Quantum Computing Intelligence Service

Part of the AI & Intelligent Automation Service Area Package

Consolidating and extending Omdia’s research program covering the global quantum computing market.
Forward-thinking companies are experimenting today with current NISQ-era quantum computers to prepare themselves to compete effectively when fully fault-tolerant quantum computers offer a robust advantage over today’s classical computers, which is expected by the end of this decade.

Sam Lucero
Chief Analyst, Quantum Computing
Quantum Computing Intelligence Service

Analyzing the commercialization of quantum computing technology

HOW OMDIA HELPS YOU

• **Inform**: Analyze technology and market trends in the quantum computing (QC) industry.
• **Advise**: Recommend strategic actions to optimize clients’ commercial opportunity.
• **Amplify**: Enhance clients’ marketing and business development efforts by leveraging Informa Tech’s global media and events platform.

KEY QUESTIONS ADDRESSED

• What is the estimated current size and future market opportunity for QC industry revenue?
• How is QC technology developing now and likely to evolve in the future?
• What are the needs, preferences, and current activities of QC adopters in this market?
• How is QC technology being used to address specific verticals, applications, and use cases?
• What is the current landscape of QC technology providers and how is this landscape evolving?
• Who are the key providers of QC technology and how do they differentiate themselves in the market?
• How is investment and funding of QC research and commercialization activities developing?
• How are governments and regulatory bodies engaging with the QC industry?
• What is the individual impact of key announcements in the industry, assessed as they occur?

Total enterprise quantum computing revenue by region, world market: 2019–30

Revenue ($m)

Source: Omdia

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Quantum Computing: Our Expert Analysts

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Research Director
IoT & AI

Sam Lucero
Chief Analyst
Quantum Computing

Alexander Harrowell
Principal Analyst,
Advanced Computing

Roy Illsley
Chief Analyst
Enterprise IT

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Quantum Computing: Deliverables

**MARKET FORECAST**
A ten-year view on revenue growth in the global quantum computing market, segmented by region, product type, and industry.

**MARKET TRACKER**
Quarterly update of vendor database, adopter database, investments, and significant technology developments.

**VENDOR BENCHMARKING**
Detailed benchmarking analysis of key vendors in the quantum computing value chain, based on both qualitative and quantitative assessments.

**REPORTS**
In-depth studies focused on specific technology and market issues and segments, providing both qualitative and quantitative analysis.

**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.
Quantum Computing: Market Data

Market Forecast

Ten-year forecast of global quantum computing vendor revenue segmented by region, product type, and industry. Published with an accompanying qualitative market landscape report providing detailed explanation and analysis of the forecast results.

Frequency: Updated annually

Market Tracker


Frequency: Updated quarterly

Adopter and Vendor Surveys

- Quantitative survey (with associated qualitative analysis) of adopters of quantum computing technology in China, Germany, and the US.
- Quantitative survey (with associated qualitative analysis) of a select set of quantum computing vendors.

Frequency: Updated annually

Vendor Benchmark Reports

Quantitative and qualitative benchmarking studies of vendors at multiple levels of the value stack, based on one-on-one depth interviews with the vendors and extensive secondary research.

Frequency: Updated annually
# Quantum Computing: Topical Reports

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<th><strong>Technology Analysis Reports</strong></th>
<th><strong>Market Landscape Report</strong></th>
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<tr>
<td>Detailed qualitative studies of key segments of the quantum computing technology stack, such as Quantum Processing Units (QPUs), control systems, and Quantum Computing-as-a-Service (QCaaS) offerings.</td>
<td>Detailed qualitative analysis of all facets of the quantum computing market, including market structure and key trends. Accompanies and supports the Market Forecast database.</td>
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<td><strong>Frequency:</strong> Updated annually</td>
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<th><strong>Regulatory Analysis Report</strong></th>
<th><strong>Analyst Opinion and News Analysis Reports</strong></th>
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<td>Detailed qualitative analysis of how governments are engaging with the quantum computing industry globally. Includes assessments of national technology development programs, ecosystem development efforts, and important regulatory initiatives.</td>
<td>Short-form qualitative analysis of key events occurring in the industry.</td>
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<td><strong>Frequency:</strong> Updated annually</td>
<td><strong>Frequency:</strong> On-going publication</td>
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# Quantum Computing – 2023 Schedule

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<td>• Quantum Computing Market Tracker – 1Q23 Analysis</td>
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<td>• Quantum Computing End User Survey – Analysis</td>
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<td>• Quantum Computing Software - 2023</td>
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<td>• Quantum Computing Vendor Survey – Analysis</td>
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<td>• Quantum Computing Hardware – 2023</td>
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<td>• Q2B 2023 Show Report</td>
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<td>• Quantum Trends to Watch</td>
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## AI and Intelligent Automation – 2023 Research Themes

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<tr>
<th>Theme</th>
<th>Description</th>
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<td><strong>AI vs. the World, aka AI in the age of resilience</strong></td>
<td>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?</td>
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<td><strong>AI processor Cambrian explosion</strong></td>
<td>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.</td>
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<td><strong>Data Taking Center Stage</strong></td>
<td>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.</td>
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<td><strong>AI rubber hits the road, aka Operationalizing AI</strong></td>
<td>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.</td>
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<td><strong>Democratization foreshadows oncoming AI ubiquity</strong></td>
<td>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?</td>
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<td><strong>AI is growing up and learning accountability, aka Responsible AI</strong></td>
<td>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.</td>
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Quantum Computing: Research Methodology

**Primary Research**
- Industry Interviews
- Vendor Briefings
- Product Evaluations
- End-User Surveys
- End-User Focus Groups

**Secondary Research**
- Company News & Financials
- Technology & Product Specs
- Government & Economic Data
- Case Studies
- Reference Customers

**Qualitative Analysis**
- Company Analysis
- Business Models
- Competitive Landscape
- Technology Assessment
- Applications & Use Cases

**Quantitative Analysis**
- Market Sizing
- Market Segmentation
- Market Forecasts
- Market Share Analysis
- Scenario Analysis

**Market Research**

**Supply Side**

**Demand Side**

**Market Analysis**
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.
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• Sanity-check your own findings
• Get the most out of your subscription
• Understand more about our methodologies

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Customer Success Manager

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