Global and China Automated Guided Vehicle (AGV) Industry Report, 2019-2025

Oct. 2019



The Vertical Portal for China Business Intelligence

#### STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

#### **REPORT OBJECTIVES**

- To establish a comprehensive, factual, annually updated and costeffective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- To help company to succeed in a competitive market, and

#### **METHODOLOGY**

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

#### **INFORMATION SOURCES**

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

Copyright 2012 ResearchInChina

The Vertical Portal for China Business Intelligence

### Abstract

China's AGV industry ushered in explosive growth along with new technologies and new scenarios in recent years, with its AGV sales surging to 29,600 units in 2018 from 1,260 units in 2011, showing a CAGR of up to 57.0%.

In China, AGV navigation technology has been upgraded to the third generation. The first generation technology is magnetic tape guidance, a shrinking market; the second generation technology is QR code, a market that has matured and become saturated; the third generation technology is laser + vision, which has been used and promoted by several companies. Laser + vision technology will be more promising than other AGV guidance technologies in application.

As concerns scenarios, ecommerce warehousing and smart logistics are fields for which capital and manufacturers compete over the years. They are also the moving force of growth during the AGV boom. In 2018, ecommerce and express delivery commanded over 1/3 of AGV market in China, and typical companies included Quicktron, GEEK+, HikRobot and Libiao Robotics.

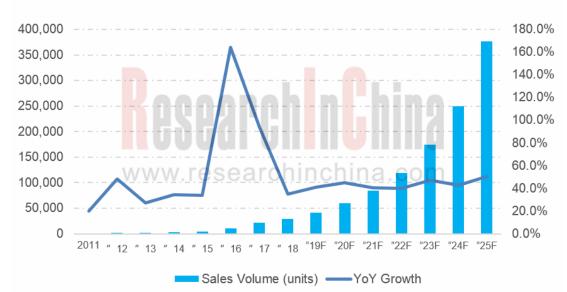
Comparably, factory scenario where circumstances are complicated and technical barriers remain high, attracts powerful players in capital and technology. Examples include SIASUN Robot & Automation, an automotive AGV leader in China and Kunming Shipbuilding Equipment which sweeps 70-80% shares in tobacco industry. Manufacturing transformation and upgrading, digital factory and more flexible demand in recent years are conducive to AGV expansion. Yet, as digital factory is still a "concept" and factory scenario requires high stability robots, AGV use in the scenario still desires to be verified. By one estimate, it takes about 3 or 5 years to popularize AGV in industrial manufacturing.

Copyright 2012ResearchInChina

The Vertical Portal for China Business Intelligence

In the Chinese AGV market, local companies rule the roost with a combined share of 90% or so. Among them, SIASUN, SCG, Yonegy and Jaten are first-echelon players, with annual shipment of over 1,000 units apiece. As a whole, there is still no one leading the market, so players are in a price war in perfect competition.

The severer competition in logistics/ecommerce AGV market will lead to a reshuffle in the AGV industry; AGV manufacturing market will heat up and soar in the upcoming years. The report forecasts that China's AGV market will sustain a CAGR of roughly 40% between 2019 and 2025.



#### AGV Sales and Growth Rate in China, 2011-2025E

Source: Global and China Automated Guided Vehicle (AGV) Industry Report, 2019-2025

Global and China Automated Guided Vehicle (AGV) Industry Report, 2019-2025 highlights the following:

- Global AGV market (size, demand structure, competitive pattern, development in main regions, etc.);
- China AGV market (development history and model, size and concentration, structure by product/region/application, price, financing, competitive pattern by technology/product/company, development trends and forecasts);
- Core components and applied markets of AGV in China;
- 9 global and 20 Chinese AGV companies (operation, AGV products, typical application, etc.).

Copyright 2012ResearchInChina

#### The Vertical Portal for China Business Intelligence

### Table of contents

1. Overview	
1.1 Definition	
1.2 Classification	
1.3 Industry Chain	
2. Global AGV Market	
2.1 Market Size	
2.2 Demand Structure	
2.2.1 By Application	
2.2.2 By Region	
2.3 Competitive Landscape	
2.3.1 Corporate Competition	
2.3.2 AMR VS AGVs	
2.4 Regional Development	
2.4.1 Japan	
2.4.2 Europe	
2.4.3 United Sates	
2.4.4 India	
3. Chinese AGV Market	
3.1 Status Quo	
3.1.1 Development History	
3.1.2 Development Features	
3.1.3 Development Mode	

3.2 Market Situation

3.2.1 Market Size 3.2.2 Sales Volume 3.2.3 Ownership 3.2.4 Industrial Concentration 3.3 Market Structure 3.3.1 By Navigation Technology 3.3.2 By Product 3.3.3 By Application 3.4 Price 3.5 Competitive Pattern 3.5.1 By Type of Enterprise 3.5.2 Market Shares of Enterprises 3.5.3 M&A 3.6 Fundraising 3.7 Development Trend 3.7.1 Market Trend 3.7.2 Technology Trend

#### 4. Upstream and Downstream Industries of AGV

- 4.1 AGV Core Parts
- 4.1.1 Development Overview
- 4.1.2 Drive Device System
- 4.1.3 AGV On-board Control System
- 4.1.4 Navigation/Guidance System
- 4.1.5 AGV Battery/Energy System

#### The Vertical Portal for China Business Intelligence

### Table of contents

4.1.6 AGV Master Control System
4.2 Downstream Industries of AGV
4.2.1 Automobile Manufacturing
4.2.2 Parking
4.2.3 Power Patrol Inspection
4.2.4 Tobacco Logistics
4.2.5 Heavy Load

#### 5. Major Global AGV Players

5.1 JBT

5.1.1 Profile

5.1.2 Operation

5.1.3 AGV Business

5.1.4 Presence in China

5.2 Daifuku

5.2.1 Profile

5.2.2 Operation

5.2.3 AGV Business

5.2.4 Presence in China

5.3 Dematic

5.3.1 Profile

5.3.2 Operation

5.3.3 AGV Business

5.3.4 Presence in China

5.4 Swisslog

5.4.1 Profile 5.4.2 Operation 5.4.3 AGV Business 5.4.4 Presence in China 5.5 Meidensha 5.5.1 Profile 5.5.2 Operation 5.5.3 AGV Business 5.5.4 Presence in China 5.6 Oceaneering AGV Systems 5.6.1 Profile 5.6.2 Operation 5.6.3 AGV Business 5.7 Grenzebach Corporation 5.7.1 Operation 5.7.2 AGV Business 5.7.3 Presence in China 5.8 Elettric 80 5.8.1 Profile 5.8.2 Operation 5.9 Rocla 5.9.1 Profile 5.9.2 Operation

#### The Vertical Portal for China Business Intelligence

### Table of contents

6. Key Chinese AGV Companies	6.6.2 Operation
6.1 Shenyang Siasun Robot & Automation Co., Ltd. (300024)	6.6.3 OpenBox and Smart Factory Solutions
6.1.1 Profile	6.7 Quicktron
6.1.2 Operation	6.7.1 Profile
6.1.3 AGV Robot Business	6.7.2 Operation
6.1.4 Development Strategy	6.7.3 Applied Cases
6.2 Yunnan KSEC Intelligent Equipment Co., Ltd.	6.8 Zhejiang LiBiao Robot Co., Ltd.
6.2.1 Profile	6.8.1 Profile
6.2.2 Operation	6.8.2 Operation
6.2.3 Typical Cases	6.9 Hangzhou Hikrobot Technology Co., Ltd.
6.3 Machinery Technology Development Co. Ltd.	6.9.1 Profile
6.3.1 Profile	6.9.2 AGV Business
6.3.2 Operation	6.10 Yonegy Logistics Automation Technology Co., Ltd.
6.3.3 AGV Business	6.10.1 Profile
6.4 CSG Smart Science & Technology Co., Ltd.	6.10.2 Operation
6.4.1 Profile	6.11 Zhejiang Noblelift Equipment Joint Stock Co., Ltd.
6.4.2 Operation	6.12 Guangzhou Jingyuan Mechano-Electric Equipment Co., Ltd.
6.4.3 AGV Business	6.13 Shanghai Triowin Automation Machinery Co., Ltd.
6.5 Guangdong Jaten Robot & Automation Co., Ltd.	6.14 Shenzhen Casun Intelligent Robot Co., Ltd.
6.5.1 Profile	6.15 Guangzhou Sinorobot Technology Co., Ltd.
6.5.2 Operation	6.16 Shenzhen OKAGV Co., Ltd.
6.5.3 AGV Business	6.17 Guozi Robot
6.5.4 Main Cases	6.18 CIZON
6.6 Greek	6.19 Standard Robots
6.6.1 Profile	6.20 Suzhou AGV Robot

#### The Vertical Portal for China Business Intelligence

### **Selected Charts**

Architecture Diagram of AGV Composition of AGV System Operating Scene and Communication Mode of AGV Classification of AGV Structure of AGV Software AGV Industry Chain AGV Production Line VS Traditional Production Line Global AGV Sales Volume and YoY Growth, 2014-2025E Global AGV Market Size and YoY Growth. 2014-2025F Global AGV Market share by Application, 2018 Growth Rate of Global Demand for AGV, 2019-2024E Financing and M&As of Major Global AGV Companies, 2016-2018 Competition Pattern of AGV Companies Worldwide World-renowned AGV Companies and Their Fundraising Investments Global Mobile Robot (AGV & AMR) Sales (by Products), 2017-2018 Global AMR Sales, 2017-2018 Global Mobile Robot (AGV & AMR) Sales Growth Rate (by Regions), 2018 AMR Investment, 2016-2018 AGVS/AGV Sales Volume in Japan, 2012-2018 AGVS Sales Structure in Japan by Category, 2014-2025F AGV Demand Structure in Japan, 2017-2018 European AGV Market Size, 2017-2023E American AGV Manufacturers AGV (by Type) Market Size in India, 2014-2025E Development History of AGV in China

The Vertical Portal for China Business Intelligence

### **Selected Charts**

Development Model of Major AGV Producers in China, 2019 AGV Market Size and YoY Growth in China, 2014-2025E AGV Sales Volume and YoY Growth in China, 2011-2019 AGV Ownership and YoY Growth in China, 2015-2025E Concentration Ratio of Chinese AGV Industry, 2018 AGV Structure in China by Navigation Mode, 2018 Chinese AGV LiDAR Companies Difference between AGV and AGC AGV Sales Structure in China by Product, 2015-2025E Major Global and Chinese AGC Producers, 2018 AGV Demand Structure in China by Sector, 2018 Average Price of AGV in China, 2016-2025 AGV Price of Major Global and Chinese Producers in China, 2018 Market Share of AGV Companies in China by Country, 2014-2025E Market Share of Major Global AGV Producers in China, 2017-2018 Market Share of Major Global AGV Producers in China, 2016 Financing and M&As of Major AGV Producers in China, 2014-2019 Financing in Chinese AGV Industry, 2018-2019 AGV Sales Volume and YoY Growth in China, 2018-2025E Application of Trackless Navigation AGV in China **Development Trends of AGV** Number of Motors, Drivers and Speed Reducers of Per Unit AGV Drive System by Drive Mode New Demand for AGV Motors in China, 2016-2025E New Demand for AGV Speed Reducers in China, 2016-2025E Composition of Laser Guided AGV On-board Control System

The Vertical Portal for China Business Intelligence

### **Selected Charts**

New Demand for AGV On-board Controllers in China, 2016-2025E Major Chinese Controller Producers, 2018 Classification of AGV Navigation Modes and Core Components New Demand for AGV Laser Scanners in China, 2016-2025E Main AGV Obstacle Avoidance Sensors in China Major Chinese AGV Sensor Companies, 2018 Operating Principle of Magnetic Navigation Sensor for AGV System Cycles of AGV Batteries Contactless Power Supply AGV System Supercapacitor Power Supply AGV System Batteries as a Percentage of AGV Projects in Europe, 2015 Structure of AGV Batteries in China by Product, 2015 Main Charging Methods of AGV Batteries Classification of Global AGV Software Systems AGV Software Systems Used by Global and Chinese AGV Producers China's Automobile Ownership, 2014-2025E China's Automobile Output and Sales Volume, 2014-2025E Production and Sales of New Energy Vehicle in China, 2011-2019 Features and Configurations of AGV Systems for Car Production Lines Density of Use of Car AGVs in Major Countries Major Car AGV Producers in China Car AGV Sales Volume in China, 2017-2025E Global and Chinese AGV Products for Parking Global and Chinese AGV for Parking Projects, 2018 Merits of Patrol Robot

The Vertical Portal for China Business Intelligence

### **Selected Charts**

Power Industry's Demand for AGVs in China, 2017-2025E Acquisition Mode of Power Patrol Robots in China, 2015-2017 State Grid's Tenders for Intelligent Patrol Robot in Recent Years Performance Comparison of Products of Key Chinese Producers of Power Patrol Robot Development History of Tobacco Logistics in China, 2003-2019 Competitive Pattern of AGV for Tobacco Logistics Siasun's Intelligent Logistics System for Tobacco Industry Use of AGVs in Some Tobacco Factories in China Heavy Load AGV Producers by Purpose Businesses of JBT Subsidiaries of JBT. 2019 Revenue and Net Income of JBT, 2013-2019 Order Backlog of JBT by Product, 2013-2019 Revenue Breakdown of JBT by Product, 2013-2019 Revenue Breakdown of JBT by Region, 2012-2018 Revenue Structure of JBT by Region, 2018 AGV Locations of JBT JBT's Subsidiaries in China, 2019 Global Network of Daifuku Business Structure of Daifuku Net Sales and Net Income of Daifuku, FY2013-FY2019 Order Intake of Daifuku, FY2015-FY2019 Sales Structure of Daifuku by Business, FY2014-FY2018 Sales Structure of Daifuku by Sector, FY2014-FY2018 Sales Structure of Daifuku by Region, FY2018

The Vertical Portal for China Business Intelligence

### **Selected Charts**

Main AGV Clients of Daifuku AGV Systems of Daifuku Daifuku's Sales in China, FY2013-FY2019 M&As of Dematic, 2010-2019 Revenue of Dematic, 2014-2018 Advantages and Application of Dematic's AGV System Dematic's AGV Series Typical Clients of Dematic in China Milestones of Dematic's Suzhou Plant Businesses and Products of Swisslog Businesses and Products of Swisslog Operation Data of Swisslog, 2015-2018 Revenue and Order Structure of KUKA Group, 2017-2018 AGVs of Swisslog Customers of AGVs of Swisslog Companies of Swisslog in China **Business Structure of Meidensha** Net Sales and Net Income of Meidensha, FY2014-FY2018 Net Sales Structure of Meidensha by Business, FY2017-2018 FY2019 Results Forecasts of Meidensha by Business Main Products and Clients of Meidensha's Industrial Systems Meidensha's Industrial Systems Business Plan, FY2018-FY2020 AGV Products and Features of Meidensha Transport Weight and Applicable AGV Model of Meidensha Guidance Systems of Meidensha

The Vertical Portal for China Business Intelligence

### **Selected Charts**

Meidensha's Subsidiaries in Mainland China, 2019 **Business Segments of Oceaneering** Revenue and Net Income of Oceaneering, 2016-2019 Revenue Structure of Oceaneering by Business, 2016-2018 Revenue Structure of Oceaneering by Region, 2017-2018 AGVs of Oceaneering AGV Systems Grenzebach's Facts, 2018 **Business Members of Grenzebach** Grenzebach's Subsidiaries by Country/Region AGV Products of Grenzebach Partner and References of AGV Business of Grenzebach Elettric 80's Fact, 2019 Products of Elettric 80 **Development Course of Rocla** Rocla's AGV Series Applied Cases of Rocla's AGV Revenue and Net Income of Shenyang Siasun Robot & Automation, 2015-2019 Operating Revenue Structure of Shenyang Siasun Robot & Automation by Product, 2017-2019 Gross Margin of Shenyang Siasun Robot & Automation by Product, 2015-2019 AGVs of Shenyang Siasun Robot & Automation Main Partners of Shenyang Siasun Robot & Automation AGV Development History of Yunnan KSEC Intelligent Equipment AGVs of Yunnan KSEC Intelligent Equipment Revenue and Net Income of Machinery Technology Development, 2013-2019 Operating Revenue Structure of Machinery Technology Development by Business, 2017-2018

The Vertical Portal for China Business Intelligence

### **Selected Charts**

Major AGV Products of Machinery Technology Development Revenue and Net Income of CSG Smart Science & Technology, 2013-2019 Revenue Structure of CSG Smart Science & Technology by Product, 2017-2019 AGVs of Huaxiao Precision (Suzhou) Revenue and Net Income of Huaxiao Precision (Suzhou), 2016-2019 Development History of Guangdong Jaten Robot & Automation Operation of Guangdong Jaten Robot & Automation, 2016-2019 Typical Self-developed AGVs by Guangdong Jaten Robot & Automation Financing of Geek+ **Development History of Quicktron** Major Products of Quicktron Service Network of Zhejiang LiBiao Robot Co., Ltd. in China Mobile Robot Series of Hangzhou Hikrobot Technology Development History of Yonegy Logistics Automation Technology AGV Products of Yonegy Logistics Automation Technology Main Clients of Yonegy Logistics Automation Technology Revenue and Net Income of Zhejiang Noblelift Equipment, 2011-2019 Operating Revenue Breakdown of Zhejiang Noblelift Equipment by Product, 2013-2018 Operating Revenue Breakdown of Zhejiang Noblelift Equipment by Region, 2013-2018 Gross Margin of Zhejiang Noblelift Equipment by Product, 2013-2018 Milestones in AGV-related Business of Zhejiang Noblelift Equipment, 2015-2019 Capacity, Output and Sales Volume of Zhejiang Noblelift Equipment by Product, 2013-2018 Revenue and Net Income of Guangzhou Jingyuan Mechano-Electric Equipment, 2013-2018 Revenue and Net Income of Shanghai Triowin Automation Machinery, 2012-2019 Revenue Structure of Shanghai Triowin Automation Machinery by Product, 2015-2018

The Vertical Portal for China Business Intelligence

### **Selected Charts**

Revenue Breakdown of Shanghai Triowin Automation Machinery by Region, 2012-2018 Applications of Shanghai Triowin Automation Machinery's AGV Robots and Main Clients Revenue and Net Income of Shenzhen Casun Intelligent Robot, 2013-2019 Revenue Structure of Shenzhen Casun Intelligent Robot by Product, 2016-2018 Gross Margin of Shenzhen Casun Intelligent Robot by Product, 2013-2018 Applications of Shenzhen Casun Intelligent Robot's AGVs and Main Clients Main Automotive Clients of Shenzhen Casun Intelligent Robot Main Clients of Shenzhen Casun Intelligent Robot in Electronic and Home Appliances Industries AGV Business Milestones of Guangzhou Sinorobot Technology, 2014-2019 AGV Series of Shenzhen OKAGV Robotics Typical Application of OKAGV's AGV Revenue and Net Income of Zhejiang Guozi Robotics, 2014-2019 Characteristics of Zhejiang Guozi Robotics' AGV Systems Applied Cases of CIZON's AGV Major Products of Standard Robots Non-reflector Laser Navigation Forktype AGV of Suzhou AGV Robot Partners of Suzhou AGV Robot

The Vertical Portal for China Business Intelligence

### How to Buy

#### You can place your order in the following alternative ways:

- 1.Order online at www.researchinchina.com
- 2.Fax order sheet to us at fax number:+86 10 82601570
- 3. Email your order to: report@researchinchina.com
- 4. Phone us at +86 10 82600828

Party A:		
Name:		
Address:		
Contact Person:	Tel	
E-mail:	Fax	

Party B:				
Name:	Beijing Waterwood Technologies Co., Ltd (ResearchInChina)			
Address:	Room 2-626, 6th Floor, No.1, Shanyuan Street, Haidian District, Beijing, 100080			
Contact Person:	Liao Yan	Phone:	86-10-82600828	
E-mail:	report@researchinchina.com	Fax:	86-10-82601570	
Bank details:	<ul> <li>Is: Beneficial Name: Beijing Waterwood Technologies Co., Ltd Bank Name: Bank of Communications, Beijing Branch Bank Address: NO.1 jinxiyuan shijicheng,Landianchang,Haidia District,Beijing Bank Account No #: 110060668012015061217 Routing No # : 332906 Bank SWIFT Code: COMMCNSHBJG</li> </ul>			

# Title Format Cost Total Total

#### Choose type of format

PDF (Single user license)	.3,000	USD
Hard copy	3,200	USD
PDF (Enterprisewide license)	4,500	USD

※ Reports will be dispatched immediately once full payment has been received.

Payment may be made by wire transfer or credit card via PayPal.



Room 2-626, 6th Floor, No.1, Shanyuan Street, Haidian District, Beijing, 100080 Phone: +86 10 82600828 ● Fax: +86 10 82601570 ● www.researchinchina.com ● report@researchinchina.com

#### The Vertical Portal for China Business Intelligence

### **RICDB** service

#### About ResearchInChina

ResearchInChina (www.researchinchina.com) is a leading independent provider of China business intelligence. Our research is designed to meet the diverse planning and information needs of businesses, institutions, and professional investors worldwide. Our services are used in a variety of ways, including strategic planning, product and sales forecasting, risk and sensitivity management, and as investment research.

#### **Our Major Activities**

- □ Multi-users market reports
- Database-RICDB
- Custom Research
- Company Search

**RICDB** (<u>http://www.researchinchina.com/data/database.html</u>), is a visible financial data base presented by map and graph covering global and China macroeconomic data, industry data, and company data. It has included nearly 500,000 indices (based on time series), and is continuing to update and increase. The most significant feature of this base is that the vast majority of indices (about 400,000) can be displayed in map.

After purchase of our report, you will be automatically granted to enjoy 2 weeks trial service of RICDB for free.

After trial, you can decide to become our formal member or not. We will try our best to meet your demand. For more information, please find at www.researchinchina.com

For any problems, please contact our service team at: