



The Rise of Petrocompute

Building Saudi Arabia's Next Industrial Advantage Through Compute



2026



His Royal Highness Crown Prince and the
Prime Minister of Saudi Arabia
**Mohammad Bin Salman Bin Abdul Aziz Al
Saud**

“We are living in a time of scientific innovation, unprecedented technology, and unlimited growth prospects. These new technologies such as Artificial Intelligence and the Internet of Things, if used optimally, can spare the world from many disadvantages and can bring to the world enormous benefits.”

“Establishing SDAIA and launching the National Strategy for Data & AI has been a result of a broad vision by His Royal Highness the Crown Prince, the Chairman; that believes in the value of data and artificial intelligence as an important economic resource for the Kingdom to achieve its Vision 2030.”



H.E. Dr. Abdullah bin Sharaf Alghamdi
President of Saudi Data & AI Authority

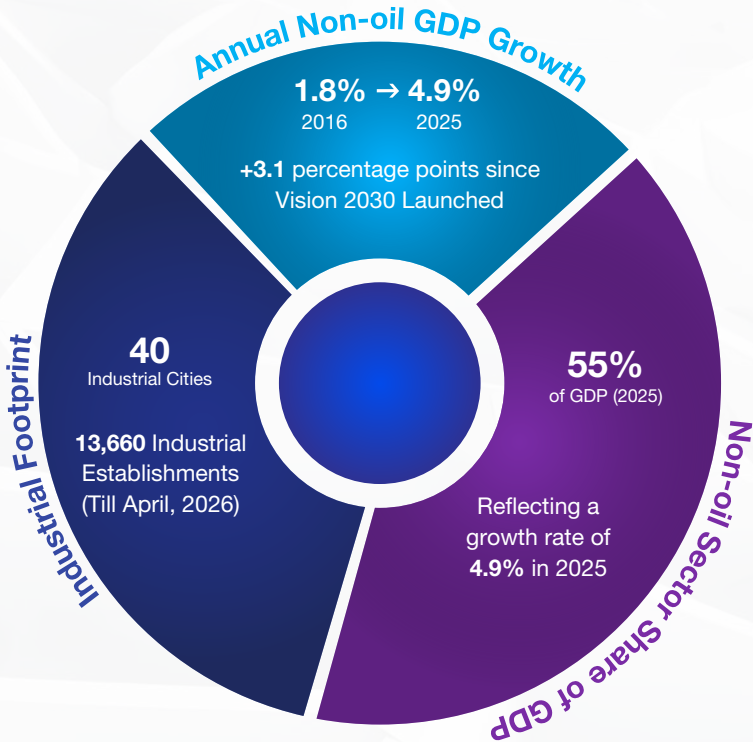
Transformation of Saudi Arabia's Industrial Base

Industrial Transformation

Saudi Arabia is entering a new phase of industrial development, with diversification increasingly supported by a broader and more established non-oil industrial base.

This expansion is shifting the requirements of industrial ecosystems beyond traditional land, utilities, and logistics toward more integrated platforms that combine physical infrastructure with automation, connectivity, and digital capabilities.

As industries become more technology-intensive, data centres, cloud infrastructure, and compute capacity are emerging as critical enablers of industrial competitiveness, forming an increasingly important layer of Saudi Arabia's next-generation industrial infrastructure.



The Next Chapter of Industrial Transformation

Traditional Industrial Infrastructure

Core assets required to enable production and movement of goods

- Industrial Land & Factories | Physical Capital**
Space and assets for industrial production.
- Utilities & Basic Power Supply | Infrastructure Capital**
Essential energy, water, and services.
- Roads, Ports & Logistics Corridors | Connectivity Capital**
Links production to suppliers and markets.
- Warehouses & Distribution Space | Supply-Chain Capital**
Supports storage and product distribution.

Next-generation Industrial Infrastructure

Integrated platforms required to support smarter, cleaner, and more connected industries

- Layer 1: Core Industrial Base**
Factories, warehouses, utilities, and industrial land.
- Layer 2: Logistics and Connectivity**
Ports, logistics platforms, trade routes, and supply-chain networks
- Layer 3: Clean Energy and Resilient Utilities**
Renewable power, smart grids, backup systems, and efficient cooling
- Layer 4: Smart Operations**
Automation, sensors, robotics, and monitoring systems
- Layer 5: Digital Infrastructure**
Data centers, cloud platforms, cybersecurity, and real-time systems

Source: Vision 2030, GASTAT

Saudi Arabia's Compute Ecosystem Supporting Next-generation Industrial Infrastructure



Saudi Arabia Data Centre & AI Infrastructure

Kingdom's Industrial-Scale Compute Infrastructure

Saudi Arabia's data centre market is scaling rapidly, with installed capacity, new facilities and rising internet penetration creating the physical and digital foundation required to support expanding domestic compute demand.

The scale of planned capacity and near-universal connectivity indicates that Saudi Arabia is moving beyond early infrastructure formation toward a deeper, more resilient platform capable of supporting compute-intensive industrial activity.

Kingdom's Data Centres and AI Infrastructure Metrics



Kingdom's Data Centre Market Revenue Growth, 2025–2033 (US\$ Bn)



Source: SIDF, Yahoo Finance, Saudistreets, Vision 2030

Scaling Saudi Arabia's National Compute Infrastructure

From Infrastructure Readiness to National-Scale Execution

Saudi Arabia's expanding data-centre base is being reinforced by national platforms designed to accelerate AI infrastructure deployment and build domestic compute capacity at scale.

HUMAIN - Saudi Arabia's national AI platform - acts as a key execution platform, combining compute capacity, capital and global technology partnerships to scale the Kingdom's AI ecosystem.

HUMAIN: Building Saudi Arabia's Global AI Infrastructure Platform



Source: Saudi Press Agency

How Data Centres Operate & Why Saudi Arabia has a Structural Advantage?



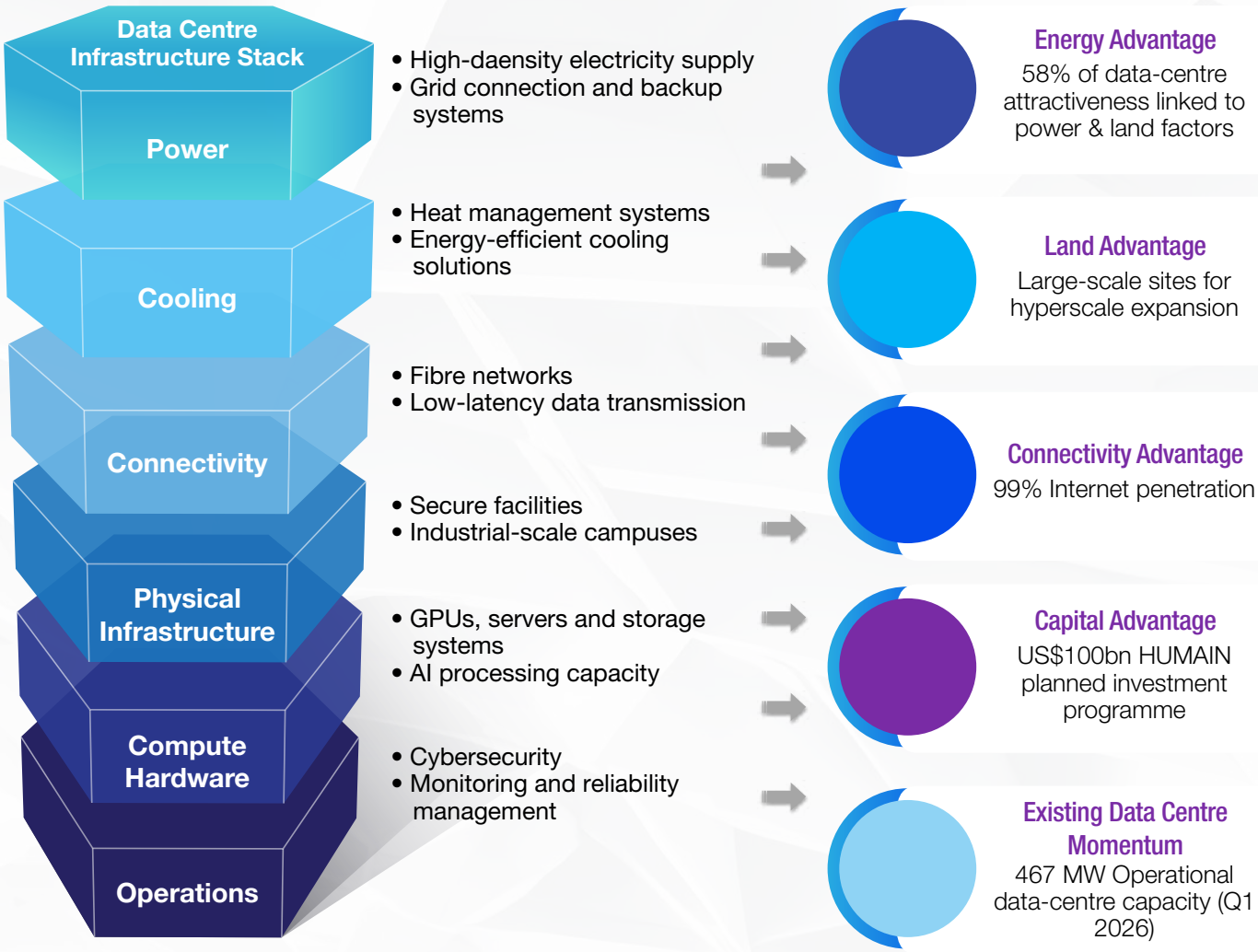
The Physical Layer Powering the Kingdom's Petrocompute Economy

Data Centres as Industrial Infrastructure

Data centres are the foundation of AI infrastructure, combining physical facilities, energy systems, connectivity networks and advanced hardware to transform industrial inputs into computing capacity.

Saudi Arabia's ability to scale compute is supported by the same advantages that enabled its industrial growth: energy availability, large-scale land, infrastructure networks and investment capacity.

Saudi Arabia's Edge in Compute Infrastructure



Oxagon: A Proof of Concept for the Petrocompute Economy

Oxagon as a Compute-Enabled Industrial Platform

Oxagon demonstrates the convergence of industrial and digital infrastructure, integrating energy, land, connectivity and technology capabilities to support AI infrastructure at scale while enabling next-generation industrial applications.

Unlike standalone data-centre developments, Oxagon embeds compute infrastructure within an industrial ecosystem designed for advanced manufacturing, logistics and future digital industries.

Oxagon AI Infrastructure Indicators



Source: NEOM

Looking Ahead

Opportunities

- Exporting Compute as a Strategic Resource**
- Saudi Arabia can evolve from an energy exporter to a provider of the infrastructure that powers AI workloads across emerging market
- Increasing Industrial Productivity**
- Domestic compute capacity can strengthen sectors where Saudi Arabia already has scale, including energy, manufacturing, logistics and mining.
- Creating a New Technology Ecosystem**
- Large-scale compute infrastructure can attract adjacent industries including AI software, semiconductor services, cloud platforms and specialised engineering.
- Developing a Regional Compute Export Market**
- Saudi Arabia can leverage its energy advantage, strategic location and growing infrastructure base to provide AI compute capacity to neighbouring markets.
 - This creates the potential to position compute as a new strategic export alongside traditional energy resources.

Threats

- Utilisation Risk**
- Building infrastructure is only the first step; long-term success depends on attracting sufficient AI workloads and enterprise demand.
- Talent & Capability Gap**
- Compute infrastructure requires specialised expertise in AI engineering, data-centre operations and advanced systems management
- Technology Dependency**
- The AI value chain remains dependent on advanced chips, semiconductor supply chains and specialised technology providers.
- Hardware Supply Dependency**
- AI infrastructure depends on access to advanced GPUs, semiconductors and specialised technology supply chains.



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Contact Us

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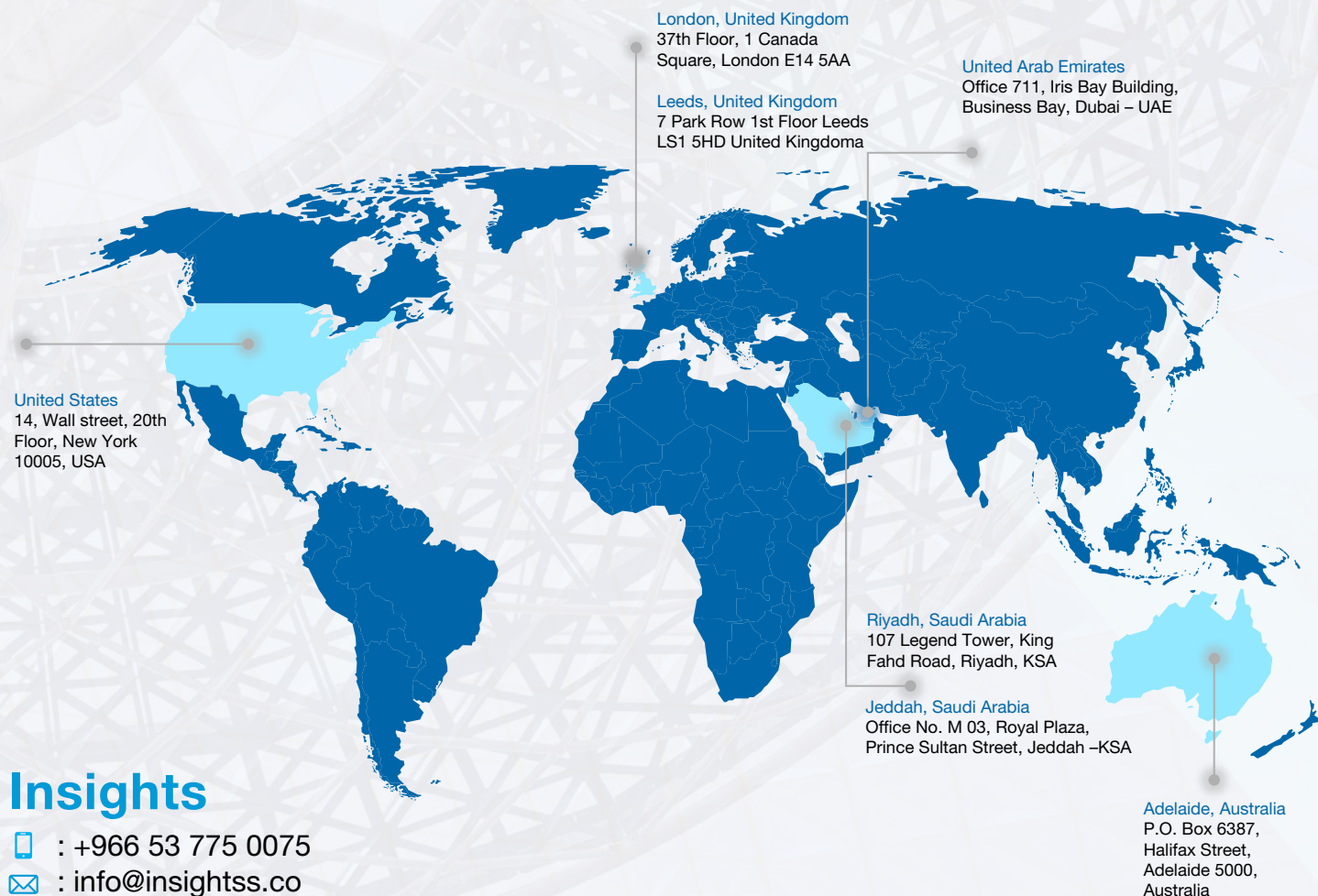
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