QDB
بنــك قطــر للتنــمية
QATAR DEVELOPMENT BANK

Qatar's Artificial intelligence Sector
Executive Summary

SME Industry Series 2024

As part of Qatar's efforts to strengthen the private sector and advance the country's entrepreneurship, SME, and innovation ecosystems in line with its National Vision 2030, Qatar Development Bank (QDB) continues to play a central role as a growth partner for entrepreneurs—supporting them from ideation to execution.

Through its SME Industry Series, QDB publishes sector-focused reports that provide Qatari entrepreneurs with valuable insights such as market demand analysis, competitive landscape assessments, and information on existing market players, enabling them to make informed decisions regarding market entry and business development.

This summary presents an overview of Qatar's Artificial Intelligence (AI) sector, covering technologies which drive innovation, enhance efficiency, and boost productivity across industries, particularly benefiting SMEs in Qatar. It provides key market insights, emerging trends, an overview of the local ecosystem, and highlights potential opportunities for SMEs to adapt to market changes and strengthen their competitive edge in Qatar's evolving economy.

The detailed report, on which this summary is based, is available on the QDB website.

AI is a powerful tool that is advancing rapidly. It is capable of performing tasks that have traditionally required human intelligence, such as decision-making, problem-solving and language comprehension

AI MARKET SEGMENTATION

Machine Learning
- Supervised Learning
- Unsupervised Learning
- Reinforcement Learning

Autonomous & Sensor Technology
- Autonomous Vehicles
- Autonomous Process Systems
- Autonomous Health Systems

Natural Language Processing
- Speech Recognition
- Language Translation
- Sentiment Analysis

Robotics & Automation
- Autonomous Mobile Robots
- Automated Guided Vehicles
- Articulated Robots (Robotic Arms)
- Hybrid Robots

Generative AI
- Generative Adversarial Networks
- Transformers
- Variational Autoencoders
- Large Language Models
- Recurrent Neural Networks

Computer Vision
- Image Classification
- Object Detection
- Facial Recognition

This report segments the AI market based on six key technologies.

LEADING FIRMS

Machine Learning	aws	Google Cloud	Microsoft	
Natural Language Processing	G	IBM	OpenAI	Microsoft
Computer Vision	Verkada	VERITONE.	G	Tesla
Robotics & Automation	Boston Dynamics	VECNA ROBOTICS	FANUC	ABB
Autonomous & Sensor Technology	Verkada	WAYMO	Velodyne LiDAR.	Tesla
Generative AI	Microsoft	OpenAI	NVIDIA	G · AI

*Please note the list of entities provided is not exhaustive

This report does not cover hardware aspects related to robotics, Enterprise Resource Planning (ERP) software like Systems, Applications & Products in Data Processing (SAP) or web development services for designing websites.

The global AI market is projected to reach QAR 3,026 billion by 2030, growing faster than Internet-of-Things (IoT) and public cloud sectors

GLOBAL AI MARKET

Global AI Market (QAR billion)
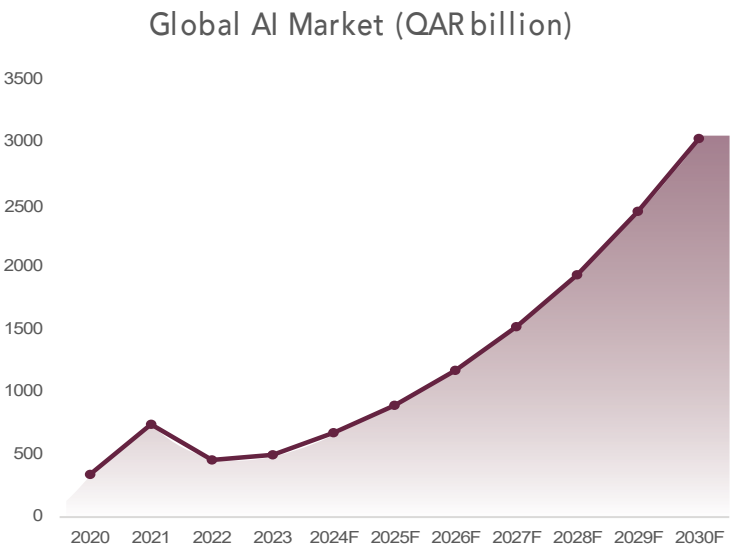
The global AI market is expected to grow with a **CAGR of ~28.5%** from 2024 to 2030

With this growth, the Global AI market is expected to reach over **QAR 3,000 Bn by 2030**

Source: Statista

In line with global trends, the GCC AI market is expected to experience significant growth

GCC'S AI MARKET GROWTH

GCC AI Market (QAR Bn, 2020-2030F)

28.6%

2020	2021	2022	2023	2024F	2025F	2026F	2027F	2028F	2029F	2030F
6.44	14.12	8.49	9.18	12.44	16.50	21.66	28.18	35.94	45.45	56.36
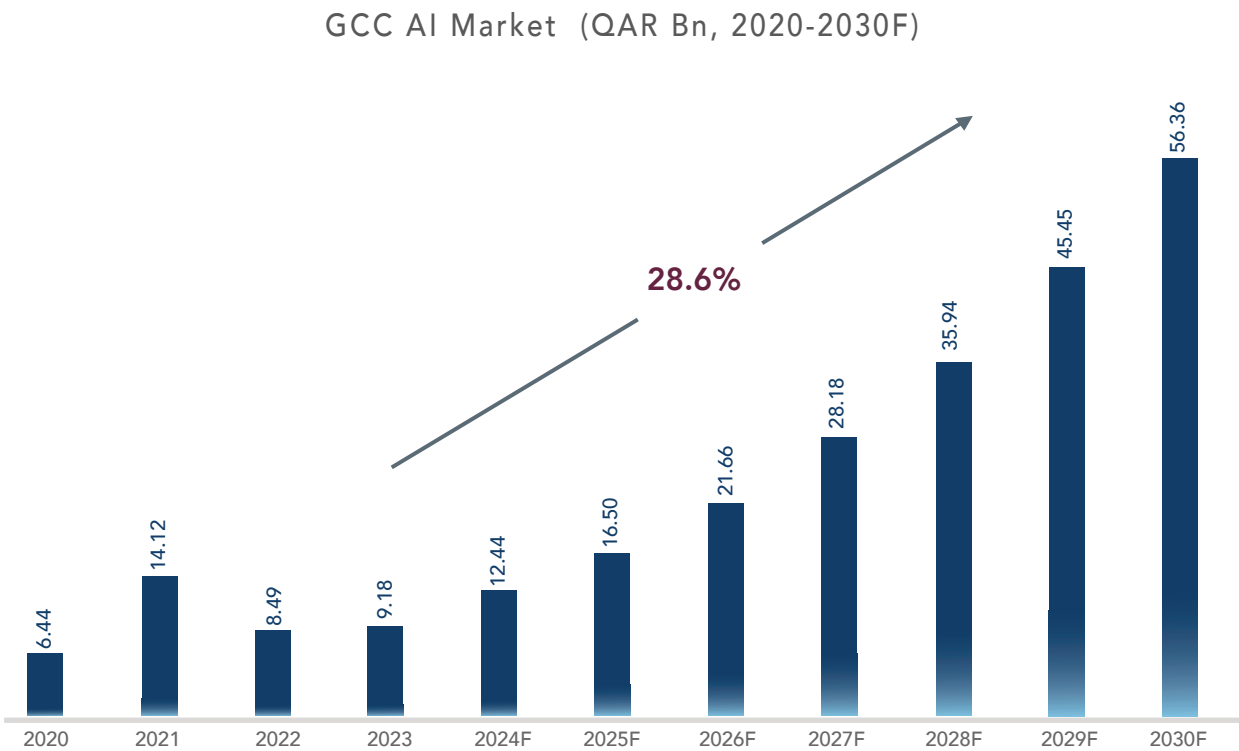
The GCC market is expected to grow at a **CAGR of 28.6%** to **~56 Bn by 2030**

This surge is driven by increasing AI adoption across sectors like financial services, healthcare, and smart cities

Source: Statista

GCC member states are progressing in their AI readiness, as indicated by Oxford Insights 2023 Global AI Readiness Index

GCC'S AI STRATEGIC DIRECTION

GCC State	National AI Strategy	Key Government Body	Notable Education Initiative	Global AI Readiness Index (2023)
UAE	National Strategy for Artificial Intelligence	UAE Artificial Intelligence, Digital Economy and Remote Work Applications Office	Mohamed bin Zayed University of Artificial Intelligence (MBZUAI)	70.42
KSA	National Strategy for Data & AI (NSDAI)	Saudi Data & AI Authority (SDAIA)	King Abdulaziz University of Science of Technology (KAUST)	67.04
Qatar	Qatar's National AI Strategy (2019)	Qatar's AI Committee (Led by MCIT)	Hamad Bin Khalifa University (HBKU)	63.59
Oman	The National Program For AI And Advanced Technologies	Ministry of Transport, Communications and Information Technology	Sultan Qaboos University	58.94
Bahrain	N/A	Information & eGovernment Authority	Nasser Artificial Intelligence Research and Development Centre (NAIRDC)	56.13
Kuwait	Kuwait's National AI Strategy	Central Agency for Information Technology (CAIT)	Kuwait College of Science & Technology (KCST)	49.86

AI could generate up to QAR **546** billion

Or approximately **7%** of the GCC's combined GDP

Qatar's AI ecosystem is evolving, fostering a diverse network of stakeholders. The collaborative effort aims to drive innovation, economic growth, and improved quality of life through the adoption of AI technologies

LOCAL AI ECOSYSTEM

Sector Developers

Commercial Registration & Regulators

Ministry of Commerce and Industry, State of Qatar
Ministry of Communications and Information Technology, State of Qatar
Communications Regulatory Authority, State of Qatar
Qatar Financial Centre
Qatar Central Bank
QFZ

Academic & Research Entities

Qatar Foundation
Carnegie Mellon University Qatar
Hamad Bin Khalifa University
Qatar University

Sector Enablers

Technology Providers

Microsoft
Google
ooredoo

Incubation and Training Institutions

TASMU
elev8
Qatar Business Incubation Center
Ratelab (SaaS Prohibition Qtar Digital Incubation Center

Investing & Funding Entities

QDB
invest Qatar
QIA
Qatar Investment Authority

Delivery Stakeholders

AI Product Developers

Snoonu
MURSHID
ableyf
TWYLA
avey

AI Integration Service Providers

MEEZA
GBM
MANNAI CORPORATION
Optimum Systems
malomatia excel with IT
ADGS اعجاز

Source: Company Websites
*Please note the list of entities provided is not exhaustive.

Sector Developers

This group formulates policies that establish industry standards, ensure regulatory compliance, and facilitate licensing platforms. Academia drives research and educational programs to nurture talent and develop a skilled workforce. Entities like the Qatar Research Development and Innovation (QRDI) Council and HBKU's Qatar Computing Research Institute (QCRI) contribute to the research, development, and application of AI in Qatar. Universities provide academic programs, and research opportunities in AI, machine learning, and big data analytics.

Sector Enablers

Sector Enablers provide the infrastructure, talent development and incubation support to foster AI development in the region. Leading technology entities such as Microsoft and Google offer infrastructure and AI technologies across multiple industries. Talent development initiatives, such as those operated by Elev8, focus on equipping the workforce with necessary skills. Entities like the Qatar Business Incubation Centre (QBIC) and TASMU provide incubation services and workshops. Invest Qatar and QDB facilitate access to funding by providing support to startups and SMEs, enabling them to pursue innovative AI ventures.

Delivery Stakeholders

These entities play a key role in the application and commercialization of AI technologies. They leverage AI in sectors such as healthcare, e-commerce, and Information Technology (IT) serv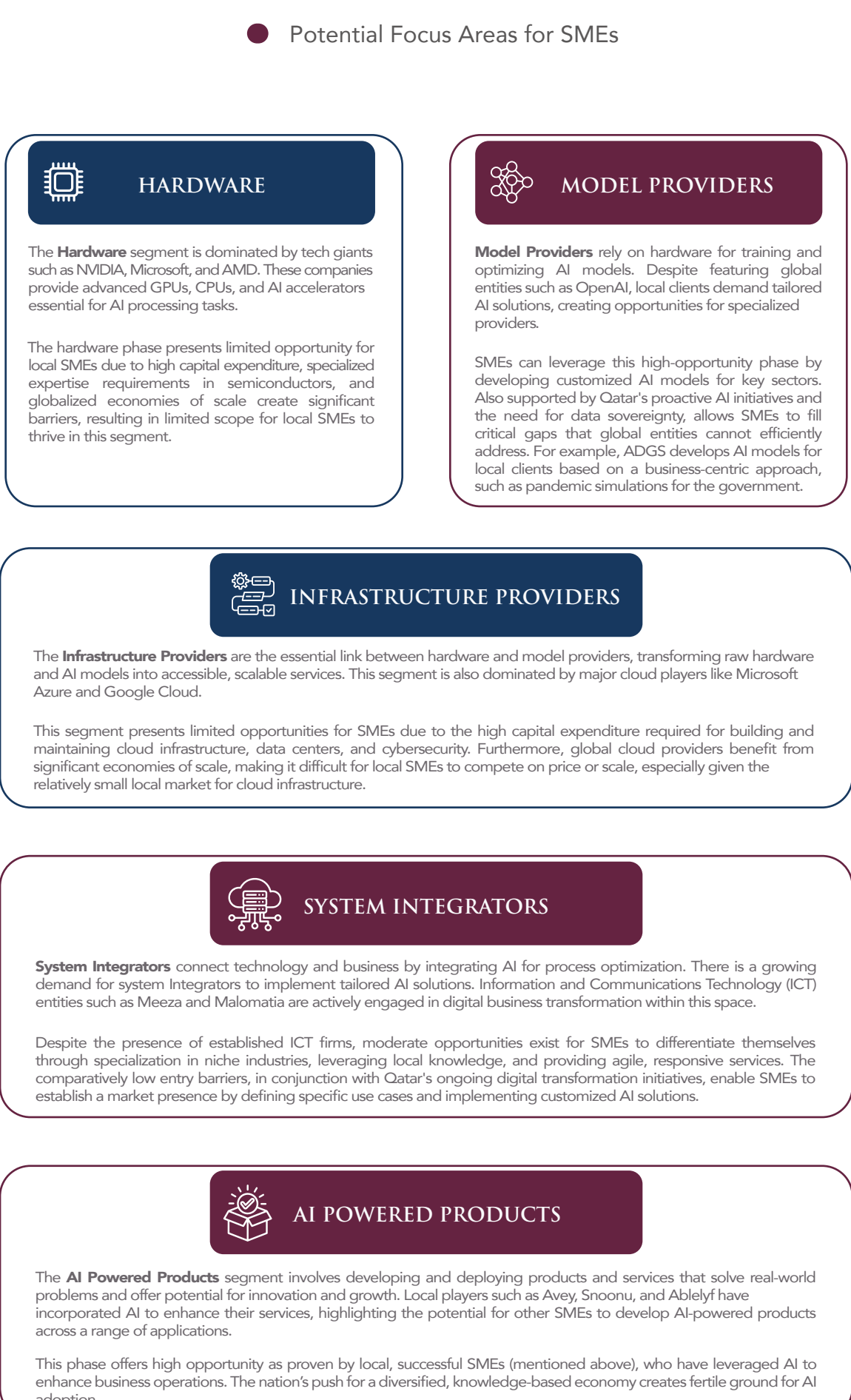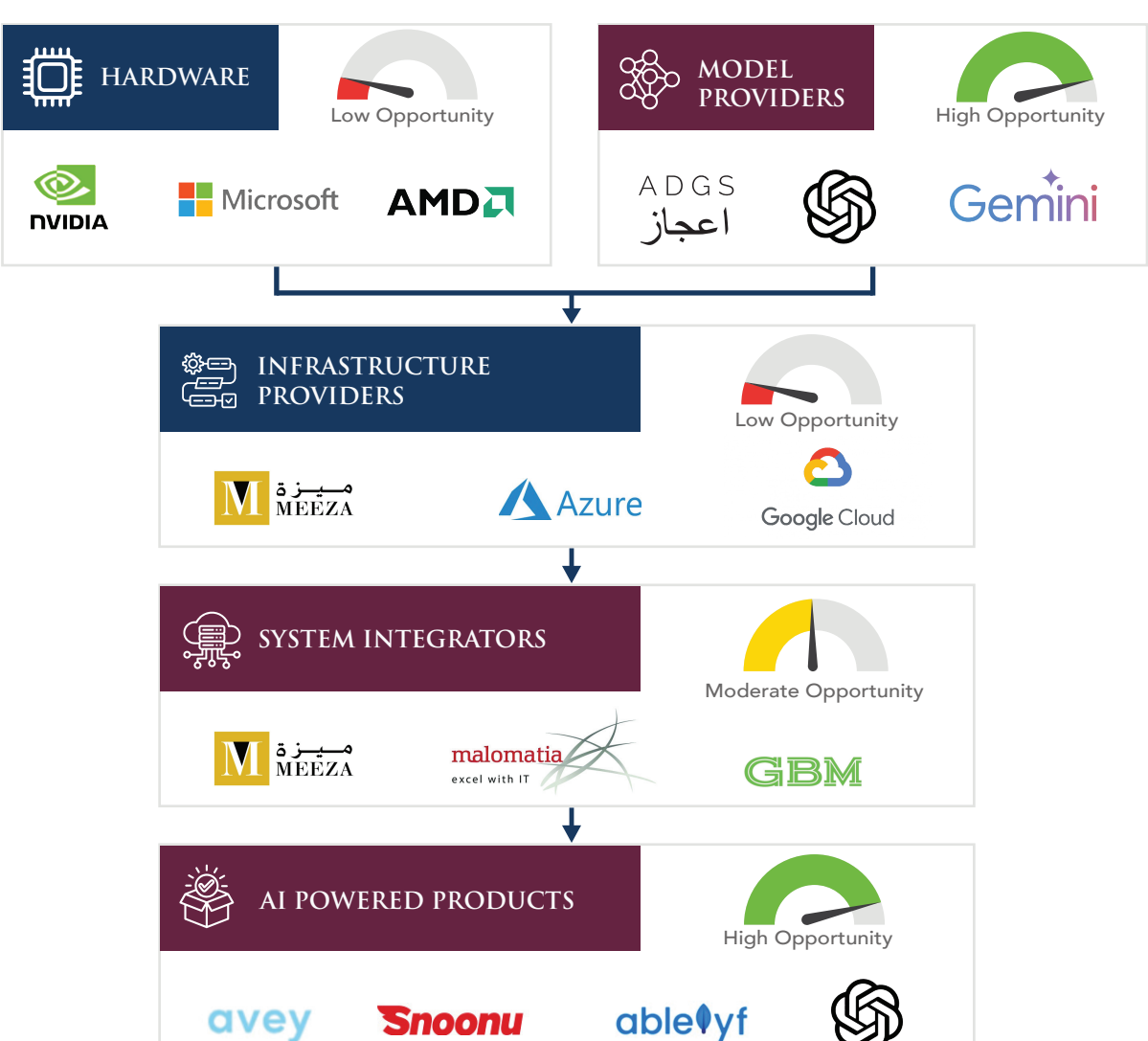ices, enhancing operational efficiency, customer experience, and well-being. AI product developers create tailored AI solutions like Murshid and Kanari.ai, monetizing via SaaS or sales, while AI integration providers like Malomatia offer custom AI services for businesses, charging project or consulting fees. Local e-commerce player, Snoonu, has used AI to optimize its logistics system.
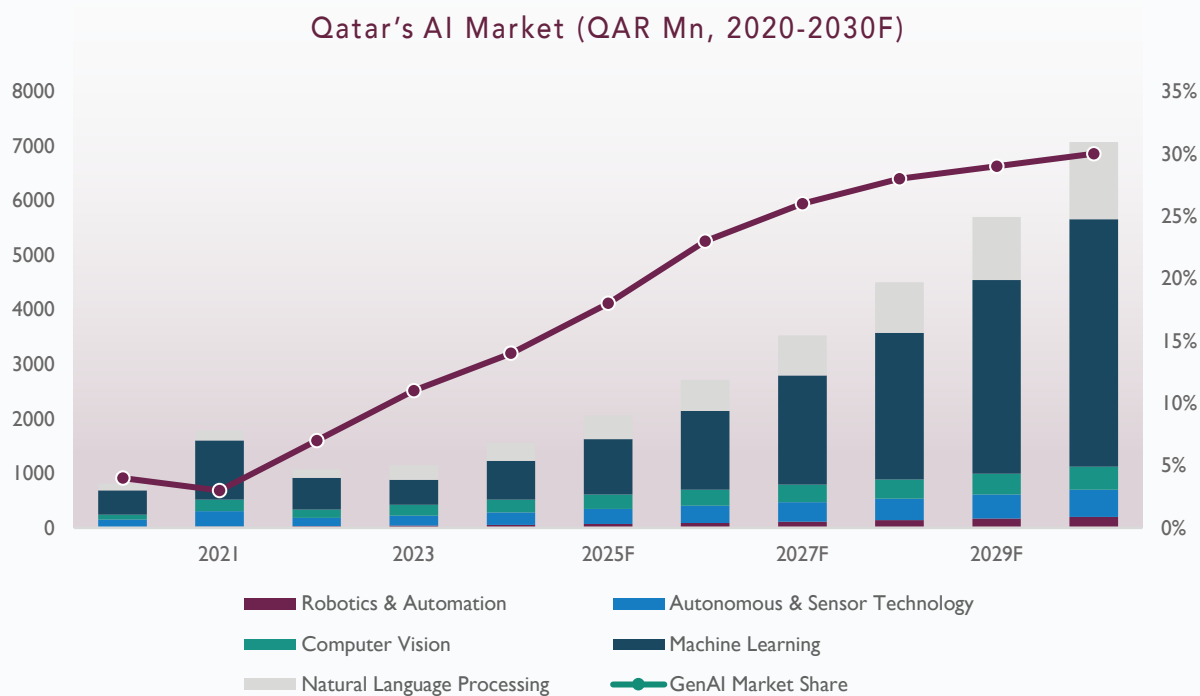
Qatar's AI sector value chain encompasses a series of interconnected stages, ranging from foundational hardware and models to AI powered products

QATAR'S AI VALUE CHAIN

HARDWARE — Low Opportunity
NVIDIA, Microsoft, AMD

MODEL PROVIDERS — High Opportunity
ADGS اعجاز, Gemini

INFRASTRUCTURE PROVIDERS — Low Opportunity
MEEZA, Azure, Google Cloud

SYSTEM INTEGRATORS — Moderate Opportunity
MEEZA, malomatia, GBM

AI POWERED PRODUCTS — High Opportunity
avey, Snoonu, ableyf

*Please note the list of entities provided is not exhaustive

● Potential Focus Areas for SMEs

HARDWARE

The **Hardware** segment is dominated by tech giants such as NVIDIA, Microsoft, and AMD. These companies provide advanced GPUs, CPUs, and AI accelerators essential for AI processing tasks.

The hardware phase presents limited opportunity for local SMEs due to high capital expenditure, specialized expertise requirements in semiconductors, and globalized economies of scale create significant barriers, resulting in limited scope for local SMEs to thrive in this segment.

MODEL PROVIDERS

Model Providers rely on hardware for training and optimizing AI models. Despite featuring global entities such as OpenAI, local clients demand tailored AI solutions, creating opportunities for specialized providers.

SMEs can leverage this high-opportunity phase by developing customized AI models for key sectors. Also supported by Qatar's proactive AI initiatives and the need for data sovereignty, allows SMEs to fill critical gaps that global entities cannot efficiently address. For example, ADGS develops AI models for local clients based on a business-centric approach, such as pandemic simulations for the government.

INFRASTRUCTURE PROVIDERS

The **Infrastructure Providers** are the essential link between hardware and model providers, transforming raw hardware and AI models into accessible, scalable services. This segment is also dominated by major cloud players like Microsoft Azure and Google Cloud.

This segment presents limited opportunities for SMEs due to the high capital expenditure required for building and maintaining cloud infrastructure, data centers, and cybersecurity. Furthermore, global cloud providers benefit from significant economies of scale, making it difficult for local SMEs to compete on price or scale, especially given the relatively small local market for cloud infrastructure.

SYSTEM INTEGRATORS

System Integrators connect technology and business by integrating AI for process optimization. There is a growing demand for system Integrators to implement tailored AI solutions. Information and Communications Technology (ICT) entities such as Meeza and Malomatia are actively engaged in digital business transformation within this space.

Despite the presence of established ICT firms, moderate opportunities exist for SMEs to differentiate themselves through specialization in niche industries, leveraging local knowledge, and providing agile, responsive services. The comparatively low entry barriers, in conjunction with Qatar's ongoing digital transformation initiatives, enable SMEs to establish a market presence by defining specific use cases and implementing customized AI solutions.

AI POWERED PRODUCTS

The **AI Powered Products** segment involves developing and deploying products and services that solve real-world problems and offer potential for innovation and growth. Local players such as Avey, Snoonu, and Ablelyf have incorporated AI to enhance their services, highlighting the potential for other SMEs to develop AI-powered products across a range of applications.

This phase offers high opportunity as proven by local, successful SMEs (mentioned above), who have leveraged AI to enhance business operations. The nation's push for a diversified, knowledge-based economy creates fertile ground for AI adoption.

Despite being in its nascent stage, Qatar's AI market is set for success, driven by strategic initiatives and key investments

LOCAL AI MARKET

Qatar's AI Market (QAR Mn, 2020-2030F)

Legend:
- Robotics & Automation
- Autonomous & Sensor Technology
- Computer Vision
- Machine Learning
- Natural Language Processing
- GenAI Market Share

In 2024, Qatar's AI market is expected to reach **QAR 1.55 billion**, growing at a CAGR of **~28.66%** from 2024 to 2030

Machine Learning dominates the local AI market, offering SMEs tools for analytics, insights, and optimization.

Generative AI will rise after 2026, focusing on content creation and personalized marketing

Source: Statista, NDS3, National AI Strategy, Digital Agenda 2030

MCIT has spearheaded the development of the AI sector. The government plans to launch a comprehensive AI strategy to boost its AI capabilities. This includes building local talent and attracting global experts to accelerate sector growth.

SUPPORT FOR SMES IN QATAR

Financial Support
In addition to retail banking institutions, QDB offers support through technology financing, including "Minha for Digital Transformation" for emerging firms and "Technology and Digitalization Solution Financing" for mature set ups. Furthermore, QSTP provides funding for innovative digital projects, depending on their specific nature and development stage.

Advisory & Mentorship Services
The entities listed under sector enablers in Qatar's Local AI Ecosystem provide support to SMEs. Additionally, QDB and its subsidiaries, such as QBIC, offer comprehensive assistance to SMEs throughout their development journey in enabling sectors. QSTP and MCIT also support SMEs in the AI space, including prototype development and mentorship through QSTP's XLR8 program, as well as incubation via MCIT's Digital Incubation Center.

Infrastructure & Technological Resources
The entities listed under Technology Providers in Qatar's Local AI Ecosystem highlight key contributors to local infrastructure and resources. Additionally, Qatar supports AI through initiatives such as the Ooredoo-NVIDIA AI collaboration, QSTP's advanced labs for AI development, Microsoft's data center region, and Google's cloud region, in partnership with MCIT and the Qatar Free Zones Authority (QFZA).

Education, Training & Networking
Local institutions play a key role in AI training and research, with QCRI at HBKU and Qatar University leading initiatives in AI research. The Ministry of Education plans to integrate AI into the national education system, while the HBKU-Huawei AI ICT Hub supports growth and innovation among SMEs. Networking opportunities in the market are facilitated by events such as the Qatar Web Summit, and the MCIT National Skilling Program focuses on advancing digital upskilling initiatives.

Source: Primary Research, Entity Websites

AI's disruption potential in Qatar offers SMEs the chance to identify new opportunities. By tapping into transformative, promising, and emerging applications, particularly in Healthcare and Financial Services

AI DISRUPTION AND SME OPPORTUNITY IDENTIFICATION

Transformative Potential
- Healthcare
- Financial Services

Promising Potential
- Manufacturing
- E-commerce
- Technology, Media and Telecommunications

Emerging Potential
- Automative
- Energy
- Transportation

A SWOT analysis of Qatar's AI sector highlights strengths in infrastructure, government support, and talent, along with challenges and growth opportunities

SWOT ANALYSIS

Strengths
The local AI sector benefits from an established technological infrastructure and proactive government support. The government's QAR 9 billion investment in AI and partnerships with companies like Microsoft can drive innovation and integration.

Weaknesses
Qatar's AI sector faces challenges like reliance on imported technology and limited pool of skilled professionals in AI implementation, highlighting the need for local talent development and retention.

Threats
Threats include lagging behind global and regional AI leaders due to capability gaps. Additionally, the presence of these players and the remote nature of AI services pose challenges for local companies.

Opportunites
Qatar, with 99% internet penetration and 2.7 million users, offers an AI-conducive environment. Opportunities include developing tailored AI solutions in transformative sectors like healthcare and financial services, investing in local talent, and leveraging government support and initiatives to foster AI research, innovation, and entrepreneurship.

As Qatar's AI sector is gaining momentum, it offers potential opportunities for SMEs to establish a presence in this emerging market. The following recommendations aim to support SMEs to engage effectively with Qatar's AI market

STRATEGIC INVESTMENTS

Qatar has positioned itself as an important participant in the MENA and global AI landscapes, developing AI solutions that align with its long-term strategic objectives. The adoption of AI across sectors like healthcare, financial services, and transportation marks a significant transformation in the country's technological infrastructure.

GOVERNMENT SUPPORT

The Government is heavily investing in AI to harness its transformative potential. At the Qatar Economic Forum, the Government announced a QAR 9 billion (USD 2.47 billion) incentive package aimed at boosting investments in technology, innovation, and AI, driving Qatar's digital transformation.

SMART CITY INITIATIVES

Qatar is advancing its Smart City initiatives with AI to drive innovation and efficiency. The Google Cloud region in Doha boosts AI capabilities, while the Municipality's Smart Cities Solutions project uses AI to improve infrastructure. The "Smarter Qatar" report and discussions at the Katara Tech Forum highlight AI's role in digital transformation and urban development, positioning Qatar as a leader in smart city advancements.

ARABIC LANGUAGE FOCUS

As an Arabic-speaking nation, Qatar prioritizes AI for Arabic language processing, leveraging its extensive Arabic content for AI model development. Initiatives like QCRI's Arabic speech-to-text tools, the Farasa suite, and the "Fanar" project are enhancing linguistic models and preserving Arab identity in AI applications, underscoring Qatar's strategic focus on this area.

KEY RECOMMENDATIONS FOR SMES

1

Leverage Government Support
SMEs can benefit from government support through advisory services, training programs, government-led AI initiatives, and networking events. Additionally, aligning business models with Qatar's National AI Strategy, NDS3 and the DA 2030 can support SMEs grow and sustain within the AI landscape.

2

Target High-Potential Sectors
SMEs should target industries with high AI transformation potential, such as healthcare and financial services. Developing AI solutions that address specific challenges within these sectors and collaborating with established players can provide valuable industry insights and facilitate market entry. Additionally, addressing local market needs by developing Arabic language AI capabilities and culturally relevant solutions ensures relevance and acceptance within Qatar.

3

Invest in Talent Retention
While Qatar has taken steps to cultivate a skilled workforce, the nascent state of the local sector presents opportunities for improvement in workforce retention. SMEs should partner with Qatari academic institutions to facilitate direct talent acquisition, offer internships and training programs specifically designed to cultivate local AI expertise, and increase retention of skilled professionals in the sector.

4

Adopt Ethical AI Practices
Prioritizing ethical AI practices by adhering to Qatar's ethical AI guidelines as published by MCIT, implementing robust data protection and privacy measures, and staying informed about evolving regulatory frameworks is essential for building trust and ensuring compliance. Additionally, fostering transparency in AI systems by acknowledging potential biases in AI models and engaging with stakeholders on their ethical implications will further strengthen public confidence in these technologies.

5

Build Partnerships and Innovate
Building strategic partnerships can enhance an SME's capabilities and market reach. Collaborating with larger tech companies and research institutions, joining AI-focused business networks and associations, and engaging in knowledge-sharing initiatives with other SMEs can create synergistic opportunities and drive innovation. Moreover, embracing continuous innovation by investing in ongoing research and development, regularly updating AI models and technologies, and quickly adapting to emerging trends will help SMEs maintain a competitive edge.

By implementing these strategic recommendations, SMEs can effectively engage with Qatar's AI market, build sustainable businesses, and contribute to the country's digital transformation.