

Contents

Executive Summary

Introduction

- 2.1 Middle East's Digital Landscape
- 2.2 From Ambition to Readiness: Common Challenges of AI Adoption
- 2.3 Purpose of the Whitepaper

Research Methodology

- 3.1 Survey Approach & Executive Profiles
- 3.2 Quantitative vs. Qualitative Design
- 3.3 Research Boundaries & Considerations

AI Strategy and Execution in the Middle East

- 4.1 State of AI Adoption in the Middle East
- 4.2 Scaling Beyond Pilots Key Regional Barriers

Data & Infrastructure Readiness

- 5.1 Current Architecture Maturity in the Middle East
- 5.2 AI-Ready Data Availability Across Organizations
- 5.3 Common AI Infrastructure Challenges
- 5.4 Future-Proofing AI Infrastructure: Regional Shifts Toward Scalability and Flexibility

AI Governance & Cross-Functional Alignment

- 6.1 Ownership Models in Enterprise AI Infrastructure
- 6.2 Aligning Strategy, Data Science, and IT

Executive Insights & Case Studies

- 7.1 Aligning Data with Key AI Use Cases
- 7.2 Moving Toward Centralized AI Platforms
- 7.3 Cloud vs On-Premise AI: Security Considerations
- 7.4 Case Study: How Moro Hub Built an AI-Ready Infrastructure

Infrastructure Strategy & Vendor Selection

- 8.1 Key Capabilities Prioritized for AI Infrastructure
- 8.2 Strategic Approaches to Modernization
- 8.3 Shifting Evaluation Criteria for AI Platforms

Unlocking ROI from AI Infrastructure

- 9.1 Linking Infrastructure to Tangible Business Value
- 9.2 Metrics That Reflect Infrastructure Contribution

Strategic Recommendations for Scalable AI

- 10.1 Strategic Steps for Modernizing Storage and Infrastructure
- 10.2 Tailored Sector-Based Strategic Recommendations
- 10.3 Regional Best Practices for Scaling AI

Conclusion

Sponsor's Note

Appendix

Executive Summary

HIS WHITEPAPER, developed by MIT Sloan Management Review Middle East, in collaboration with Pure Storage examines the current state of artificial intelligence (AI) readiness in the region, with a particular emphasis on the foundational role of modern data infrastructure in enabling scalable, efficient, and enterprise-wide AI adoption. Drawing on proprietary survey findings and regional developments, it offers insights into how organizations can align AI goals with technical capacity and bridge infrastructure gaps to fully realize the benefits of AI.

Across the Middle East, governments and enterprises are accelerating AI adoption as a strategic enabler for economic growth, digital transformation, and public sector modernization. Countries such as the United Arab Emirates (UAE), Saudi Arabia, and Qatar are leading national efforts to create AI-ready economies—driven by state-led initiatives, private sector innovation, and long-term investments in digital infrastructure.

The region has also taken early and decisive steps to institutionalize AI leadership. The UAE created the world's first Ministry of AI, while Saudi Arabia established the Saudi Data and AI Authority (SDAIA) to centralize governance and strategy. Between 2019 and 2023, the number of AI-focused companies in Saudi Arabia increased from 250 to 317, securing over USD 3.9 billion in funding in 2023 alone, underscoring domestic commitment and investor confidence.

Current AI Readiness Developments in the Middle East, 2024-2025

- Abu Dhabi invested \$3.5 billion in its 2025–2027 Digital Strategy to create the world's first fully AI-integrated government by 2027. The plan includes cloud deployment, public service automation, 200-plus AI solutions, and citizen training, which is projected to add \$6.5 billion to GDP and create 5,000 jobs.
- Saudi Arabia's "Project Transcendence" plans to invest up to \$100 billion to improve AI readiness through infrastructure development and startup support, aiming to attract global talent and close the skills gap with the US and China.
- Saudi Arabia launched Humain, a company backed by the Public Investment Fund, to deliver AI services, including Arabic language models and cloud capabilities as part of its Vision 2030 plan.
- The US and UAE have recently strengthened their AI partnership by launching the new 5GW AI campus in Abu Dhabi, set to become the region's central hub for supporting AI training and inference demands. This partnership strengthens the UAE's role as a leader in research and sustainable development, promoting global cooperation and shaping AI's future in the Middle
- Stargate UAE, a 1-gigawatt AI compute cluster announced by G42, OpenAI, Oracle, NVIDIA, Cisco, and SoftBank, will anchor the new UAE-U.S. AI Campus in Abu Dhabi. Designed to deliver nation-scale compute and low-latency inferencing, the cluster will support trusted, scalable AI across sectors.

These initiatives reflect growing public-private collaboration and cross-sector AI adoption. Organizations such as Emirates Airline, Mashreq Bank, DEWA, Abu Dhabi Investment Authority, G42 Healthcare, and Pure Health are deploying AI models to enhance operational efficiency, decision-making, and

While foundational efforts are underway and momentum is growing, AI maturity across the region remains uneven. Gaps in infrastructure, data readiness, and workforce capability persist—highlighting the need for continued investment, coordination, and strategic execution to ensure long-term success.

Key Survey Findings and Regional Trends: Unlocking AI Readiness in the Middle East

According to the MIT Sloan Management Review Middle East survey,

- **33%** of organizations remain in the **exploratory phase** of AI deployment
- Only 24% have achieved enterprise-wide adoption
- 44% report that their AI related data strategies are still developing, reflecting the absence of unified, organization-wide data frameworks

The survey highlights that Generative AI/Large Language Models (LLMs) and Predictive Analytics are the most widely adopted AI technologies, with adoption rates of 94% and 89%, respectively. Organizations cite use cases such as task automation, enhanced decision-making, and improved service delivery as core benefits of adoption.

At the same time, several constraints persist:

- Limited in-house AI expertise
- Dependence on external vendors
- Concerns around security and regulatory compliance.

This shows that uncertainty about optimal AI deployment—centralized or decentralized—is hindering broader adoption.

Only 28% of organizations report having implemented centralized AI platforms, despite growing awareness of the operational benefits such platforms provide—such as reduced complexity, improved governance, and accelerated innovation. Additionally, 39% of respondents indicate that data governance decisions are contingent on the classification and intended use of data, revealing fragmented approaches to risk management and compliance.

Why Modern Data Infrastructure Is Essential

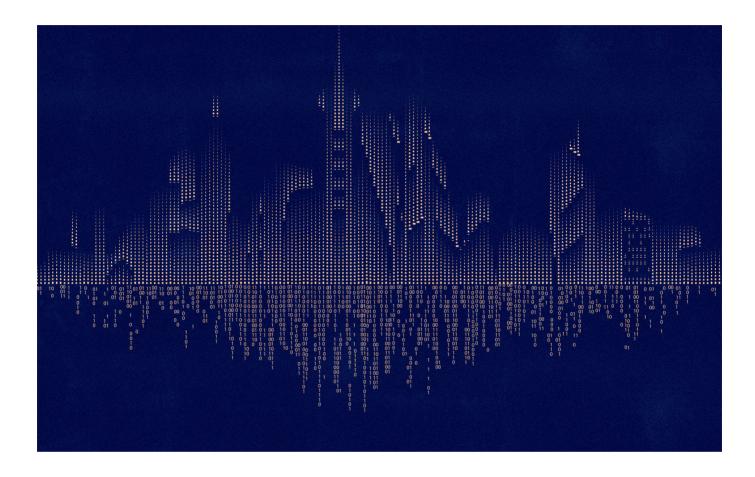
The survey shows that AI deployment cannot be scaled effectively without resolving core infrastructure challenges. As AI models grow in complexity and data volumes increase, legacy systems are proving inadequate. Recognizing this, 44% of organizations are investing in hybrid or cloud-native platforms optimized for AI workloads. These systems enable real-time access, support high-performance computing, and facilitate integration across business functions.

Industries such as customer service, financial risk assessment, and healthcare require infrastructure that supports seamless deployment and iteration of AI models. Cloud-based environments—offering flexibility, interoperability, and faster time-to-market—are enabling organizations to respond with agility and precision.

This whitepaper offers strategic recommendations for how enterprises can overcome organizational, technical, and operational barriers to scale. The central insight is clear: without investing in modern, scalable, and secure data infrastructure, AI will remain a siloed initiative rather than a transformative enterprise capability.

As the Middle East enters a new phase of AI-driven growth, closing this infrastructure gap will determine which organizations lead in the next wave of global innovation.

Introduction



Middle East's Digital Landscape

The Middle East is experiencing a shift toward digital transformation, with the UAE and Saudi Arabia leading by integrating AI into their national plans. These countries recognize AI's potential to diversify economies, improve government services, and enhance citizens' lives.

The UAE's AI Strategy 2031 aims to make the country the world leader in AI by 2031, aligning with its broader UAE Centennial 2071 vision. Key sectors for AI development include energy, tourism, health-care, and education. The UAE is also incorporating AI into government services to improve efficiency and quality of life. Creating an ecosystem supporting AI growth—from attracting global talent to building robust data systems—is central to this transformation. The UAE has launched public AI training programs, including the Artificial Intelligence Program. The country is also establishing itself as a destination for AI investments and projects.

Saudi Arabia's Vision 2030 similarly embraces AI as a transformative force to diversify the economy, reduce oil dependence, and create a more innovative society. AI features prominently in ambitious projects like NEOM, a planned city that will use AI for urban planning and energy management.

NEOM and DataVolt recently signed a \$5 billion agreement to develop a sustainable, 1.5-gigawatt data center by 2028, advancing Saudi Arabia's goals for a green, data-driven economy through Oxagon's renewable energy ecosystem.

AI is also being integrated into healthcare, education, and energy sectors to drive innovation and

economic growth. The Saudi government is investing in necessary infrastructure like advanced data centers and regulations ensuring ethical AI use.

Together, these nations are building the foundation for a digital future through infrastructure investments, talent development, and international partnerships. By using AI technologies in both government and private sectors, these countries are enhancing their competitiveness and positioning as leaders in global AI.

From Ambition to Readiness: Common Challenges of Al Adoption

As Middle Eastern AI strategy develops, many organizations now face a critical shift: moving from ambitious plans to real-world implementation. While national visions have created momentum, the transition to operational readiness often slows due to internal and infrastructure challenges:

- Data Silos: In many organizations, information remains fragmented across departments or trapped in outdated systems, making it difficult to unify for AI models. This limits data quality and hinders model training and deployment. Legacy systems compound this problem as many companies rely on outdated technology that is not designed to support AI workloads.
- Skill and talent shortages: According to the UAE National Strategy for Artificial Intelligence 2031, only about 22% of national graduates have AI relevant specialization. While demand for AI engineers, data scientists, and machine learning specialists grows, the regional talent pool struggles to keep pace. Without proper expertise, expanding AI beyond pilot projects becomes increasingly challenging. .
- Scalability & Performance Limitations: On the infrastructure side, limited scalability and performance are common constraints. Many AI workloads require significant computing power, especially for training large language models or real-time processing.
- Security and Compliance Issues: As organizations handle more sensitive and regulated data, security and compliance requirements limit adoption. Meeting these requirements while maintaining system performance requires a careful balance.
- Executive Alignment: Without shared vision between technical teams and leadership, AI projects risk underfunding or misalignment with business goals. Organizations need crossfunctional governance frameworks, where leadership support includes clear performance metrics for AI initiatives.

Moving from AI ambition to readiness requires more than technology—it demands comprehensive transformation. This includes modernizing infrastructure, building talent pipelines, unifying data strategy, and aligning leadership around measurable AI outcomes.

Purpose of the Whitepaper

This whitepaper aims to educate IT, AI, and data science leaders across the Middle East on how modern data infrastructure enables scalable, efficient, and sustainable AI adoption. As AI moves from concept to enterprise-wide deployment, the ability to manage and use large volumes of data, particularly unstructured data, has become critical to success.

Presented by MIT Sloan Management Review Middle East, this paper addresses how organizations can bridge the gap between AI ambition and operational readiness by focusing on infrastructure preparedness, data flexibility, and strategic alignment. Through expert insights, regional context, and practical examples, it equips technical and strategic leaders with the knowledge to accelerate AI initiatives while ensuring they align with business goals. The focus is on helping leaders make informed decisions about infrastructure choices that will support evolving AI workloads and help organizations unlock the full value of their data, drive innovation, and build AI capabilities at scale.

Research Methodology

Survey Approach & Executive Profiles

To evaluate the maturity of AI adoption and infrastructure readiness in the Middle East, this survey engaged senior leaders responsible for innovation within their organizations. Participants included key decision-makers such as chief data officers, AI executives, senior data scientists, AI engineers, and digital transformation leads from public services, healthcare, financial services, energy, and sectors leading the deployment of data-driven systems.

Focusing on the use of unstructured data for advanced AI applications, the study combines executive insights on business transformation with technical expertise in AI implementation. By gathering perspectives from various industries and roles, it offers a comprehensive view of how enterprises prioritize and develop their AI strategies. The findings highlight best practices, infrastructure gaps, and operational challenges that are often overlooked when assessing



AI readiness in silos. The research underscores the necessity of a unified, high-performance data foundation to leverage AI's value within organizations fully.

Quantitative vs. Qualitative Design

Research combined quantitative and qualitative methods to assess AI readiness. A survey measured key indicators like AI deployment stage, infrastructure preferences, scalability issues, storage modernization, and performance benchmarks, enabling organization comparisons and mapping AI transformation from test projects to fully integrated systems.

Respondents identified specific infrastructure bottlenecks and demonstrated how technical limitations hinder AI progress. The survey also evaluated data accessibility and storage modernization to determine how much organizational data, specifically unstructured, is usable for AI workloads.

Open-ended responses from CEOs, AI strategists, and technology leaders provided in-depth insight into strategic AI deployment thinking. They revealed how they align infrastructure with business goals, overcome cultural barriers, and structure collaboration to maximize value. This context explained why some AI initiatives succeed while others fail.

By merging measurement with executive perspective, the research delivered a comprehensive understanding of AI capability and readiness as a business driver.

Research Boundaries & Considerations

AI development is shaped by each country's regulatory environment, infrastructure maturity, and sector-specific dynamics. To ensure objective, regionally relevant insights, the research accounted for these variables throughout the study design and data validation process.

Impact of National AI Policies and Regulations

The study considered how differences in AI governance models, cloud regulations, and digital infrastructure maturity shaped enterprise-level strategies and investments across the Middle East.

Variability in Infrastructure

In more advanced markets, respondents benefited from clearer data policies and faster access to next-generation AI tools. In contrast, organizations in legacy environments adopted **hybrid approaches**, **phased rollouts**, or **creative workarounds** to navigate infrastructure limitations.

Data Triangulation for Accuracy

To avoid over-reliance on self-reported responses, key findings were cross-validated using:

- Government publications
- Industry reports
- Global AI readiness benchmarks

Sector-Specific Differences

Adoption and infrastructure readiness also varied by industry, requiring the analysis to account for **market-specific demands** in fields such as healthcare, finance, manufacturing, and public services.



Al Strategy and Execution In the Middle East

I ADOPTION IN THE MIDDLE EAST REFLECTS VARYING LEVELS OF MATUrity. It is advancing into the scaling and embedding phase, as many organizations transition from initial experimentation to broader implementation across core operations. This shift is fueled by increased access to high-quality data, cloud computing capabilities, and sector-specific AI solutions.



Survey findings indicate that as of 2025, 46% of organizations have advanced beyond the exploratory and pilot phases, signaling a shift from isolated experimentation to more structured, scalable deployment models. This progression reflects a growing operational integration of AI, underpinned by strategic intent and cross-functional implementation.

Yet, the region's adoption landscape remains varied. **About 33% of surveyed organizations** are still in the early stages of AI deployment—focused primarily on foundational exploration, workforce readiness, and strategic alignment. These firms are actively assessing use cases, building internal expertise, and establishing governance mechanisms to support future scaling efforts.

These data points make a strong case: The Middle East is on the verge of a significant shift. As more companies enter growth stages, a sizable portion remains focused on laying the groundwork. This split reveals the region's gradual evolution from AI as a concept to AI as a central capability.

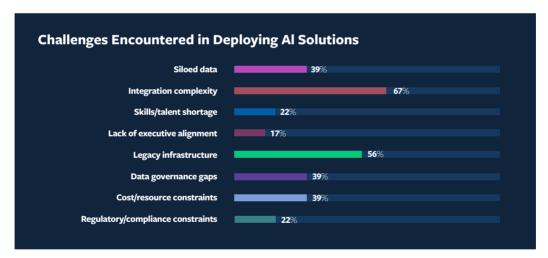
The survey also notes that the acceleration of AI adoption is driven not just by technology, but by parallel efforts in talent development, infrastructure modernization, and cross-functional coordination. Successful integration increasingly depends on technical experts who can operationalize strategic goals.

Scaling AI is a multidimensional effort, requiring technical capacity, executive commitment, and a comprehensive data strategy. These trends signal a regional shift toward enterprise-grade AI grounded in long-term readiness.

Scaling Beyond Pilots — Key Regional Barriers

Despite growing momentum, organizations across the Middle East face a consistent set of challenges in expanding AI from isolated use cases to enterprise-wide implementation.

The most frequently cited barrier, reported by 67% of respondents, is integration complexity. This finding points to difficulty in embedding AI into existing infrastructure due to incompatible legacy systems, fragmented workflows, and insufficient orchestration frameworks. The inability to harmonize AI with operational systems restricts scalability and delays value realization.



Legacy infrastructure presents another structural constraint. More than half (56%) of organizations identify outdated IT systems as a limiting factor in AI deployment. These systems often lack the flexibility, compute performance, and interoperability needed to support advanced machine learning models or real-time analytics at scale.

In parallel, 39% of organizations report challenges stemming from data silos and limited financial resources. Disparate data systems inhibit access to complete, high-quality datasets required for accurate AI modeling. Budgetary constraints, particularly among mid-market firms, further delay modernization efforts and limit experimentation with high-impact use cases.

Other impediments—though reported less frequently—include talent shortages, executive misalignment, and regulatory uncertainty. In many organizations, AI initiatives remain confined to technical teams without broader strategic sponsorship. Where leadership engagement is limited, investment tends to be tactical and fragmented rather than cohesive and scalable.

Addressing these constraints will require modernizing IT infrastructure, implementing stronger data governance models, allocating targeted funding, and building executive alignment through clear performance frameworks.

Notably, the region is also witnessing early-stage and Series A startups contributing specialized AI solutions in cybersecurity, fintech, customer engagement, ESG analytics, and productivity automation. This is accelerating AI adoption, particularly in sectors where incumbents seek external innovation to supplement internal capacity.

Taken together, the findings underscore that while AI ambition across the Middle East is high, unlocking enterprise-wide value demands a parallel focus on infrastructure readiness, organizational integration, and sustainable investment.



Data & Infrastructure Readiness

ODERN DATA INFRASTRUCTURE IS FOUNDATIONAL TO SCALABLE AND sustainable AI deployment. As organizations in the Middle East move to enterprise-wide implementation, they are recognizing that the value of AI is constrained by infrastructure maturity. The ability to harness unstructured data—now the dominant form of enterprise information—depends on flexible, high-performance platforms that support diverse workloads, secure data access, and rapid iteration. This section outlines the region's current architectural landscape, gaps in data readiness, prevailing infrastructure challenges, and forward-looking strategies being adopted by regional leaders.

Current Architecture Maturity in the Middle East

AI workloads demand robust systems that can manage high-volume data ingestion, model training, and real-time inference across distributed environments. In the Middle East, organizations are taking varied approaches to infrastructure modernization depending on sensitivity, regulatory constraints, and scalability needs.

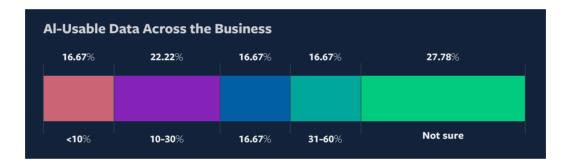


Survey results show that 72% of organizations have adopted hybrid environments, combining cloud platforms with on-premise systems. This architecture enables flexibility, balancing cloud scalability with localized control over sensitive data and core applications. In contrast, 17% are in the early stages of cloud adoption, and 11% still operate primarily through traditional on-site infrastructure, limiting their ability to support evolving AI workloads.

Hybrid infrastructure is increasingly viewed as a strategic enabler. It allows organizations to scale incrementally, reduce operational risk, and maintain transparency by integrating explainable AI models alongside complex systems. This balance is especially critical for regulated sectors such as banking, healthcare, and government. The preference for hybrid approaches reflects not only technological pragmatism but also a deliberate shift toward infrastructure models that support long-term AI growth without disrupting core operations.

AI-Ready Data Availability Across Organizations

The effectiveness of AI models is directly tied to the quality, accessibility, and volume of underlying data. While enterprises in the region recognize this, many continue to face operational barriers in making data usable for AI applications—especially unstructured data, which constitutes the majority of enterprise content.



According to the survey, nearly one-third of organizations have made measurable progress, with over 30% of their data accessible for AI use. These organizations are capitalizing on investments in cloud storage, automated data pipelines, and centralized platforms that improve the usability of enterprise-wide datasets. An additional 22% report between 10% and 30% data readiness, suggesting a gradual shift from fragmented data systems to more integrated, AI-optimized environments.

However, 28% of organizations remain uncertain about the extent of their AI-ready data. This signals gaps in data visibility, ownership, and governance—factors that pose significant risks to model performance, compliance, and accountability. Without clear frameworks for tracking and cataloging enterprise data assets, organizations are unable to scale AI with confidence or precision.

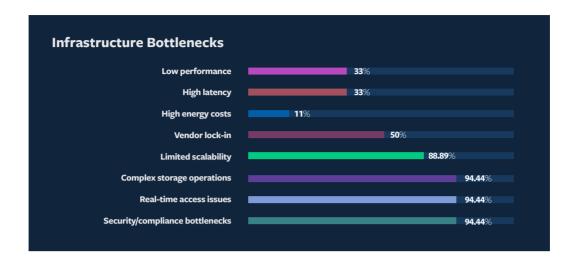
Building an AI-ready data environment requires operational discipline: formal data stewardship, quality controls, and cross-functional alignment to ensure that data is treated as a strategic resource.

Common AI Infrastructure Challenges

As AI models become more sophisticated, infrastructure demands increase—both in terms of scale and complexity. Across the Middle East, organizations report a range of challenges that hinder AI progress, most of which stem from legacy systems not designed to support modern workloads.

As discussed in Section 4.2, integration complexity (67%), legacy infrastructure (56%), and **fragmented data environments (39%)** remain the most significant barriers to scaling AI across the region, underscoring the foundational role of infrastructure modernization in overcoming these constraints.

Other challenges include latency, vendor lock-in, inefficient compute performance, and regulatory compliance risks, particularly in data-sensitive sectors.



Efforts to address these barriers are emerging. A notable example is the 2025 partnership between Nvidia and Saudi-based Humain, involving the deployment of 18,000 GB300 Blackwell AI chips to power a 500-megawatt data center. This initiative represents a regional commitment to building high-throughput, low-latency infrastructure capable of supporting generative AI and other data-intensive models at scale.

As AI ambitions intensify, organizations must treat infrastructure as a continuously evolving asset requiring investment, oversight, and adaptability to emerging technologies.

Future-Proofing AI Infrastructure: Regional Shifts Toward Scalability and **Flexibility**

As AI use cases become more complex—ranging from multimodal model development to real-time analytics—organizations are rethinking their architecture to support scale, agility, and sustainability.

Survey findings and executive interviews point to the following trends reshaping enterprise infrastructure in the Middle East:

- Modular and Scalable Systems: Containerized designs support workload elasticity, allowing systems to expand or contract based on usage demand.
- Separation of Compute and Storage: Disaggregated architectures improve responsiveness and resource efficiency, particularly for latency-sensitive AI tasks.
- Centralized Data Foundations: Data lakes and warehouses unify previously fragmented datasets, enabling more consistent model training and governance.
- Long-Term Infrastructure Planning: Even early-stage adopters are embedding scalability into their infrastructure roadmaps to accommodate future AI growth.
- On-Premise Infrastructure for Specialized Control: In sectors with stringent compliance requirements, localized systems remain essential for data residency and operational assurance.
- AI-Powered Monitoring Tools: Real-time diagnostics, resource allocation optimization, and automated failure detection help maintain consistent model performance.
- Hybrid and Multi-Cloud Strategies: These environments enable organizations to process data closer to its source, improving latency, data sovereignty, and cost-efficiency.
- Infrastructure as a Strategic Asset: Increasingly, infrastructure is viewed not as a backend IT function, but as a driver of business value and AI enablement.

Together, these developments indicate a growing recognition among regional enterprises that successful AI adoption cannot outpace infrastructure readiness. As data volumes rise and use cases diversify, scalable and adaptable platforms will be central to delivering enterprise-wide impact.

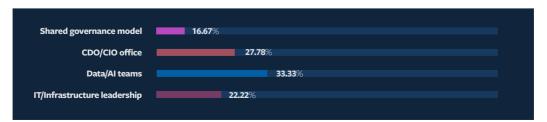


AI Governance & Cross-functional Alignment

S MIDDLE EASTERN ENTERPRISES MOVE FROM PILOT PROJECTS TO ENTERprise-wide AI integration, success depends on robust governance and alignment between technical and strategic teams. Building and sustaining AI infrastructure requires coordinated decision-making across leadership, data science, and IT. Effective governance models ensure that infrastructure decisions reflect both organizational priorities and evolving demands of AI workloads.

Ownership Models in Enterprise AI Infrastructure

Survey data reveals that ownership of AI infrastructure decisions varies across organizations, reflecting diverse internal structures and strategic priorities. This variation highlights a pragmatic approach to governance, tailored to fit organizational capabilities and the maturity of their AI programs.



- 33% of organizations assign primary responsibility to Data and AI teams, leveraging their proximity to use cases and technical fluency to guide infrastructure investments.
- 28% rely on the Chief Data Officer (CDO) or Chief Information Officer (CIO) to align infrastructure strategy with enterprise goals, ensuring that AI capabilities support broader transformation initiatives.
- 22% delegate decisions to IT and infrastructure leadership, who manage the core systems and operational environments necessary for scalable AI delivery.

17% employ a shared governance model, distributing responsibility across technical and business stakeholders to encourage collaborative decision-making and accountability.

These findings suggest that while governance approaches differ, the most effective organizations anchor their infrastructure strategy in clear ownership, cross-functional collaboration, and alignment with long-term AI objectives.

Aligning Strategy, Data Science, and IT

AI readiness cannot be achieved in silos. As organizations scale their AI capabilities, coordination across business strategy, data science, and IT becomes essential. This alignment ensures that AI models are deployed on infrastructure that meets performance requirements, trained on data that reflects business realities, and optimized to deliver measurable impact.

The survey highlights several practical practices that drive successful cross-functional alignment:

- Start with Business Needs, Then Scale: Effective teams begin by addressing specific, high-value use cases. Once proven, these initiatives are expanded with the support of infrastructure and data teams, —ensuring technical feasibility and operational relevance at each stage.
- Link Data Science Leadership with Customer-Centric Thinking: Leading organizations embed customer and stakeholder perspectives into AI design. Data science leaders who advocate for realworld value creation, -rather than model complexity-help drive adoption, trust, and business alignment.
- Establish Shared Checkpoints and Feedback Loops: Regular review mechanisms enable teams to adjust priorities, resource allocations, and model designs collaboratively—ensuring progress remains aligned with evolving business needs.
- **Prioritize High-Impact Use Cases:** Projects selected for early AI efforts are those with clear, measurable outcomes. Demonstrating early wins builds organizational confidence and accelerates enterprise-wide support.
- Adopt Integrated AI Readiness Assessments: Before deployment, high-performing organizations conduct joint evaluations of infrastructure, data quality, and governance structures. This ensures that systems and teams are prepared to scale AI use cases effectively.
- Prototype to Build Consensus: Rapid, lightweight prototyping allows teams to validate use cases and gather buy-in across technical and business functions, -bridging communication gaps and refining scope.
- Keep Initial Solutions Simple and Adaptable: To avoid unnecessary complexity, successful teams emphasize modular, scalable designs that can evolve with changing requirements.

Across these practices, a clear insight emerges: alignment is a core enabler of AI value realization. When strategy, data, and infrastructure teams work together from the outset, organizations are far better positioned to move from AI ambition to readiness. In the Middle East, where national AI strategies are ambitious and investment is accelerating, governance and cross-functional collaboration will define whether these ambitions translate into sustained competitive advantage.



Executive Insights & Case Studies

IDDLE EAST ENTERPRISES ARE SHIFTING FROM EXPERIMENTATION TO VALue-generating use cases. This section explores real-world insights from organizations that are aligning infrastructure with strategic AI initiatives.

Aligning Data with Key AI Use Cases

Enterprise AI adoption in the Middle East is accelerating, yet use case maturity varies across organizations. The priority is clear: AI initiatives that drive measurable, near-term business value are seeing the highest adoption.



Survey results show that 94% of respondents have adopted Generative AI or Large Language Models (LLMs), while 89% have implemented Predictive Analytics. These technologies are widely recognized for their ability to uncover patterns, generate insights, and automate decision-making at scale. Their broad applicability across functions—customer service, operations, finance, and compliance—has made them foundational to AI transformation efforts.

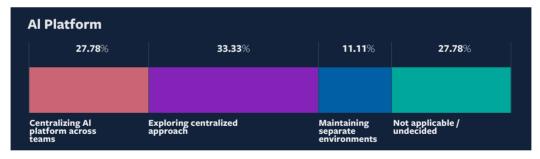
Other key technologies show more selective adoption:

- Computer Vision (50%) is gaining traction in high-precision applications such as medical imaging, video surveillance, and quality inspection—particularly in healthcare and manufacturing
- **Conversational AI and Chatbots** (33%) are enhancing service delivery and information access. A notable example is the UAE Ministry of Economy's AI-powered chatbot, launched at GITEX 2023 to streamline public engagement and automate service queries.
- **Business Process Automation** (33%) is helping organizations eliminate repetitive tasks and redeploy resources to higher-value functions, improving operational scalability.
- **Recommendation Systems** (11%) remain niche, primarily used in consumer-facing industries such as retail and entertainment.
- Real-Time Anomaly Detection, though not widely adopted, is emerging as a strategic focus area, hindered for now by integration complexity and limited technical capacity.

These trends indicate a growing preference for modular, scalable, and operationally impactful AI use cases that align with their infrastructure capabilities and offer demonstrable returns.

Moving Toward Centralized AI Platforms

As AI deployments expand across business units, the lack of centralized infrastructure often becomes a barrier to scaling. In response, organizations are adopting centralized AI platforms that unify development, deployment, monitoring, and governance.



The survey reveals that:

- 33% of enterprises are currently exploring centralized platforms, reflecting growing recognition of the need for consistent control and data reuse across teams.
- 28% have already implemented centralized environments, signaling early-stage maturity in AI operationalization.
- 11% continue to operate with siloed AI systems, often due to legacy constraints, departmental ownership, or lack of cross-functional alignment.

These figures are consistent with a broader regional trend toward platform unification. A notable example is Watania International Holding, which partnered with Solution BI Middle East to launch a centralized, Snowflake-powered AI and business intelligence platform. The initiative supports enterprise-wide data access, improves analytics speed, and enhances customer engagement—demonstrating how centralized infrastructure can become a strategic enabler of both innovation and efficiency.

As organizations scale, centralized platforms offer a path toward more efficient resource utilization, streamlined compliance, and faster time-to-value-especially when built on cloud-native, modular architectures designed for AI scalability.

Cloud vs On-Premise Al: Security Considerations

Infrastructure strategies for AI increasingly reflect **context-aware approaches to data security**, particularly when dealing with sensitive or regulated information.



Survey insights indicate:

- 39% of organizations apply a policy-driven storage strategy, aligning decisions with data classification and use case. This signals a shift away from static, one-size-fits-all models.
- 28% of respondents prefer to store sensitive data exclusively on-premise, reflecting continued caution around security, control, and compliance—especially in sectors such as government and healthcare.
- 17% have adopted full cloud-based storage, showing rising confidence in the maturity of cloud security frameworks.
- 17% are using hybrid models, blending on-premise and cloud strategies to achieve flexibility without compromising data governance.

These evolving approaches suggest a regional shift toward **intelligent data governance** frameworks. A strong example of this approach is Moro Hub, a Dubai-based digital transformation leader. Moro Hub's cloud infrastructure strategy emphasizes high performance, regulatory alignment, and real-time scalability. By integrating layered security, hybrid cloud capabilities, and modular AI toolchains, the company supports mission-critical workloads while ensuring compliance across sectors. This case illustrates how aligning data governance with infrastructure modernization enables organizations to build secure, scalable platforms capable of supporting AI at scale.

CASE STUDY: HOW MORO HUB BUILT AN AI-READY INFRASTRUCTURE OVERVIEW

Moro Hub is one of the leading companies driving the future of intelligent data solutions by pushing the boundaries of AI and machine learning. Their work supports the digital transformation efforts in the region, through innovative, data-driven technologies. This case study showcases how Moro Hub is building AI-ready infrastructure to overcome challenges and deliver scalable, secure solutions.

Challenge: Aligning Infrastructure with AI Objectives

Moro Hub's early AI investments revealed a crucial truth: success depends on the foundation, not just algorithms or data. Traditional infrastructure was too inflexible and unreliable to support the escalating complexity and computing demands of AI models.

The company built an efficient, secure, and resilient environment to support large-scale experimentation and production.

Solution: Green Data Centers Built for Performance and Compliance

Moro Hub built solar-powered Green Data Centers to deliver high-performance computing while minimizing carbon footprint. These centers power high-density, compute-heavy AI workloads with high availability, advanced cooling, and optimized resource allocation, ensuring strict compliance with data governance standards.

Security embeds across the infrastructure. Every stage of the AI lifecycle—from data ingestion to model deployment—operates within a framework of layered cybersecurity and real-time threat monitoring, meeting the stringent regulatory requirements of industries.

Scalability and Flexibility at the Core

Moro Hub deployed a modular, scalable infrastructure strategy to stay ahead of escalating data volumes and AI model complexity. AI-powered monitoring and orchestration tools dynamically allocate resources in real time, allowing data centers to adapt to workload requirements instantly.

By embracing hybrid and multi-cloud architectures, Moro Hub enables clients to process data closer to its source, eliminating latency bottlenecks and security tradeoffs while maintaining control and compliance.

Cross-Functional Integration for AI Readiness

Successful AI deployment also required a unified approach. Moro Hub developed a process that integrates data science, cloud infrastructure, cybersecurity, and business leadership. To ensure alignment, readiness assessments were conducted jointly, considering infrastructure decisions alongside use cases, performance needs, and return on investment expectations.

This model ensured accurate planning, improved resource allocation, and better success of AI initiatives.



Infrastructure Strategy & Vendor Selection

S AI GAINS TRACTION IN THE MIDDLE EAST, INFRASTRUCTURE IS TRANSforming from a support function to a strategic differentiator. To harness the power of AI, businesses need infrastructure that is highly performant, scalable, and agile—capable of accommodating diverse use cases and aligning with their future digital vision. This section delves into the key capabilities that enterprise leaders value most, the paths they are taking to modernize, and the evolving criteria for selecting AI platforms that drive lasting business outcomes.

Key Capabilities Prioritized for AI Infrastructure

Selecting infrastructure for enterprise-scale AI requires balancing performance, flexibility, and longterm sustainability. Survey findings indicate that organizations in the region are converging on a clear set of priorities when making investment decisions:

- Performance: Fast data processing, low-latency inference, and real-time responsiveness are essential for operational reliability and user experience.
- Scalability: The ability to support growing data volumes and workload complexity is a prerequisite for long-term AI maturity.
- Integration with AI Toolchains: Seamless compatibility with ML frameworks and deployment environments enables faster iteration and model deployment.
- Centralized Management: Unified control over models, environments, and data improves governance and oversight, especially in regulated sectors.
- Energy Efficiency and Cost Predictability: As sustainability and operational efficiency grow in importance, organizations are prioritizing infrastructure that minimizes energy use while maintaining predictable cost structures.

These capabilities form the foundation for infrastructure strategies that enable scalable, efficient, and secure AI operations—critical for enterprises seeking to derive long-term value from data-driven transformation.

Strategic Approaches to Modernization

Modernizing infrastructure is now a top priority. With AI adoption on the rise, companies are shifting from small upgrades to major transformations that drive speed, agility, and machine learning capabilities.



Survey results underscore this shift: not a single respondent reported extending legacy systems, indicating a widespread recognition that outdated architectures cannot support the demands of enterprise AI. Instead:

- 44% of organizations favor building hybrid or cloud-native stacks, underscoring the need for flexible, scalable environments that reduce deployment friction.
- Another 44% are prioritizing AI-optimized platforms, purpose-built to support dataintensive and compute-heavy workloads. These platforms enable rapid experimentation, efficient training, and smooth deployment of advanced AI models.

Together, these approaches reflect a regional shift toward infrastructure that is not just cloud-capable but **AI-native**—designed from the ground up to support the continuous, iterative nature of modern AI development. These systems are not auxiliary—they are strategic assets central to enterprise innovation and resilience.

Shifting Evaluation Criteria for AI Platforms

As AI adoption progresses, organizations are rethinking how they evaluate platforms—not through abrupt overhauls, but through deliberate shifts in priorities that reflect real-world implementation needs.

Survey insights reveal a growing focus on platforms that streamline the development lifecycle—supporting fast iteration, real-time monitoring, and built-in compliance mechanisms. The goal is to reduce engineering overhead, enabling teams to focus on delivering business outcomes rather than managing infrastructure complexity.

Rather than selecting platforms based purely on hardware specifications or theoretical capacity, organizations are prioritizing agility, usability, and integration with existing processes. Engineers and data teams want tools that accelerate value creation, reduce friction, and support dynamic scaling across

Across the board, enterprises are adopting AI incrementally—often through cloud-first or hybrid approaches—with a strong preference for platforms that enable fast deployment, secure data handling, and long-term adaptability. The emphasis is shifting from system capabilities to organizational empowerment: how well a platform enables teams to deliver tangible, measurable results.

Modernization as a Strategic Enabler

Infrastructure modernization is critical to unlocking the value of AI, especially in industries with legacy systems and strict regulations. Moro Hub bridges this gap with secure, energy-efficient, AI-ready infrastructure through its Green Data Centers. Using AI-powered migration tools, clients can modernize without business disruption. Moro hub's colocation facilities support governance and risk management, helping organizations reduce costs, accelerate results, and turn IT upgrades into strategic, long-term business enablers across regulated sectors like healthcare, banking and government.

Future Outlook: Purpose-Built AI Infrastructure

Moro Hub believes that infrastructure decisions will increasingly focus on how well a platform enables AI success. The company expects organizations to prioritize infrastructure that is:

- Designed for AI, supporting both training and real-time applications
- Secure and compliant
- Sustainable, aligning with environmental goals
- Flexible, with easy integration across hybrid and multi-cloud environments.

Moro Hub's journey demonstrates that scalable AI success is built from the beginning. By investing early in sustainability, cybersecurity, and flexible architecture, Moro Hub created a thriving AI infrastructure model.

As demand grows for high-performance, real-time AI systems, organizations that adopt this approach will lead in innovation, resilience, and measurable impact.

Unlocking ROI From AI Infrastructure

ODERNIZING INFRASTRUCTURE IS A STRATEGIC IMPERATIVE FOR REALizing business value from AI investments. As enterprises across the Middle East scale, infrastructure maturity determines the pace, cost, and effectiveness of AI delivery. This section explores how organizations are linking infrastructure modernization to measurable returns, improving efficiency, model deployment, and long-term value creation.

Linking Infrastructure to Tangible Business Value

Survey findings confirm a strong correlation between infrastructure modernization and AI effectiveness. Organizations with updated, AI-optimized environments are deploying models faster, managing data more efficiently, and scaling use cases with greater consistency. In contrast, legacy systems continue to impose constraints on performance, governance, and scalability.

Three dimensions of infrastructure value emerged as particularly critical:

Cost Efficiency Through Scalable Infrastructure

Cloud-based and hybrid infrastructure models allow organizations to align compute capacity with workload demands—reducing both capital expenditures (CapEx) and operational costs (OpEx). By moving away from rigid, monolithic data centers, enterprises gain flexibility in deploying AI models across environments, improving speed-to-insight and budget predictability.

Operational Streamlining and Regulatory Readiness

Modern infrastructure simplifies core operational processes, including data provisioning, access controls, model deployment, and compliance reporting. This is especially vital in regulated sectors such as finance and healthcare, where traceability, auditability, and secure access are mandatory. Infrastructure modernization allows data science teams to shift focus from managing friction points to delivering business-aligned use cases.

Overcoming Legacy System Limitations

Legacy environments often struggle with compute inefficiencies, poor integration, and limited scalability. Transitioning to cloud-native or federated data platforms improves data quality, strengthens governance, and ensures access to high-performance compute resources. These capabilities are essential for training and deploying advanced models at scale—especially those reliant on unstructured or high-frequency data. right-sized computing resources—critical for generating insights at scale.

Across these areas, the business case for infrastructure investment is clear. AI readiness depends on algorithmic sophistication and architecture that supports data ingestion, processing, and delivery. As enterprises seek to derive sustainable ROI from AI, infrastructure modernization unlocks speed, scale, and strategic differentiation.

Metrics That Reflect Infrastructure Contribution

To evaluate the infrastructure's role in AI success, organizations must move beyond generic KPIs and focus on metrics that directly link performance to outcomes. The following benchmarks offer a practical framework:

- Time-to-Insight: Measures how quickly data moves from ingestion to model inference. A reduced time-to-insight accelerates both decision-making and innovation cycles.
- Model Training Time: Tracks the duration required to train AI models. Shorter training times

reflect higher compute efficiency and enable faster iteration on business use cases.

- System Uptime and Reliability: Indicates the stability of the infrastructure under production workloads. High availability is especially critical for real-time AI systems in finance, healthcare, and logistics.
- Data Throughput and Latency: Evaluates how effectively infrastructure handles continuous streams of structured and unstructured data. High throughput with low latency ensures consistent performance for high-volume applications.
- Cost Efficiency per AI Workload: Assesses how well infrastructure balances performance with cost. This includes compute, storage, and data transfer costs—critical for budgeting and resource planning.

Together, these metrics offer a multidimensional view of infrastructure's contribution. Rather than functioning as a passive backend, infrastructure becomes a performance engine—powering AI with the speed, reliability, and scale required for enterprise transformation.

Strategic Steps for Modernizing Storage and Infrastructure for Scalable AI

O ADVANCE AI MATURITY AND ENSURE LASTING IMPACT, ENTERPRISES ACROSS the Middle East can take the following actions:

- Align Business and AI Maturity Roadmaps: Coordinate AI development with strategic business goals and continuously refine roadmaps to match evolving capabilities, needs, and measurable outcomes—helping accelerate decision-making and foster sustained innovation.
- Modernize Data Architecture: Adopt unified, cloud-native platforms that support the full AI lifecycle—from data collection to deployment—for consistent access, integration, and workflow automation.
- Adopt Modular Infrastructure: Explore containerized and microservices-based approaches to improve flexibility in deploying AI solutions across hybrid and multi-cloud environments.
- Enhance Energy Efficiency: Evaluate compute infrastructure that efficiently supports AI workloads while managing energy use, aligning with both performance and sustainability goals.
- Ensure Compatibility with AI Toolchains: Select infrastructure that integrates seamlessly with core AI tools and workflows to reduce complexity, improve efficiency, and support scalable growth.
- Facilitate Cross-Functional Collaboration: Establish governance models that unify IT, data science, and business teams to ensure alignment and shared responsibility in AI initiatives.
- Plan for Long-Term Scalability: Design systems capable of accommodating future AI workloads and evolving technology needs to support sustainable, incremental growth.

These steps can help Middle East enterprises lay a strong foundation for enterprise-wide AI success by driving innovation, improving performance, and maintaining digital leadership in a rapidly evolving global landscape.

Tailored Sector-based Strategic Recommendations: Viewpoints by AI Leaders

Technical Product Owner: The Emirates Group

"Every effective AI strategy must begin with a clear understanding of the underlying business need." Without this foundation, there is often a tendency to deploy AI indiscriminately, even in scenarios where simpler solutions would be more appropriate. Taking a step back to evaluate the actual requirement enables organizations to apply the right level of technological complexity. Adopting a modular approach is essential, as it allows solutions to evolve in response to unpredictable data growth and shifting operational demands. Containerized infrastructure supports this adaptability, enabling seamless scaling as use cases mature. Beginning with manageable pilot projects and learning from practical outcomes promotes

flexibility and optimizes costs. Cloud-native platforms, when leveraged effectively, provide a scalable and cost-effective solution compared to conventional infrastructure, enhancing overall ROI. Achieving AI maturity is best approached as an ongoing journey of incremental improvements rather than abrupt, large-scale changes. Consistent testing, adapting strategies, and refining processes over time lay the foundation for sustainable success and greater organizational resilience."

Mohammad Bin Sulaiman, CEO of Moro Hub

"Successful AI deployment depends on a secure and sustainable infrastructure foundation that balances high performance with energy efficiency, while embedding robust cybersecurity across all layers. To manage growing data volumes and increasingly complex AI models, adopting a modular, scalable infrastructure with hybrid and multi-cloud capabilities ensures real-time, low-latency access and intelligent workload management. This technical foundation must be supported by strong cross-functional collaboration among data science, infrastructure, and business leadership, aligning technology investments with clear business objectives and expected ROI. Also, streamlining legacy systems through secure, compliant environments and AI-assisted migration tools enables smooth transitions, particularly in regulated and traditionally complex sectors.

In forthcoming years, organizations will prioritize AI-optimized platforms emphasizing sustainability, interoperability, and integrated security features, shifting infrastructure procurement from a purely technical decision to a strategic choice that drives innovation, operational resilience, and long-term competitive advantage. This evolution will also accelerate the adoption of AI-driven orchestration, real-time threat monitoring, and predictive maintenance, enhancing both performance and security. As AI workloads diversify, deploying infrastructure closer to data sources will become increasingly critical, enabling faster insights and more effective decision-making across distributed environments. Finally, sustained investment in continuous skills development and robust governance frameworks will be essential to maintaining AI success and ensuring compliance amid an evolving regulatory landscape.

Sameer Pathak: Senior IT Leader/Executive: The Department of Municipalities and Transport (Abu Dhabi Government)

"Abu Dhabi's visionary leadership is deeply committed to AI adoption, investing heavily not only in infrastructure but also in training and development. Initiatives such as "AI for Everything" encourage widespread engagement by enabling employees to explore Al's potential and propose automation or optimization opportunities. This approach fosters innovation and accelerates AI adoption across government entities. The government manages a vast infrastructure network and processes large volumes of data through interconnected applications, data lakes, and advanced data mining powered by large language models. These capabilities deliver valuable insights that support strategic decision-making and ambitious smart city initiatives.

A citizen-centric focus drives AI use cases to improve service delivery efficiency, with government mandates targeting a reduction of over 50% in processing times for key public services. The emphasis on scalable, low-effort internal practices enhances operational efficiency while maximizing impact. Transitioning from legacy infrastructure, Abu Dhabi prioritizes scalable AI solutions that reduce reliance on large data centers, optimizing both capital expenditures and operational costs. The government is actively procuring AI-capable infrastructure platforms, underscoring its commitment to embedding AI as a fundamental enabler of productivity, innovation, and enhanced citizen experiences."

AI Manager: Dubai Police

"To effectively scale AI initiatives, organizations prioritize upgrading legacy infrastructure by adopting hybrid cloud solutions that support scalability, performance, and seamless AI tool integration. By addressing challenges such as complex storage operations, high energy costs, and real-time data access, they can significantly improve workload efficiency. This improvement creates a foundation for developing a comprehensive data strategy and building internal AI expertise, which are essential to reduce dependence on external vendors and drive innovation. Building on these capabilities facilitates integrated management, which enhances both operational oversight and cost predictability. Together, these

steps create a robust framework that supports sustainable AI deployment. Central to this framework is ensuring robust security and compliance, particularly for sensitive data, which is critical to maintaining trust and long-term success."

Director of AI & Analytics: Purehealth

"Aligning AI infrastructure with business objectives begins by right-sizing the data platform and implementing a unified technology stack across locations to enable efficient AI deployment at the edge. To manage growing data volumes and model complexity, it is advisable to architect the infrastructure so that data pre-processing and embedding occur locally at the edge, while aggregation, integration, and refinement are centralized at a core hub. The optimized insights are then distributed back to the edge for real-time search and inference, thereby improving scalability, flexibility, and responsiveness of AI workloads. Effective execution requires integrated strategy sessions that bring together analytics teams, technology operations, and executive leadership to align on AI priorities, governance, and budget allocation across the enterprise. Modernizing systems with federated platforms is critical to maximizing ROI by ensuring robust data governance, maintaining high data quality, and providing scalable resources for comprehensive data exploration and insight generation.

Looking ahead, organizations should prioritize reliable real-time data ingestion from distributed sources into centralized AI platforms, while securing regulatory approvals for deploying solutions within sovereign cloud environments to protect sensitive data. Additionally, the shift from traditional infrastructure-as-a-service (IaaS) to platform-as-a-service (PaaS) cloud offerings will enable more agile, efficient, and cost-effective AI infrastructure procurement."

Regional Best Practices for Scaling AI

To unlock the transformative potential of AI, stakeholders across the Middle East can benefit from insights drawn from regional surveys, which highlight promising practices across two critical dimensions: Ecosystem Readiness, centered on strengthening talent pipelines, governance, and innovation capacity; and Technology Accelerators, focused on enabling scalable, secure, and high-performance AI deployment. Emerging models from countries such as the UAE and Saudi Arabia reflect growing momentum in advancing AI with these practices include alignment with national AI strategies, public-private collaboration, support for local startups, and infrastructure modernization providing a clear foundation for developing an AI-driven economy .

Ecosystem Readiness: Building the Foundation for Sustainable AI Growth

- Align with National AI Agendas: Strengthen synergy between enterprise initiatives and national AI strategies, innovation hubs, and policy frameworks to ensure ecosystem-wide coherence.
- Develop AI Talent Pipelines: Expand technical training, AI certifications, and upskilling programs to reduce reliance on external expertise and build long-term internal capability.
- Support Local AI Startups: Foster indigenous innovation through accelerator programs, earlystage funding, and government-backed procurement pathways for homegrown AI solutions.
- Introduce Sector-Specific AI Policies: Establish clear, industry-tailored governance for responsible AI adoption in critical sectors such as healthcare, finance, and energy.
- Strengthen Capital Access: Attract private and sovereign investments through AI-focused funds, venture capital incentives, and regulatory mechanisms that reduce risk for innovationfocused investors.

Technology Accelerators: Enabling Scalable, Trusted AI Deployment

- Modernize Data Infrastructure: Adopt unified, cloud-native platforms that streamline data ingestion, model training, and deployment—supporting automation and real-time insights.
- Drive AI-Powered R&D: Expand applied research by connecting universities, local firms, and global partners under national R&D programs to fast-track real-world solutions.
- Enhance Data Security and Compliance: Deploy advanced data protection strategies—such

as encryption, anonymization, and dynamic access controls—to meet evolving regulatory requirements.

- Expand Regional Cloud Footprint: Encourage global cloud providers to establish local infrastructure that supports high-performance, low-latency AI workloads and data sovereignty.
- Promote Regional Infrastructure Collaboration: Facilitate cross-border data and AI initiatives to share resources, align standards, and scale innovation across the region.

Scaling AI across the Middle East requires a cohesive approach that balances ecosystem readiness with technology acceleration. Countries such as the UAE and Saudi Arabia exemplify how integrated policy frameworks, public-private partnerships, and targeted investment can position the region as a competitive force in the global AI landscape.

Conclusion

This whitepaper set out to examine a foundational yet often overlooked question in enterprise AI strategy: how ready are organizations in the Middle East to scale AI, and to what extent is their data infrastructure enabling or impeding that transformation?

The findings reveal a region in transition. Ambitious national strategies and growing investment have positioned the Middle East as a rising player in the global AI ecosystem. Yet at the enterprise level, readiness varies widely. While 46% of organizations report moving beyond early experimentation, a significant share remains in foundational stages—constrained by integration challenges, legacy infrastructure, and fragmented data environments.

What emerges clearly is that AI success is increasingly determined by infrastructure maturity. Organizations with modern, flexible architectures—particularly hybrid and cloud-native systems—are deploying AI faster, accessing more of their data, and delivering greater operational impact. This is especially true for unstructured data, which now comprises the bulk of enterprise information and underpins many advanced AI use cases.

Effective governance, cross-functional alignment, and performance-driven platform selection further differentiate organizations that are scaling AI from those still navigating isolated pilots. Where AI initiatives are tied to cohesive infrastructure strategies, teams are able to accelerate time-to-insight, improve model performance, and reduce operational overhead—turning technical capacity into business value.

In this context, infrastructure is no longer a supporting function. It is a determinant of whether AI remains an aspiration or becomes a scalable enterprise capability. For organizations across the Middle East, the path to AI readiness will depend on their ability to modernize data foundations, align leadership around infrastructure priorities, and embed scalability and flexibility into every layer of their AI ecosystem.

As regional enterprises move forward, the mandate is clear: to unlock the full value of AI, they must first unlock the full value of their infrastructure.

Sponsor's Note

his white paper, developed in collaboration with MIT Sloan MANAGEMENT REVIEW Middle East, highlights a central truth we see echoed across the region: AI transformation is only as effective as the data infrastructure that supports it. From fragmented legacy systems to evolving governance and performance demands, the barriers to AI readiness are real—but so are the opportunities.

At Pure Storage, we believe the success of any ambitious AI initiative hinges on a modern, resilient, and adaptive infrastructure. As enterprises rapidly move from AI experimentation to production-scale deployment, legacy IT limitations around performance, scalability, data fragmentation, and governance become key barriers. These often lead to costly data silos that hinder real-time insights and innovation.

This is why Pure Storage champions a robust Data Strategy. We enable organizations to build a cohesive, high-performance data foundation that eliminates data silos and ensures real-time processing capabilities, essential for dynamic AI workloads. Pure Storage is uniquely positioned to help organizations build their comprehensive AI strategy and infrastructure, confidently scaling their AI ambitions:

- Seamless Scalability & Real-time Processing with EverGreen//One: This elastic Storageas-a-Service (StaaS) model delivers consumption-based access to high-performance, purpose-built AI infrastructure. It ensures always-available capacity and SLA-backed performance, transforming infrastructure into a dynamic, cloud-like utility optimized for demanding AI training and latency-sensitive inference, ensuring real-time processing from design to deployment.
- One Data Platform for All AI Capabilities: Pure Fusion responds to governance and cross-functional alignment gaps, enabling autonomous provisioning, intelligent workload placement, and unified storage-as-code APIs. Pure Fusion abstracts complexity, providing a single control plane across block, file, and object storage, allowing enterprises to implement consistent, policy-driven management across hybrid environments, thereby eliminating data silos and fostering a unified data landscape. Complementing this, our core FlashArray and FlashBlade platforms are engineered to overcome legacy system limitations, with FlashArrayexcelling at latency-sensitive AI inference and structured analytics, while FlashBlade tackles unstructured data bottlenecks for AI model training, providing high-throughput parallel access for multimodal data.

Unified Data Management for Cloud-Native and Multi-Cloud AI: For cloud-native applications and containerized AI environments, Portworx delivers a robust, Kubernetes-native data platform. It not only accelerates deployment and mitigates infrastructure fragmentation but is also pivotal in enabling hybrid and multi-cloud AI strategies, providing the agility needed to expand AI footprints seamlessly across diverse cloud landscapes.

Crucially, Pure Storage helps organizations build for the future and accommodate more AI use cases and technology. Our pre-validated AI reference architectures, accelerate both training and inference while supporting governance, scalability, and compliance mandates, ensuring your AI infrastructure remains adaptive and ready for evolving demands.

As sustainability has become a top executive priority in the Middle East, our platforms are engineered for industry-leading energy and space efficiency, significantly reducing carbon footprint while scaling AI infrastructure responsibly. Sustainability is not a tradeoff; it is built into every solution.

Whether centralizing AI initiatives, deploying edge AI for real-time insights, or modernizing data foundations, Pure Storage offers a comprehensive solution stack tailored to business outcomes. Our consultative approach ensures infrastructure investments align with strategic goals, enhancing operational agility, regulatory confidence, and sustained innovation.

As highlighted in this white paper, modern data infrastructure is a strategic enabler of AI success. Pure Storage is proud to collaborate on this research and to continue empowering Middle East enterprises with the tools, platforms, and insights they need to lead in the AI era.

Yousef Mhana AI Senior Technical Sales Executive, METCA **Ahmed Soliman** Country Manager, UAE

Umair Riaz

Field Solutions Architect, METCA

PURE STORAGE