

SAUDI ARABIA'S AI AMBITION: NATIONAL CAPABILITY, STRATEGIC AUTONOMY AND GLOBAL PARTNERSHIPS

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August 27, 2026

(Views expressed in the brief are those of the author, and do not represent those of ISSI)



Artificial intelligence is reshaping the global allocation of economic, technological, and strategic power. States can raise productivity, modernise public administration, and influence the governance of emerging technologies through control of digital platforms, infrastructure, data, and specialised knowledge. Saudi Arabia has accordingly integrated AI into its broader transformation agenda under Vision 2030. This process accelerated further in March 2026, when the Saudi Cabinet designated 2026 as the 'Year of Artificial Intelligence', signalling a shift from strategic planning towards wider implementation across government and society. The Kingdom's approach combines centralised policy coordination and sovereign investment in digital infrastructure, international partnerships, and human-capital development. Saudi Arabia possesses the financial and energy resources to emerge as a major regional AI hub. Its longer-term influence, however, will depend on the extent to which foreign partnerships are translated into domestic research, intellectual property, and commercially viable innovation. Without such localisation, reliance on imported processors, cloud technologies, and expatriate expertise is likely to persist.¹

¹ Saudi Press Agency, "Saudi Arabia Emerges as AI Powerhouse under Vision 2030, Declares 2026 the Year of Artificial Intelligence," March 10, 2026, <https://www.spa.gov.sa/N2533339>.

Saudi Arabia's AI ambitions are rooted in the Kingdom's broader effort to diversify an economy historically dependent on hydrocarbons and public expenditure. Economic restructuring, diversification, and a more efficient public sector became central priorities with the introduction of Vision 2030 in 2016. In 2019, Saudi Arabia established the Saudi Data and Artificial Intelligence Authority (SDAIA), followed in 2020 by the National Strategy for Data and Artificial Intelligence, which recognised data and AI as strategic assets. The sequencing is significant because it embeds AI within national economic planning rather than treating it solely as a sectoral technology policy. It also reflects Saudi Arabia's state-led development model, in which public investment and regulation are used to catalyse private-sector participation. SDAIA, the National Data Management Office, and the National Center for Artificial Intelligence direct data governance, adoption, and public-sector capability-building, while HUMAIN, established by the Public Investment Fund in 2025, serves as a commercially oriented vehicle for investment in data centres, cloud infrastructure, advanced models, and AI applications. At the same time, a highly centralised model carries risks. Large state-backed entities can potentially crowd out smaller private firms or prioritise strategic scale over commercial viability. The IMF has therefore emphasised that industrial policy should catalyse private investment and address genuine market failures rather than substitute for market activity.²

One of Saudi Arabia's principal advantages is its ability to build and finance computing infrastructure at scale. HUMAIN's partnership with NVIDIA envisages AI-factory capacity of up to 500 MW over five years, beginning with an 18,000 NVIDIA GB300 deployment. By the first quarter of 2026, Saudi data-centre capacity had already risen to more than 467 MW, supported by over SAR 56.2 billion in data-centre and digital-infrastructure investment. Along with relatively inexpensive energy, available capital, and access to international markets, this strengthens the Kingdom's prospects as a regional provider of AI computing services. There are both economic and strategic advantages to such a position as advanced computing becomes an increasingly valuable resource. However, infrastructure scale does not by itself confer technological autonomy. Key processors, software stacks, and advanced computing technologies remain externally sourced, leaving parts of the ecosystem exposed to global supply-chain constraints, export-control regimes, and geopolitical shifts.³⁴

To develop more sophisticated and locally relevant technology, SDAIA's National Center for Artificial Intelligence has developed ALLaM, a Saudi-developed Arabic large language model designed to

² International Monetary Fund, "Saudi Arabia: Concluding Statement of the 2025 Article IV Mission," June 26, 2025, <https://www.imf.org/en/news/articles/2025/06/25/saudi-arabia-concluding-statement-of-the-2025-article-iv-mission>.

³ Saudi Press Agency, "Saudi Arabia Reshapes the Future of the Digital Economy Through Advanced Digital Infrastructure, Global Partnerships," August 15, 2026, <https://www.spa.gov.sa/en/N2654085>.

⁴ NVIDIA, "HUMAIN and NVIDIA Announce Strategic Partnership to Build AI Factories of the Future in Saudi Arabia," May 13, 2025, <https://nvidianews.nvidia.com/news/humain-and-nvidia-announce-strategic-partnership-to-build-ai-factories-of-the-future-in-saudi-arabia>.

strengthen Arabic-language AI capabilities. AI tools available for public use often perform unevenly in Arabic and its dialects. A capable Arabic large language model can support government services, education, and commercial applications while strengthening Saudi Arabia's position in Arabic-language AI and expanding its technological influence across Arabic-speaking markets. ALLaM also illustrates the Kingdom's broader approach: developing nationally relevant capabilities while using international technology platforms to scale and deploy them. It therefore represents an important step towards greater technological autonomy, but not an independent AI ecosystem.⁵

AI can increase productivity in sectors such as energy, logistics, manufacturing, finance, and public services, contributing to economic diversification. Saudi Arabia has already built strong digital-government infrastructure and ranked sixth out of 193 countries in the 2024 United Nations E-Government Survey. A modelling exercise undertaken by Saudi Arabia's Ministry of Communications and Information Technology in collaboration with the World Bank estimated that a 20 per cent annual growth of the AI market from 2024 to 2030 could raise GDP by 0.6 per cent above the baseline. Like all such estimates, this indicates potential rather than certainty. The productivity gains of the AI economy will also depend on growth beyond large Public Investment Fund companies and state institutions. If access to computing, talent, and data remains concentrated among major state-backed entities, the benefits of AI may remain centred on government and large enterprises rather than diffusing widely across the private sector.⁶

AI will also increase the capability of the state. Integrated data systems can strengthen service delivery and planning, resource allocation, border management, cybersecurity, and critical-infrastructure protection. They can reduce administrative costs and improve the responsiveness of government decisions. At the same time, the concentration of data within major institutions raises governance challenges relating to privacy, cybersecurity, and responsible use. Saudi Arabia has introduced AI ethics frameworks and data-governance rules intended to guide responsible development and deployment. Effective implementation of these frameworks will be important for maintaining public trust, protecting critical infrastructure, and sustaining investor confidence.⁷

The labour-market impact is equally difficult to assess. World Bank-supported modelling suggests that around 20.5 per cent of jobs in Saudi Arabia could be at risk of full replacement by AI, while the potential for new job creation is estimated at 23 per cent. Even if the overall balance is positive,

⁵ Saudi Data and Artificial Intelligence Authority, "Saudi Arabia's ALLaM Model Joins IBM watsonx," 2024, <https://sdaia.gov.sa/en/MediaCenter/News/Pages/NewsDetails.aspx?NewsID=296>.

⁶ Andrea Barone, Anila Graupp, and Samia Melhem, "Estimating the Economic Impacts of AI in Saudi Arabia," World Bank Blogs, March 4, 2025, <https://blogs.worldbank.org/en/arabvoices/estimating-the-economic-impacts-of-ai-in-saudi-arabia>.

⁷ Saudi Data and Artificial Intelligence Authority, AI Ethics Principles, accessed August 24, 2026, <https://sdaia.gov.sa/en/SDAIA/about/Documents/ai-principles.pdf>.

localised disruption is likely because workers displaced from administrative, clerical, or routine occupations may not immediately possess the skills required for new technical roles. Saudi Arabia's challenge is therefore not only to create AI-related jobs but also to manage the transition between declining and expanding occupations. This will require continued investment in education, vocational training, and applied digital skills, particularly in sectors such as health, finance, industry, and public administration. Domestic skills development will also be essential to reducing reliance on expatriate specialist expertise over time.⁸

Human capital is consequently one of the most important factors in determining whether foreign cooperation produces greater autonomy or continued dependence. International companies can accelerate the development of infrastructure and advanced systems, but foreign partnerships do not automatically generate domestic knowledge transfer. Partnerships should therefore be structured to encourage joint research, advanced training, local engineering participation, and pathways towards Saudi-owned intellectual property. Saudi education and research institutions will also need stronger competitive research, international peer engagement, and industry linkages. Success should be assessed by improvements in research and development and the ability to create and implement new systems, not simply by investment announcements or the number of training courses. Long-term technological capability will depend on the extent to which investment in computing infrastructure translates into domestic research and innovation capacity.

Regional competition in AI and advanced technologies between Saudi Arabia and the United Arab Emirates has intensified. The UAE has established an early position through entities such as G42, the Technology Innovation Institute, and the Falcon model family, while Saudi Arabia possesses advantages of market scale, capital, energy resources, and rapidly expanding infrastructure. Competition can accelerate investment and Arabic-language technology development, but parallel infrastructure programmes may also fragment scarce regional talent. Greater cooperation in areas such as cybersecurity, data standards, research, and Arabic-model evaluation could strengthen regional capability while retaining healthy commercial competition. Ultimately, leadership will be determined less by the size of announced investments than by the depth and commercial viability of the resulting technology ecosystem.

Beyond the Gulf, Saudi Arabia's AI trajectory is increasingly shaped by its technology relationships with both the United States and China. US firms continue to dominate several critical layers of the global AI ecosystem, particularly advanced processors, hyperscale cloud services, and foundational software. China provides an alternative source of partnerships in areas including telecommunications, smart-

⁸ Barone, Graupp, and Melhem, "Estimating the Economic Impacts of AI in Saudi Arabia."

city technologies, cloud services, and digital infrastructure. Saudi Arabia has sought to maintain diversified technology partnerships, although differing export-control regimes, cybersecurity requirements, technology standards, and data-governance frameworks may increasingly constrain this flexibility. Riyadh will therefore seek to preserve access to advanced technologies while avoiding excessive dependence on any single external ecosystem.

There are three broad scenarios. Saudi Arabia may successfully develop a more autonomous and internationally competitive AI ecosystem built around Arabic models, commercial applications, and domestic research. Alternatively, it may emerge as a major regional hub providing computing and AI services while continuing to rely on foreign foundational technologies. A third scenario would involve slower progress due to fiscal pressures, persistent skills shortages, and limited private-sector absorptive capacity. On current trends, the second scenario appears the most plausible in the medium term. Saudi Arabia has the economic means to create and incorporate advanced systems, while domestic research and industrial capacity continue to develop.

Investment in artificial intelligence offers Saudi Arabia the potential to accelerate economic diversification, enhance administrative capacity, and expand international influence. The long-term sustainability of these gains will depend on the establishment of domestic capabilities. This requires competitive research funding, advanced STEM training, wider private-sector access to AI and advanced computing infrastructure, and foreign partnerships that incorporate meaningful knowledge transfer, localisation, and joint research and development. National capability should also be balanced with regional cooperation, while foreign partnerships should be evaluated in part by the knowledge, skills, and intellectual property they generate within the Kingdom. AI is emerging as an increasingly important component of Saudi Arabia's broader economic diversification beyond hydrocarbons. The central policy challenge is whether the Kingdom can translate large-scale technology acquisition and global partnerships into sustainable domestic innovation, intellectual property, and strategic technological capability.