

Al in Computer Vision Market by Offering (Cameras, Frame Grabbers, Optics, LED Lighting, CPU, GPU, ASIC, FPGA, Al Vision Software, Al Platform), Technology (Machine Learning, GenAI), Function (Training, Inference), Application - Global Forecast to 2030

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Report description:

The global Al in computer vision market is projected to reach USD 63.48 billion in 2030 from USD 23.42 billion in 2025; it is expected to grow at a CAGR of 22.1% from 2025 to 2030. Growth rates in the market for Al in computer vision are accelerating with improvements in machine learning algorithms, increasing computational power, and expansion of high-quality image data. Industries such as health care, retail, manufacturing, and automotive are increasingly applying Al vision solutions to diagnostics, inventory management, quality control, and autonomous vehicles. However, with rising concerns regarding costs associated with implementation or data privacy, demands for increased automation and efficient operation as well as actionable analysis are driving this growth. Edge computing coupled with cloud services and 5G technology increases the adaptability and speed of Al vision solutions, further boosting the market growth.

"Machine learning segment is expected to dominate during the forecast period."

Machine learning is the backbone to the success of Al-enabled computer vision. Modern techniques, such as deep learning and convolutional neural networks, enable AI to recognize patterns, detect objects, and interpret scenes in real-time. Its swift adoption is transforming various industries-from healthcare diagnostics, to quality control in manufacturing, to customer behavior analytics in retail-where no one will be relying on massive workforces. The increasing visual data from smartphones, sensors, and surveillance cameras, further accelerates the market growth in AI in computer vision. New breakthroughs in edge-based machine learning are enabling AI in computer vision to be faster, smarter, and more widely deployable, creating a window of opportunity across various industries.

continue to grow.

"Consumer electronics segment is expected to hold the largest market share in Al in computer vision market." The market for Al in computer vision in consumer electronics is expected to grow rapidly. This is because more and more Al technology is being integrated into smart devices. These include smartphones, wearables, and home appliances. With such capabilities, advanced applications such as facial recognition, object detection, augmented reality, and automated image processing enhance user experience. The increasing demand for such features as AR for gaming, facial recognition as an access method, and automation for smart homes can be considered as the factors that are responsible for pushing the growth of this market.

The high penetration of smart connected devices and the rapid growth of IoT further support this case in the acceptance of AI-based solutions and technologies in consumer electronics. Computer vision powered with AI gives new ways and insights to improve how devices from smartphones to robotic vacuums engage with end-users-more smartly and intuitively. Growing investments alongside technological advancements are driving this industry. Phiar Technologies, Scandit, and others are creating augmented reality navigation solutions based on AI-enabled computer vision and simplification of data capture processes. Investors recognize the sustained, ever-expanding potential of consumer electronics, boosting advancements in AI. New opportunities will keep coming up for applying AI in consumer electronics therefore further solidifying its strong hold for the future of connected life.

"North America is projected to hold the second largest market share in the Al in computer vision market." In the North American region, Al in computer vision market holds a second-largest share because of rapid advancements in technology, a robust innovation ecosystem, and high-scale adoption across industries. Major investments in the US, including Al research institutes and rising collaborations between startups and high-tech companies, have promoted innovation and strengthened the Al infrastructure. Severed companies like Google, Microsoft, and Amazon have influenced the private sector in launching the initiatives to develop Al-based solutions in terms of industries related to healthcare, manufacturing, retail, and others. Within this important aspect, the Canadian government has a focus on responsible Al development and has given a considerable amount of funding for Al infrastructure development and Al research. Mexico is growing its use of Al technologies due to investment in manufacturing automation and cloud infrastructure, which enables small and medium-sized businesses to use Al-powered solutions to improve operational efficiency.

Moreover, strategic partnerships and initiatives like AI integration in Mexico's manufacturing as well as advanced facility construction of AI computing components further develop the region's capabilities. In this way, strong government and private sectors' support for advanced computing resources fuels the AI in computer vision market in North America. Further market growth is facilitated by increased AI infrastructure adoption across industries as well as improvement in AI technologies.

- By Company Type: Tier 1 - 45%, Tier 2 - 30%, and Tier 3 - 25% - By Designation: C-level Executives - 30%, Directors - 32%, and Others - 38% - By Region: North America- 32%, Europe - 20%, Asia Pacific- 43% and RoW- 5%

NVIDIA Corporation (US), Microsoft Corporation (US), Intel Corporation (US), Alphabet Inc. (US), Amazon.com, Inc. (US), Cognex Corporation (US), Qualcomm Technologies, Inc. (US), Sony Group Corporation (Japan), OMRON Corporation (Japan), KEYENCE CORPORATION (Japan), SICK AG (Germany), Teledyne Technologies (US), Texas Instruments Incorporated (US), Basler AG (Germany), Hailo Technologies Ltd. (Israel). are some of the key players in the AI in computer vision market.

The study includes an in-depth competitive analysis of these key players in the AI in computer vision market, as well as their company profiles, recent developments, and key market strategies.

Research Coverage

This research report categorizes the AI in computer vision market by various machine learning models (Supervised Learning, Unsupervised Learning, Reinforcement Learning), by use case (Object Detection, Image Recognition, Facial Recognition, Motion Analysis, and Machine Vision), by offering (Cameras, Frame Grabbers, Optics, LED Lighting, Processors, AI Vision Software, and AI Platforms), by technology (Machine Learning (Deep Learning, and Convolutional Neural Networks), and Generative AI), by function (Training, and Inference), by application (Quality Assurance & Inspection, Measurement, Identification, Predictive Maintenance, Positioning & Guidance), by end-user (Automotive, Consumer Electronics, Healthcare, retail, Security & Surveillance, Manufacturing, Agriculture, Transportation & Logistics, and Others), and by region (North America, Europe, Asia Pacific, and RoW). The report's scope covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the AI in computer vision market. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, and services; key strategies; new product & service launches, mergers and acquisitions; and recent developments associated with the AI in computer vision market. This report covers the competitive analysis of upcoming startups in the AI in computer vision market ecosystem.

Reasons to buy this report

The report will help market leaders and new entrants with information on the closest approximations of the revenue numbers for the overall AI in computer vision market and its subsegments. It will also 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 market pulse and provides information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

-[Analysis of key drivers (Advancements in hardware such as GPUs, TPUs, and edge devices, Growing role of cloud computing in enhancing computer vision capabilities, Increasing adoption of edge computing), restraints (Data privacy and security concerns), opportunities (Rapid innovations in healthcare, Automation in manufacturing and industry 4.0), and challenges (High data storage and management costs, Integrating AI within existing systems) influencing the growth of the AI in computer vision market -[]Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the AI in computer vision market

- Market Development: The report provides comprehensive information about lucrative markets and analyses the AI in computer vision market across varied regions.

-[Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the AI in computer vision market

- Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players in the Al in computer vision market, such as NVIDIA Corporation (US), Microsoft Corporation (US), Intel Corporation (US), Alphabet Inc. (US), Amazon.com, Inc. (US), Cognex Corporation (US), Qualcomm Technologies, Inc. (US), Sony Group Corporation (Japan), OMRON Corporation (Japan), KEYENCE CORPORATION (Japan), SICK AG (Germany), Teledyne Technologies (US), Texas Instruments Incorporated (US), Basler AG (Germany), and Hailo Technologies Ltd. (Israel), among others in the AI in computer vision market.

Table of Contents:

1 [INTRODUCTION]27 1.1 [STUDY OBJECTIVES]27 1.2 [MARKET DEFINITION]27 1.3 [STUDY SCOPE]28 1.3.1 [INCLUSIONS AND EXCLUSIONS]28 1.3.2 [MARKETS COVERED AND REGIONAL SCOPE]29 1.3.3 [YEARS CONSIDERED]30

1.4 CURRENCY CONSIDERED 30 1.5 UNIT CONSIDERED 30 1.6 LIMITATIONS 30 1.7 MARKET STAKEHOLDERS 31 1.8 SUMMARY OF CHANGES 31 2 RESEARCH METHODOLOGY 2.1 RESEARCH DATA 33 2.1.1 SECONDARY DATA 34 2.1.1.1 List of major secondary sources 34 2.1.1.2 Key data from secondary sources 34 2.1.2 PRIMARY DATA 35 2.1.2.1 Key data from primary sources 35 2.1.2.2 Breakdown of primaries 36 2.1.3 SECONDARY AND PRIMARY RESEARCH 2.1.3.1 Key industry insights 38 2.2 MARKET SIZE ESTIMATION 38 2.2.1 BOTTOM-UP APPROACH 40 2.2.1.1 Approach to arrive at market size using bottom-up analysis (demand side)[]40 2.2.2 TOP-DOWN APPROACH 41 2.2.2.1 Approach to arrive at market size using top-down analysis (supply side)[]41 2.3 MARKET BREAKDOWN AND DATA TRIANGULATION 42 2.4 RESEARCH ASSUMPTIONS 43 2.5 RISK ANALYSIS 43 2.6 RESEARCH LIMITATIONS 44 3 EXECUTIVE SUMMARY 45 ? 4 PREMIUM INSIGHTS 49 4.1∏ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN AI IN COMPUTER VISION MARKET∏49 4.2∏AI IN COMPUTER VISION MARKET IN NORTH AMERICA, BY COUNTRY AND VERTICAL∏50 4.3∏AI IN COMPUTER VISION MARKET IN ASIA PACIFIC, BY VERTICAL∏50 4.4∏AI IN COMPUTER VISION MARKET, BY COUNTRY∏51 5⊓MARKET OVERVIEW∏52 5.1 INTRODUCTION 52 5.2 MARKET DYNAMICS 52 5.2.1 DRIVERS 53 5.2.1.1 Rapid advances in graphics processing units and edge devices 53 5.2.1.2 Growing awareness about role of cloud platforms in enhancing computer vision capabilities 53 5.2.1.3 Rising emphasis on edge inferencing 54 5.2.2 RESTRAINTS 54 5.2.2.1 Data privacy and security issues 54 5.2.3 OPPORTUNITIES 55 5.2.3.1 □Increasing innovation in healthcare technology □55 5.2.3.2 Rapid digital transformation in manufacturing sector 55 5.2.4 CHALLENGES 56 5.2.4.1 High data storage and management costs 56

5.2.4.2 Complexities associated with integrating AI into existing technological infrastructure 57

5.3 VALUE CHAIN ANALYSIS 57

5.4 ECOSYSTEM ANALYSIS 59 5.5 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS 61

5.6 PRICING ANALYSIS 61

5.6.1 AVERAGE SELLING PRICE OF KEY PLAYERS, BY OFFERING, 2024

5.6.2 AVERAGE SELLING PRICE TREND, BY AI CAMERA, 2021-2023 63

5.6.3 AVERAGE SELLING PRICE TREND OF AI CAMERAS, BY REGION, 2021-2023 63

5.7 TECHNOLOGY ANALYSIS 64

5.7.1 KEY TECHNOLOGIES 64

5.7.1.1 Edge inferencing 64

5.7.1.2 Machine learning 64

5.7.2 COMPLEMENTARY TECHNOLOGIES 64

5.7.2.1 Natural language processing 64

5.7.2.2 Internet of Things (IoT) 65

5.7.3 ADJACENT TECHNOLOGIES 65

5.7.3.1 Cloud computing 65

?

5.8 PORTER'S FIVE FORCES ANALYSIS 65

5.8.1 INTENSITY OF COMPETITIVE RIVALRY 66

5.8.2 BARGAINING POWER OF SUPPLIERS 66

5.8.3 BARGAINING POWER OF BUYERS 66

5.8.4⊓THREAT OF SUBSTITUTES⊓67

5.8.5 THREAT OF NEW ENTRANTS 67

5.9 KEY STAKEHOLDERS AND BUYING CRITERIA

5.9.1 KEY STAKEHOLDERS IN BUYING PROCESS 67

5.9.2 BUYING CRITERIA 68

5.10 CASE STUDY ANALYSIS 69

5.10.1 NOTA LEVERAGES NVIDIA CORPORATION'S EDGE GPUS AND DEEP LEARNING SDKS TO OPTIMIZE TRAFFIC FLOW 69 5.10.2 APP-TECHS INTEGRATES IRONYUN, INC.'S VAIDIO AI VISION PLATFORM TO ENHANCE CLIENT'S SECURITY SYSTEMS 69 5.10.3 SOLOMON TECHNOLOGY CORPORATION IMPLEMENTS SOLVISION AI-POWERED VISUAL INSPECTION TOOL TO DETECT DEFECTS IN BEARING THREATS 70

5.10.4 VELUX ADOPTS SICK AG'S APPSPACE PLATFORM-INTEGRATED DEEP LEARNING TECHNOLOGY TO AUTOMATE COMPLEX INSPECTION TASKS 70

5.10.5 SOLOMON TECHNOLOGY CORPORATION IMPLEMENTS SOLVISION TOOL TO IMPROVE TABLET INSPECTION ACCURACY AND EFFICIENCY 71

5.11 INVESTMENT AND FUNDING SCENARIO 71

5.12 TRADE ANALYSIS 72

5.12.1 IMPORT SCENARIO (HS CODE 8471) 72

5.12.2 EXPORT SCENARIO (HS CODE 8471) 73

5.13 PATENT ANALYSIS 74

5.14 KEY CONFERENCES AND EVENTS, 2024-2025 79

5.15 REGULATORY LANDSCAPE 80

5.15.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 80

5.15.2 STANDARDS AND REGULATIONS 83

6 USE CASES OF AI IN COMPUTER VISION 85

6.1 INTRODUCTION 85

6.2 OBJECT DETECTION 85 6.3 IMAGE RECOGNITION 85 6.4 FACIAL RECOGNITION 86 6.5 MOTION ANALYSIS 86 6.6 MACHINE VISION 87 7 MACHINE LEARNING MODELS USED IN AI-BASED COMPUTER VISION 88 7.1 INTRODUCTION 88 7.2 SUPERVISED LEARNING 88 7.3 UNSUPERVISED LEARNING 88 7.4 REINFORCEMENT LEARNING 89 8 AI IN COMPUTER VISION MARKET, BY APPLICATION 90 8.1⊓INTRODUCTION⊓91 8.2 QUALITY ASSURANCE & INSPECTION 92 8.2.1 RISING DEMAND FOR AUTOMATED QUALITY CHECKS TO DRIVE SEGMENTAL GROWTH 92 8.2.2 DEFECT DETECTION 93 8.2.3 SURFACE INSPECTION 93 8.2.4 CONTAINMENT DETECTION 94 8.2.5 PACKING & LABELLING INSPECTION 94 8.3 MEASUREMENT 94 8.3.1 ADVANCEMENTS IN 3D MEASUREMENT SYSTEMS TO DRIVE MARKET 94 8.3.2 3D MEASUREMENT & PROFILING 95 8.3.3 SITE MEASUREMENT & MONITORING 95 8.4 || IDENTIFICATION || 96 8.4.1 GROWING ADOPTION OF FACE RECOGNITION IN GOVERNMENT SERVICES TO ACCELERATE DEMAND 96 8.4.2 PERSON IDENTIFICATION 97 8.4.3 PRODUCT RECOGNITION 97 8.5 PREDICTIVE MAINTENANCE 97 8.5.1 ENHANCING EQUIPMENT RELIABILITY AND OPERATIONAL EFFICIENCY TO FUEL MARKET GROWTH 97 8.5.2 MACHINE HEALTH MONITORING 98 8.5.3 WEAR & TEAR DETECTION 98 8.6 POSITIONING & GUIDANCE 99 8.6.1 GROWING ADOPTION OF ROBOTIC ARMS WITH AI-POWERED COMPUTER VISION SYSTEMS TO DRIVE MARKET 99 8.6.2 ROBOTIC ARM GUIDANCE 100 8.6.3 AUTOMATED GUIDED VEHICLES 100 9□AI IN COMPUTER VISION MARKET, BY FUNCTION□101 9.1 INTRODUCTION 102 9.2 TRAINING 103 9.2.1 RISING DEMAND FOR HIGH-QUALITY TRAINING DATA TO ACCELERATE MARKET GROWTH 103 9.3 INFERENCE 106 9.3.1 RISING INVESTMENTS IN AI HARDWARE AND INFERENCE SOLUTIONS TO STIMULATE MARKET GROWTH 106 ? 10 AI IN COMPUTER VISION MARKET, BY TECHNOLOGY 10.1 INTRODUCTION 112 10.2 MACHINE LEARNING 113 10.2.1 DEEP LEARNING 114 10.2.1.1 Rising investments in deep learning research to foster market growth 114 10.2.2 CONVOLUTIONAL NEURAL NETWORKS 115

10.2.2.1 Rising demand for edge-based AI solutions to boost segmental growth 115 10.3 GENERATIVE AI 116 10.3.1 RISING NEED FOR PERSONALIZED AND CUSTOM CONTENT TO SUPPORT MARKET GROWTH 116 11□AI IN COMPUTER VISION MARKET, BY VERTICAL□118 11.1 INTRODUCTION 119 11.2 AUTOMOTIVE 121 11.2.1 □ INTEGRATION OF AI IN ADVANCED DRIVER ASSISTANCE SYSTEMS TO BOOST DEMAND 121 11.2.2 ADAS 122 11.2.3 IN-VEHICLE MONITORING SYSTEMS 122 11.2.4 AUTONOMOUS VEHICLES 122 11.3 CONSUMER ELECTRONICS 122 11.3.1 INCREASING ADOPTION OF AUGMENTED REALITY IN CONSUMER ELECTRONICS TO DRIVE MARKET 122 11.3.2 SMARTPHONES AND TABLETS 123 11.3.3 SMART HOME DEVICES 123 11.3.4 AR/VR 124 11.4 HEALTHCARE 124 11.4.1 AI-DRIVEN PATIENT MONITORING AND OUTCOME PREDICTION TO ACCELERATE MARKET GROWTH 124 11.4.2 MEDICAL IMAGING 125 11.4.3 PATIENT MONITORING 125 11.4.4 SURGICAL ASSISTANCE 125 11.5[RETAIL]126 11.5.1 INCREASING FOCUS ON LOSS PREVENTION SOLUTIONS TO FUEL MARKET GROWTH 126 11.5.2 CUSTOMER EXPERIENCE MANAGEMENT 127 11.5.3 INVENTORY MANAGEMENT 127 11.6 SECURITY AND SURVEILLANCE 127 11.6.1 GROWING FOCUS OF RETAIL SECTOR ON INVENTORY MANAGEMENT AND CUSTOMER BEHAVIOR ANALYSIS TO DRIVE MARKET[]127 11.6.2 CRIME DETECTION 128 11.6.3 INTRUSION DETECTION 128 11.6.4 LICENSE PLATE RECOGNITION 129 ? 11.7 MANUFACTURING 129 11.7.1 INCREASING DEMAND FOR AUTOMATED ASSEMBLY LINE MONITORING SYSTEMS TO STIMULATE DEMAND 11.7.2 QUALITY INSPECTION 130 11.7.3 PREDICTIVE MAINTENANCE 130 11.8 AGRICULTURE 130 11.8.1 GROWING DEMAND FOR AI-DRIVEN CROP MONITORING SOLUTIONS TO FUEL SEGMENT GROWTH 130 11.8.2 CROP MONITORING 131 11.8.3 LIVESTOCK MANAGEMENT 131 11.8.4 PRECISION AGRICULTURE 132 11.9 TRANSPORTATION & LOGISTICS 132 11.9.1 GROWING NEED FOR AUTOMATION IN WAREHOUSING AND DISTRIBUTION HUBS TO BOOST SEGMENTAL GROWTH 132 11.9.2 FLEET MANAGEMENT 133 11.9.3 DRIVER BEHAVIOR ANALYSIS 133 11.9.4 ROUTE OPTIMIZATION 133 11.9.5 INVENTORY TRACKING 133 11.10 OTHER VERTICALS 134

12⊓AI IN COMPUTER VISION MARKET, BY OFFERING⊓135 12.1 INTRODUCTION 136 12.2 CAMERAS 138 12.2.1 □ INCREASING INTEGRATION OF AI TECHNOLOGY IN CAMERAS TO DRIVE SEGMENTAL GROWTH □ 138 12.3 FRAME GRABBERS 138 12.3.1 □ INCREASING USE OF FRAME GRABBERS FOR REAL-TIME IMAGE PROCESSING TO BOOST DEMAND □ 138 12.4 || OPTICS || 139 12.4.1 GROWING IMPORTANCE OF ADVANCED OPTICS IN AUTONOMOUS VEHICLES TO ACCELERATE MARKET GROWTH 139 12.5 LED LIGHTING 139 12.5.1 EXPANDING APPLICATIONS OF LED LIGHTING IN HEALTHCARE AND MANUFACTURING TO FUEL SEGMENTAL GROWTH 12.6 PROCESSORS 139 12.6.1 CPU 140 12.6.1.1 Rising integration of CPUs in edge AI devices to drive market 140 12.6.2 GPU 141 12.6.2.1 Rapid image processing feature to support market growth 141 12.6.3 ASIC 141 12.6.3.1 Growing role of ASICs in optimizing AI inference and training to stimulate market growth 12.6.4 FPGA 142 12.6.4.1 Surging adoption of FPGAs in edge computing to address latency-related challenges to fuel market growth 12.7 AI VISION SOFTWARE 142 12.7.1∏INCREASING INVESTMENTS IN AI VISION STARTUPS TO DRIVE MARKET∏142 12.8 AI PLATFORMS 143 12.8.1 TRISING ADOPTION OF REAL-TIME DATA PROCESSING TECHNOLOGIES TO DRIVE SEGMENTAL GROWTH 143 13 AI IN COMPUTER VISION MARKET, BY REGION 144 13.1 INTRODUCTION 145 13.2 NORTH AMERICA 146 13.2.1 MACROECONOMIC OUTLOOK FOR NORTH AMERICA 146 13.2.2 US 151 13.2.2.1 Increasing government-led investments and rising AI startups to drive market 151 13.2.3 CANADA 152 13.2.3.1 Strategic government investments in Al infrastructure to fuel market growth 152 13.2.4 MEXICO 153 13.2.4.1 Rising funding for AI infrastructure development to boost demand 153 13.3 EUROPE 154 13.3.1 MACROECONOMIC OUTLOOK FOR EUROPE 154 13.3.2 UK 159 13.3.2.1 Strong government support in AI sector to accelerate market growth 159 13.3.3 GERMANY 160 13.3.3.1 Rising number of AI startups to contribute to market growth 160 13.3.4 || FRANCE || 161 13.3.4.1 Government investment in AI champions to fuel market growth 161 13.3.5 || ITALY || 162 13.3.5.1 Innovative investments and collaborations between companies to drive market 162 13.3.6 REST OF EUROPE 162 13.4 ASIA PACIFIC 164 13.4.1 MACROECONOMIC OUTLOOK FOR ASIA PACIFIC 164 13.4.2 CHINA 169

13.4.2.1 Government focus on building AI-based ecosystem to fuel market growth 169 13.4.3 JAPAN 170 13.4.3.1 Development of Al infrastructure and collaboration with tech giants to stimulate market growth 170 13.4.4 SOUTH KOREA 171 13.4.4.1 Innovation in AI software and hardware solutions to drive market growth 171 13.4.5 INDIA 172 13.4.5.1 Government-led AI policies and funding programs to support market growth 172 13.4.6 REST OF ASIA PACIFIC 173 13.5[ROW]174 13.5.1 MACROECONOMIC OUTLOOK FOR ROW 174 13.5.2 MIDDLE EAST 177 13.5.3⊓INCREASING INVESTMENTS IN DATA CENTERS AND AI RESEARCH PROJECTS TO SPIKE DEMAND⊓177 13.5.3.1 GCC countries 178 13.5.3.2 Rest of Middle East & Africa 178 13.5.4 AFRICA 179 13.5.4.1 Africa's launch of continental AI strategy to fuel market growth 179 13.5.5 SOUTH AMERICA 180 13.5.5.1 Growing number of Al-based computer vision startups to foster market growth 180 14 COMPETITIVE LANDSCAPE 181 14.1 OVERVIEW 181 14.2 KEY PLAYER STRATEGIES/RIGHT TO WIN, 2020-2024 181 14.3 REVENUE ANALYSIS, 2019-2023 183 14.4 MARKET SHARE ANALYSIS, 2023 184 14.5 COMPANY VALUATION AND FINANCIAL METRICS 186 14.6 BRAND/PRODUCT COMPARISON 187 14.7 COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023 188 14.7.1 STARS 188 14.7.2 EMERGING LEADERS 188 14.7.3 PERVASIVE PLAYERS 188 14.7.4 PARTICIPANTS 188 14.7.5 COMPANY FOOTPRINT: KEY PLAYERS, 2023 190 14.7.5.1 Company footprint 190 14.7.5.2 Region footprint 191 14.7.5.3 Offering footprint 192 14.7.5.4 Technology footprint 193 14.7.5.5 Function footprint 194 14.7.5.6 Application footprint 195 14.7.5.7 Vertical footprint 196 14.8 COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2023 197 14.8.1 PROGRESSIVE COMPANIES 197 14.8.2 RESPONSIVE COMPANIES 197 14.8.3 DYNAMIC COMPANIES 197 14.8.4 STARTING BLOCKS 197 14.8.5 COMPETITIVE BENCHMARKING: KEY STARTUPS/SMES, 2023 199 14.8.5.1 Detailed list of startups/SMEs 199 14.8.5.2 Competitive benchmarking of key startups/SMEs 200 ?

14.9 COMPETITIVE SCENARIO 201 14.9.1 PRODUCT LAUNCHES 201 14.9.2 DEALS 206 15 COMPANY PROFILES 208 15.1 KEY PLAYERS 208 15.1.1 NVIDIA CORPORATION 208 15.1.1.1 Business overview 208 15.1.1.2 Products/Solutions/Services offered 209 15.1.1.3 Recent developments 210 15.1.1.3.1 Product launches 210 15.1.1.4 MnM view 211 15.1.1.4.1 Key strengths/Right to win 211 15.1.1.4.2 Strategic choices 211 15.1.1.4.3 Weaknesses/Competitive threats 211 15.1.2 MICROSOFT CORPORATION 212 15.1.2.1 Business overview 212 15.1.2.2 Products/Solutions/Services offered 213 15.1.2.3 Recent developments 214 15.1.2.3.1 Product launches 214 15.1.2.3.2 Deals 215 15.1.2.4 MnM view 215 15.1.2.4.1 Key strengths/Right to win 215 15.1.2.4.2 Strategic choices 215 15.1.2.4.3 Weaknesses/Competitive threats 215 15.1.3 ALPHABET INC. 216 15.1.3.1 Business overview 216 15.1.3.2 Products/Solutions/Services offered 217 15.1.3.3 MnM view 219 15.1.3.3.1 Key strengths/Right to win 219 15.1.3.3.2 Strategic choices 219 15.1.3.3.3 Weaknesses/Competitive threats 219 15.1.4 AMAZON.COM, INC. 220 15.1.4.1 □Business overview □220 15.1.4.2 Products/Solutions/Services offered 221 15.1.4.3 Recent developments 222 15.1.4.3.1 Product launches 222 15.1.4.4 MnM view 223 15.1.4.4.1 Key strengths/Right to win 223 15.1.4.4.2 Strategic choices 223 15.1.4.4.3 Weaknesses/Competitive threats 223 ? 15.1.5 INTEL CORPORATION 224 15.1.5.1 ||Business overview||224 15.1.5.2 Products/Solutions/Services offered 225 15.1.5.3 Recent developments 226 15.1.5.3.1 Product launches 226 15.1.5.4 MnM view 226

15.1.5.4.1 Key strengths/Right to win 226 15.1.5.4.2 Strategic choices 226 15.1.5.4.3 Weaknesses/Competitive threats 227 15.1.6 COGNEX CORPORATION 228 15.1.6.1 Business overview 228 15.1.6.2 Products/Solutions/Services offered 229 15.1.6.3 Recent developments 230 15.1.6.3.1 Product launches 230 15.1.7 QUALCOMM TECHNOLOGIES, INC. 231 15.1.7.1 Business overview 231 15.1.7.2 Products/Solutions/Services offered 232 15.1.7.3 Recent developments 233 15.1.7.3.1 Product launches 233 15.1.7.3.2 Deals 233 15.1.8 SONY GROUP CORPORATION 234 15.1.8.1 Business overview 234 15.1.8.2 Products/Solutions/Services offered 235 15.1.8.3 Recent developments 236 15.1.8.3.1 Product launches 236 15.1.9 OMRON CORPORATION 237 15.1.9.1 Business overview 237 15.1.9.2 Products/Solutions/Services offered 239 15.1.9.3 Recent developments 239 15.1.9.3.1 Product launches 239 15.1.9.3.2 Deals 240 15.1.10□KEYENCE CORPORATION□241 15.1.10.1 Business overview 241 15.1.10.2 Products/Solutions/Services offered 242 15.1.10.3 Recent developments 243 15.1.10.3.1 Product launches 243 15.1.11 SICK AG 244 15.1.11.1 Business overview 244 15.1.11.2 Products/Solutions/Services offered 246 15.1.11.3 Recent developments 247 15.1.11.3.1 Product launches 247 15.1.11.3.2 Deals 247 15.1.12 TELEDYNE TECHNOLOGIES INCORPORATED 248 15.1.12.1 Business overview 248 15.1.12.2 Products/Solutions/Services offered 250 15.1.12.3 Recent developments 251 15.1.12.3.1 Product launches 251 15.1.12.3.2 Deals 251 15.1.13 TEXAS INSTRUMENTS INCORPORATED 252 15.1.13.1 || Business overview || 252 15.1.13.2 Products/Solutions/Services offered 254 15.1.13.3 Recent developments 255 15.1.13.3.1 Product launches 255

15.1.13.3.2 Deals 255 15.1.14 BASLER AG 256 15.1.14.1 Business overview 256 15.1.14.2 Products/Solutions/Services offered 257 15.1.14.3 Recent developments 258 15.1.14.3.1 Product launches 258 15.1.14.3.2 Deals 259 15.1.15 HAILO TECHNOLOGIES LTD 260 15.1.15.1 Business overview 260 15.1.15.2 Products/Solutions/Services offered 261 15.1.15.3 Recent developments 261 15.1.15.3.1 Product launches 261 15.1.15.3.2 Deals 262 15.2 OTHER PLAYERS 263 15.2.1 SIGHTHOUND, INC. 263 15.2.2 NEURALA, INC. 264 15.2.3 DATAGEN TECHNOLOGIES 265 15.2.4 GRAPHCORE 266 15.2.5 ROBOTIC VISION TECHNOLOGIES INC. 267 15.2.6 CUREMETRIX, INC. 268 15.2.7 SNORKEL AI, INC. 269 15.2.8[]AMP[]270 15.2.9 VISO.AI 271 15.2.10 LANDINGAI 272 16 APPENDIX 273 16.1 DISCUSSION GUIDE 273 16.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL 276 16.3 CUSTOMIZATION OPTIONS 278 16.4 RELATED REPORTS 278 16.5 AUTHOR DETAILS 279



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*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346. []** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	Phone*	
First Name*	Last Name*	
Job title*		
Company Name*	EU Vat / Tax ID / NIP	number*
Address*	City*	

7in	Code*
Zip	Code

Country*

Date

Signature

2025-05-20