

# Advanced Computing Intelligence Service

## Part of the AI & Intelligent Automation Service Area Package

Tracks and forecasts hardware and related developments in the market for AI-related computing both at the edge and in the data center. Key areas of coverage include AI processor semiconductors, with a focus on AI-enabled graphics processing units (GPUs), application specific integrated circuits (ASICs), application specific standard products (ASSPs), field programmable gate arrays (FPGAs), digital signal processors (DSPs) and central processing units (CPUs). The service also examines markets for hardware products ranging from edge devices to high-performance computing.

“ With AI accelerator becoming a standard feature in virtually all types of electronic systems, system designers soon will no longer have a choice of deciding whether to include dedicated hardware AI acceleration in their hardware. Rather, they will have to decide what level of AI acceleration they need. ”

**Jonathan Cassell**  
Principal Analyst

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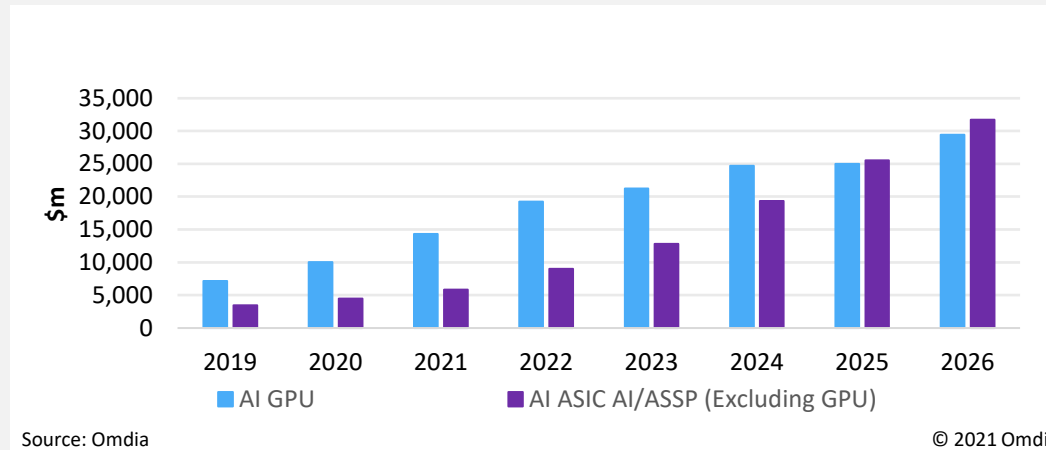
## HOW OMDIA HELPS YOU

- 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?
- How will the unprecedented demand for compute created by very large AI models be met?
- What impact will these changes have on the semiconductor industry?
- Who are the key ecosystem participants driving new compute paradigms?
- Coverage of AI Hardware in the context of quantum, neuromorphic, blockchain and other emerging technologies.

AI processor market revenue forecast, GPU vs. ASIC/ASSP (\$m)



# Advanced Computing Research Team



**Josh Builta**  
*Research Director*  
**IoT & AI**



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*Research Director*  
**AI & Intelligent  
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**Jonathan Cassell**  
*Principal Analyst*  
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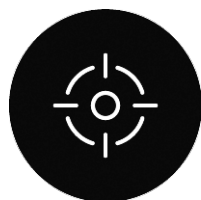


**Alexander Harrowell**  
*Senior Analyst*  
**Advanced Computing**



**Sam Lucero**  
*Chief Analyst*  
**Quantum Computing**

# Advanced Computing: Deliverables



## Market Analysis

—Annual—

- AI Chipsets for Edge Forecast Report (Q3 2022)
- AI Processors for Cloud and Data Center Forecast Report (Q3 2022)
- AI Processor Sustainability



## VENDOR BENCHMARKS

—Annual—

- AI Chipsets for Edge Market Radar (Q4 2022)
- AI Processors for Cloud and Datacenter Market Radar (Q3 2022)
- Quantum Computing Market Radar (1Q 2022)



## REPORTS

—Annual—

- AI Edge Servers and Appliances, AI Processors for Cloud and Enterprise Data Center , AI Chip IP Cores and more



## ANALYST INSIGHTS

—Ongoing—

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



## PRESENTATIONS

—Quarterly—

Quarterly 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

## AI Processors for Cloud and Datacenter Forecast (Q3 2022)

This report focuses on AI processors, including CPUs, GPUs, ASICs, ASSPs and FPGAs. Revenue and shipment data is included for these chips. Data is further broken down by workloads, training vs inference, market segment and industry vertical.

**Frequency:** Annual

## AI Chipsets for Edge Forecast (Q1 2022)

This report focuses on AI CPU, GPU, ASIC, ASSP, DSP and FPGA revenue and shipment data for AI hardware at the edge covering 10 device categories – PC/tablets, mobile, drones, HMDs, smart speakers, automotive, security cameras, edge servers, machine vision and robots.

**Frequency:** Annual

## AI Servers, Workstations, Cards, Storage and Networking Report (Q1 2022)

Provides shipments and revenue for AI hardware largely in the datacenter across cards, workstations, servers and storage.

**Frequency:** Annual

### Regions

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

### Coverage

- AI Processors
- AI Servers
- Workstations
- Storage Hardware

# Advanced Computing: Market Reports

## AI Processors for Cloud, Data Center and AI Edge Devices

### Frequency: Annual

### A Series of eight or more Advanced Computing Research Reports

- Back catalogue of all published Advanced Computing research reports
- Key topics covered including:
  - AI Processors
  - AI Servers, Workstations and Storage
  - AI Edge Servers and Appliances
  - AI Cloud and Data Center
  - AI Edge
  - AI Hardware Development Platforms
  - AI SoC IP Cores
  - AI Workloads

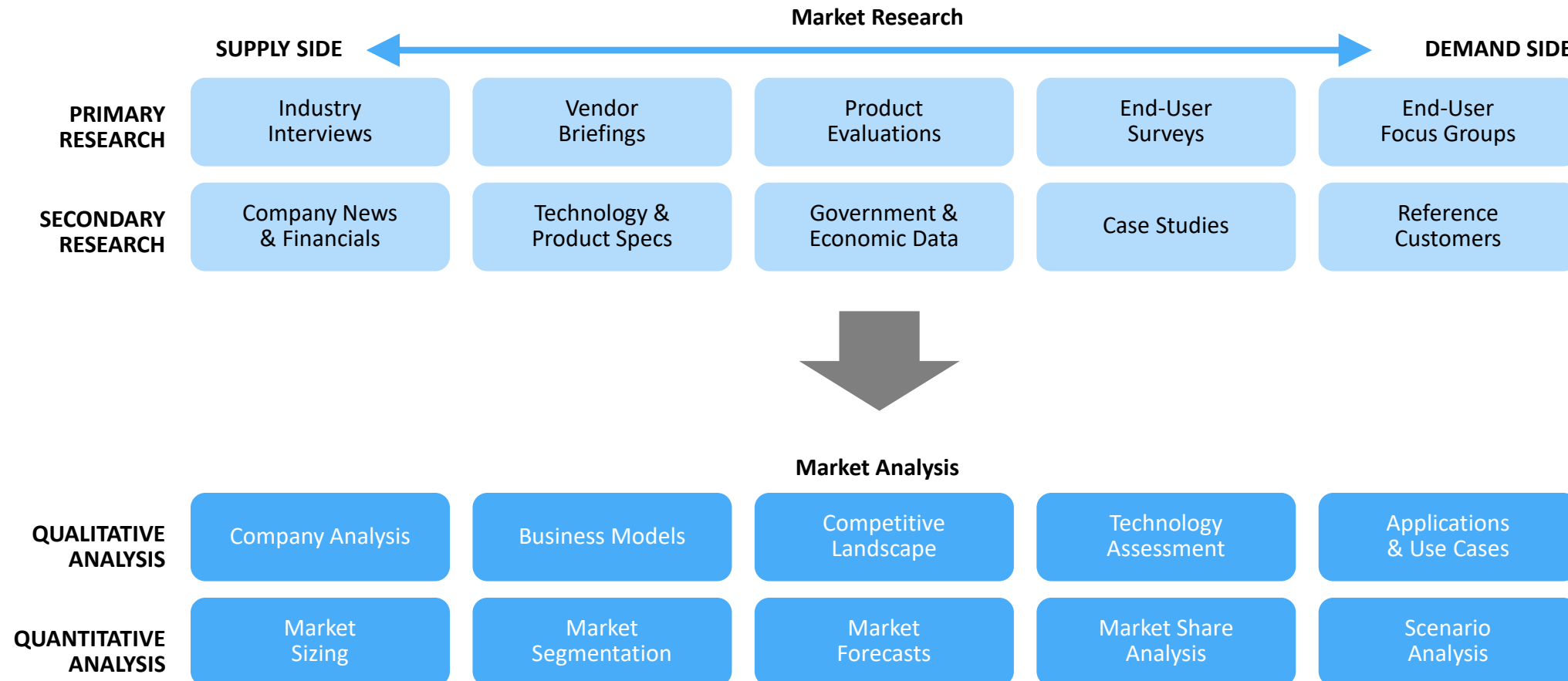
### Regions

- North America
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- Africa

### Report Titles

- AI for Anomaly Detection Report
- AI Chip IP Cores
- AI Edge Servers and Appliances Report
- AI Software Forecast Update
- AI Servers, Workstations and Storage Report
- AI Workload Analysis for Hardware Infrastructure
- AI Processor Sustainability
- AI Processor Strategic Advisory
- AI Processor Vertical Market Survey

# Advanced Computing: Research Methodology



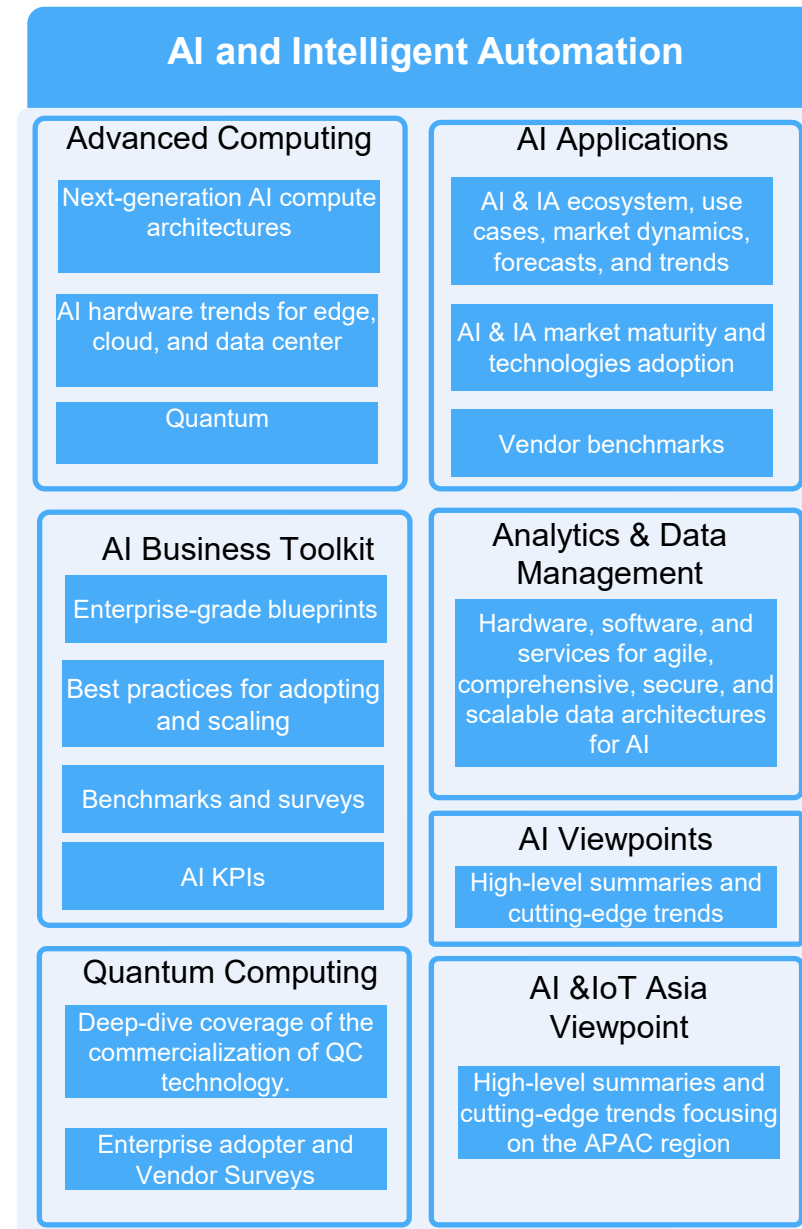
# Service Area Overview

## 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 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, 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

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- Understand more about our methodologies

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**Tom Coate**  
Customer Success  
Manager



**Kâren Dyer**  
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Manager



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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.