) TABLE 58 ROBOTAXI MARKET, BY REGION, 2023–2030 (UNITS) TABLE 59 ROBOTAXI MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 60 ROBOTAXI MARKET, BY REGION, 2023–2030 (USD MILLION) 12.2 ASIA PACIFIC

12.2.1 ASIA PACIFIC: RECESSION IMPACT

FIGURE 60 ASIA PACIFIC: ROBOTAXI MARKET SNAPSHOT TABLE 61 ASIA PACIFIC: ROBOTAXI MARKET, BY COUNTRY, 2018–2022 (UNITS) TABLE 62 ASIA PACIFIC: ROBOTAXI MARKET, BY COUNTRY, 2023–2030 (UNITS) 12.2.2 CHINA

12.2.2.1 Technological advancements in autonomous driving to boost market FIGURE 61 MASS ADOPTION OF HIGHLY AUTONOMOUS VEHICLES IN CHINA TO COMMENCE BY 2027

TABLE 63 CHINA: ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS) TABLE 64 CHINA: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) 12.2.3 INDIA

12.2.3.1 Government policies and infrastructure development expected to lead market growth

TABLE 65 INDIA: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) 12.2.4 JAPAN

12.2.4.1 Development of advanced EV technologies for reducing carbon footprint to drive market

TABLE 66 JAPAN: ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS) TABLE 67 JAPAN: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) 12.2.5 SOUTH KOREA

12.2.5.1 Rise in government initiatives toward adoption of EVs to propel market FIGURE 62 AUTONOMOUS VEHICLE COMMERCIALIZATION TIMELINE IN SOUTH KOREA

TABLE 68 SOUTH KOREA: ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS)



TABLE 69 SOUTH KOREA: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS)

12.2.6 SINGAPORE

12.2.6.1 Government push toward adoption of smarter transportation to drive market TABLE 70 SINGAPORE: ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS)

TABLE 71 SINGAPORE: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS)

12.3 EUROPE

12.3.1 EUROPE: RECESSION IMPACT

FIGURE 63 EUROPE: ROBOTAXI MARKET SNAPSHOT

TABLE 72 EUROPE: ROBOTAXI MARKET, BY COUNTRY, 2018–2022 (UNITS)

TABLE 73 EUROPE: ROBOTAXI MARKET, BY COUNTRY, 2023–2030 (UNITS)12.3.2 FRANCE

12.3.2.1 Growing adoption of electric vehicles to drive demand for robotaxis TABLE 74 FRANCE: ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS) TABLE 75 FRANCE: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) 12.3.3 GERMANY

12.3.3.1 Innovations by German automakers to propel market growth

TABLE 76 GERMANY: ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS) TABLE 77 GERMANY: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) 12.3.4 NORWAY

12.3.4.1 Government initiatives for zero-emissions in public transport to boost market TABLE 78 NORWAY: ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS) TABLE 79 NORWAY: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS)

12.3.5 SPAIN

12.3.5.1 Rising tourism industry to encourage market growth

TABLE 80 SPAIN: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) 12.3.6 SWEDEN

12.3.6.1 Rise in R&D activities for autonomous vehicles to support market growth TABLE 81 SWEDEN: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) 12.3.7 NETHERLANDS

12.3.7.1 Urban mobility challenges to strengthen demand for robotaxis TABLE 82 NETHERLANDS: ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS)

TABLE 83 NETHERLANDS: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS)

12.3.8 UK

12.3.8.1 EV infrastructure to fuel market growth



TABLE 84 UK: ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS)TABLE 85 UK: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS)

12.3.9 AUSTRIA

12.3.9.1 Infrastructure development and government initiative to boost market growth TABLE 86 AUSTRIA: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) 12.4 NORTH AMERICA

12.4.1 NORTH AMERICA: RECESSION IMPACT

FIGURE 64 US TO HOLD PROMINENT MARKET SHARE IN NORTH AMERICA TABLE 87 NORTH AMERICA: ROBOTAXI MARKET, BY COUNTRY, 2018–2022 (UNITS)

TABLE 88 NORTH AMERICA: ROBOTAXI MARKET, BY COUNTRY, 2023–2030 (UNITS)

12.4.2 CANADA

12.4.2.1 Rising cost of owning and operating cars to create demand for robotaxis TABLE 89 CANADA: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS)

12.4.3 MEXICO

12.4.3.1 Rising investment in autonomous vehicles to drive market

TABLE 90 MEXICO: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) 12.4.4 US

12.4.4.1 Availability of infrastructure, regulations, and large-scale testing to boost market

FIGURE 65 US STATES WITH AUTONOMOUS VEHICLES ENACTED LEGISLATION AND EXECUTIVE ORDERS

TABLE 91 US: ROBOTAXI MARKET, BY VEHICLE TYPE, 2018–2022 (UNITS)

TABLE 92 US: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS)12.5 REST OF THE WORLD (ROW)

FIGURE 66 RUSSIA TO ACCOUNT FOR LARGEST MARKET SHARE IN REST OF THE WORLD

TABLE 93 REST OF THE WORLD: ROBOTAXI MARKET, BY COUNTRY, 2023–2030 (UNITS)

12.5.1 RUSSIA

12.5.1.1 Advancements in autonomous driving technology to boost market TABLE 94 RUSSIA: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS) 12.5.2 UAE

12.5.2.1 Improving infrastructure for EV technology to push market growth TABLE 95 UAE: ROBOTAXI MARKET, BY VEHICLE TYPE, 2023–2030 (UNITS)

#### **13 COMPETITIVE LANDSCAPE**



13.1 OVERVIEW

**13.2 MARKET RANKING ANALYSIS** 

FIGURE 67 MARKET RANKING ANALYSIS

13.2.1 WAYMO LLC

13.2.2 BAIDU, INC.

13.2.3 BEIJING DIDI CHUXING TECHNOLOGY CO., LTD.

13.2.4 CRUISE LLC

13.2.5 EASYMILE

13.3 KEY PLAYER STRATEGIES

TABLE 96 OVERVIEW OF STRATEGIES ADOPTED BY KEY PLAYERS IN

ROBOTAXI MARKET

13.4 REVENUE ANALYSIS OF LISTED PLAYERS

FIGURE 68 LISTED PLAYERS DOMINATING ROBOTAXI MARKET DURING LAST 3 YEARS

13.5 COMPETITIVE SCENARIO

13.5.1 PRODUCT LAUNCHES

TABLE 97 PRODUCT LAUNCHES, 2021–2023

13.5.2 DEALS

TABLE 98 DEALS, 2021–2023

13.5.3 OTHERS

TABLE 99 OTHERS, 2021–2022

13.6 COMPANY EVALUATION QUADRANT

13.6.1 STARS

13.6.2 PERVASIVE PLAYERS

13.6.3 EMERGING LEADERS

13.6.4 PARTICIPANTS

FIGURE 69 ROBOTAXI MARKET: COMPANY EVALUATION QUADRANT, 2022 TABLE 100 ROBOTAXI MARKET: COMPANY APPLICATION FOOTPRINT, 2022 TABLE 101 ROBOTAXI MARKET: COMPANY REGION FOOTPRINT, 2022 TABLE 102 ROBOTAXI MARKET: OVERALL COMPANY FOOTPRINT, 2022 13.7 COMPETITIVE LEADERSHIP MAPPING FOR TECHNOLOGY AND COMPONENT SUPPLIERS

13.7.1 PROGRESSIVE COMPANIES

13.7.2 RESPONSIVE COMPANIES

**13.7.3 DYNAMIC COMPANIES** 

13.7.4 STARTING BLOCKS

FIGURE 70 ROBOTAXI MARKET: COMPETITIVE LEADERSHIP MAPPING FOR TECHNOLOGY AND COMPONENT SUPPLIERS, 2022

TABLE 103 ROBOTAXI MARKET: TECHNOLOGY AND COMPONENT SUPPLIERS



#### **REGION FOOTPRINT, 2022**

#### **14 COMPANY PROFILES**

(Business Overview, Products Offered, Recent Developments, MnM View Right to win, Strategic choices made, Weaknesses and competitive threats) \* 14.1 KEY PLAYERS 14.1.1 WAYMO LLC TABLE 104 WAYMO LLC: BUSINESS OVERVIEW FIGURE 71 WAYMO DRIVER'S COLLISION AVOIDANCE PERFORMANCE IN SIMULATED TESTS TABLE 105 WAYMO LLC: PRODUCTS OFFERED TABLE 106 WAYMO LLC: PRODUCT DEVELOPMENTS TABLE 107 WAYMO LLC: DEALS TABLE 108 WAYMO LLC: OTHERS 14.1.2 BAIDU, INC. TABLE 109 BAIDU, INC.: BUSINESS OVERVIEW FIGURE 72 BAIDU, INC.: COMPANY SNAPSHOT TABLE 110 BAIDU, INC.: PRODUCTS OFFERED TABLE 111 BAIDU, INC.: PRODUCT DEVELOPMENTS TABLE 112 BAIDU, INC.: DEALS TABLE 113 BAIDU, INC.: OTHERS 14.1.3 BEIJING DIDI CHUXING TECHNOLOGY CO., LTD. TABLE 114 BEIJING DIDI CHUXING TECHNOLOGY CO., LTD.: BUSINESS **OVERVIEW** FIGURE 73 BEIJING DIDI CHUXING TECHNOLOGY CO., LTD.: SERVICE OFFERING FIGURE 74 BEIJING DIDI CHUXING TECHNOLOGY CO., LTD.: COMPANY **SNAPSHOT** TABLE 115 BEIJING DIDI CHUXING TECHNOLOGY CO., LTD.: PRODUCTS OFFERED TABLE 116 BEIJING DIDI CHUXING TECHNOLOGY CO., LTD.: PRODUCT **DEVELOPMENTS** TABLE 117 BEIJING DIDI CHUXING TECHNOLOGY CO., LTD.: DEALS 14.1.4 CRUISE LLC TABLE 118 CRUISE LLC: BUSINESS OVERVIEW TABLE 119 CRUISE LLC: PRODUCTS OFFERED TABLE 120 CRUISE LLC: PRODUCT DEVELOPMENTS TABLE 121 CRUISE LLC: DEALS 14.1.5 EASYMILE



TABLE 122 EASYMILE: BUSINESS OVERVIEW FIGURE 75 EASYMILE: COMPANY SNAPSHOT TABLE 123 EASYMILE: PRODUCTS OFFERED FIGURE 76 EZ10 SPECIFICATIONS TABLE 124 EASYMILE: PRODUCT DEVELOPMENTS TABLE 125 EASYMILE: DEALS TABLE 126 EASYMILE: OTHERS 14.1.6 AUTOX, INC. FIGURE 77 AUTOX, INC, FOOTPRINT TABLE 127 AUTOX, INC.: BUSINESS OVERVIEW TABLE 128 AUTOX, INC.: PRODUCTS OFFERED TABLE 129 AUTOX, INC.: NEW PRODUCT DEVELOPMENTS TABLE 130 AUTOX, INC.: DEALS TABLE 131 AUTOX, INC.: OTHERS 14.1.7 ZOOX. INC. TABLE 132 ZOOX, INC.: BUSINESS OVERVIEW TABLE 133 ZOOX, INC.: PRODUCTS OFFERED TABLE 134 ZOOX, INC .: DEALS 14.1.8 NAVYA TABLE 135 NAVYA: BUSINESS OVERVIEW FIGURE 78 NAVYA: COMPANY SNAPSHOT TABLE 136 NAVYA: PRODUCTS OFFERED TABLE 137 NAVYA: DEALS **TABLE 138 NAVYA: OTHERS** 14.1.9 MOTIONAL, INC. TABLE 139 MOTIONAL, INC.: BUSINESS OVERVIEW TABLE 140 MOTIONAL, INC.: PRODUCTS OFFERED TABLE 141 MOTIONAL, INC.: DEALS 14.1.10 2GETTHERE TABLE 142 2GETTHERE: BUSINESS OVERVIEW TABLE 143 2GETTHERE: PRODUCTS OFFERED TABLE 144 2GETTHERE: DEALS 14.1.11 PONY.AI TABLE 145 PONY.AI: BUSINESS OVERVIEW TABLE 146 PONY.AI: PRODUCTS OFFERED TABLE 147 PONY.AI: PRODUCT DEVELOPMENTS TABLE 148 PONY.AI: DEALS 14.1.12 TESLA TABLE 149 TESLA: BUSINESS OVERVIEW



FIGURE 79 TESLA: COMPANY SNAPSHOT TABLE 150 TESLA: PRODUCTS OFFERED TABLE 151 TESLA: PRODUCT DEVELOPMENTS TABLE 152 TESLA: DEALS TABLE 153 TESLA: OTHERS **14.2 OTHER KEY PLAYERS** 14.2.1 NISSAN TABLE 154 NISSAN: BUSINESS OVERVIEW 14.2.2 MOBILEYE TABLE 155 MOBILEYE: BUSINESS OVERVIEW 14.2.3 NVIDIA CORPORATION TABLE 156 NVIDIA CORPORATION: BUSINESS OVERVIEW 14.2.4 WOVEN PLANET (LYFT) TABLE 157 WOVEN PLANET: BUSINESS OVERVIEW 14.2.5 APTIV PLC TABLE 158 APTIV PLC: BUSINESS OVERVIEW 14.2.6 ZF FRIEDRICHSHAFEN TABLE 159 ZF FRIEDRICHSHAFEN: BUSINESS OVERVIEW 14.2.7 MAY MOBILITY TABLE 160 MAY MOBILITY: BUSINESS OVERVIEW 14.2.8 OPTIMUS RIDE TABLE 161 OPTIMUS RIDE: BUSINESS OVERVIEW 14.2.9 YANDEX TABLE 162 YANDEX: BUSINESS OVERVIEW 14.2.10 AURORA INNOVATION TABLE 163 AURORA INNOVATION: BUSINESS OVERVIEW 14.2.11 QUALCOMM TECHNOLOGIES, INC. TABLE 164 QUALCOMM TECHNOLOGIES, INC.: BUSINESS OVERVIEW 14.2.12 LUMINAR TECHNOLOGIES, INC. TABLE 165 LUMINAR TECHNOLOGIES, INC.: BUSINESS OVERVIEW 14.2.13 LEDDARTECH INC. TABLE 166 LEDDARTECH INC .: BUSINESS OVERVIEW 14.2.14 ARBE ROBOTICS TABLE 167 ARBE ROBOTICS: BUSINESS OVERVIEW 14.2.15 NURO, INC. TABLE 168 NURO, INC.: BUSINESS OVERVIEW 14.2.16 WERIDE TABLE 169 WERIDE: BUSINESS OVERVIEW



TABLE 170 ROBOSENSE: BUSINESS OVERVIEW
14.2.18 INNOVIZ TECHNOLOGIES LTD.
TABLE 171 INNOVIZ TECHNOLOGIES LTD.: BUSINESS OVERVIEW
14.2.19 OCULII
TABLE 172 OCULII: BUSINESS OVERVIEW
14.2.20 ARGO AI
TABLE 173 ARGO AI: BUSINESS OVERVIEW
14.2.21 UBER TECHNOLOGIES INC.
TABLE 174 UBER TECHNOLOGIES INC.: BUSINESS OVERVIEW
14.2.22 LYFT, INC.
TABLE 175 LYFT, INC.: BUSINESS OVERVIEW
\*Details on Business Overview, Products Offered, Recent Developments, MnM View,

Right to win, Strategic choices made, Weaknesses and competitive threats might not be captured in case of unlisted companies.

#### **15 RECOMMENDATIONS BY MARKETSANDMARKETS**

15.1 ASIA PACIFIC TO BE KEY MARKET DURING FORECAST PERIOD15.2 GOODS TRANSPORT: KEY FOCUS AREA15.3 RISING DEMAND FOR ROBOTAXI BY RIDESHARING AND RIDE-HAILINGSERVICE PROVIDERS15.4 CONCLUSION

#### **16 APPENDIX**

16.1 KEY INSIGHTS FROM INDUSTRY EXPERTS
16.2 DISCUSSION GUIDE
16.3 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL
16.4 CUSTOMIZATION OPTIONS
16.5 RELATED REPORTS
16.6 AUTHOR DETAILS



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