



MINDIA

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Artificial Intelligence Applications Intelligence Service

Part of the AI & Intelligent Automation Service Area Package

This Intelligence Service examines use cases, verticals, platforms and services on offer for the application of artificial intelligence technologies across enterprise markets. Research focus includes analysis of the use cases and value propositions for artificial intelligence in the key vertical growth markets, the key vendors that are shaping the next stage of market evolution, and technology trends that are driving AI development.

**PRODUCT OVERVIEW | Artificial
Intelligence Applications Intelligence
Service**





Increasing demand for AI in the enterprise has both companies and technology providers scrambling to make AI more a more readily consumable enterprise resource with far fewer specialist skills requirements, raising concerns over the market's ability or willingness to address responsible AI concerns in its haste to democratize AI

Bradley Shimmin

Chief Analyst, AI Platforms, Analytics, and Data Management

Artificial Intelligence Applications Intelligence Service

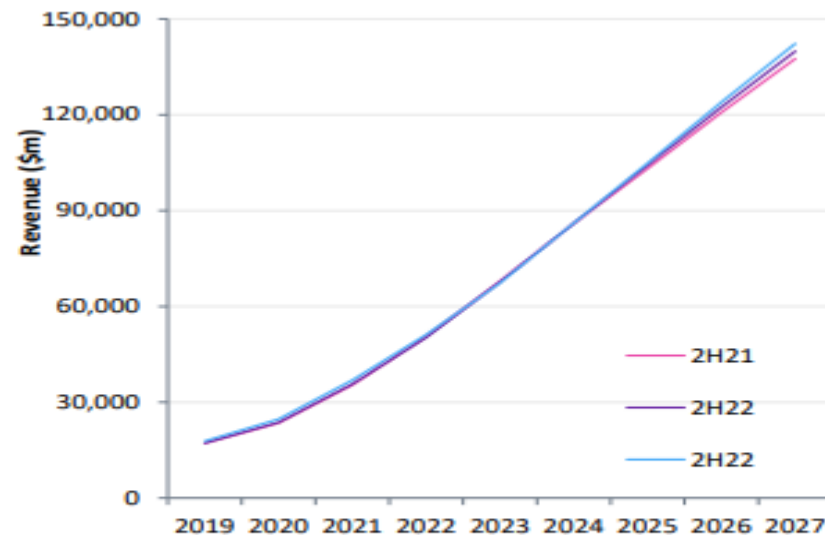
Part of the AI & Intelligent Automation Service Area Package

HOW OMDIA HELPS YOU

- Understand the breadth and depth of AI use cases
- Discover AI best practices and how to best operationalize AI within your organization
- Arm your strategy, marketing and product teams with granular data on the AI market
- Compare key vendor offerings and strategies

KEY QUESTIONS ADDRESSED

- What are the core priorities to consider when applying AI within the enterprise?
- What are key vertical use cases and value propositions of AI across and within industries?
- Who are the major vendors/solution providers and how do they differentiate? Which up and coming challengers should also be considered?
- Which trends are driving the development and evolution of AI technologies?



AI software revenue forecast evolution, world markets: 2019-27

Drivers:

- Cost & time savings, revenue growth
- Automation & optimization of processes
- Personalization, NLU, & computer vision
- Emergence of hyperscalers as application providers
- Productization

Source: Omdia

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Artificial Intelligence Applications: Our Expert Analysts



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Artificial Intelligence Applications: Deliverables



MARKET DATA

- Artificial Intelligence Software Market Forecasts
- Intelligent Automation Market Forecast
- AI Skills Tracker



VENDOR BENCHMARKING

- AI Skills Tracker
- AI Ecosystem Database
- Omdia Universe: Selecting an Intelligent Automation Solution, 2023–24



SURVEYS & REPORTS

- AI Best Practice KPIs
- Swarm Learning in Healthcare
- Designing a transformational data fabric and data mesh



PRESENTATIONS

Quarterly scheduled briefings with analysts on research highlights from all aspects of the market.



ANALYST INSIGHTS

Analyst commentary on market shifts, technology and regional developments, vendors, events, and more.



ANALYST ACCESS

Prompt responses from Omdia's regional analyst team to urgent and unique questions.

AI Applications: Market Data

AI Software Market Forecasts (Bi-annual update)

Quantitative assessment of the market opportunity for AI software. Includes market sizing, segmentation, and forecasts for 188 unique AI use cases across 20 industry sectors, 14 horizontal applications and 8 regions.

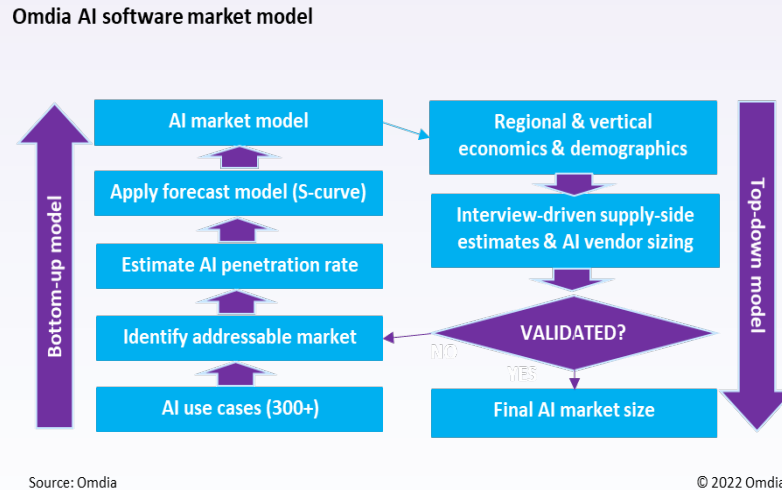
DETAILS

Frequency: Bi-Annual

Regions

- North America
- Latin America & the Caribbean
- Eastern Europe
- Western Europe
- Middle East
- Africa
- Central & Southern Asia
- Oceania, Eastern & South-Eastern Asia

COVERAGE



AI Skills Tracker

Provides an ongoing curated collection of job postings specific to the development of enterprise AI solutions. With a view of trending technologies and skills across regions, salaries and industry verticals

DETAILS

Frequency: Quarterly

Regions

- North America
- Latin America & the Caribbean
- Eastern Europe
- Western Europe
- Middle East
- Africa
- Central & Southern Asia
- Oceania, Eastern & South-Eastern Asia

COVERAGE

- AI Use Cases
- AI Ecosystem
- AI Software Platforms
- AI Business Models
- AI Enterprise Surveys
- AI in Major Vertical and Horizontal Markets
- Deep Learning and Machine Learning
- Computer Vision & NLP

AI Applications: Surveys and Reports

AI Market Maturity

Full analysis of the regulatory environment in over 30 countries around the world.

Frequency: Annual

Survey of hundreds of purchase-decision makers at enterprises across the globe.

Key questions addressed:

- What is the market penetration of AI technologies and solutions for enterprises?
- What is the pace of AI technology implementations and investments?
- How has data privacy and the AI accountability gap affected AI plans?
- Where does AI ownership/responsibility reside within enterprises?
- Which strategies are enterprises relying on: in-house solutions, commercial solutions, or both?
- For what functions or business units are enterprises deploying AI (customer service, IT, operations, business intelligence, etc.)?
- Which AI use cases are enterprises implementing?
- What AI technologies are enterprises leveraging?

AI Applications Research Reports

Examine the use cases, platforms, and business models for the application of AI technologies in enterprise, consumer, and government markets.

Frequency: 2-4 reports every quarter

Research focus includes analysis of technology trends that are driving the development of more robust cognitive technologies, the use cases and value propositions for artificial intelligence in specific vertical and horizontal markets, and the key industry players who are shaping the next stage of market evolution.

Granular market sizing, segmentation, studies, and forecasting models provide industry participants with an objective assessment of the business opportunity for artificial intelligence software.

Examples of reports include:

- AI for Healthcare Applications Report
- AI for Anomaly Detection Report
- AI Skills Trackers
- AI-Driven SaaS
- The Evolution of ML Frameworks Report
- Intelligent Automation Use Case Report: IDP
- Virtual Digital Assistant Market Radar
- and more

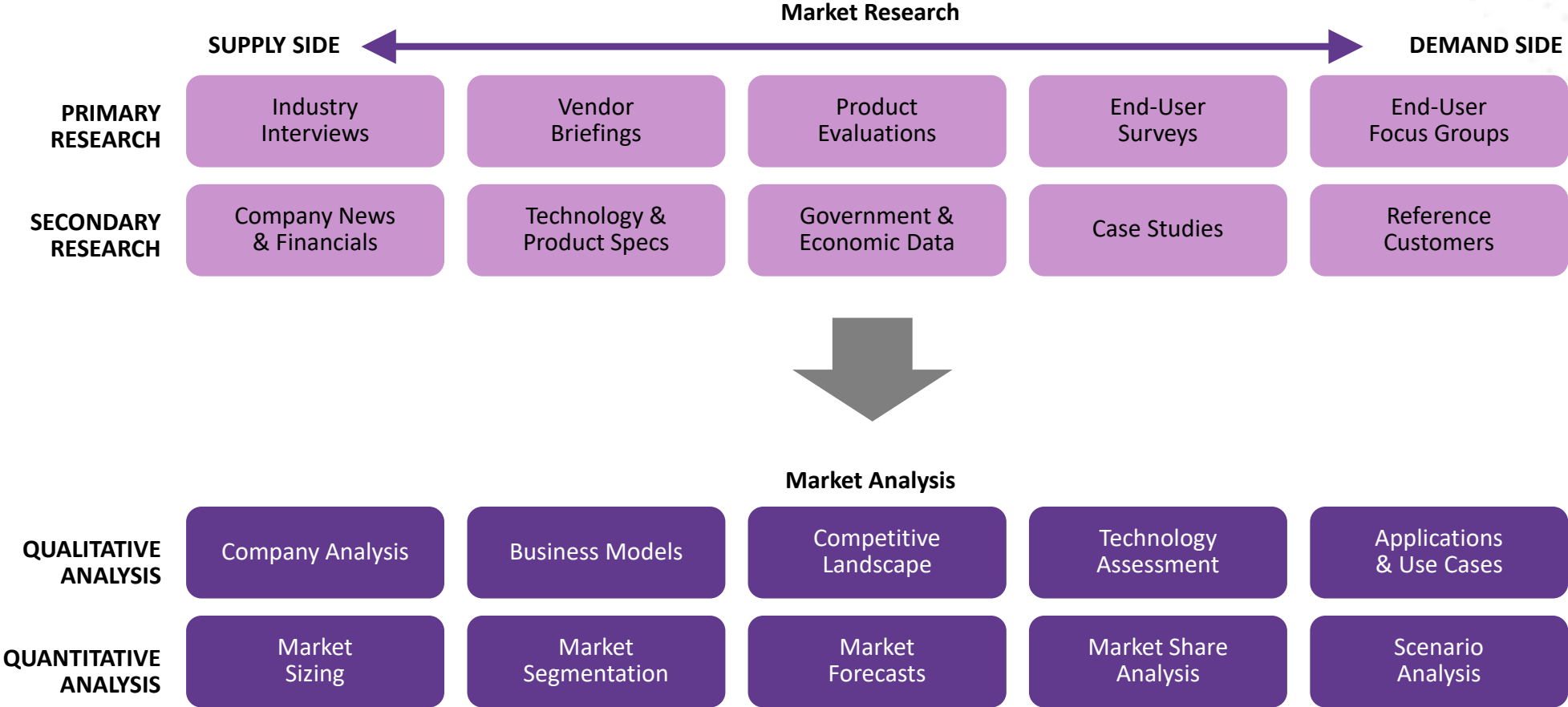
AI Applications – 2023 Schedule

Q1	Q2	Q3	Q4
<ul style="list-style-type: none">• SwarmLearning in Healthcare• AI Standards Tracker 1H23• AI Skills Tracker – 4Q22• Embedded AI: The World's Most AI-Forward SaaS Companies	<ul style="list-style-type: none">• AI Applications Quarterly Briefing – 2Q23• AI Ecosystem Database 2023• Artificial Intelligence Software Market Forecasts – 1H23 Data• Intelligent Automation Market Forecast 2023 Analysis• AI M&A Tracker in Healthcare & Life Sciences 1H23• NLP & Text Analytics in Healthcare & Life Sciences• AI Standards Tracker 2H23• Best Practices AI KPIs	<ul style="list-style-type: none">• AI Skills Tracker – 3Q23• Intelligent Automation Market Forecast: 2023 Data• AI Applications Quarterly Briefing – 3Q23• AI Skills Tracker – 1H23• Omdia Universe: Selecting an Intelligent Automation Solution• AI in Smart Manufacturing	<ul style="list-style-type: none">• The Evolution of ML Frameworks• Designing a transformational data fabric and data mesh• Digital transformation in Manufacturing• Artificial Intelligence Software Market Forecasts – 2H23 Data• AI Applications Quarterly Briefing – 4Q23• AI M&A Tracker in Healthcare & Life Sciences 2H23• 2024 Trends to Watch, AI Applications, Platforms, Services and RPA• Artificial Intelligence Software market Forecasts – 2H23 Analysis• Digital Transformation in Clinical Trials• Trends to Watch 2023 in Healthcare & Life Sciences• AI Standards Tracker 3Q23• AI Standards Tracker 3Q23• AI Skills Tracker – 2H23

AI and Intelligent Automation – 2023 Research Themes

AI vs. the World, aka AI in the age of resilience	Macro societal and economic trends are impacting market progressions of all kinds in ways not seen in the last 40 years. COVID's impact on labor, supply chain, global inflation as well as wars, growing global power friction, and climate change issues will shape every aspect of AI technology markets in 2023 and beyond. How will the AI ecosystem navigate these risks and help companies use AI to do the same?
AI processor Cambrian explosion	The computational demands of state-of-the-art AI are transforming the semiconductor market. Having shifted from CPU to GPU computing, the industry is now shifting towards dedicated AI acceleration and from merchant to custom silicon, in a so-called Makimoto wave transition. Starting in 2023-2024, the x86 ecosystem is likely to catch up with Apple's lead as AI acceleration becomes a standard CPU feature, while at the same time, customization drains value from the ecosystem itself. Omdia can help you monitor, understand, and respond to this disruption, whether you are a user of AI hardware, an OEM customer for AI processors, or a semiconductor vendor.
Data Taking Center Stage	As data volume and variety rise, and as it moves more freely between premises, cloud, and multiple-clouds, new ways are emerging to manage and exchange data. Increasingly, "data-centric AI" methodology means that data sets, software, systems, and semiconductors are developed together, in a response to the sustainability and governance issues of giant data sets. Metadata repositories (data catalogs), data fabrics (data as an API service), and data exchanges/marketplaces will take center stage, helping companies do away with data silos, fragile data pipelines, and uneven security/privacy policies, all without disrupting existing infrastructure investments.
AI rubber hits the road, aka Operationalizing AI	AI market adoption has reached critical mass, with the number of deployments likely to double in the next 2-3 years. These early majority buyers still need to overcome many internal challenges to adopt and scale AI successfully, including budgets, literacy, organizational structure, KPIs, sustainability, risk and lifecycle management, etc. Technology vendors are building solutions for AI responsibility (privacy, transparency, bias, etc.), repeatability, delivery, and governance. Best practices are also emerging from early the adopters. Furthermore, new consumption models such as AI as a service, pre-built AI, and embedded AI will help to not just operationalize AI but to do so rapidly and at scale across the business.
Democratization foreshadows oncoming AI ubiquity	High demand for AI and advanced analytics in the enterprise has revealed a significant technological skills gap, one that may never be filled through human talent alone. Yet companies are beginning to glimpse the far side of this chasm through a rapidly evolving set of technologies and practices laser focused on democratizing AI. New AI-driven automated workflows and low/no-code AI development tools, along with large-scale pre-trained AI models, embedded AI business apps, and even end-to-end AI solutions spanning software to silicon, all promise to turn AI into a more readily consumable enterprise resource with far fewer specialist skills requirements. And yet, many questions remain unanswered. Can AI be trusted to build responsible AI outcomes? Will AI specialization vanish beneath a few, massive, vertically integrated platforms?
AI is growing up and learning accountability, aka Responsible AI	With AI having gone mainstream, its dark side is increasingly clear and worrisome: from bias and discrimination to deep fakes and nudging. Business leaders and governments have all recognized that the only way to obtain sustainable and equitable benefits is by doing AI responsibly. Globally, this means regulations, standards, audits and certifications. And within enterprises deploying AI, active governance. Best practices and tooling are emerging to support ethical AI use, explainability, assurance, and proactive disclosure. A whole new ecosystem is quickly growing, and we'll be covering it in depth over the next 12-24 months.

AI Applications: Research Methodology



AI and Intelligent Automation

Advanced Computing

Next-generation AI compute architectures

AI hardware trends for edge, cloud, and data center

Quantum

AI Applications

AI & IA ecosystem, use cases, market dynamics, forecasts, and trends

AI & IA market maturity and technologies adoption

Vendor benchmarks

AI Enterprise Insights

Enterprise-grade blueprints

Best practices for adopting and scaling

Benchmarks and surveys

AI KPIs

Analytics & Data Management

Hardware, software, and services for agile, comprehensive, secure, and scalable data architectures for AI

AI Viewpoints

High-level summaries and cutting-edge trends

Quantum Computing

Deep-dive coverage of the commercialization of QC technology.

Enterprise adopter and Vendor Surveys

AI & IoT Asia Viewpoint

High-level summaries and cutting-edge trends focusing on the APAC region

AI & Intelligent Automation Overview

About Omdia's AI & Intelligent Automation Research

The AI & Intelligent Automation research area provides a full-stack view of AI across applications, software, hardware and services. There is coverage across a wide variety of companies from AI startups, hyperscalers, chipset vendors, cloud providers, OEMs, IT vendors, AI platform vendors, AI and IT services companies, as well as several end user companies deploying AI across different vertical markets.

AI is beginning to move from proof of concept (PoC) into a stage of industrialization, with vendors and end users looking to understanding the business of AI. Omdia's AI Enterprise Insights is aimed at bridging the gap between the technology and the economic value of AI, giving clients a range of tools to benchmark, measure and plan around the commercialization of AI.

To complete the circle, AI & Intelligent Automation also covers the impact of AI and automation from the perspective of AI hardware for cloud and edge, autonomous machines and the next-generation compute stack from quantum computing to HPC that is emerging to support new applications and services.

Our “Ask an Analyst” Service Provides Best in Class Customer Support

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- Sanity-check your own findings
- Get the most out of your subscription
- Understand more about our methodologies

Our Ask an Analyst service gives you direct contact via telephone, email or face-to-face session with our expert analyst team:




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Thank you

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