

# EV Battery Market by Battery Type (Lead-acid, Li-ion, Na-ion, NiMH, SSB), Propulsion (BEV, PHEV, ECEV, HEV), Battery Form, Vehicle Type, Material Type, Battery Capacity, Method, Li-ion Battery Component and Region - Global Forecast to 2033

<https://marketpublishers.com/r/E489A75FD29EEN.html>

Date: January 2024

Pages: 424

Price: US\$ 4,950.00 (Single User License)

ID: E489A75FD29EEN

## Abstracts

The global EV battery market is projected to grow from USD 132.6 Billion in 2023 to USD 508.8 Billion by 2033, registering a CAGR of 14.1%. As concerns about climate change and air pollution mount, people are increasingly turning to EVs as a cleaner and more sustainable alternative to gasoline-powered vehicles. This surge in demand for EVs is naturally driving up the demand for EV batteries. Further, Battery technology is constantly evolving, with researchers making significant strides in improving range, lifespan, and charging times. These advancements are making EVs more practical and appealing to consumers, further fueling the market for EV batteries.

“Prismatic form to hold largest market share during the forecast period.”

Prismatic cells represent a more compact form of cylindrical cells, with the internal layers of the anode, cathode, and separators being folded into a cubic or flattened spiral form. This gives it a more compact structure. The battery contents are held together by a casing made of aluminum or plastic. Although prismatic cells have relatively less energy density (20–50% less than cylindrical cells), prismatic cells offer better space utilization. Prismatic cells can be costlier to manufacture than cylindrical cells despite being jelly-rolled due to large surface areas and a more complicated process of rolling inside layers. CATL, BYD, and Samsung SDI are major manufacturers of prismatic cells. For instance, in October 2023, Samsung SDI announced the company had clinched a supply deal for electric vehicle batteries with Hyundai Motor Company for the first time. Samsung SDI will supply prismatic batteries for Hyundai Motor’s EVs,

targeting the European market for seven years from 2026 through 2032. This development will increase the demand for urban transit trains during the forecast period.

“By material lithium segment is expected to lead the market during the forecast period.”

Lithium is a necessary component in the cathodes of lithium-ion batteries. Continuous advancements in battery technology, aiming for improved energy density and efficiency, frequently entail the use of more lithium or the development of variations such as lithium iron phosphate (LFP) batteries. Moreover, A global effort is underway to invest in lithium production and processing capacity. South America (especially Chile, Argentina, and Bolivia), Australia, and parts of North America are all heavily involved in lithium mining and extraction. In 2022, companies based in China nearly doubled their investment in minerals. This higher energy density, which improves the vehicle range, is a critical factor in their widespread adoption. The demand for lithium will be primarily driven by the high demand for lithium-ion batteries that are used in BEVs. In November 2023, Exxon Mobil Corporation announced plans to become a leading producer of lithium, a key component of EV batteries. The company has started the first phase of North American lithium production in southwest Arkansas, an area known to hold significant lithium deposits. The product offer will be branded as Mobil™ Lithium, building on the rich history of deep technical partnership between Mobil and the automotive sector. Thus, with the rising demand for EVs, increasing mining activities for lithium, and significant investments by OEMs and battery manufacturers, the demand for lithium is likely to grow significantly.

“Europe to be the fastest growing market for EV battery during the forecast period.”

OMEs in Europe are investing heavily in domestic battery production. The goal is to achieve self-sufficiency and reduce reliance on Asian battery giants. Several gigafactories are being planned and constructed across the continent, creating thousands of jobs and boosting the European economy. Major automakers, tech companies, and private investors are pouring billions of euros into the European EV battery market, recognizing its immense potential. This influx of capital is accelerating innovation and production, further propelling the market's growth. Moreover, Electric vehicle demand in Europe is constantly increasing. Consumers are becoming more ecologically concerned, and they are looking for environmentally friendly transportation solutions. Automobile manufacturers have responded by extending their electric car portfolios, resulting in increased demand for EV batteries.

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 – 57%, Tier I – 29%, Tier II– 14%,

By Designation: CXOs – 54%, Directors– 32%, Others– 14%

By Region: North America– 29%, Europe – 38%, Asia Pacific– 33%

The EV battery market is dominated by established players such as CATL (China), LG Energy Solution Ltd. (South Korea), BYD Company Ltd. (China), Panasonic Holdings Corporation (Japan), and SK Innovation Co., Ltd. (South Korea). These companies manufacture battery and develop new technologies. These companies have set up R&D facilities and offer best-in-class products to their customers.

Research Coverage:

The Market Study Covers the EV Battery Market By Battery Type (Lead-Acid, Lithium-Ion, Solid-State, Nickel-Metal Hydride, Sodium-Ion, and Others), By Lithium-Ion Battery Component (Positive Electrode, Negative Electrode, Electrolyte, and Separator), By Propulsion (Battery Electric Vehicle (BEV), Plug-Hybrid Electric Vehicle (PHEV), And Fuel Cell Electric Vehicle (FCEV) and Hybrid Electric Vehicle (HEV)), By Vehicle Type (Passenger Cars, Vans/Light Trucks, Medium & Heavy Trucks, Buses, And Off-Highway Vehicles), By Method (Wire Bonding, Laser Bonding, and Ultrasonic Metal Welding), By Battery Capacity (300 kWh), By Material Type (Cobalt, Lithium, Natural Graphite, Manganese, Iron, Phosphate, Nickel, and Others), By Battery Form (Prismatic, Pouch, and Cylindrical), and Region (North America, Europe, and Asia Pacific). It also covers the competitive landscape and company profiles of the major players in the EV battery market ecosystem.

Key Benefits of the Report

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 EV battery market

and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and 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 (Increasing sales of EVs, Improvements in battery technology, Targets to reduce vehicle emissions, Launch of new plug-in models by major EV manufacturers, Reducing prices of EV batteries), restraints (Procurement concerns related to raw materials, Low number of charging stations in emerging economies, Development in hydrogen and ethanol vehicles), opportunities (Introduction of battery-as-a-service (BaaS) models, Development in solid-state batteries, Increase in R&D efforts toward creating more advanced battery chemistries), and challenges (High initial investments and high cost of electricity, Low availability of lithium for use in EV batteries, Concerns over battery safety, High cost of EVs compared to ICE vehicles) influencing the growth of the EV battery market.

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

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

**Market Diversification:** Exhaustive information about new products, untapped geographies, recent developments, and investments in the EV battery market

**Competitive Assessment:** In-depth assessment of market shares, growth strategies and service offerings of leading players like CATL (China), LG Energy Solution Ltd. (South Korea), BYD Company Ltd. (China), Panasonic Holdings Corporation (Japan), and SK Innovation Co., Ltd. (South Korea) and among others in the EV battery market Page 25 of 34 strategies. The report also helps stakeholders understand the pulse of the EV market and provides them with information on key market drivers, restraints, challenges, and opportunities.

## Contents

### 1 INTRODUCTION

#### 1.1 STUDY OBJECTIVES

#### 1.2 MARKET DEFINITION

TABLE 1 EV BATTERY MARKET DEFINITION, BY BATTERY TYPE

TABLE 2 EV BATTERY MARKET DEFINITION, BY LITHIUM-ION BATTERY COMPONENT

TABLE 3 EV BATTERY MARKET DEFINITION, BY PROPULSION

TABLE 4 EV BATTERY MARKET DEFINITION, BY VEHICLE TYPE

TABLE 5 EV BATTERY MARKET DEFINITION, BY MATERIAL TYPE

TABLE 6 EV BATTERY MARKET DEFINITION, BY METHOD

TABLE 7 EV BATTERY MARKET DEFINITION, BY BATTERY FORM

#### 1.3 INCLUSIONS AND EXCLUSIONS

TABLE 8 INCLUSIONS AND EXCLUSIONS FOR EV BATTERY MARKET

#### 1.4 MARKET SCOPE

##### 1.4.1 MARKET COVERED

FIGURE 1 EV BATTERY MARKET SEGMENTATION

##### 1.4.2 REGIONS COVERED

#### 1.5 YEARS CONSIDERED

#### 1.6 CURRENCY CONSIDERED

TABLE 9 CURRENCY EXCHANGE RATES (PER USD)

#### 1.7 STAKEHOLDERS

#### 1.8 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 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

TABLE 10 LIST OF PARTICIPATING COMPANIES FOR PRIMARY RESEARCH

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

2.1.2.2 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 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH

2.3.2 TOP-DOWN APPROACH

FIGURE 7 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH

FIGURE 8 EV BATTERY MARKET ESTIMATION NOTES

2.4 DATA TRIANGULATION

FIGURE 9 DATA TRIANGULATION

2.5 ANALYSIS OF FACTORS IMPACTING EV MARKET

2.5.1 FACTOR ANALYSIS FOR MARKET SIZING: DEMAND AND SUPPLY SIDES

2.6 RECESSION IMPACT ANALYSIS

2.7 RESEARCH ASSUMPTIONS

2.8 RESEARCH LIMITATIONS

### **3 EXECUTIVE SUMMARY**

FIGURE 10 EV BATTERY MARKET OVERVIEW

FIGURE 11 EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2033

FIGURE 12 EV BATTERY MARKET, BY REGION, 2023–2033

### **4 PREMIUM INSIGHTS**

4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN EV BATTERY MARKET

FIGURE 13 GROWING ADOPTION OF EVS AND RISING GOVERNMENT

INCENTIVES TO DRIVE MARKET

4.2 EV BATTERY MARKET, BY VEHICLE TYPE

FIGURE 14 PASSENGER CARS SEGMENT TO LEAD MARKET DURING FORECAST PERIOD

4.3 EV BATTERY MARKET, BY PROPULSION

FIGURE 15 BEV SEGMENT HOLD LARGEST MARKET SHARE DURING FORECAST PERIOD

4.4 EV BATTERY MARKET, BY BATTERY FORM

FIGURE 16 PRISMATIC SEGMENT TO LEAD MARKET DURING FORECAST PERIOD

4.5 EV BATTERY MARKET, BY MATERIAL TYPE

FIGURE 17 NATURAL GRAPHITE SEGMENT TO REGISTER HIGHEST CAGR



DURING FORECAST PERIOD

4.6 EV BATTERY MARKET, BY LITHIUM-ION BATTERY COMPONENT

FIGURE 18 NEGATIVE ELECTRODE SEGMENT TO LEAD MARKET DURING FORECAST PERIOD

4.7 EV BATTERY MARKET, BY BATTERY CAPACITY

FIGURE 19 50–110 KWH SEGMENT TO LEAD MARKET DURING FORECAST PERIOD

4.8 EV BATTERY MARKET, BY BATTERY TYPE

FIGURE 20 LITHIUM-ION TO BE LARGEST BATTERY TYPE SEGMENT DURING FORECAST PERIOD

4.9 EV BATTERY MARKET, BY METHOD

FIGURE 21 LASER BONDING SEGMENT TO LEAD MARKET DURING FORECAST PERIOD

4.10 EV BATTERY MARKET, BY REGION

FIGURE 22 ASIA PACIFIC TO ACCOUNT FOR LARGEST MARKET SHARE DURING FORECAST PERIOD

## **5 MARKET OVERVIEW**

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 23 DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

5.2.1 DRIVERS

5.2.1.1 Increasing sales of EVs

FIGURE 24 ELECTRIC PASSENGER CAR SALES, 2019–2022

5.2.1.2 Improvements in battery technology

TABLE 11 INNOVATION IN BATTERY, BY KEY MANUFACTURER

5.2.1.3 Targets to reduce vehicle emissions

FIGURE 25 EV-RELATED POLICIES WORLDWIDE

TABLE 12 GOVERNMENT INITIATIVES FOR EV BATTERY DEVELOPMENT, 2020–2023

5.2.1.4 Launch of new plug-in models by major EV manufacturers

TABLE 13 LATEST EV MODELS BY OEMS, 2021-2023

5.2.1.5 Reducing prices of EV batteries

FIGURE 26 EV BATTERY PRICING ANALYSIS, 2019–2022

5.2.2 RESTRAINTS

5.2.2.1 Procurement concerns related to raw materials

FIGURE 27 COUNTRY-WISE COBALT RESERVES, 2022

FIGURE 28 COUNTRY-WISE LITHIUM RESERVES, 2022

- 5.2.2.2 Low number of charging stations in emerging economies  
TABLE 14 EV CHARGING POINTS IN EMERGING ECONOMIES, 2022
- 5.2.2.3 Development in hydrogen and ethanol vehicles
- 5.2.3 OPPORTUNITIES
  - 5.2.3.1 Introduction of battery-as-a-service (BaaS) models  
FIGURE 29 BATTERY-AS-A-SERVICE IN EVS
  - 5.2.3.2 Development in solid-state batteries  
FIGURE 30 SOLID-STATE BATTERIES' CARBON FOOTPRINT, 2022
  - 5.2.3.3 Increase in R&D efforts toward creating more advanced battery chemistries
- 5.2.4 CHALLENGES
  - 5.2.4.1 High initial investments and high cost of electricity  
TABLE 15 GLOBAL AVERAGE ELECTRICITY COST, 2023
  - 5.2.4.2 Low availability of lithium for use in EV batteries  
FIGURE 31 LITHIUM-ION DEMAND AND SUPPLY, 2016–2030
  - 5.2.4.3 Concerns over battery safety
  - 5.2.4.4 High cost of EVs compared to ICE vehicles  
FIGURE 32 COST COMPARISON OF EVS AND ICE VEHICLES
- TABLE 16 IMPACT OF MARKET DYNAMICS
- 5.3 AVERAGE SELLING PRICING ANALYSIS
  - 5.3.1 AVERAGE SELLING PRICE, BY REGION  
FIGURE 33 AVERAGE SELLING PRICE, BY REGION
  - 5.3.2 AVERAGE SELLING PRICE, BY RAW MATERIAL  
FIGURE 34 COST PER KWH OF MAJOR RAW MATERIALS USED IN EV BATTERIES, 2022
  - FIGURE 35 COST BREAKDOWN OF CELL, BY MATERIAL, 2022
- 5.4 ECOSYSTEM ANALYSIS  
FIGURE 36 ECOSYSTEM ANALYSIS
  - 5.4.1 OEMS
  - 5.4.2 BATTERY PACK/CELL SUPPLIERS
  - 5.4.3 RAW MATERIAL SUPPLIERS
  - 5.4.4 ANODE MATERIAL SUPPLIERS
  - 5.4.5 CATHODE MATERIAL SUPPLIERS
- TABLE 17 ROLE OF COMPANIES IN ECOSYSTEM
- TABLE 18 TOP EVS WITH BATTERY SPECIFICATION
- 5.5 VALUE CHAIN ANALYSIS  
FIGURE 37 EV BATTERY MARKET: VALUE CHAIN ANALYSIS  
FIGURE 38 LITHIUM-ION BATTERY MARKET: VALUE CHAIN ANALYSIS
- 5.6 CASE STUDY ANALYSIS
  - 5.6.1 TECHNICAL ASSESSMENT OF REUSING RETIRED EV LITHIUM-ION



## BATTERIES IN THAILAND

### 5.6.2 DEVELOPMENT OF BLADE BATTERY TO INCREASE ENERGY DENSITY

## 5.7 PATENT ANALYSIS

TABLE 19 PATENT ANALYSIS (ACTIVE PATENTS), 2021–2023

FIGURE 39 ACTIVE PATENTS RELATED TO EV BATTERIES, 2010–2022

## 5.8 TECHNOLOGY ANALYSIS

### 5.8.1 INTRODUCTION

### 5.8.2 IMPROVEMENTS IN BATTERY COMPOSITION

### 5.8.3 ADVANCEMENTS IN BATTERY CHARGING RATE

FIGURE 40 CHARGING TIME FOR CARS, BY MODEL (IN HOURS)

### 5.8.4 BATTERY-RELATED SERVICES

### 5.8.5 BATTERY OPTIMIZATION

### 5.8.6 LITHIUM-SULFUR BATTERIES

### 5.8.7 SALTWATER BATTERY

### 5.8.8 CELL-TO-PACK TECHNOLOGY

### 5.8.9 CELL-TO-CHASSIS BATTERY TECHNOLOGY

### 5.8.10 AB BATTERY SYSTEM

### 5.8.11 RECYCLING AND SECOND-LIFE BATTERY

### 5.8.12 SODIUM-ION BATTERY

## 5.9 TARIFF AND REGULATORY LANDSCAPE

5.9.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 20 NORTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 21 EUROPE: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 22 ASIA PACIFIC: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 23 CHANGES IN REGULATORY ENVIRONMENT GLOBALLY

TABLE 24 REGULATIONS/VOLUNTARY PROCEDURES FOR EV BATTERY PERFORMANCE

TABLE 25 REGULATIONS/VOLUNTARY PROCEDURES FOR EV BATTERY DURABILITY

TABLE 26 REGULATIONS/VOLUNTARY PROCEDURES FOR EV BATTERY SAFETY

TABLE 27 REGULATIONS/VOLUNTARY PROCEDURES FOR EV BATTERY RECYCLING

## 5.10 TRADE DATA ANALYSIS

TABLE 28 TRADE DATA FOR MOTOR VEHICLES IN 2022 (HS 8703)

## 5.11 LITHIUM MINING INVESTMENTS, 2022–2023

TABLE 29 BATTERY MANUFACTURERS' INVESTMENT IN LITHIUM MINING, 2022–2023

5.12 TRENDS AND DISRUPTIONS IMPACTING CUSTOMER BUSINESS

FIGURE 41 REVENUE SHIFT AND NEW REVENUE POCKETS FOR PLAYERS IN EV BATTERY MARKET

5.13 KEY CONFERENCES AND EVENTS, 2023–2024

TABLE 30 LIST OF CONFERENCES AND EVENTS, 2023–2024

5.14 KEY STAKEHOLDERS AND BUYING CRITERIA

5.14.1 KEY STAKEHOLDERS IN BUYING PROCESS

TABLE 31 INFLUENCE OF KEY STAKEHOLDERS ON BUYING EV BATTERIES

5.14.2 BUYING CRITERIA

FIGURE 42 KEY BUYING CRITERIA

TABLE 32 KEY BUYING CRITERIA

## **6 EV BATTERY MARKET, BY BATTERY CAPACITY**

6.1 INTRODUCTION

FIGURE 43 111-200 KWH SEGMENT TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD

TABLE 33 EV BATTERY MARKET, BY BATTERY CAPACITY, 2019–2022 (THOUSAND UNITS)

TABLE 34 EV BATTERY MARKET, BY BATTERY CAPACITY, 2023–2027 (THOUSAND UNITS)

TABLE 35 EV BATTERY MARKET, BY BATTERY CAPACITY, 2028–2033 (THOUSAND UNITS)

TABLE 36 EV BATTERY MARKET, BY BATTERY CAPACITY, 2019–2022 (USD MILLION)

TABLE 37 EV BATTERY MARKET, BY BATTERY CAPACITY, 2023–2027 (USD MILLION)

TABLE 38 EV BATTERY MARKET, BY BATTERY CAPACITY, 2028–2033 (USD MILLION)

6.1.1 OPERATIONAL DATA

TABLE 39 ELECTRIC VEHICLE DATA, BY MODEL AND BATTERY CAPACITY

6.2 300 KWH: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

6.7 KEY PRIMARY INSIGHTS

## **7 EV BATTERY MARKET, BY BATTERY FORM**

7.1 INTRODUCTION

FIGURE 44 PRISMATIC FORM TO HOLD LARGEST MARKET SHARE DURING FORECAST PERIOD

TABLE 70 EV BATTERY MARKET, BY BATTERY FORM, 2019–2022 (THOUSAND UNITS)

TABLE 71 EV BATTERY MARKET, BY BATTERY FORM, 2023–2027 (THOUSAND UNITS)

TABLE 72 EV BATTERY MARKET, BY BATTERY FORM, 2028–2033 (THOUSAND UNITS)

TABLE 73 EV BATTERY CELL CHARACTERISTICS

FIGURE 45 BATTERY FORMS, BY TYPE

## 7.2 PRISMATIC

7.2.1 MORE COMPACT STRUCTURE THAN CYLINDRICAL CELL TO DRIVE MARKET

FIGURE 46 PRISMATIC CELL BATTERY PACK

TABLE 74 PRISMATIC: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)

TABLE 75 PRISMATIC: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 76 PRISMATIC: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)

## 7.3 POUCH

7.3.1 OPTIMUM CONSUMPTION FOR BATTERY SPACE TO DRIVE MARKET

TABLE 77 POUCH: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)

TABLE 78 POUCH: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 79 POUCH: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)

## 7.4 CYLINDRICAL

7.4.1 LOW-COST MANUFACTURING TO DRIVE MARKET

FIGURE 47 CROSS-SECTION OF LITHIUM-ION CYLINDRICAL CELL

TABLE 80 CYLINDRICAL: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)

TABLE 81 CYLINDRICAL: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 82 CYLINDRICAL: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)

## 7.5 KEY PRIMARY INSIGHTS

## 8 EV BATTERY MARKET, BY BATTERY TYPE

### 8.1 INTRODUCTION

FIGURE 48 LITHIUM-ION BATTERY TO HOLD LARGEST MARKET SHARE DURING FORECAST PERIOD

TABLE 83 EV BATTERY MARKET, BY BATTERY TYPE, 2019–2022 (THOUSAND UNITS)

TABLE 84 EV BATTERY MARKET, BY BATTERY TYPE, 2023–2027 (THOUSAND UNITS)

TABLE 85 EV BATTERY MARKET, BY BATTERY TYPE, 2028–2033 (THOUSAND UNITS)

#### 8.1.1 OPERATIONAL DATA

TABLE 86 EV MODELS, BY BATTERY TYPE

### 8.2 LITHIUM-ION

#### 8.2.1 ADVANCEMENTS IN BATTERY TECHNOLOGY TO DRIVE MARKET

FIGURE 49 COMPARATIVE EVALUATION OF EVS USING LITHIUM-ION BATTERIES

TABLE 87 LITHIUM-ION: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)

TABLE 88 LITHIUM-ION: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 89 LITHIUM-ION: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)

### 8.3 LEAD-ACID

8.3.1 DEVELOPMENT OF ADVANCED LEAD-ACID BATTERIES TO DRIVE MARKET

### 8.4 NICKEL-METAL HYDRIDE

#### 8.4.1 HIGH TOLERANCE AND LONG LIFE CYCLE TO DRIVE MARKET

TABLE 90 NICKEL-METAL HYDRIDE: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)

TABLE 91 NICKEL-METAL HYDRIDE: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 92 NICKEL-METAL HYDRIDE: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)

### 8.5 SOLID-STATE

8.5.1 HIGH ENERGY STORAGE CAPABILITY WITH LONGER LIFESPAN TO DRIVE MARKET

TABLE 93 SOLID-STATE: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 94 SOLID-STATE: EV BATTERY MARKET, BY REGION, 2028–2033

(THOUSAND UNITS)

## 8.6 SODIUM-ION

8.6.1 LOW-TEMPERATURE PERFORMANCE AND RAPID CHARGING TO DRIVE MARKET

## 8.7 OTHER BATTERY TYPES

TABLE 95 OTHER BATTERY TYPES: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)

TABLE 96 OTHER BATTERY TYPES: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 97 OTHER BATTERY TYPES: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)

## 8.8 KEY PRIMARY INSIGHTS

# 9 EV BATTERY MARKET, BY LITHIUM-ION BATTERY COMPONENT

## 9.1 INTRODUCTION

FIGURE 50 NEGATIVE ELECTRODE TO HOLD LARGEST MARKET SHARE DURING FORECAST PERIOD

TABLE 98 EV BATTERY MARKET, BY LITHIUM-ION BATTERY COMPONENT, 2019–2022 (USD MILLION)

TABLE 99 EV BATTERY MARKET, BY LITHIUM-ION BATTERY COMPONENT, 2023–2027 (USD MILLION)

TABLE 100 EV BATTERY MARKET, BY LITHIUM-ION BATTERY COMPONENT, 2028–2033 (USD MILLION)

TABLE 101 ELECTROLYTE SOLVENTS, BY TEMPERATURE AND FLASHPOINT

TABLE 102 MOST COMMONLY USED LITHIUM-ION BATTERIES AND THEIR SPECIFICATIONS

TABLE 103 LIST OF VEHICLE MODELS AND CATHODE MATERIAL SUPPLIERS

TABLE 104 LIST OF VEHICLE MODELS AND ANODE MATERIAL SUPPLIERS

FIGURE 51 LITHIUM-ION BATTERY WORKING PRINCIPLE

## 9.2 NEGATIVE ELECTRODE

9.2.1 INCREASE IN NUMBER OF NEGATIVE ELECTRODE COMPANIES IN ASIA PACIFIC TO DRIVE MARKET

TABLE 105 NEGATIVE ELECTRODE: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 106 NEGATIVE ELECTRODE: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 107 NEGATIVE ELECTRODE: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

### 9.3 POSITIVE ELECTRODE

#### 9.3.1 DEMAND FOR LONG LIFE CYCLE AND HIGH-PERFORMANCE CELLS TO DRIVE MARKET

TABLE 108 POSITIVE ELECTRODE: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 109 POSITIVE ELECTRODE: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 110 POSITIVE ELECTRODE: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

### 9.4 ELECTROLYTE

#### 9.4.1 RISING SAFETY CONCERN OF BATTERIES TO DRIVE MARKET

TABLE 111 ELECTROLYTE: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 112 ELECTROLYTE: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 113 ELECTROLYTE: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

### 9.5 SEPARATOR

#### 9.5.1 REQUIREMENT FOR SEPARATORS IN BATTERIES TO PROVIDE TEMPERATURE STABILITY TO DRIVE MARKET

TABLE 114 SEPARATOR: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 115 SEPARATOR: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 116 SEPARATOR: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

### 9.6 KEY PRIMARY INSIGHTS

## 10 EV BATTERY MARKET, BY MATERIAL TYPE

### 10.1 INTRODUCTION

#### FIGURE 52 NATURAL GRAPHITE TO RECORD HIGHER CAGR DURING FORECAST PERIOD

TABLE 117 EV BATTERY MARKET, BY MATERIAL TYPE, 2019–2022 (USD MILLION)

TABLE 118 EV BATTERY MARKET, BY MATERIAL TYPE, 2023–2027 (USD MILLION)

TABLE 119 EV BATTERY MARKET, BY MATERIAL TYPE, 2028–2033 (USD MILLION)

#### 10.1.1 OPERATIONAL DATA

TABLE 120 TYPES OF LITHIUM-ION BATTERY CHEMISTRIES

### 10.2 COBALT



10.2.1 HIGH ENERGY DENSITY AND POWER CAPABILITY TO DRIVE MARKET  
TABLE 121 COBALT: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 122 COBALT: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 123 COBALT: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

### 10.3 LITHIUM

10.3.1 WIDE OPERATING TEMPERATURE RANGE TO DRIVE MARKET  
FIGURE 53 LITHIUM PRODUCTION, 2022

TABLE 124 LITHIUM: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 125 LITHIUM: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 126 LITHIUM: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

### 10.4 NATURAL GRAPHITE

10.4.1 HIGH ELECTRICAL CONDUCTIVITY FEATURE TO DRIVE MARKET

TABLE 127 NATURAL GRAPHITE: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 128 NATURAL GRAPHITE: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 129 NATURAL GRAPHITE: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

### 10.5 MANGANESE

10.5.1 DEVELOPMENT IN BATTERY TECHNOLOGY TO DRIVE MARKET

TABLE 130 MANGANESE: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 131 MANGANESE: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 132 MANGANESE: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

### 10.6 IRON

10.6.1 LOW-COST FACTOR TO DRIVE MARKET

TABLE 133 IRON: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 134 IRON: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 135 IRON: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

### 10.7 PHOSPHATE

10.7.1 RISE IN BATTERY PRODUCTION TO DRIVE MARKET

TABLE 136 PHOSPHATE: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 137 PHOSPHATE: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 138 PHOSPHATE: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

#### 10.8 NICKEL

##### 10.8.1 SHIFT TOWARD HIGH-NICKEL CATHODES TO DRIVE MARKET

TABLE 139 NICKEL: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 140 NICKEL: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 141 NICKEL: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

#### 10.9 OTHERS

TABLE 142 OTHER MATERIAL TYPES: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 143 OTHER MATERIAL TYPES: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 144 OTHER MATERIAL TYPES: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

#### 10.10 KEY PRIMARY INSIGHTS

## 11 EV BATTERY MARKET, BY METHOD

### 11.1 INTRODUCTION

FIGURE 54 LASER BONDING TO HOLD PROMINENT MARKET SHARE DURING FORECAST PERIOD

FIGURE 55 APPLICATION OF INTERCONNECTION TECHNOLOGIES

TABLE 145 EV BATTERY MARKET, BY METHOD, 2019–2022 (THOUSAND UNITS)

TABLE 146 EV BATTERY MARKET, BY METHOD, 2023–2027 (THOUSAND UNITS)

TABLE 147 EV BATTERY MARKET, BY METHOD, 2028–2033 (THOUSAND UNITS)

### 11.2 WIRE BONDING

11.2.1 LESS COMPLICATED AND TIME-CONSUMING THAN OTHER BONDING METHODS

TABLE 148 WIRE BONDING: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)

TABLE 149 WIRE BONDING: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 150 WIRE BONDING: EV BATTERY MARKET, BY REGION, 2028–2033  
(THOUSAND UNITS)

### 11.3 LASER BONDING

11.3.1 IMPROVED BOND STRENGTH AND RELIABILITY TO RESULT IN HIGHER  
ADOPTION OF LASER BONDING

TABLE 151 LASER BONDING: EV BATTERY MARKET, BY REGION, 2019–2022  
(THOUSAND UNITS)

TABLE 152 LASER BONDING: EV BATTERY MARKET, BY REGION, 2023–2027  
(THOUSAND UNITS)

TABLE 153 LASER BONDING: EV BATTERY MARKET, BY REGION, 2028–2033  
(THOUSAND UNITS)

### 11.4 ULTRASONIC METAL WELDING

11.4.1 USES HIGH-FREQUENCY SOUND WAVES TO CONNECT METAL PIECES

### 11.5 KEY PRIMARY INSIGHTS

## 12 EV BATTERY MARKET, BY PROPULSION

### 12.1 INTRODUCTION

FIGURE 56 EV, BY PROPULSION TYPE

FIGURE 57 BEV SEGMENT TO HOLD LARGEST MARKET SHARE DURING  
FORECAST PERIOD

TABLE 154 EV BATTERY MARKET, BY PROPULSION, 2019–2022 (THOUSAND  
UNITS)

TABLE 155 EV BATTERY MARKET, BY PROPULSION, 2023–2027 (THOUSAND  
UNITS)

TABLE 156 EV BATTERY MARKET, BY PROPULSION, 2028–2033 (THOUSAND  
UNITS)

#### 12.1.1 OPERATIONAL DATA

TABLE 157 BESTSELLING EVS IN 2022

TABLE 158 ELECTRIC COMMERCIAL VEHICLE DATA, BY OEM, MODEL, AND  
PROPULSION

### 12.2 BATTERY ELECTRIC VEHICLE (BEV)

#### 12.2.1 GROWING EV CHARGING NETWORK TO DRIVE MARKET

TABLE 159 BEV: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND  
UNITS)

TABLE 160 BEV: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND  
UNITS)

TABLE 161 BEV: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND  
UNITS)

### 12.3 PLUG-IN HYBRID ELECTRIC VEHICLE (PHEV)

12.3.1 TAX BENEFITS AND INCENTIVES BY GOVERNMENTS TO DRIVE MARKET  
TABLE 162 PHEV: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)

TABLE 163 PHEV: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 164 PHEV: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)

### 12.4 FUEL CELL ELECTRIC VEHICLE (FCEV)

12.4.1 LONGER DRIVING RANGE AND BETTER ENVIRONMENTAL SUSTAINABILITY THAN BEVS TO DRIVE MARKET

TABLE 165 FCEV: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)

TABLE 166 FCEV: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 167 FCEV: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)

### 12.5 HYBRID ELECTRIC VEHICLE (HEV)

12.5.1 PRESENCE OF ELECTRIC POWERTRAIN IN HEVS TO DRIVE MARKET

### 12.6 KEY PRIMARY INSIGHTS

## 13 EV BATTERY MARKET, BY VEHICLE TYPE

### 13.1 INTRODUCTION

FIGURE 58 PASSENGER CAR SEGMENT TO HOLD LARGEST MARKET SHARE DURING FORECAST PERIOD

TABLE 168 EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (THOUSAND UNITS)

TABLE 169 EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (THOUSAND UNITS)

TABLE 170 EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (THOUSAND UNITS)

TABLE 171 EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD MILLION)

TABLE 172 EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD MILLION)

TABLE 173 EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD MILLION)

#### 13.1.1 OPERATIONAL DATA

TABLE 174 EVS, BY MODEL, VEHICLE TYPE, AND PROPULSION

TABLE 175 POPULAR EVS WORLDWIDE, 2022–2023

TABLE 176 UPCOMING ELECTRIC CAR MODELS BY OEMS

**TABLE 177 UPCOMING ELECTRIC COMMERCIAL VEHICLES BY OEMS****13.2 PASSENGER CARS****13.2.1 FAVORABLE REGULATIONS AND SUBSIDIES WORLDWIDE TO DRIVE MARKET****TABLE 178 PASSENGER CARS: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)****TABLE 179 PASSENGER CARS: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)****TABLE 180 PASSENGER CARS: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)****TABLE 181 PASSENGER CARS: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)****TABLE 182 PASSENGER CARS: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)****TABLE 183 PASSENGER CARS: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)****TABLE 184 PASSENGER CARS: EV BATTERY MARKET, BY BATTERY CAPACITY, 2019–2022 (THOUSAND UNITS)****TABLE 185 PASSENGER CARS: EV BATTERY MARKET, BY BATTERY CAPACITY, 2023–2027 (THOUSAND UNITS)****TABLE 186 PASSENGER CARS: EV BATTERY MARKET, BY BATTERY CAPACITY, 2028–2033 (THOUSAND UNITS)****TABLE 187 300 KWH: EV BATTERY MARKET IN MEDIUM & HEAVY TRUCKS, BY REGION, 2028–2033 (THOUSAND UNITS)****13.5 BUSES****13.5.1 RISING DEMAND FOR EMISSION-FREE PUBLIC TRANSPORT TO DRIVE MARKET****TABLE 238 ELECTRIC BUS DATA BASED ON PROPULSION****TABLE 239 BUSES: EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)****TABLE 240 BUSES: EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)****TABLE 241 BUSES: EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)****TABLE 242 BUSES: EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)****TABLE 243 BUSES: EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)****TABLE 244 BUSES: EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)****TABLE 245 BUSES: EV BATTERY MARKET, BY BATTERY CAPACITY, 2019–2022 (THOUSAND UNITS)**

TABLE 246 BUSES: EV BATTERY MARKET, BY BATTERY CAPACITY, 2023–2027  
(THOUSAND UNITS)

TABLE 247 BUSES: EV BATTERY MARKET, BY BATTERY CAPACITY, 2028–2033  
(THOUSAND UNITS)

TABLE 248 111–200 KWH: EV BATTERY MARKET IN BUSES, BY REGION,  
2019–2022 (THOUSAND UNITS)

TABLE 249 111–200 KWH: EV BATTERY MARKET IN BUSES, BY REGION,  
2023–2027 (THOUSAND UNITS)

TABLE 250 111–200 KWH: EV BATTERY MARKET IN BUSES, BY REGION,  
2028–2033 (THOUSAND UNITS)

TABLE 251 201–300 KWH: EV BATTERY MARKET IN BUSES, BY REGION,  
2019–2022 (THOUSAND UNITS)

TABLE 252 201–300 KWH: EV BATTERY MARKET IN BUSES, BY REGION,  
2023–2027 (THOUSAND UNITS)

TABLE 253 201–300 KWH: EV BATTERY MARKET IN BUSES, BY REGION,  
2028–2033 (THOUSAND UNITS)

TABLE 254 >300 KWH: EV BATTERY MARKET IN BUSES, BY REGION, 2019–2022  
(THOUSAND UNITS)

TABLE 255 >300 KWH: EV BATTERY MARKET IN BUSES, BY REGION, 2023–2027  
(THOUSAND UNITS)

TABLE 256 >300 KWH: EV BATTERY MARKET IN BUSES, BY REGION, 2028–2033  
(THOUSAND UNITS)

### 13.6 OFF-HIGHWAY VEHICLES

13.6.1 GROWING DEMAND FOR HIGH-POWER HEAVY-DUTY ELECTRIC TRUCKS  
FOR VARIOUS INDUSTRIAL APPLICATIONS TO DRIVE MARKET

TABLE 257 MAJOR OFF-HIGHWAY VEHICLE MODELS

TABLE 258 OFF-HIGHWAY VEHICLES: EV BATTERY MARKET, BY REGION,  
2019–2022 (THOUSAND UNITS)

TABLE 259 OFF-HIGHWAY VEHICLES: EV BATTERY MARKET, BY REGION,  
2023–2027 (THOUSAND UNITS)

TABLE 260 OFF-HIGHWAY VEHICLES: EV BATTERY MARKET, BY REGION,  
2028–2033 (THOUSAND UNITS)

TABLE 261 OFF-HIGHWAY VEHICLES: EV BATTERY MARKET, BY REGION,  
2019–2022 (USD MILLION)

TABLE 262 OFF-HIGHWAY VEHICLES: EV BATTERY MARKET, BY REGION,  
2023–2027 (USD MILLION)

TABLE 263 OFF-HIGHWAY VEHICLES: EV BATTERY MARKET, BY REGION,  
2028–2033 (USD MILLION)

TABLE 264 OFF-HIGHWAY VEHICLES: EV BATTERY MARKET, BY BATTERY



CAPACITY, 2019–2022 (THOUSAND UNITS)

TABLE 265 OFF-HIGHWAY VEHICLES: EV BATTERY MARKET, BY BATTERY CAPACITY, 2023–2027 (THOUSAND UNITS)

TABLE 266 OFF-HIGHWAY VEHICLES: EV BATTERY MARKET, BY BATTERY CAPACITY, 2028–2033 (THOUSAND UNITS)

TABLE 267 300 KWH: EV BATTERY MARKET IN OFF-HIGHWAY VEHICLES, BY REGION, 2028–2033 (THOUSAND UNITS)

13.7 KEY PRIMARY INSIGHTS

## **14 EV BATTERY MARKET, BY REGION**

### 14.1 INTRODUCTION

FIGURE 59 INVESTMENT AND ELECTRIFICATION TARGET BY TOP OEMS

FIGURE 60 PARTNERSHIP OF EV OEMS WITH BATTERY MANUFACTURERS

FIGURE 61 ASIA PACIFIC TO HOLD LARGEST EV BATTERY MARKET SHARE DURING FORECAST PERIOD

TABLE 282 EV BATTERY MARKET, BY REGION, 2019–2022 (THOUSAND UNITS)

TABLE 283 EV BATTERY MARKET, BY REGION, 2023–2027 (THOUSAND UNITS)

TABLE 284 EV BATTERY MARKET, BY REGION, 2028–2033 (THOUSAND UNITS)

TABLE 285 EV BATTERY MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 286 EV BATTERY MARKET, BY REGION, 2023–2027 (USD MILLION)

TABLE 287 EV BATTERY MARKET, BY REGION, 2028–2033 (USD MILLION)

### 14.2 ASIA PACIFIC

#### 14.2.1 RECESSION IMPACT ANALYSIS

FIGURE 62 ASIA PACIFIC: EV BATTERY MARKET SNAPSHOT

TABLE 288 ASIA PACIFIC: EV BATTERY MARKET, BY COUNTRY, 2019–2022 (THOUSAND UNITS)

TABLE 289 ASIA PACIFIC: EV BATTERY MARKET, BY COUNTRY, 2023–2027 (THOUSAND UNITS)

TABLE 290 ASIA PACIFIC: EV BATTERY MARKET, BY COUNTRY, 2028–2033 (THOUSAND UNITS)

TABLE 291 ASIA PACIFIC: EV BATTERY MARKET, BY COUNTRY, 2019–2022 (USD MILLION)

TABLE 292 ASIA PACIFIC: EV BATTERY MARKET, BY COUNTRY, 2023–2027 (USD MILLION)

TABLE 293 ASIA PACIFIC: EV BATTERY MARKET, BY COUNTRY, 2028–2033 (USD MILLION)

#### 14.2.2 CHINA

##### 14.2.2.1 Rising EV sales to drive market

TABLE 294 EV MOBILITY LANDSCAPE IN CHINA

TABLE 295 BESTSELLING EVS IN CHINA, 2022

TABLE 296 CHINA: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 297 CHINA: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 298 CHINA: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 299 CHINA: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD  
MILLION)

TABLE 300 CHINA: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD  
MILLION)

TABLE 301 CHINA: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD  
MILLION)

#### 14.2.3 JAPAN

14.2.3.1 Full exemption of PHEVs from automobile acquisition tax to drive market

TABLE 302 JAPAN: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 303 JAPAN: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 304 JAPAN: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 305 JAPAN: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD  
MILLION)

TABLE 306 JAPAN: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD  
MILLION)

TABLE 307 JAPAN: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD  
MILLION)

#### 14.2.4 INDIA

14.2.4.1 Plans for 30% EV sales by 2030 to drive market

TABLE 308 INDIA: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 309 INDIA: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 310 INDIA: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 311 INDIA: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD  
MILLION)

TABLE 312 INDIA: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD

MILLION)

TABLE 313 INDIA: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD MILLION)

#### 14.2.5 SOUTH KOREA

14.2.5.1 Introduction of battery-powered electric buses to drive market

TABLE 314 SOUTH KOREA: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (THOUSAND UNITS)

TABLE 315 SOUTH KOREA: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (THOUSAND UNITS)

TABLE 316 SOUTH KOREA: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (THOUSAND UNITS)

TABLE 317 SOUTH KOREA: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD MILLION)

TABLE 318 SOUTH KOREA: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD MILLION)

TABLE 319 SOUTH KOREA: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD MILLION)

#### 14.2.6 THAILAND

14.2.6.1 Government incentives and 2030 target to drive market

TABLE 320 THAILAND: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (THOUSAND UNITS)

TABLE 321 THAILAND: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (THOUSAND UNITS)

TABLE 322 THAILAND: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (THOUSAND UNITS)

TABLE 323 THAILAND: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD MILLION)

TABLE 324 THAILAND: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD MILLION)

TABLE 325 THAILAND: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD MILLION)

#### 14.3 EUROPE

FIGURE 63 EV SALES BY OEMS, BY PROPULSION, 2022

##### 14.3.1 RECESSION IMPACT ANALYSIS

FIGURE 64 EUROPE: EV BATTERY MARKET SNAPSHOT

TABLE 326 EUROPE: EV BATTERY MARKET, BY COUNTRY, 2019–2022 (THOUSAND UNITS)

TABLE 327 EUROPE: EV BATTERY MARKET, BY COUNTRY, 2023–2027 (THOUSAND UNITS)

TABLE 328 EUROPE: EV BATTERY MARKET, BY COUNTRY, 2028–2033  
(THOUSAND UNITS)

TABLE 329 EUROPE: EV BATTERY MARKET, BY COUNTRY, 2019–2022 (USD  
MILLION)

TABLE 330 EUROPE: EV BATTERY MARKET, BY COUNTRY, 2023–2027 (USD  
MILLION)

TABLE 331 EUROPE: EV BATTERY MARKET, BY COUNTRY, 2028–2033 (USD  
MILLION)

FIGURE 65 EXPANSION PLANS FOR BATTERY PLANTS IN EUROPE

#### 14.3.2 FRANCE

14.3.2.1 Increase in e-commerce transport to drive market

TABLE 332 FRANCE: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 333 FRANCE: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 334 FRANCE: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 335 FRANCE: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD  
MILLION)

TABLE 336 FRANCE: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD  
MILLION)

TABLE 337 FRANCE: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD  
MILLION)

#### 14.3.3 GERMANY

14.3.3.1 Government and OEM plans for rapid EV shift to drive market

TABLE 338 GERMANY: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 339 GERMANY: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 340 GERMANY: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 341 GERMANY: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(USD MILLION)

TABLE 342 GERMANY: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(USD MILLION)

TABLE 343 GERMANY: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(USD MILLION)

#### 14.3.4 SPAIN

14.3.4.1 Increasing investments in EV space to drive market

TABLE 344 SPAIN: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 345 SPAIN: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 346 SPAIN: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 347 SPAIN: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD  
MILLION)

TABLE 348 SPAIN: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD  
MILLION)

TABLE 349 SPAIN: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD  
MILLION)

#### 14.3.5 ITALY

##### 14.3.5.1 Technological development in EV batteries to drive market

TABLE 350 ITALY: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 351 ITALY: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 352 ITALY: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 353 ITALY: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD  
MILLION)

TABLE 354 ITALY: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD  
MILLION)

TABLE 355 ITALY: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD  
MILLION)

#### 14.3.6 UK

##### 14.3.6.1 Rise in investments in EV ecosystem to drive market

TABLE 356 UK: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 357 UK: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 358 UK: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 359 UK: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD  
MILLION)

TABLE 360 UK: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD  
MILLION)

TABLE 361 UK: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD

MILLION)

#### 14.3.7 DENMARK

14.3.7.1 Favorable EV regulations to drive market

TABLE 362 DENMARK: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 363 DENMARK: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 364 DENMARK: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 365 DENMARK: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(USD MILLION)

TABLE 366 DENMARK: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(USD MILLION)

TABLE 367 DENMARK: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(USD MILLION)

#### 14.3.8 NORWAY

14.3.8.1 Replacement of ICE vehicles with advanced EVs to drive market

TABLE 368 NORWAY: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 369 NORWAY: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 370 NORWAY: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 371 NORWAY: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD  
MILLION)

TABLE 372 NORWAY: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD  
MILLION)

TABLE 373 NORWAY: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD  
MILLION)

#### 14.3.9 SWEDEN

14.3.9.1 Ongoing incentive and subsidy plans to drive market

TABLE 374 SWEDEN: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022  
(THOUSAND UNITS)

TABLE 375 SWEDEN: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 376 SWEDEN: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 377 SWEDEN: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD  
MILLION)



TABLE 378 SWEDEN: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD MILLION)

TABLE 379 SWEDEN: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD MILLION)

#### 14.4 NORTH AMERICA

##### 14.4.1 RECESSION IMPACT ANALYSIS

FIGURE 66 EV BATTERY INITIATIVES IN NORTH AMERICA TILL 2022

FIGURE 67 US TO HOLD DOMINANT MARKET SHARE IN NORTH AMERICA DURING FORECAST PERIOD

TABLE 380 NORTH AMERICA: EV BATTERY MARKET, BY COUNTRY, 2019–2022 (THOUSAND UNITS)

TABLE 381 NORTH AMERICA: EV BATTERY MARKET, BY COUNTRY, 2023–2027 (THOUSAND UNITS)

TABLE 382 NORTH AMERICA: EV BATTERY MARKET, BY COUNTRY, 2028–2033 (THOUSAND UNITS)

TABLE 383 NORTH AMERICA: EV BATTERY MARKET, BY COUNTRY, 2019–2022 (USD MILLION)

TABLE 384 NORTH AMERICA: EV BATTERY MARKET, BY COUNTRY, 2023–2027 (USD MILLION)

TABLE 385 NORTH AMERICA: EV BATTERY MARKET, BY COUNTRY, 2028–2033 (USD MILLION)

##### 14.4.2 US

###### 14.4.2.1 Increasing demand for electric trucks to drive market

TABLE 386 US: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (THOUSAND UNITS)

TABLE 387 US: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (THOUSAND UNITS)

TABLE 388 US: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (THOUSAND UNITS)

TABLE 389 US: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD MILLION)

TABLE 390 US: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD MILLION)

TABLE 391 US: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD MILLION)

##### 14.4.3 CANADA

###### 14.4.3.1 Government support to promote EVs to drive market

TABLE 392 CANADA: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (THOUSAND UNITS)

TABLE 393 CANADA: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027  
(THOUSAND UNITS)

TABLE 394 CANADA: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033  
(THOUSAND UNITS)

TABLE 395 CANADA: EV BATTERY MARKET, BY VEHICLE TYPE, 2019–2022 (USD  
MILLION)

TABLE 396 CANADA: EV BATTERY MARKET, BY VEHICLE TYPE, 2023–2027 (USD  
MILLION)

TABLE 397 CANADA: EV BATTERY MARKET, BY VEHICLE TYPE, 2028–2033 (USD  
MILLION)

## **15 COMPETITIVE LANDSCAPE**

### 15.1 OVERVIEW

#### 15.2 MARKET SHARE ANALYSIS, 2022

TABLE 398 DEGREE OF COMPETITION, 2022

FIGURE 68 MARKET SHARE ANALYSIS, 2022

##### 15.2.1 CATL

##### 15.2.2 LG ENERGY SOLUTION LTD.

##### 15.2.3 BYD COMPANY LTD.

##### 15.2.4 PANASONIC HOLDINGS CORPORATION

##### 15.2.5 SK INNOVATION CO., LTD.

### 15.3 KEY PLAYERS' STRATEGIES

TABLE 399 OVERVIEW OF STRATEGIES ADOPTED BY PLAYERS IN EV BATTERY  
MARKET

### 15.4 REVENUE ANALYSIS OF TOP LISTED/PUBLIC PLAYERS

FIGURE 69 TOP PUBLIC/LISTED PLAYERS DOMINATING EV BATTERY MARKET  
DURING LAST 5 YEARS

### 15.5 COMPANY EVALUATION MATRIX

#### 15.5.1 STARS

#### 15.5.2 EMERGING LEADERS

#### 15.5.3 PERVASIVE PLAYERS

#### 15.5.4 PARTICIPANTS

#### 15.5.5 COMPANY FOOTPRINT

TABLE 400 EV BATTERY MARKET: COMPANY FOOTPRINT, 2022

TABLE 401 EV BATTERY MARKET: PRODUCT FOOTPRINT, 2022

TABLE 402 EV BATTERY MARKET: REGIONAL FOOTPRINT, 2022

FIGURE 70 EV BATTERY MARKET: COMPANY EVALUATION MATRIX, 2022

### 15.6 START-UP/SME EVALUATION MATRIX

15.6.1 PROGRESSIVE COMPANIES

15.6.2 RESPONSIVE COMPANIES

15.6.3 DYNAMIC COMPANIES

15.6.4 STARTING BLOCKS

15.6.5 COMPETITIVE BENCHMARKING

TABLE 403 EV BATTERY MARKET: LIST OF KEY START-UPS/SMES

TABLE 404 EV BATTERY MARKET: COMPETITIVE BENCHMARKING OF KEY START-UPS/SMES

FIGURE 71 EV BATTERY MARKET: START-UP/SME EVALUATION MATRIX, 2022

15.7 COMPETITIVE SCENARIO

15.7.1 PRODUCT LAUNCHES

TABLE 405 PRODUCT LAUNCHES, 2021–2023

15.7.2 DEALS

TABLE 406 DEALS, 2021–2023

TABLE 407 OTHERS, 2021–2023

## **16 COMPANY PROFILES**

(Business overview, Products offered, Recent developments & MnM View)\*

16.1 KEY PLAYERS

16.1.1 CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED

TABLE 408 CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED: COMPANY OVERVIEW

FIGURE 72 CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED: COMPANY SNAPSHOT

FIGURE 73 CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED: PATENT ANALYSIS

TABLE 409 CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED: SUPPLY AGREEMENTS

TABLE 410 CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED: PRODUCTS OFFERED

TABLE 411 CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED: PRODUCT LAUNCHES/DEVELOPMENTS

TABLE 412 CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED: DEALS

TABLE 413 CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED: OTHERS

16.1.2 LG ENERGY SOLUTION

TABLE 414 LG ENERGY SOLUTION: COMPANY OVERVIEW

FIGURE 74 LG ENERGY SOLUTION: COMPANY SNAPSHOT

TABLE 415 LG ENERGY SOLUTION: R&D OVERVIEW

TABLE 416 LG ENERGY SOLUTION: SUPPLY AGREEMENTS

FIGURE 75 LG ENERGY SOLUTION: EV SOLUTION

TABLE 417 LG ENERGY SOLUTION: PRODUCTS OFFERED

TABLE 418 LG ENERGY SOLUTION: DEALS

TABLE 419 LG ENERGY SOLUTION: OTHERS

#### 16.1.3 BYD COMPANY LIMITED

TABLE 420 BYD COMPANY LIMITED: COMPANY OVERVIEW

FIGURE 76 BYD COMPANY LIMITED: COMPANY SNAPSHOT

TABLE 421 BYD COMPANY LIMITED: PRODUCTS OFFERED

TABLE 422 BYD COMPANY LIMITED: PRODUCT LAUNCHES/DEVELOPMENTS

TABLE 423 BYD COMPANY LIMITED: DEALS

TABLE 424 BYD COMPANY LIMITED: OTHERS

#### 16.1.4 PANASONIC HOLDINGS CORPORATION

TABLE 425 PANASONIC HOLDINGS CORPORATION: COMPANY OVERVIEW

FIGURE 77 PANASONIC HOLDINGS CORPORATION: COMPANY SNAPSHOT

TABLE 426 PANASONIC HOLDINGS CORPORATION: SUPPLY AGREEMENTS

TABLE 427 PANASONIC HOLDINGS CORPORATION: PRODUCTS OFFERED

TABLE 428 PANASONIC HOLDINGS CORPORATION: PRODUCT  
LAUNCHES/DEVELOPMENTS

TABLE 429 PANASONIC HOLDINGS CORPORATION: DEALS

TABLE 430 PANASONIC HOLDINGS CORPORATION: OTHERS

#### 16.1.5 SK INNOVATION CO., LTD.

TABLE 431 SK INNOVATION CO., LTD.: COMPANY OVERVIEW

FIGURE 78 SK INNOVATION CO., LTD.: COMPANY SNAPSHOT

TABLE 432 SK INNOVATION CO., LTD.: SUPPLY AGREEMENTS

FIGURE 79 SK INNOVATION CO., LTD.: GLOBAL BATTERY PRODUCTION

TABLE 433 SK INNOVATION CO., LTD.: PRODUCTS OFFERED

TABLE 434 SK INNOVATION CO., LTD.: PRODUCT LAUNCHES/DEVELOPMENTS

TABLE 435 SK INNOVATION CO., LTD.: DEALS

TABLE 436 SK INNOVATION CO., LTD.: OTHERS

#### 16.1.6 SAMSUNG SDI CO., LTD.

TABLE 437 SAMSUNG SDI CO., LTD.: COMPANY OVERVIEW

FIGURE 80 SAMSUNG SDI CO., LTD.: COMPANY SNAPSHOT

TABLE 438 SAMSUNG SDI CO., LTD.: SUPPLY AGREEMENTS

FIGURE 81 SAMSUNG SDI CO., LTD.: GLOBAL FOOTPRINT

TABLE 439 SAMSUNG SDI CO., LTD.: PRODUCTS OFFERED

TABLE 440 SAMSUNG SDI CO., LTD.: PRODUCT LAUNCHES/DEVELOPMENTS

TABLE 441 SAMSUNG SDI CO., LTD.: DEALS

TABLE 442 SAMSUNG SDI CO., LTD.: OTHERS

#### 16.1.7 CALB

TABLE 443 CALB: COMPANY OVERVIEW  
FIGURE 82 CALB: COMPANY SNAPSHOT  
TABLE 444 CALB: PRODUCTS OFFERED  
TABLE 445 CALB: PRODUCT LAUNCHES/DEVELOPMENTS  
TABLE 446 CALB: DEALS

#### 16.1.8 GOTION HIGH-TECH CO., LTD.

TABLE 447 GOTION HIGH-TECH CO., LTD.: COMPANY OVERVIEW  
FIGURE 83 GOTION HIGH-TECH CO., LTD.: COMPANY SNAPSHOT  
TABLE 448 GOTION HIGH-TECH CO., LTD.: PRODUCTS OFFERED  
TABLE 449 GOTION HIGH-TECH CO., LTD.: PRODUCT LAUNCHES/DEVELOPMENTS  
TABLE 450 GOTION HIGH-TECH CO., LTD.: DEALS  
TABLE 451 GOTION HIGH-TECH CO., LTD.: OTHERS

#### 16.1.9 SUNWODA ELECTRONIC CO., LTD.

TABLE 452 SUNWODA ELECTRONIC CO., LTD.: COMPANY OVERVIEW  
FIGURE 84 SUNWODA ELECTRONIC CO., LTD.: COMPANY SNAPSHOT  
TABLE 453 SUNWODA ELECTRONIC CO., LTD.: PRODUCTS OFFERED  
TABLE 454 SUNWODA ELECTRONIC CO., LTD.: DEALS  
TABLE 455 SUNWODA ELECTRONIC CO., LTD.: OTHERS

#### 16.1.10 FARASIS ENERGY (GANZHOU) CO., LTD.

TABLE 456 FARASIS ENERGY (GANZHOU) CO., LTD.: COMPANY OVERVIEW  
FIGURE 85 FARASIS ENERGY (GANZHOU) CO., LTD.: COMPANY SNAPSHOT  
TABLE 457 FARASIS ENERGY (GANZHOU) CO., LTD.: PRODUCTS OFFERED  
TABLE 458 FARASIS ENERGY (GANZHOU) CO., LTD.: DEALS  
TABLE 459 FARASIS ENERGY (GANZHOU) CO., LTD.: OTHERS

#### 16.1.11 VEHICLE ENERGY JAPAN INC.

TABLE 460 VEHICLE ENERGY JAPAN INC.: COMPANY OVERVIEW  
TABLE 461 VEHICLE ENERGY JAPAN INC.: SUPPLY AGREEMENTS  
TABLE 462 VEHICLE ENERGY JAPAN INC.: PRODUCTS OFFERED  
TABLE 463 VEHICLE ENERGY JAPAN INC.: DEALS  
TABLE 464 VEHICLE ENERGY JAPAN INC.: OTHERS

#### 16.1.12 TOSHIBA CORPORATION

TABLE 465 TOSHIBA CORPORATION: COMPANY OVERVIEW  
FIGURE 86 TOSHIBA CORPORATION: COMPANY SNAPSHOT  
TABLE 466 TOSHIBA CORPORATION: PRODUCTS OFFERED  
TABLE 467 TOSHIBA CORPORATION: PRODUCT LAUNCHES/DEVELOPMENTS  
TABLE 468 TOSHIBA CORPORATION: DEALS  
TABLE 469 TOSHIBA CORPORATION: OTHERS

### 16.1.13 MITSUBISHI CORPORATION

TABLE 470 MITSUBISHI CORPORATION: COMPANY OVERVIEW

FIGURE 87 MITSUBISHI CORPORATION: COMPANY SNAPSHOT

TABLE 471 MITSUBISHI CORPORATION: PRODUCTS OFFERED

TABLE 472 MITSUBISHI CORPORATION: PRODUCT LAUNCHES/DEVELOPMENTS

TABLE 473 MITSUBISHI CORPORATION: DEALS

TABLE 474 MITSUBISHI CORPORATION: OTHERS

### 16.1.14 ENERSYS

TABLE 475 ENERSYS: COMPANY OVERVIEW

FIGURE 88 ENERSYS: COMPANY SNAPSHOT

TABLE 476 ENERSYS: PRODUCTS OFFERED

TABLE 477 ENERSYS: PRODUCT LAUNCHES/DEVELOPMENTS

TABLE 478 ENERSYS: DEALS

\*Details on Business overview, Products offered, Recent developments & MnM View might not be captured in case of unlisted companies.

## 16.2 OTHER PLAYERS

### 16.2.1 EXIDE INDUSTRIES LIMITED

TABLE 479 EXIDE INDUSTRIES LIMITED: COMPANY OVERVIEW

### 16.2.2 PRIMEARTH EV ENERGY CO., LTD.

TABLE 480 PRIMEARTH EV ENERGY CO., LTD.: COMPANY OVERVIEW

### 16.2.3 E-ONE MOLI ENERGY CORP.

TABLE 481 E-ONE MOLI ENERGY CORP: COMPANY OVERVIEW

### 16.2.4 TARGRAY TECHNOLOGY INTERNATIONAL INC.

TABLE 482 TARGRAY TECHNOLOGY INTERNATIONAL INC.: COMPANY OVERVIEW

### 16.2.5 ALTAIR NANOTECHNOLOGIES INC.

TABLE 483 ALTAIR NANOTECHNOLOGIES INC.: COMPANY OVERVIEW

### 16.2.6 CLARIOS

TABLE 484 CLARIOS: COMPANY OVERVIEW

### 16.2.7 NORTHVOLT AB

TABLE 485 NORTHVOLT AB: COMPANY OVERVIEW

### 16.2.8 LECLANCH? SA

TABLE 486 LECLANCH? SA: COMPANY OVERVIEW

### 16.2.9 APTIV PLC

TABLE 487 APTIV PLC: COMPANY OVERVIEW

### 16.2.10 ENVISION ENERGY

TABLE 488 ENVISION ENERGY: COMPANY OVERVIEW

### 16.2.11 A123 SYSTEMS

TABLE 489 A123 SYSTEMS: COMPANY OVERVIEW

16.2.12 GS YUASA INTERNATIONAL LTD.

TABLE 490 GS YUASA INTERNATIONAL LTD.: COMPANY OVERVIEW

16.2.13 AUTOMOTIVE ENERGY SUPPLY CORPORATION

TABLE 491 AUTOMOTIVE ENERGY SUPPLY CORPORATION: COMPANY OVERVIEW

16.2.14 RUIPU LANJUN ENERGY CO., LTD.

TABLE 492 RUIPU LANJUN ENERGY CO., LTD.: COMPANY OVERVIEW

## **17 RECOMMENDATIONS BY MARKET SAND MARKETS**

17.1 TECHNOLOGICAL DEVELOPMENTS IN EV BATTERY MARKET

17.2 EUROPE TO BE FASTEST-GROWING MARKET DURING FORECAST PERIOD

17.3 DEMAND FOR EFFICIENT AND LOW-COST BATTERY CHEMISTRY TO DRIVE EV BATTERY MARKET

17.4 CONCLUSION

## **18 APPENDIX**

18.1 KEY INSIGHTS OF INDUSTRY EXPERTS

18.2 DISCUSSION GUIDE

18.3 KNOWLEDGESTORE: MARKET SAND MARKETS' SUBSCRIPTION PORTAL

18.4 CUSTOMIZATION OPTIONS

18.4.1 ADDITIONAL COMPANY PROFILE

18.4.2 EV BATTERY MARKET, BY PROPULSION TYPE AT THE COUNTRY LEVEL

18.4.3 EV BATTERY MARKET, BY PROPULSION TYPE AT THE VEHICLE TYPE LEVEL

18.5 RELATED REPORTS

18.6 AUTHOR DETAILS



## I would like to order

Product name: EV Battery Market by Battery Type (Lead-acid, Li-ion, Na-ion, NiMH, SSB), Propulsion (BEV, PHEV, ECEV, HEV), Battery Form, Vehicle Type, Material Type, Battery Capacity, Method, Li-ion Battery Component and Region - Global Forecast to 2033

Product link: <https://marketpublishers.com/r/E489A75FD29EEN.html>

Price: US\$ 4,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/E489A75FD29EEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970