

The Global Market for Artificial Intelligence (AI) 2022

<https://marketpublishers.com/r/G1484A46A2E0EN.html>

Date: February 2022

Pages: 540

Price: US\$ 2,750.00 (Single User License)

ID: G1484A46A2E0EN

Abstracts

The development of artificial intelligence (AI) technologies is growing rapidly and transforming the global economy. AI uses data and algorithms to replicate human decision/thinking ability and can optimise the efficiency, precision, and performance of many existing technologies.

AI and human-machine interaction, in combination with other digitisation technologies, are being increasingly utilized in production and logistics as well as the analysis of markets, customer behaviour, and sales. Advances in machine learning and neural networks have completely changed the AI technology environment over the past decade and the availability of huge datasets and technology advances in Big Data, the Internet of Things (IoT) and fast connectivity have enabled new AI systems and services, digital assistants, robots and drones.

The development and application of these technologies is an industry in its own right, but AI is also transforming business models across many sectors such as financial services, Information and Communication Technology (ICT), Life Science, Retail, Healthcare, Industrial Manufacturing, Automotive, Security, Oil & Gas, and Chemicals.

Report contents include:

Artificial intelligence (AI) technology analysis.

Analysis of the global market and technologies for artificial intelligence (AI).

Artificial intelligence (AI) value chain, by industry.

Revenues for artificial intelligence (AI) technologies and markets.

Market outlook over the next 10 years and beyond.

Discussion on market drivers, restraints, current trends and investments in the artificial intelligence market

Analysis of recent mergers & acquisitions, joint ventures, collaborations or partnerships, funding, investments and significant news, from 2020-2022.

In depth market analysis of AI in manufacturing, automotive and transportation, construction, energy, education, chemicals, medical devices & healthcare, food & agriculture, financial services, smart homes, consumer devices, retail, sales & CRM, waste management, Information & communications technology (ICT), computer vision & facial recognition, AI processors, cybersecurity and electronic noses.

Competitive landscape including key AI players

Global government AI initiatives, policy & regulations

In depth profiles of 400 companies. Profiles include technology focus, products, markets targeted, funding and investors. Companies profiled include Spectrum Labs, 6sense, 7bridges, Personetics, Scale AI, Cohere, Babylon Health, Hive, XtalPi, ASAPP, Aibee, SmartMore, BenevolentAI, iCarbonX, Globality, Intellifusion, Groq Inc, Entos, Holomatic, Covariant, AiFi, Nnaisense etc

Contents

1 EXECUTIVE SUMMARY

- 1.1 What is Artificial Intelligence (AI)?
 - 1.1.1 Artificial Narrow Intelligence
 - 1.1.2 Artificial General Intelligence
 - 1.1.3 Artificial Super Intelligence
- 1.2 Current market for AI
 - 1.2.1 Key trends in AI in 2021
 - 1.2.2 Maturity level of AI by industry
 - 1.2.3 Market revenues forecast by industry 2020-2030, billions USD
 - 1.2.4 Global AI software revenues 2020-2030, billions USD
 - 1.2.5 Global AI Hardware revenues 2020-2030, billions USD
- 1.3 Market outlook five years
- 1.4 Market outlook ten years and beyond
 - 1.4.1 AI players and target markets
 - 1.4.2 Publicly listed AI companies
- 1.5 Market challenges

2 TECHNOLOGY ANALYSIS

- 2.1 AI networks and tools
- 2.2 Types of Artificial Intelligence
 - 2.2.1 AI Based on Functionality
 - 2.2.2 AI Based on Capability
- 2.3 Key Technologies of Artificial Intelligence
 - 2.3.1 Machine learning
 - 2.3.1.1 Supervised learning
 - 2.3.1.2 Unsupervised learning
 - 2.3.1.3 Reinforcement learning
 - 2.3.1.4 Graph machine learning
 - 2.3.1.5 Tiny machine learning (TinyML)
 - 2.3.1.6 Deep learning
 - 2.3.1.6.1 Neural Networks
 - 2.3.1.6.1.1 Transformer neural networks
 - 2.3.2 Computer vision
 - 2.3.3 Natural Language Processing
 - 2.3.4 Robotics

2.3.5 Knowledge-based systems

2.3.6 Optimisation

2.3.7 Hybrid AI Systems

2.3.8 No-code AI

3 MARKETS AND APPLICATIONS

3.1 Market trends and drivers

3.2 Recent market developments in Artificial Intelligence 2020-2022

3.3 AI Funding and investments 2020-2022

3.4 AI in Manufacturing

3.4.1 Market drivers

3.4.2 AI in the manufacturing value chain

3.4.3 Applications

3.4.3.1 Inspection systems and Predictive & Preventative Maintenance

3.4.3.2 Worker safety

3.4.3.3 Supply chain & logistics

3.4.3.4 Robotics

3.4.3.5 Quality control

3.4.4 Companies

3.5 AI in Automotive and Transportation

3.5.1 Market drivers

3.5.2 AI in the automotive value chain

3.5.3 Applications

3.5.3.1 AI in Automotive Manufacturing

3.5.3.1.1 Companies

3.5.3.2 Autonomous vehicles

3.5.3.2.1 Deep learning-based image recognition for autonomous driving

3.5.3.2.2 Hybrid AI

3.5.3.2.3 Companies

3.5.3.3 Vehicle fleet management

3.5.3.3.1 Companies

3.5.3.4 Rail

3.5.3.5 Aviation

3.6 AI in Construction

3.6.1 Market drivers

3.6.2 AI in the construction value chain

3.6.3 Applications

3.6.3.1 Resource and waste optimisation

- 3.6.3.2 Supply chain management
- 3.6.3.3 Health and safety
- 3.6.3.4 Construction site analytics
- 3.6.4 Companies
- 3.7 AI in Energy
 - 3.7.1 Market drivers
 - 3.7.2 AI in the energy value chain
 - 3.7.3 Applications
 - 3.7.3.1 Renewables
 - 3.7.3.2 Oil and gas
 - 3.7.3.3 AI home energy management
 - 3.7.3.4 Smart grid
 - 3.7.4 Companies
- 3.8 AI in Education
 - 3.8.1 Market drivers
 - 3.8.2 Applications
 - 3.8.3 Companies
- 3.9 AI in Chemicals
 - 3.9.1 Market drivers
 - 3.9.2 Applications
 - 3.9.3 Companies
- 3.10 AI in Medical devices and Healthcare
 - 3.10.1 Market drivers
 - 3.10.2 AI in the medical devices and healthcare value chain
 - 3.10.3 Applications
 - 3.10.3.1 Pharmaceuticals
 - 3.10.3.1.1 Drug discovery and development
 - 3.10.3.1.2 Companies
 - 3.10.3.1.3 Challenges of AI in pharmaceuticals
 - 3.10.3.2 Medical diagnostics-cancer detection
 - 3.10.3.2.1 Companies
 - 3.10.3.3 Medical diagnostics-cardiovascular disease
 - 3.10.3.3.1 Companies
 - 3.10.3.4 Medical diagnostics- respiratory disease
 - 3.10.3.4.1 Companies
 - 3.10.3.5 Medical diagnostics- retinal disease
 - 3.10.3.5.1 Companies
 - 3.10.3.6 Medical diagnostics- neurodegenerative diseases
 - 3.10.3.6.1 Companies

- 3.10.3.7 Medical diagnostics- retinal diseases
 - 3.10.3.7.1 Companies
- 3.10.3.8 Patient monitoring
 - 3.10.3.8.1 Companies
- 3.11 AI in Food and Agriculture
 - 3.11.1 Market drivers
 - 3.11.2 AI in the food and agriculture value chain
 - 3.11.3 Applications
 - 3.11.3.1 Deep Learning in agriculture
 - 3.11.3.2 Agricultural drones
 - 3.11.3.3 Indoor farming
 - 3.11.3.4 Food production
 - 3.11.3.4.1 Traceability to manage waste
 - 3.11.3.4.2 Food identification and sorting
 - 3.11.3.4.3 Food packaging
 - 3.11.3.4.4 Food processing
 - 3.11.3.5 Self-Driving Tractors
 - 3.11.3.6 Companies
- 3.12 AI in Financial Services
 - 3.12.1 Market drivers
 - 3.12.2 Applications
 - 3.12.3 Companies
- 3.13 AI in Smart homes
 - 3.13.1 Market drivers
 - 3.13.2 Applications
 - 3.13.2.1 Home security
 - 3.13.2.2 Daily household activities
 - 3.13.2.3 Autonomous HVAC
 - 3.13.2.4 Household energy
 - 3.13.3 Companies
- 3.14 AI in Consumer devices
 - 3.14.1 Market drivers
 - 3.14.2 Applications
 - 3.14.3 Companies
- 3.15 AI in Retail, Sales and CRM
 - 3.15.1 Market drivers
 - 3.15.2 Applications
 - 3.15.3 Companies
- 3.16 AI in waste management

- 3.16.1 Market drivers
- 3.16.2 Applications
- 3.16.3 Companies
- 3.17 AI in Information and communications technology (ICT)
 - 3.17.1 AI Processors
 - 3.17.1.1 Companies
 - 3.17.2 AI in computer vision and facial recognition
 - 3.17.2.1 Market drivers
 - 3.17.2.2 Applications
 - 3.17.2.3 Companies
 - 3.17.3 AI in Cybersecurity
 - 3.17.3.1 Applications
 - 3.17.3.2 Companies
- 3.18 AI in Electronic noses
 - 3.18.1.1 Applications
 - 3.18.1.2 Companies

4 GOVERNMENT AI INITIATIVES, POLICY & REGULATIONS

- 4.1 United States
- 4.2 Canada
- 4.3 Europe
- 4.4 Asia-Pacific

5 ARTIFICIAL INTELLIGENCE COMPANY PROFILES

6 DEFUNCT AI COMPANIES

7 RESEARCH SCOPE AND METHODOLOGY

- 7.1 Report scope
- 7.2 Research methodology

8 REFERENCES

List Of Tables

LIST OF TABLES

Table 1. Narrow AI vs. General AI.
Table 2. Key trends in AI in 2021.
Table 3. Publicly listed AI companies.
Table 4. Market challenges for Artificial Intelligence.
Table 5. AI based on Functionality.
Table 6. AI Based on Capability.
Table 7. No-code AI players.
Table 8. Market trends and drivers in AI.
Table 9. Recent market developments in Artificial Intelligence 2020-2022
Table 10. AI Funding and investments 2020-2022.
Table 11. Market drivers for use of Artificial Intelligence in manufacturing.
Table 12. Applications of AI in manufacturing.
Table 13. Companies developing AI in manufacturing.
Table 14. Market drivers for use of Artificial Intelligence in automotive and transportation.
Table 15. Applications of AI in automotive and transportation.
Table 16. Companies developing AI for Automotive Manufacturing.
Table 17. Companies developing AI for autonomous vehicles.
Table 18. Companies developing AI for vehicle fleet management.
Table 19. Companies developing AI for vehicle fleet management vehicles
Table 20. Market drivers for use of Artificial Intelligence in construction.
Table 21. Applications of AI in construction.
Table 22. Companies developing AI for construction.
Table 23. Market drivers for use of Artificial Intelligence in energy.
Table 24. Application of AI in renewable energy.
Table 25. Applications of AI in the Oil and Gas sector.
Table 26. Companies developing AI in energy.
Table 27. Market drivers for AI in education.
Table 28. Applications of AI in Education.
Table 29. Companies developing AI in education.
Table 30. Market drivers for AI in the chemicals market.
Table 31. Applications of AI in the chemicals market
Table 32. Companies developing AI in the chemicals market.
Table 33. Market drivers for use of Artificial Intelligence in medical devices and healthcare.

Table 34. Applications of AI in medical devices and healthcare market.
Table 35. AI Methods in Drug Discovery and development.
Table 36. AI tools used in drug discovery,
Table 37. Companies developing AI in pharmaceuticals.
Table 38. Challenges of AI in pharmaceuticals.
Table 39. Companies developing AI for medical diagnostics.
Table 40. Companies developing AI for cardiovascular disease.
Table 41. Companies developing AI for respiratory disease.
Table 42. Companies developing AI for retinal disease.
Table 43. Companies developing AI for neurodegenerative diseases.
Table 44. Companies developing AI for retinal disease.
Table 45. Companies developing AI for Patient monitoring
Table 46. Market drivers for use of Artificial Intelligence in food and agriculture.
Table 47. Applications of AI in food and agriculture.
Table 48. Companies developing AI for agriculture.
Table 49. Market drivers for use of Artificial Intelligence in financial services.
Table 50. Applications of AI in financial services.
Table 51. Companies developing AI for the financial services.
Table 52. Market drivers for use of Artificial Intelligence in smart homes.
Table 53. Applications of AI in smart homes.
Table 54. Companies developing AI for smart homes.
Table 55. Market drivers for use of Artificial Intelligence in consumer devices.
Table 56. Applications of AI in consumer devices.
Table 57. Companies developing AI for consumer devices.
Table 58. Market drivers for use of Artificial Intelligence in retail, sales and CRM.
Table 59. Applications of AI in retail, sales and CRM.
Table 60. Companies developing AI in retail, sales and CRM.
Table 61. Market drivers for use of Artificial Intelligence in waste management.
Table 62. Applications of AI in waste management.
Table 63. Companies developing AI in waste management.
Table 64. AI Processors companies.
Table 65. Market drivers for use of Artificial Intelligence in computer vision and facial recognition.
Table 66. Applications of AI in computer vision and facial recognition.
Table 67. Companies developing AI in computer vision and facial recognition
Table 68. Applications of AI in cybersecurity
Table 69. Companies developing AI in cybersecurity.
Table 70. Applications of AI in electronic noses.
Table 71. Companies developing AI in electronic noses.

Table 72. Defunct AI companies.

List Of Figures

LIST OF FIGURES

- Figure 1. History and development of AI.
- Figure 2. Components, types and subfields of AI.
- Figure 3. Global AI funding 2015-2021.
- Figure 4. Maturity level of AI by industry.
- Figure 5. Market revenues forecast by industry 2020-2032, billion USD.
- Figure 6. Global AI software revenues 2020-2030, billions USD.
- Figure 7. Global AI Hardware revenues 2020-2030, billions USD
- Figure 8. AI players and target markets.
- Figure 9. Method domains of artificial intelligence.
- Figure 10. The structure and training of deep neural networks.
- Figure 11. AI in the manufacturing value chain.
- Figure 12. Computer vision based quality control.
- Figure 13. AI in the automotive value chain.
- Figure 14. Levels of driving automation.
- Figure 15. Baidu self-driving car.
- Figure 16. AI in the construction value chain.
- Figure 17. AI in the energy value chain.
- Figure 18. AI in the medical devices and healthcare value chain.
- Figure 19. Applications of AI in pharmaceuticals.
- Figure 20. Artificial intelligence (AI) in drug discovery.
- Figure 21. AI in the food and agriculture value chain.
- Figure 22. Mobileye EyeQ chip.

I would like to order

Product name: The Global Market for Artificial Intelligence (AI) 2022

Product link: <https://marketpublishers.com/r/G1484A46A2E0EN.html>

Price: US\$ 2,750.00 (Single User License / Electronic Delivery)

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

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G1484A46A2E0EN.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