

Advanced Computing Intelligence Service

Part of the AI & Intelligent Automation Service Area Package

Covers emerging technology and hardware trends surrounding the next generation of computing performance and capabilities. Key areas of focus include AI-optimized compute, networking and storage hardware, high performance computing, quantum computing, next generation microprocessor architectures, and emerging software and systems paradigms. Omdia's market analysis includes an assessment of how these leading-edge technologies will enable new applications and business models, in-depth profiles of key ecosystem participants in each category, and detailed market sizing and forecasts.

“ Unlike the 1970s when the PC compute stack was emerging, we are now entering a multimodal future where multiple compute techniques will emerge simultaneously. ”

Aditya Kaul

Research Director

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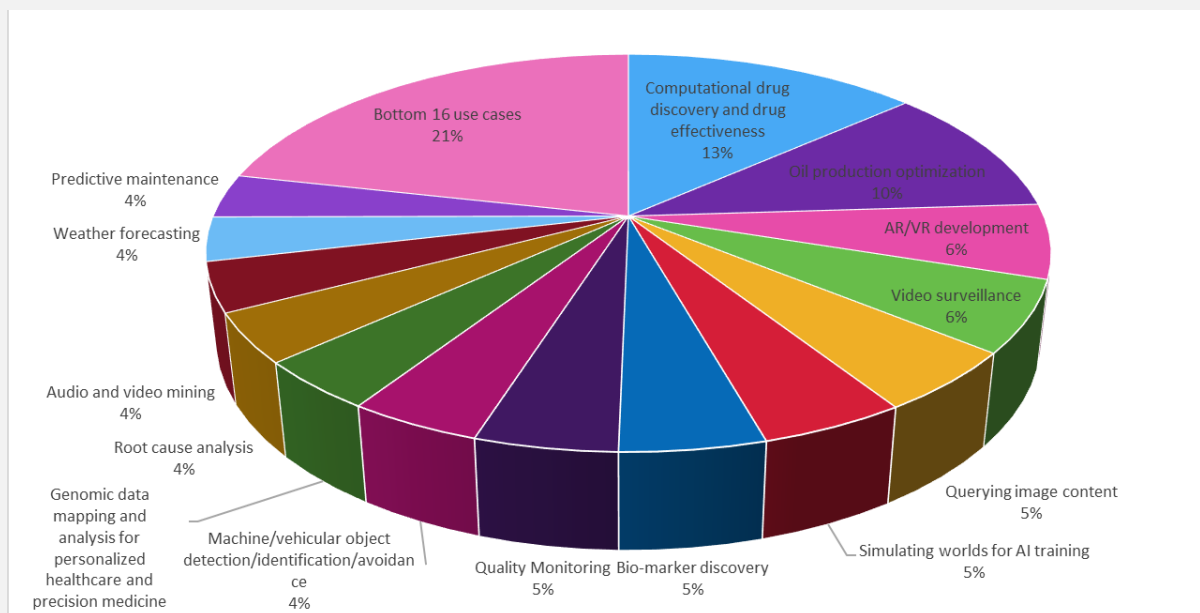
HOW OMDIA HELPS YOU

- Understand the underlying technologies that are driving the future of computing.
- Build strategies that align with the upcoming shift in compute architectures.
- Identify partners and innovators.
- Deliver on a roadmap of products and solutions that take advantage of new compute paradigms.

KEY QUESTIONS ADDRESSED

- How will leading-edge compute technologies enable new applications and business models?
- Who are the key ecosystem participants driving new compute paradigms?
- What applications?
- Coverage of AI Hardware in the context of quantum, neuromorphic, blockchain and other compute fabrics

AI-focused HPC Software Use Cases, World Markets, as Percentage of 2025 Revenue



Advanced Computing: Meet the Analysts



Aditya Kaul
Research Director,
AI & Intelligent
Automation



Alexander Harowell
Senior Analyst,
Enterprise AI

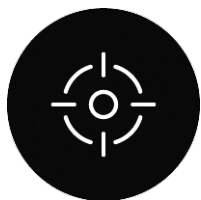


Keith Kirkpatrick
Principal Analyst,
Quantum Computing, HPC



Anand Joshi
Principal Analyst,
AI Hardware

Advanced Computing: Deliverables



FORECASTS

—Annual—

- AI Hardware Forecast (2021)



VENDOR BENCHMARKS

—Annual—

- Quantum Computing (2021)
- AI Chipsets (2021)



REPORTS

—Annual—

- Deep Learning Chipsets, AI Edge Devices, Quantum Computing, HPC



ANALYST INSIGHTS

—Ongoing—

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



PRESENTATIONS

—Quarterly—

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



ANALYST ACCESS

—Ongoing—

For prompt responses to urgent and unique questions.

Advanced Computing: Market Data

Quantum Computing Vendor Benchmarking (Coming 2021)

The Quantum Computing Vendor Benchmarking details and compares the initiatives of and track the revenue and performance of the key quantum computing vendors.

Frequency: Annual

This report includes information on market leaders, vendor positioning, market outlook, key deals, acquisitions, alliances, new services and solutions, and personnel developments.

AI Chipsets Vendor Benchmarking (Coming 2021)

The AI chipset vendor benchmark will compare the key AI chipset vendors across data center and edge markets covering GPU, CPU, FPGA, ASIC silicon architectures.

Frequency: Annual

This report will include information on products, market activity, go to market, acquisitions, partnerships, software toolkit, and future outlook.

AI Hardware Forecast (Coming 2021)

Provides shipments and revenue for AI hardware across chipsets, IP, cards, workstations, servers, networking and storage.

Frequency: Annual

Regions

- North America
- Europe
- Asia Pacific
- RoW

Coverage

- AI Chipsets
- AI Servers
- Workstations
- PC Cards
- AI-Optimized Networking
- Storage Hardware

Advanced Computing: Market Reports

Deep Learning Chipsets, AI Edge Devices, Quantum Computing, HPC

Frequency: Annual

A Series of 8 or more Advanced Computing Research Reports

- Back catalogue of all published Advanced Computing research reports
- Key topics covered including:
 - AI Chipsets
 - AI Silicon IP
 - AI Servers, Workstations, Cards
 - AI-Optimized Networking and Storage Hardware
 - Quantum Computing
 - High Performance Computing
 - Next Generation Microprocessors
 - Bio-inspired computing

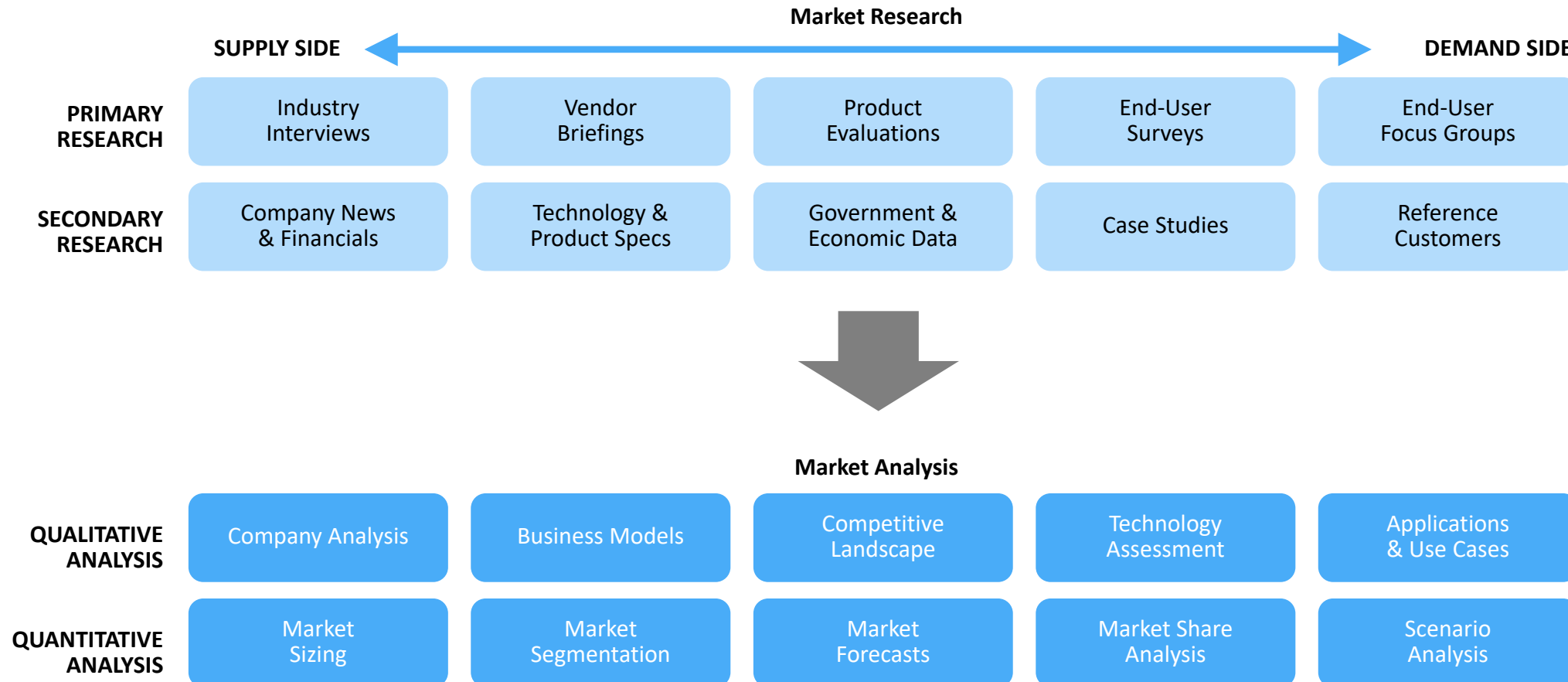
Regions

- North America
- Latin America
- Europe
- Middle East and Africa
- Asia Pacific

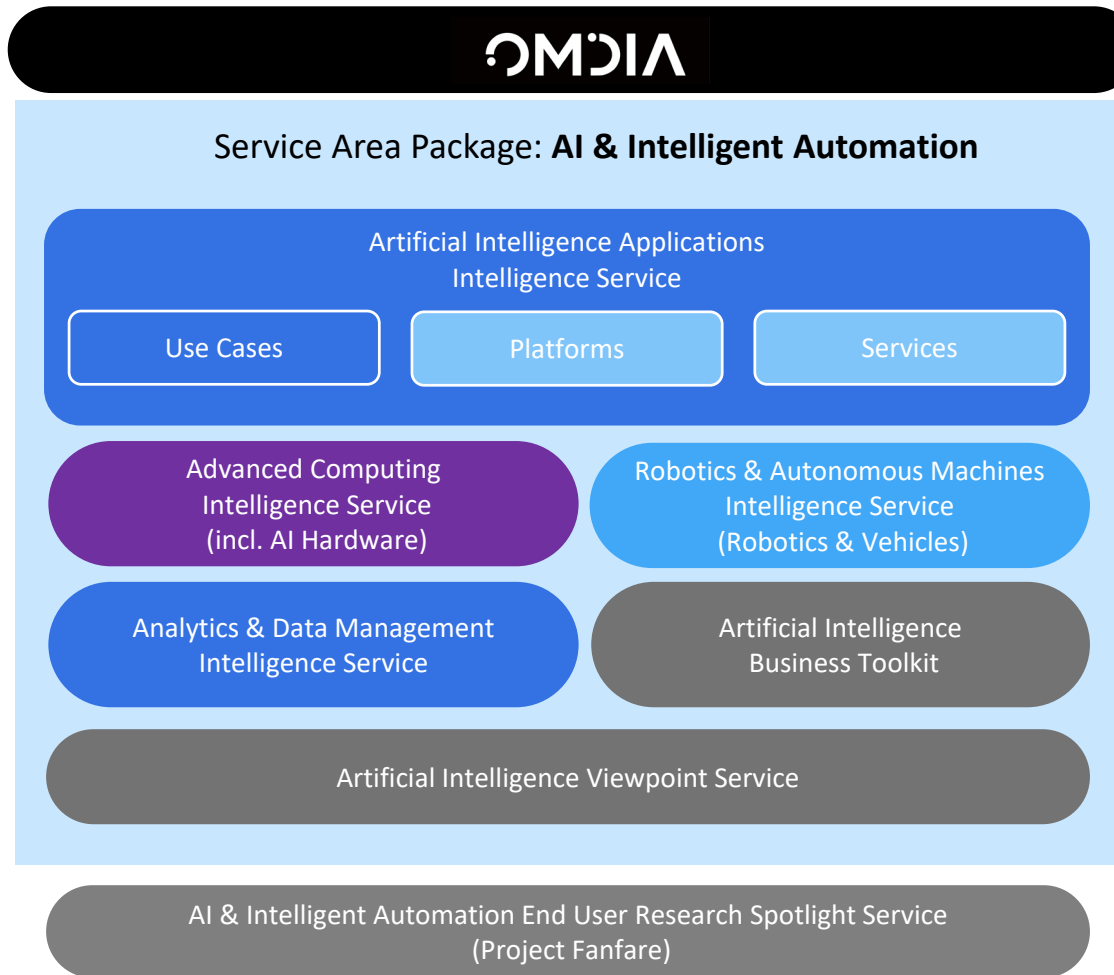
Report Titles

- AI Edge Devices
- Deep Learning Chipsets
- Quantum Computing
- AI & HPC
- RISC-V
- AI & 5G Edge Datacenters
- Neuromorphic Computing
- Decentralized AI

Advanced Computing: Research Methodology



Related Content: AI & Intelligent Automation Service Area Coverage



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 business toolkit 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, robots, 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

Whether you need guidance to navigate the service, information regarding our methodologies or you want to better understand a data trend, Omdia’s support team is here to help.

Draw on our expertise

- Make the right decisions
- 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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ABOUT OMDIA

Omdia is a global technology research powerhouse, established following the merger of the research division of Informa Tech (Ovum, Heavy Reading, and Tractica) and the acquired Omdia technology research portfolio*. We combine the expertise of more than 400 analysts across the entire technology spectrum, covering 150 markets. We publish over 3,000 research reports annually, reaching more than 14,000 subscribers, and cover thousands of technology, media, and telecommunications companies.

Our exhaustive intelligence and deep technology expertise enable us to uncover actionable insights that help our customers connect the dots in today's constantly evolving technology environment and empower them to improve their businesses—today and tomorrow.

* The majority of Omdia technology research products and solutions were acquired by Informa in August 2019 and are now part of Omdia.