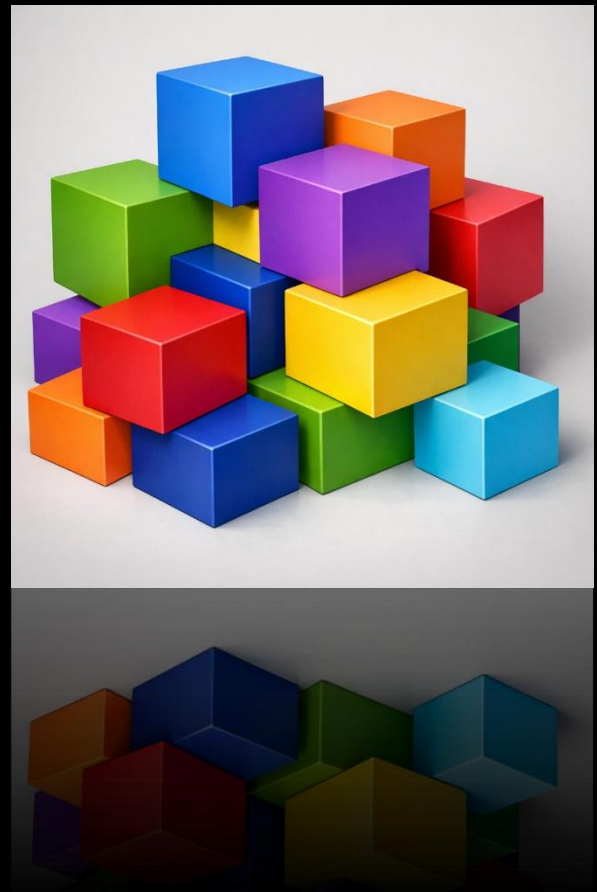


Data and AI Acceleration: **Unlocking  
Transformative Growth for Your  
Organization**

# Empowering Your Business with Speed, Intelligence, and Scalable Innovation





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# Executive Summary

In today's fast-paced digital landscape, Data and AI Acceleration refers to the strategic use of advanced technologies—including specialized hardware like AI accelerators (e.g., GPUs, NPUs), optimized software frameworks, cloud platforms, agentic AI systems, and streamlined data pipelines—to dramatically speed up data processing, model training, inference, and decision-making. This enables organizations to handle massive datasets in real time, automate complex workflows, gain deeper insights, and drive innovation at scale. We help you move beyond traditional computing limitations to achieve exponential efficiency, cost savings, and competitive advantage.

## Data and AI Acceleration: Unlocking Transformative Growth for Your Organization

### Why Accelerate Your Data and AI Capabilities? Key Benefits

Accelerating data and AI delivers tangible, high-impact advantages across industries:

- **Faster Time-to-Insights and Decisions** — Process vast amounts of data in minutes instead of days, enabling real-time analytics and rapid responses to market changes.
- **Significant Cost and Energy Efficiency** — Specialized acceleration reduces compute demands, lowering cloud bills and power consumption by orders of magnitude compared to general-purpose processors.
- **Scalable Innovation** — Train and deploy more sophisticated AI models (including generative and agentic AI) without proportional increases in resources.
- **Enhanced Predictive Power** — Unlock accurate forecasting, anomaly detection, personalization, and automation that directly impact revenue, customer satisfaction, and operational resilience.
- **Competitive Edge** — Organizations adopting acceleration see productivity gains projected in the trillions globally, with faster experimentation and reduced risk in AI initiatives.
- **Improved Security and Compliance** — Modern acceleration integrates with zero-trust architectures and secure data handling, critical for government, defense, and enterprise environments.



# Proven Strategies to Successfully Accelerate Data and AI

To maximize value, follow these practical, phased strategies:

- **Assess and Prioritize** — Start with a maturity assessment: Identify high-value use cases (e.g., predictive maintenance, fraud detection, customer intelligence) where acceleration delivers the quickest ROI.
- **Build a Strong Data Foundation** — Integrate silos, ensure data quality, and implement seamless pipelines for real-time ingestion and governance.
- **Select the Right Acceleration Tools** — Leverage cloud-based AI services, on-prem HPC setups, or hybrid models optimized for your workloads.
- **Adopt Agentic and Generative AI** — Move from passive models to autonomous agents that act, orchestrate tasks, and interact securely with your data ecosystem.
- **Scale with Governance and Security** — Embed responsible AI practices, monitoring, and compliance from day one to build trust and avoid pitfalls.
- **Iterate and Measure** — Use agile pilots, track KPIs (e.g., inference speed, cost per query, model accuracy), and continuously optimize.

# How TECBOMO helps in Accelerating Your Data and AI Journey

We are a trusted technology services provider with deep expertise in AI, data analytics, cloud, and digital transformation. TECBOMO serves as your strategic partner to bridge the gap between cutting-edge solutions and your organizational needs. We tailor acceleration to your current maturity level—whether you're just starting or scaling enterprise-wide.

**Expert Consulting and Strategy** — We design customized roadmaps aligned with your business goals, from discovery to full deployment.

- **End-to-End Implementation** — Handle data integration, AI model development, agentic ecosystems, and secure orchestration.
- **Procurement and Partnership Excellence** — With over 100 master partner agreements and access to thousands of providers, we streamline acquisition, ensure compliance (including government vehicles), and deliver cost-effective, rapid deployments.
- **Specialized Solutions** — Focus on agentic AI automation, real-time processing, secure AI agents, and scalable architectures for industries like government, aerospace & defense, and enterprises.
- **Ongoing Support** — Provide managed services, training, and optimization to ensure sustained value and innovation.



# Our Trusted Partner Solutions for Data and AI Acceleration

TECBOMO collaborates with world-class providers to deliver proven, integrated solutions:

- Cloud and AI Platforms — Hyperscale options for elastic compute, managed ML services, and serverless acceleration.
- AI Hardware and HPC — Access to leading accelerators for on-prem or hybrid environments, powering high-performance data centers.
- Data Management and Integration — Tools for seamless connectivity, governance, and real-time pipelines.
- Agentic AI and Automation — Modular platforms enabling intelligent agents to collaborate securely and automate complex workflows.
- Cybersecurity-Integrated AI — Zero-trust aligned solutions protecting your accelerated initiatives.

Organizations that accelerate data and AI adoption **30%–50%**

Automation and AI-driven processes **20%–40%**

Companies leveraging advanced analytics and AI **10%–20%**

Scalable AI solutions can drive revenue growth **5%–15%**

Robust data governance security frameworks **60%**

## Trusted Partner Solutions for Data and AI Acceleration

- Organizations that accelerate data and AI adoption can see up to a 30–50% reduction in time-to-insight, enabling faster and more informed decision-making.
- Automation and AI-driven processes can improve operational efficiency by 20–40%, freeing up resources for innovation and strategic initiatives.
- Companies leveraging advanced analytics and AI often report a 10–20% increase in customer satisfaction through personalized experiences and proactive service.
- Scalable AI solutions can drive revenue growth by 5–15% by enabling new business models, products, and services.
- Robust data governance and security frameworks reduce compliance risks by up to 60%, protecting organizational reputation and customer trust.

## How These Solutions Help:

- Accelerated data pipelines and AI models enable real-time analytics, supporting rapid responses to market changes.
- Automation reduces manual workloads, minimizes errors, and allows staff to focus on higher-value tasks.
- Integrated data and AI platforms break down silos, ensuring consistent, high-quality data across the organization.
- Scalable architectures and cloud solutions allow businesses to expand AI initiatives efficiently as needs grow.
- Strong governance and security practices ensure compliance with regulations and safeguard sensitive information.



# Our Partners in Data Management Solutions

At TECBOMO, we collaborate with a select group of industry-leading partners to deliver robust, scalable, and secure data management solutions. These partnerships enable us to provide end-to-end capabilities—from data ingestion and governance to lakehouse architectures, hybrid cloud management, protection, and analytics-ready platforms. Our ecosystem focuses on empowering organizations with seamless data flow, compliance, AI-readiness, and actionable insights.



Here are some of our key partners specializing in data management:



- **Databricks** — A leading data and AI company offering a unified lakehouse platform that combines data engineering, machine learning, analytics, and AI on one collaborative system. We partner closely with Databricks to accelerate data-driven transformation, hybrid deployments, and governance for modern data workloads.
- **Cloudera** — Provides an open data lakehouse platform designed for data, analytics, and AI, enabling organizations to manage massive datasets with enterprise-grade security and performance across hybrid environments.
- **AvePoint** — Specializes in data management and protection for Microsoft 365 ecosystems (including SharePoint, Teams, and cloud collaboration tools), with strong capabilities in migration, governance, backup, and security to ensure data integrity and compliance.
- **Quest Software** — Focuses on enterprise data management, cybersecurity, and platform modernization, helping build AI foundations through reliable data handling, optimization, and modernization of legacy systems.
- **Rocket Software** — Delivers intelligent data management solutions, particularly for IBM Z and Power systems, enabling mission-critical modernization, data infrastructure, and secure operations for public sector and enterprise clients.

These partners are integral to our Data Solutions [Partner Ecosystem](#), allowing us to tailor solutions that address your specific needs—whether it's cloud data management, master data governance, real-time integration, or preparing data for AI acceleration





# Industries Thriving with AI-Powered Data Solutions: Driving Productivity, Innovation, and Growth

## 1. Healthcare and Life Sciences

AI-powered data platforms revolutionize patient care, diagnostics, and research. Real-time analytics on electronic health records, imaging, and genomics enable predictive diagnostics, personalized medicine, drug discovery acceleration, and operational efficiencies like resource allocation.

Benefits: Reduced diagnostic errors, faster treatment outcomes, improved patient satisfaction, and cost savings through predictive maintenance of equipment—driving innovation in precision healthcare and scalable growth in telehealth and research.

## 2. Finance and Insurance

Financial institutions use unified lakehouses for fraud detection, risk assessment, algorithmic trading, claims processing, and regulatory compliance. Advanced analytics process transaction data in real time, while AI agents automate workflows and enhance portfolio management.

Benefits: Minimized fraud losses, faster decision-making, personalized financial products, and boosted revenue—fueling productivity gains and competitive innovation in digital banking and insurtech.

## 3. Manufacturing and Industrial

Predictive maintenance, supply chain optimization, quality control, and smart factories thrive on AI-driven data insights. Platforms integrate IoT sensor data with production metrics for real-time monitoring and automation.

Benefits: Up to 30-40% efficiency improvements, reduced downtime, minimized waste, and accelerated product development—promoting sustainable growth and Industry 4.0 innovation.

## 4. Retail and E-Commerce

Customer-centric commerce benefits from personalization, demand forecasting, dynamic pricing, inventory optimization, and recommendation engines powered by real-time data lakes.

Benefits: Higher conversion rates, reduced overstock, enhanced customer loyalty, and agile responses to trends—driving revenue growth and operational productivity in omnichannel retail.

## 5. Government and Public Sector

Secure, compliant data management supports mission-critical operations, citizen services, intelligence analysis, and policy decision-making. Solutions ensure data governance across hybrid environments while enabling AI for resource allocation and predictive analytics.

Benefits: Improved public service delivery, enhanced security, cost efficiencies, and data-driven governance—fostering innovation in smart cities and resilient public infrastructure

These industries represent high-impact areas where TECBOMO's data and AI acceleration—through our trusted partners—delivers measurable ROI. Whether modernizing legacy systems (e.g., with Rocket Software for mainframe data), building AI-ready lakehouses (Databricks and Cloudera), ensuring governance and protection (AvePoint and Quest), or integrating secure pipelines, we help you turn data into a strategic asset.

## 6. Aerospace & Defense

- High-stakes environments leverage secure data platforms for simulation, predictive maintenance of assets, supply chain resilience, and threat detection using classified and real-time data.

Benefits: Increased mission readiness, reduced operational risks, faster innovation in design and testing, and optimized resource use—driving strategic growth and technological superiority.

## 7. Utilities and Energy

- Smart grid management, predictive asset maintenance, demand forecasting, and sustainability initiatives rely on integrated data for real-time monitoring and optimization.

Benefits: Enhanced grid reliability, reduced energy losses, support for renewable integration, and cost efficiencies—accelerating the transition to sustainable energy and long-term growth.

## 8. Automotive

- From design and production to connected vehicles and dealership experiences, AI-powered data enables predictive quality control, supply chain visibility, and personalized customer interactions.

Benefits: Streamlined manufacturing, faster time-to-market for innovations like autonomous features, improved after-sales service, and revenue growth through data-driven mobility solutions.

## 9. Education

- Personalized learning platforms, administrative automation, and predictive analytics on student performance drive better outcomes and resource allocation.

Benefits: Increased engagement and retention, efficient operations, and innovative teaching methods—supporting scalable growth in digital and hybrid education models.

## 10. Oil & Gas and Enterprise-Wide Operations

- Exploration optimization, predictive maintenance, safety monitoring, and supply chain resilience benefit from advanced data lakes and AI for handling massive operational datasets.

Benefits: Lower operational costs, improved safety, faster innovation in extraction and distribution, and enhanced decision-making—driving productivity and sustainable growth across complex enterprises.

# Healthcare AI Case Studies: Real-World Success Stories Driving Transformation



## Data and AI Acceleration: Unlocking Transformative Growth for Your Organization

- 1. Kaiser Permanente: Largest Generative AI Rollout for Ambient Documentation**
  - Kaiser Permanente deployed Abridge's ambient AI solution across 40 hospitals and 600+ medical offices—the largest generative AI implementation in healthcare history and their fastest technology rollout in over 20 years. The tool listens to patient-clinician conversations, generates notes automatically, and reduces documentation burden.

Impact: Clinicians regain time for patient care, improving satisfaction and efficiency while minimizing burnout. This demonstrates how unified data platforms support secure, scalable gen AI for clinical workflows.
- 2. Advocate Health: Multi-Use Case AI Deployment for Workflow Automation**
  - Advocate Health evaluated over 225 AI solutions and launched 40 use cases, including the largest deployment of Microsoft Dragon Copilot, imaging tools like Aidoc and Rad AI, plus call center automation.

Impact: Projected >50% reduction in documentation time, automated prior authorizations, referrals, and coding—boosting productivity, reducing errors, and enhancing revenue cycle management through integrated AI on modern data foundations.
- 3. Mayo Clinic: Billion-Dollar AI Investment for Diagnostics and Care**
  - Mayo Clinic is investing over \$1 billion in AI across 200+ projects, extending beyond admin tasks to diagnostics, predictive analytics, and personalized patient care.

Impact: Accelerated research, improved diagnostic accuracy, and better outcomes—leveraging advanced data lakes and AI platforms to handle complex clinical data securely and at scale.
- 4. Accolade (Powered by Databricks Mosaic AI)**
  - Accolade consolidated fragmented data into a unified lakehouse on Databricks, enabling retrieval-augmented generation (RAG) with large language models to answer complex member inquiries quickly.

Impact: Major productivity gains for teams, personalized care navigation, and improved patient outcomes—showcasing how Databricks unifies data for generative AI in member engagement and care coordination.
- 5. Clalit Health Services (with Cloudera)**
  - Clalit plans to leverage AI and machine learning on Cloudera's platform to enhance patient care through predictive insights and population health management.

Impact: Better risk stratification, early interventions, and cost reductions—using Cloudera's secure, hybrid data lakehouse for massive-scale healthcare analytics and AI.
- 6. Discovery Health: Pulse Oximeter Program with AI Insights**
  - Discovery Health used AI-driven analytics to provide pulse oximeters, achieving a 48% reduction in mortality rates for monitored patients.

Impact: Early detection of deteriorations, proactive interventions, and lives saved—enabled by robust data platforms for real-time monitoring and predictive modeling.
- 7. UK Studies: AI for Stroke, Epilepsy, and Fracture Detection**
  - AI software twice as accurate as professionals in analyzing stroke brain scans.
  - Detected 64% of epilepsy lesions missed by radiologists on MRI scans.
  - In Yorkshire, AI predicted hospital transfers in 80% of cases using vital signs—without bias.

Impact: Faster, more accurate diagnostics, reduced unnecessary procedures, and improved triage—highlighting AI's role in imaging and emergency care when built on high-quality, governed data.
- 8. Additional High-Impact Examples**
  - eClinicalWorks: AI fax-triage with Azure AI processes ~2.2M documents, auto-routing 75–85% without review—streamlining admin across 427 practices.
  - Huma Digital Platform: Reduced readmissions by 30% and provider review time by up to 40% through AI triage and monitoring.
  - PathAI: Improved pathology accuracy in cancer detection, outperforming traditional methods in biomarker recognition



## Accelerate Today – Transform Tomorrow

In an era where data volume doubles every few years and AI capabilities advance at an unprecedented pace, organizations that treat data and AI as strategic accelerators – rather than cost centers – are pulling decisively ahead.

The evidence is clear:

- Teams that move from weeks to minutes for model training and inference
- Businesses that turn petabytes of siloed data into real-time, actionable intelligence
- Leaders who deploy agentic AI to automate complex workflows and unlock entirely new revenue streams

...are not just surviving – they are redefining what's possible in their industries.

Data and AI Acceleration is no longer a future ambition. It is the present competitive differentiator.

Yet technology alone does not deliver transformation. Success requires:

- A modern, governed, AI-ready data foundation
- The right blend of cloud, on-prem, and hybrid acceleration technologies
- Strategic alignment between business goals and technical execution
- A trusted partner who can navigate complexity, accelerate time-to-value, and ensure long-term scalability and security

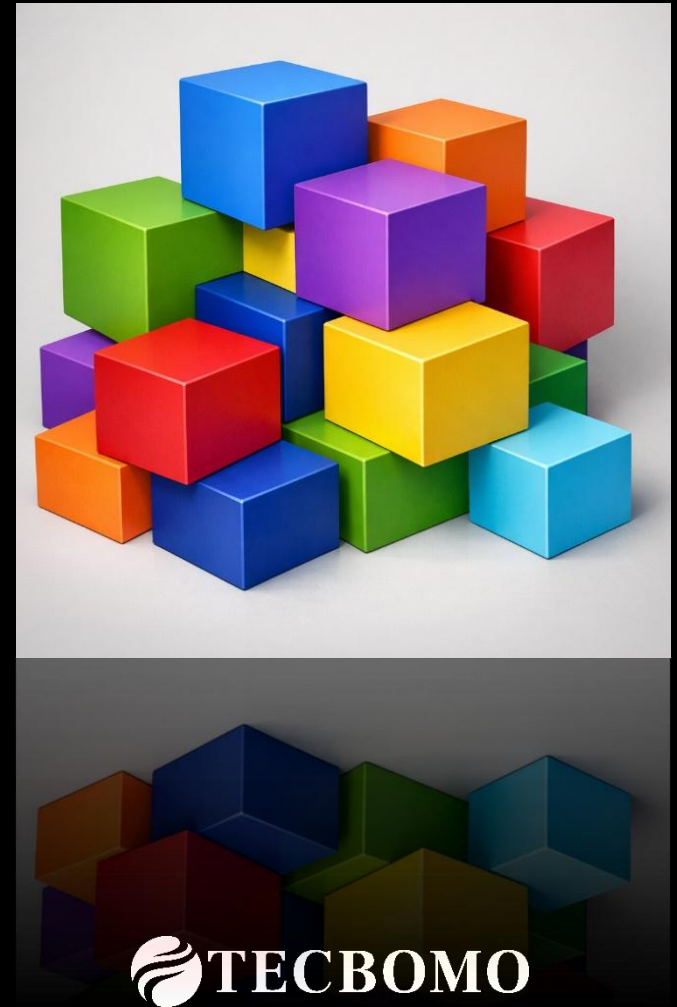
That partner is TECBOMO.

With deep expertise across healthcare, government, aerospace & defense, manufacturing, finance, and beyond — and strategic alliances with the world's leading data and AI innovators (Databricks, Cloudera, AvePoint, Quest Software, Rocket Software, and dozens more) — we don't just supply solutions. We architect and accelerate your entire journey from assessment to enterprise-scale impact.

Whether your priority is:

- Reducing cloud spend while increasing AI performance
- Building secure, compliant agentic AI ecosystems
- Unifying fragmented data for faster insights and better decisions
- Modernizing legacy environments to become AI-native
- Achieving measurable ROI in months, not years

TECBOMO is prepared to move at the speed your business demands.



Contact us —>