Analytics & Data Management Intelligence Service

Part of the AI & Intelligent Automation Service Area Package

Ongoing coverage of information, data, and analytics technologies enabling the creation of comprehensive, agile, secure, and scalable data architectures capable of breaking down corporate and technological silos in support of advanced analytics and AI workloads.
Data unification and federation will be the key building block in connecting operational technology to informational technology (OT-IT) in industrials markets; enabling data driven solutions. Where the rubber hits the road for AI in manufacturing and energy will be advanced process control where process will be optimised to reduce both waste and rework. This will be critical in an era of integrating more renewables into global electricity grids.

Alexander Bourgeois
Senior Analyst
Analytics & Data Management Intelligence Service

Part of the AI & Intelligent Automation Service Area Package

HOW OMDIA HELPS YOU

• Understand the role of digital transformation, data science, information management, big data, and hybrid/multi-cloud practices.
• Evaluate products by category to assess their applicability and advantages.
• Discover the challenges and opportunities for specific roles such as data scientist, data engineer, DataOps practitioners, and business users.

Identify and investigate key industry trends such as evolution of content management systems, data warehouses, data lakes, and databases in support of advanced analytics and AI workloads.

Find out more about the market for data and information processing, management, governance, privacy, and more.

KEY QUESTIONS ADDRESSED

• How will leading-edge data and analytics technologies enable new applications and business models?
• Who are the key ecosystem participants driving new data, analytics, and AI paradigms?
• Coverage of evolving information management, data storage and processing platforms, analytics tools, and data management solutions.
• How are business applications evolving to incorporate AI and analytics insights?

Investment plans over the next 18 months

- Strategic or minor investment planned: 62% 62%
- Maintain existing investment: 23% 23%
- No investment plans: 8% 15%
- Do not have: 7% 7%

Database, data lake, and data warehouse platforms vs. Data science platforms, tools, and services

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Notes: N=4,757
Analytics & Data Management: Our Expert Analysts

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Research Director,  
AI & Intelligent Automation

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Chief Analyst,  
AI Platforms, Data & Analytics

Alexander Bourgeois  
Senior Analyst  
AI & Analytics

Neil Dunay  
Principal Forecaster  
AI Data Tools
Analytics & Data Management: Deliverables

**MARKET FORECASTS**
A five-year view on growth in information and data management software markets, segmented by vertical, region, country, and function -- updated annually.

**MARKET LANDSCAPES**
Assessing emerging markets for data analytics and information management.

**REPORTS**
Reviewing modern data warehouses in support of both structured and semi-structured information.

**CASE STUDIES**
Recommendations, best practice, and advice from real-world product and service deployments.

**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.
Market Landscapes

Assessing the evolving market for modern data warehouse platforms, which are evolving rapidly to tackle modern, cloud-native services, hybrid/multi-cloud deployments, as well as disparate data and analytics workloads.

**Frequency:** Updated annually

Market Forecasts

Omdia’s analytics and data management software market forecast provides revenue estimates for key segments for a five year period, covering four regions, eight subregions, 20 countries, and 16 verticals. Market segments are Data integration, management, and processing; Business intelligence and analytics; Data storage infrastructure; Data science platforms, tools, and services; Data governance, privacy, and security, and Enterprise information and content management.

**Frequency:** Updated annually

Market Maturity Study

Building on primary enterprise practitioner research, Omdia will provide an ongoing, in-depth analysis of current market trends in analytics and data management. Areas of analysis will include the following.

- The evolving role data in supporting digital transformation projects
- Best practices in building a culture of data across the enterprise
- Emerging data and analytics engineering roles
- Comparative data maturity across region, vertical, and use case
- Technical and corporate challenges in building continuous intelligence

**Frequency:** Updated annually
Analytics & Data Management: Reports

**Evaluation Reports**

Reviewing how information management, data storage, and data processing practices will evolve for companies seeking to adopt a data-driven, AI-infused culture of intelligent innovation. Solutions covered will include:

- Modern data warehouses and the myth of the data lakehouse
- Bringing the power of graph databases to bear on AI in the enterprise
- Exploring edge-savvy databases for AI workloads
- Solving the AI observability whodunnit
- Streaming data and the myth of continuous intelligence

**Frequency:** Ongoing

**Trends to Watch Reports**

Annual trends to watch report providing analysis and evaluation of trends in the field, including from Omdia primary research data into enterprise information and data management. Topics covered will include:

- Prioritizing data across the business
- Building transparent data architectures
- Democratizing analytical insights
- Open-source plus cloud-native tooling
- Pandemic-fueled digital transformation priorities

**Frequency:** Annual
AI Applications: Research Methodology

Supply Side

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

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

Demand Side
- End-User Focus Groups
- Reference Customers

Market Research

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 Analysis
# Analytics & Data Management – 2023 Schedule

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<th>Q1</th>
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<tr>
<td>• Market Radar: Data Fabric</td>
<td>• Analytics &amp; Data Management: Quarterly Briefing – 1Q23</td>
<td>• Analyst Commentary Placeholder</td>
<td>• Analytics &amp; Data Management Forecast Report – 2023 Analysis</td>
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<td>• New approaches to data and insight democratization</td>
<td>• Analytics &amp; Data Management: Quarterly Briefing – 2Q23</td>
<td>• Omdia Universe: Selecting an Intelligent Automation</td>
<td>• Analytics &amp; Data Management Forecast Report – 2023 Database</td>
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<td>• Data and Analytics Market Maturity Study</td>
<td>• Fundamentals: Data Privacy in the realm of AI</td>
<td>• Market Landscape: Responsible AI Tools and Techniques</td>
<td>• Analytics &amp; Data Management Quarterly Briefing – 3Q23</td>
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<td>• Market Landscape: Responsible AI Tools and Techniques</td>
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<td>• Analytics &amp; Data Management Quarterly Briefing – 4Q23</td>
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<td>• 2024 Trends to Watch: Analytics and Data Management</td>
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<td>• Annual Analytics and Data Management Survey Data</td>
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### AI and Intelligent Automation – 2023 Research Themes

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