CNAS

SEPTEMBER 2025

Countering the Digital Silk Road: Saudi Arabia

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About the Technology and National Security Program

The CNAS Technology and National Security Program produces cutting-edge policy research to secure America's edge in emerging technologies while managing potential risks to security and democratic values. The program produces bold, actionable recommendations to drive U.S. and allied leadership in responsible technology innovation, adoption, and governance.

The Technology and National Security Program focuses on three high-impact technology areas: AI, biotechnology, and quantum information sciences. It also conducts crosscutting research to strengthen U.S. technology partnerships to promote secure, resilient, and rights respecting digital infrastructure and ecosystems abroad. A focus of the program is convening the technology and policy communities to bridge gaps and develop solutions.

Acknowledgments

This report would not have been possible without the expertise of many officials and experts in both the United States and Saudi Arabia who shared their insights over the course of the project. The authors extend their sincere gratitude to the U.S. Embassy in Riyadh and the many experts in Saudi Arabia who generously shared their time and expertise. They also wish to thank Mohammed Al-Sudairi and Mohammed Soliman for reviewing earlier drafts and providing invaluable feedback. The report also benefited from the excellent editorial and design contributions of CNAS colleagues Maura McCarthy, Melody Cook, Emma Swislow, Caroline Steel, and Alina Spatz. This work was made possible by the generous support of the Smith Richardson Foundation.

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Project Overview

The year 2025 marks the 10th anniversary of the Digital Silk Road (DSR), China's ambitious initiative to shape critical digital infrastructure around the world to advance its geopolitical interests and technology leadership. A decade after its launch, digital infrastructure and emerging technologies have only grown more vital and contested as demand for connectivity, digital services, and emerging technologies like artificial intelligence (AI) expand. Against this backdrop, the DSR has become increasingly central to China's broader strategy to challenge and ultimately supplant the U.S.-led digital order, and in doing so, reap potentially vast security, economic, and intelligence advantages. To assess the DSR's impact 10 years after its inception—and explore how the United States and its allies can offer a more compelling and coherent alternative—the CNAS Technology and National Security team has undertaken a major research project that produces in-depth case studies of four diverse and geostrategically critical nations—Indonesia, Brazil, Kenya, and Saudi Arabia—and culminates in a full-length report.

The fourth case study focuses on Saudi Arabia. For the study, researchers from the CNAS Technology and National Security team traveled to the country to interview U.S. and Saudi policymakers, personnel in technology firms, members of civil society, and academics. Drawing on these interviews and desk research, this case study seeks to shed light on the current dynamics and stakes of the U.S.-China competition to shape Saudi Arabia's digital ecosystem.

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Executive Summary

The Kingdom of Saudi Arabia is the heavyweight of the Arab world and a rising global power. The kingdom boasts the world's second-largest proven oil reserves and fourth-largest sovereign wealth fund. Besides Türkiye, it is the only trillion-dollar economy in the Middle East.[1]

Under Crown Prince Mohammed bin Salman (MBS), Saudi Arabia has gone all in on Vision 2030, an audacious initiative to diversify the petro-economy, modernize society, and expand the kingdom's global influence. Technology is central to Vision 2030, and up to 70 percent of its goals involve data and artificial intelligence (AI).[2] The kingdom views emerging technologies as essential to creating good jobs, indigenizing critical industries and supply chains, and realizing Neom, the crown prince's trillion-dollar techno-region in the country's northwest. For all of Riyadh's ambition, its leaders recognize that they cannot achieve Vision 2030 without foreign technology partnerships.

The United States and China are now engaged in a fierce competition to become Saudi Arabia's preferred partner as it undertakes this historic, technology-driven transformation. Both countries seek to draw this strategic, fast-growing, and ambitious rising power closer to their respective orbits. The United States has formidable advantages: American companies enjoy a long history in the country, helping to underwrite the Saudi energy sector and introduce the first radios, televisions, and computers to the kingdom. U.S. and European countries also led the Saudi tech landscape for decades, supplying its earliest telecommunications, computers, and software.[3] The United States remains the kingdom's primary security partner.

As the kingdom's economy and ambitions grew, it embraced telecommunications as foundational to growth and modernization. To expand connectivity, Riyadh opened the door to Chinese firms, which rushed in and secured key partnerships with government agencies and domestic champions. In doing so, Chinese companies established a beachhead during the kingdom's transition to 4G and 5G networks, eroding a longtime Western advantage as the preferred technology providers. Through it all, China also benefited from growing tensions in U.S.-Saudi relations over policies concerning the Arab Spring, the Iran nuclear deal, civil wars in Syria and Yemen, and the assassination of *Washington Post* journalist Jamal Khashoggi. Over this period, Beijing matured from merely a large-scale energy importer and provider of cheap information and communications

technology (ICT) into a genuine strategic partner. Although growing energy imports have made China the kingdom's largest trading partner, energy is just one facet of the bilateral relationship: Companies like Huawei and Alibaba have also expanded their offerings from telecommunications to smart cities, cloud infrastructure, and AI.[4] Two-way investment in each country's tech sector has also grown, although it pales in comparison to capital flows between Saudi Arabia and the United States.[5] The kingdom is now a pillar of China's Digital Silk Road (DSR), punctuating a remarkable turnaround given that the countries only normalized relations in 1990.

The kingdom's proactive embrace of digital infrastructure has paid dividends. The country has connected 99 percent of its population, with median mobile speeds that are roughly double the global average.[6] In 2024, the Saudi government touted its emergence as the largest and fastest-growing digital economy in the Middle East.[7] Riyadh now sees technology—and especially AI—as the engine of further progress, and it seeks to dramatically expand its domestic data center capacity, semiconductor design and fabrication ecosystem, and AI adoption. It now seeks foreign partners to realize these ambitions.

The United States has a strong hand to play. Washington's challenge is meeting Saudi demand without compromising sensitive U.S. technologies, offshoring leadership at the AI frontier, or enabling greater digital authoritarianism. At the same time, Riyadh will likely resist Washington's efforts to force outright alignment with the U.S. technology ecosystem, given its fast-maturing relationship with Beijing. Still, there is considerable opportunity for U.S. officials and industry to draw on their technological, political, and reputational advantages to outcompete China's DSR in the heart of Arabia. To that end, this report offers the following recommendations for U.S. officials:

- **Conclude a secure, phased, and verifiable deal with Saudi Arabia for advanced AI chips.** As of September 2025, the Trump administration's agreement with Saudi Arabia to expand access to advanced AI chips remains under negotiation. Under its initial terms, the Saudi AI champion Humain could purchase hundreds of thousands of advanced NVIDIA and AMD chips to build a 1 gigawatt (GW) data center.

  The administration has considerable leverage: Huawei's Ascend chips are less performant and less available for foreign deployment, given compute shortages within China. Unlike many emerging markets, leaders in Riyadh strongly prefer best-in-class offerings, and U.S. companies dominate the AI stack. Put simply, Saudi Arabia needs American AI more than America needs Saudi capital. This presents a strategic but potentially fleeting opportunity for the United States to secure its place as the kingdom's preferred AI partner.

  At the same time, the administration should proceed only if all Saudi recipients of AI chips, like Humain, meet the following conditions.

  - » Highest standards of physical and cybersecurity
  - » Rigorous background checks and insider threat training for employees
  - » Know-your-customer verification
  - » Guarantees for U.S. companies to deploy, maintain, and oversee the majority of AI chips in Saudi data centers
  - » Assurance and verification that U.S.-designed AI chips do not power applications that facilitate human rights abuses and repression
  - » Cessation of partnerships and other support for Chinese firms related to strategic technologies like AI
  - » Regular audits accounting for AI chip locations and uses
  - » Divestment of Chinese technology and telecommunications vendors from core digital infrastructure and services related to U.S. security and intelligence cooperation

  A phased approach to a U.S.-Saudi AI deal, whereby chips are released in smaller batches over time, would allow for accountability and trust building. The Trump administration's July 2025 AI Action Plan created a mechanism for industry-led consortia to receive government approval for "full-stack" AI exports through a new program at the Department of Commerce.[8] The administration should encourage consortia to develop packages for Saudi Arabia and condition approval based on similar requirements.

- **Support the expansion of Saudi fabrication capacity for legacy chips while limiting support for leading-edge semiconductor design tools and research.** The United States should welcome increased Saudi capacity to fabricate legacy chips to diversify its supply chains from China, and it should encourage industry and research partnerships to that end. At the same time, Washington should not undermine its leverage by

enabling advanced chip design and fabrication in Saudi Arabia and other nations that lack treaty-level alignment with the United States. For now, the kingdom does not seek capabilities in leading-edge chip fabrication and has focused more on legacy node chip fabrication and fostering a fabless design ecosystem.

- **Establish a process to fast-track inbound investments from allied and partner sources for U.S. strategic technologies.** This could align with the Trump administration's February 2025 America First Investment Policy.[9] Reforms should streamline application criteria, shorten review times, expand dedicated personnel and resources, and include rigorous standards for intellectual property (IP) protection, cybersecurity, personnel background checks, and divestment from Chinese firms in strategic technology sectors or with links to the military or security services. The administration could also consider a "clean capital" designation for firms that disclose and divest links to adversary-linked firms, expediting approvals.

- **Leverage people-to-people ties to support Riyadh's Saudization policies.** Saudis are more likely to study at U.S. universities, know Western business practices, and speak English instead of Mandarin. This helps U.S. firms align with Riyadh's efforts to boost Saudi hiring and upskill local talent. But this advantage will fade with time. The Chinese government has waived visas for Saudi citizens and expanded Mandarin offerings in the kingdom. Chinese companies are also increasing local hiring and upskilling.

  To expand America's people-to-people edge, higher education institutions with active partnerships in Saudi Arabia should expand curricula related to AI and emerging technologies. The Trump administration could prioritize Saudi talent in a new Young Technology Leaders Initiative—modeled on the successful Young African Leaders Initiative—to identify the next generation of promising global talent and strengthen ties with the U.S. ecosystem.[10]

- **Engage the Saudi Communications, Space, and Technology Commission about the draft Global AI Hub Law.** Engagement should prioritize designating American-operated data centers in Saudi Arabia as "data embassies" that allow for limited U.S. administrative jurisdiction. This would facilitate compliance with U.S. export controls, spot inspections to curb diversion and unauthorized access, workload attestations, and other oversight mechanisms.

- **Pilot a joint effort by the U.S. Department of Homeland Security (DHS), the Department of State, and the Department of Energy (DOE) to bolster AI data center security in strategic overseas markets.** The Trump administration's July 2025 AI Action Plan called for the DHS to create guidance for the private sector to remediate and respond to "AI-specific vulnerabilities and threats."[11] Once this process concludes, the DHS should work with the State Department and the DOE to share best practices with Saudi Arabia and other strategic partners with ambitions for large-scale AI and related energy infrastructure.

- **Support eventual Saudi transition to 6G through research partnerships.** 6G is expected to be the first AI-native telecommunications architecture, with built-in support for intelligent routing and edge-based inference—areas where the United States and its allies remain competitive. If the United States concludes agreements for full-stack AI exports and broader strategic partnerships with the kingdom, it will be better positioned to displace Huawei's ubiquitous presence in existing Saudi telecommunications networks down the line. In July 2024, Ericsson extended a research and development partnership with the King Abdullah University of Science and Technology through 2026 to advanced 5G and 6G. Other U.S. and allied companies should pursue similar partnerships with Neom, the Ministry of Communications and Information Technology, the Saudi Telecom Company, and other key players ahead of the 6G transition.[12]

The Importance of Saudi Arabia

The Kingdom of Saudi Arabia is the economic, political, and religious heavyweight of the Arab world and a rising global power. It is the only Arab member of the G20, with a gross domestic product (GDP) of $1.1 trillion.[13] The kingdom also boasts the world's second-largest proven oil reserves and the fourth-largest sovereign wealth fund, with $925 billion in assets under management.[14]

Saudi leaders have long recognized the imperative of transitioning from its rentierist petro-economy to greater sectoral diversification, domestic innovation, and indigenous manufacturing capacity. These ambitions have gained momentum under Crown Prince Mohammed bin Salman's Vision 2030, which charts a course for the kingdom to become a top 15 global economy and hub for investment, tourism, and technology.[15]

Vision 2030 imagines the kingdom as not only a source but a *destination* for global investment, and sovereign entities like the Public Investment Fund (PIF) have become engines to drive economic diversification and draw foreign partners. Accordingly, Vision 2030 sets a target for the kingdom to attract $100 billion in foreign investment by the end of the decade, more than five times the level in 2023.[16]

A flagship effort of Vision 2030 is Neom, a futuristic techno-region in the country's northwest backed by more than $1 trillion of state investment. Neom will include at least 17 "gigaprojects," ranging from an octagonally shaped industrial city to "the Line," a 100-mile linear city as tall as the Empire State Building.[17] These audacious projects could soon make the kingdom the world's top construction market.[18]

None of this will be easy, and Vision 2030 has already trimmed its ambitions to address challenges with supply chains, labor, and cost overruns. Nevertheless, leaders in Riyadh understand that even its flush coffers cannot fulfill Vision 2030 without foreign partnership, and both the United States and China now compete to position themselves as Saudi Arabia's preferred partner in this historic, technology-driven transformation.

An Overview of U.S.-Saudi Relations

From the outset, U.S.-Saudi ties rested on an "oil for security" bargain that drove cooperation for decades. Pragmatism anchored early relations: Both parties had a strong interest in stable energy trade and anticommunism. As the U.S.-Saudi energy relationship grew, a security partnership followed. The United States helped construct early airfields and military academies across the kingdom; for its part, Saudi Arabia used growing revenue from U.S. oil imports to purchase U.S. armaments and debt.[19]

Security cooperation deepened following the Cold War. The kingdom helped finance the U.S.-led liberation of Kuwait and welcomed U.S. soldiers onto its soil. Washington remains the kingdom's primary arms supplier and security partner to this day.[20] Between 2013 and 2023, the kingdom bought more than $110 billion of defense technologies from the United States.[21] U.S. Central Command maintains extensive cooperation with the Saudi military through joint exercises, counterterrorism efforts, and intelligence-sharing programs.[22] Between 2017 and 2021, 82 percent of the kingdom's arms imports came from the United States, compared with less than 1 percent from China.[23]

Despite longstanding cooperation, the past quarter century saw new tensions in U.S.-Saudi relations. During the Bush and Obama administrations, successive disagreements over the Iraq War, Arab Spring, Iran nuclear deal, and civil wars in Syria and Yemen produced fissures of distrust that still linger.[24] Washington's open pledge to "pivot" to the Indo-Pacific also fed Saudi anxieties about America's long-term reliability as a security partner.[25]

In 2016, Crown Prince Mohammed bin Salman announced Vision 2030, his sweeping economic reform plan to diversify Saudi Arabia's oil-dependent economy and transform the kingdom into a global hub for investment, tourism, and technology. (Fayez Nureldine/AFP via Getty Images)

At the same time, growing U.S. domestic energy production weakened Riyadh's leverage. All of this spurred Riyadh to pursue a more independent foreign policy under King Salman bin Abdulaziz al-Saud and MBS. The kingdom looked abroad to diversify its economic and security relations—or, at a minimum, to signal to Washington not to take its partnership for granted.[26]

The first Trump administration helped repair the breach. The president made his first official visit to Riyadh and mirrored the Saudis' more transactional approach.[27] The improving trajectory suffered a grisly reversal in 2018 with the assassination of *Washington Post* journalist Jamal Khashoggi, which triggered massive backlash in the United States. Anxieties in Riyadh about America's commitment to Saudi security heightened following a 2019 attack by Yemen's Houthi rebels on the Abqaiq and Khurais oil facilities, after which Washington deployed more defensive assets to the region but opted not to strike back directly at the Houthis or their Iranian backers.[28]

Rising anxieties led Riyadh to pursue a dual approach of requesting a formal security pact with the United States on the one hand, while hedging with a more independent foreign policy on the other. After President Joe Biden came to office promising to make Saudi Arabia "a pariah," postpandemic supply chain shocks and inflation forced a reconciliation between the two countries, culminating in an awkward presidential visit to Riyadh in 2022.[29] President Biden's staid visit contrasted sharply with Chinese Communist Party General Secretary Xi Jinping's lavish reception later that year, underscoring a remarkable transformation in Sino-Saudi relations.

An Overview of Sino-Saudi Relations

Beijing and Riyadh have come a long way. From the 1950s to the 1980s, the two countries had no official diplomatic relations, as the Saudis' staunch anticommunism effectively froze bilateral ties. Foreshadowing a dynamic that persists today, Sino-Saudi relations began to thaw in periods when the kingdom's relations with Washington cooled. When the Reagan administration refused to sell Riyadh long-range Pershing missiles during the Iran-Iraq War, for instance, the kingdom looked east and secretly purchased DF-3 missiles from China.[30] In 1990, the two countries established formal relations.

As with the United States, early Sino-Saudi relations centered on oil. This dynamic deepened as China underwent rapid industrialization and the kingdom began investing in processing infrastructure for its crude oil in provinces like Fujian.[31] Driven largely by oil, bilateral trade rose 175 fold between 1990 and 2019, hitting $73 billion.[32]

In 2006, King Abdullah bin Abdulaziz al-Saud made the first-ever visit by a Saudi monarch to Beijing. During Abdullah's reign, Sino-Saudi relations expanded through research and cultural exchanges, as well as two-way investments and infrastructure projects.[33] A signature project was the Haramain high-speed railway, spearheaded by the China Railway Construction Corporation, which transports millions of Hajj pilgrims annually to the holy sites of Mecca and Medina.[34]

As Riyadh sought to diversify its economic partnerships, it handed Beijing an opportunity to align Vision 2030 with its Belt and Road Initiative (BRI) and Digital

Passengers at Medina Station board the Haramain high-speed railway—a flagship Belt and Road Initiative (BRI) project in Saudi Arabia. Built by the China Railway Construction Corporation, the rail line reflects Beijing's early role in the kingdom's infrastructure ambitions and the expanding footprint of the BRI in the Gulf. (Besides the Obvious/Getty Images)

Silk Road (DSR). China's capacity for large-scale infrastructure matched the kingdom's ambition for audacious gigaprojects in Neom and other large-scale initiatives, like the Diriyah development in Riyadh.[35] For China, Saudi Arabia also offered opportunities for large-scale deployment, iteration, and improvement outside China for its smart city, 5G, and internet of things (IoT) technologies, allowing it to compete in advanced technology, a traditional area of U.S. advantage.

During General Secretary Xi's visit to Riyadh in 2016, the two countries signed a memorandum of understanding (MOU) to promote cooperation on the BRI and industrial capacity.[36] Chinese companies and state entities, often working in concert, expanded investment and operations in the Saudi energy sector, as well as in construction, telecommunications, and consumer electronics.

Two-way investment surged. Between 2005 and 2021, Chinese investments and projects in the kingdom totaled nearly $44 billion.[37] For its part, by 2021, the kingdom had invested or planned to invest roughly $35 billion in projects in China.[38] In the first half of 2022, Saudi Arabia became the largest global recipient of BRI funds that year.[39]

In remarks at the 2014 China–Arab States Cooperation Forum, General Secretary Xi framed the path for broader Sino-Saudi relations with his "1+2+3" strategy.[40] This framework prioritizes energy as the core pillar of cooperation, with infrastructure, trade, and investment as secondary layers, followed by three "breakthrough" areas for future partnership: nuclear energy, renewable energy, and aerospace. In 2019, MBS visited China, and the two countries signed $28 billion of economic agreements for renewable energy, industrial automation, electric control device manufacturing, and more.[41] General Secretary Xi returned the favor with a visit to Riyadh in 2022, during which he trumpeted a "new era of cooperation" with Arab countries.[42]

During the 2022 visit, General Secretary Xi leveraged a comparative advantage in China's bilateral relations by emphasizing its "noninterference in internal affairs."[43] He also cast Riyadh as an "important force in a multipolar world."[44] These comments shrewdly align with Riyadh's self-perception as an emerging power and desire to avoid picking sides in the U.S.-China competition. For Riyadh, the framing also contrasts favorably with Washington's past pressure on human rights and reform. In turn, Riyadh has backed Beijing's "One China" policy with respect to Taiwan and has been conspicuously silent about the repression of China's Muslim Uyghur minority.[45]

Even as Sino-Saudi ties expanded, the relationship remained firmly centered around energy. In 2022, Saudi Arabia was China's largest supplier of crude oil.[46] In 2023, oil accounted for more than 80 percent of China's total imports from Saudi Arabia.[47] China is now Saudi Arabia's largest trading partner, and the kingdom imports more than twice as much from China as it does from the United States.[48]

For Beijing, Saudi Arabia provides stable energy access to power its economy, as well as a gateway to broader influence in the Middle East and a lucrative market for its technology firms to compensate for rising restrictions in developed markets.

Saudi Hedging

As Saudi ambitions and doubts about America's security commitments have grown, China has emerged as an increasingly attractive partner. Under MBS, the kingdom has also pursued a more assertive foreign policy as a rising global power. The kingdom's invitation to join BRICS—a group of five emerging economies including Brazil, Russia, India, China, and South Africa—along with its extended consideration, underscore Riyadh's challenge in diversifying partnerships without alienating Washington.[49] Indeed, an element of the dynamic may be performative: Riyadh sees value in reminding Washington that it has other options to extract concessions in the form of new defense sales, security guarantees, and advanced technology. MBS's 2019 visit to China in the wake of the Khashoggi murder underscored this dynamic.

In the end, Saudi Arabia has the energy, capital, and influence to make the great powers compete for its engagement, even if outright alignment with any one of them seems improbable. The kingdom will likely continue seeking a middle path that hedges between the great powers, siding with the United States as its security guarantor and provider of advanced defense and commercial technology, and with China as a reliable energy customer, inbound investor, and partner for its large-scale construction and infrastructure projects.

Beijing's recent inroads, however, should not obscure considerable U.S. advantages: Roughly 2,700 U.S. military personnel are based in the kingdom, and the United States remains its primary defense partner and supplier of weapons and training.[50] U.S. companies and officials have longstanding, personal ties with Saudi counterparts that stretch back to the kingdom's earliest years. What began as an oil-for-security bargain has expanded into a broader partnership around regional security, two-way investment, and now, advanced technology.

Saudi Arabia's Technology Landscape

Saudi Arabia's history underscores both the opportunity and risk of foreign technology partnerships. On the one hand, the country's oil industry—the bedrock of its national economy and wealth—owes its start to U.S. partnership. Companies like the Standard Oil Company of California (now Chevron) and the Arabian American Oil Company (now Saudi Aramco) pioneered the Saudi oil industry, but with 100 percent foreign ownership.[51] Ericsson, Siemens, Motorola, and Nokia spearheaded the country's early telecommunications infrastructure and mobile devices.[52] Foreign technology partnerships helped develop the Saudi economy, but at the cost of near-total dependence on foreign expertise, investment, and innovation.

In response, Riyadh began efforts to modernize its rentierist petro-economy and build indigenous capacity for technology and innovation. First, the kingdom expanded its scientific and research and development (R&D) base by establishing the National Center for Science and Technology in 1977—now known as the King Abdulaziz City for Science and Technology (KACST)—which has emerged as a key player in Saudi technology and R&D policy.[53] Riyadh also pushed for localization by completing the takeover of Aramco by 1980 and establishing the Saudi Telecom Company (STC) in 1998.[54] To diversify its telecommunications partners, the kingdom invited greater competition from foreign tech companies, such as the United Arab Emirates' (UAE's) Etisalat and China's Huawei.[55]

As the kingdom's economy, capital reserves, and global ambitions grew, Riyadh recognized it had leverage over foreign technology firms to accelerate the push for indigenization, or Saudization. New government policies required joint ventures, the establishment of regional headquarters, and knowledge transfers. At the same time, the government actively encouraged foreign firms to expand domestic skilling initiatives, local hiring, and inbound investment.[56]

Under King Abdullah, the country further embraced technology as an engine of progress. In 2005, the government launched Digital City in Riyadh near King Saud University in the hopes of cultivating a Silicon Valley–like tech hub.[57] The King Abdullah University of Science and Technology (KAUST), launched in 2009, remains the country's leading science, technology, engineering, and mathematics (STEM) research university.[58] The launch of Vision 2030 in 2016 only accelerated these efforts—as detailed in the next section of this report.

Riyadh's focus on science and digital infrastructure paid dividends. As of 2024, Saudi Arabia boasted the largest and fastest-growing digital economy in the Middle East and North Africa—valued at $132 billion—even though its population remains less than half of Türkiye's and just over a third of Egypt's.[59] Several forces power the kingdom's fast-growing digital economy: excellent digital infrastructure and connectivity; a young, well-educated, and tech-savvy workforce; abundant capital; and high-level government support and policy frameworks like Vision 2030.

Significant investments have given Saudi Arabia world-class connectivity. Between 2018 and 2024, the kingdom invested approximately $25 billion in digital infrastructure to achieve internet penetration of 99 percent and median mobile speeds roughly double the global average.[60] The kingdom was also among the first Middle Eastern countries to launch 5G networks.[61] Fifteen subsea cables provide robust and diverse connectivity, and another six are expected to come online by the end of 2025.[62]

As the kingdom's economy, capital reserves, and global ambitions grew, Riyadh recognized it had leverage over foreign technology firms to accelerate the push for indigenization, or Saudization.

Strong connectivity laid the foundation for progress in e-government, e-commerce, and digital payments. The kingdom fully embraced e-government to improve public services and limit bureaucracy. The Ministry of Interior, for instance, launched Absher as a comprehensive platform to provide its services digitally, from passport processing to traffic citations.[63] A 2022 World Bank study ranked Saudi Arabia third in the world for transformation in digital government, and in 2024, Riyadh ranked fourth in the UN's Local Online Services Index.[64] Few countries have embraced digital public services with such speed and success.

The kingdom's young, tech-savvy population is another asset and magnet for foreign companies that see both future employees and customers. Roughly 62 percent of Saudis are under age 30, and roughly 70 percent of 18-to-24-year-olds have enrolled in tertiary education as of 2022.[65] Saudis have enthusiastically embraced technology: nearly 70 percent use e-payments, more than 80 percent use social media, more than 90 percent bank online, and nearly 100 percent have smart phones.[66] The country's population of 35 million also creates a large domestic consumer base—with relatively high disposable income—for startups to flourish. Unicorns like STCpay (digital payments) and Jahez (food delivery) prove that Saudi Arabia's tech sector can innovate, seed, and scale.

The kingdom's tech workforce has grown with the sector. According to the Saudi Ministry of Communications and Information Technology (MCIT), the kingdom boasts "the region's largest digital talent cluster," with more than 381,000 specialized tech jobs.[67]

Technology and Vision 2030

Vision 2030 imagines nothing less than making the kingdom a tech hub for AI, advanced manufacturing, and digital infrastructure—for not only the Middle East, but for the world.[68] An official from the Saudi Data & AI Authority (SDAIA) estimates that nearly 70 percent of Vision 2030's goals involve data and AI.[69] The kingdom has already committed at least $25 billion to strengthen its digital economy with investments in AI, cloud computing, semiconductor development, and more.[70] To drive Vision 2030 and the kingdom's technology ambitions, the country has deployed its most powerful asset: state-backed capital. The following figure details the suite of funding arms to support different elements of the kingdom's digital ecosystem and its aspirations for global technology leadership.

FIGURE 1: SAUDI ARABIA'S INVESTMENT ARMS[71]

Investment Arm	Assets	Role in Saudi Arabia's Tech Ecosystem
Public Investment Fund (PIF)	$925 billion	The kingdom's sovereign wealth fund that has invested heavily in both international and domestic technology firms, including Uber, Lucid Motors, Softbank, the Saudi Company for Artificial Intelligence, and the Saudi Telecom Company.
Alat *PIF subsidiary*	$100 billion	An investment firm focused on building a domestic advanced electronics and manufacturing sector, including in semiconductors.
Humain/Project Transcendence *PIF subsidiary*	$100 billion	An investment arm focused on data centers, tech startups, and other critical artificial intelligence (AI) infrastructure to attract foreign partners for co-investment and development.
Sanabil *PIF subsidiary*	$3 billion/year	A financial investment company that supports high-growth companies, including many in e-commerce, health tech, financial technology (fintech), and mobility.
Jada *PIF subsidiary*	$1 billion	A fund of funds that supports Saudi small- and medium-sized enterprises (SMEs) by catalyzing venture capital and private equity in the kingdom.
Neom Investment Fund *PIF funded*	Unknown	Neom's strategic investment arm for its gigaprojects. Estimated costs for Neom range from $500 billion to $9 trillion.
Saudi Technology Development & Investment Company *Taqnia; PIF subsidiary*	Unknown	A venture capital firm that invests and commercializes research and development from research institutions worldwide to accelerate the kingdom's economic diversification, with a focus on disruptive technologies in areas like biotechnology, space, and telecommunications.
Saudi Venture Capital Company (SVC)	$4.8 billion	A government-backed limited partner that invests in SMEs, including fintech, health tech, AI, and e-commerce. The Ministry of Commerce and the Small and Medium Enterprises General Authority (Monshaat) supervise SVC.
Aramco Ventures	$7 billion	The venture arm of Saudi Aramco that invests in fintech, biotech, cloud services, robotics, AI, cybersecurity, industrial technologies, and clean energy.
Wa'ed Ventures *Aramco-backed*	$500 million	A venture capital fund that supports tech startups in 3-D printing, robotics, automation, agricultural technology, and more.
Saudi Technology Ventures (STV)	$800 million	Launched in 2018 to support startups across the Middle East, with funding from STC. In May 2025, STV launched a new $100 million AI fund with Google.
King Abdullah University of Science and Technology (KAUST) Innovation Ventures	$200 million	An innovation fund launched in August 2023 to support early-stage deep-tech startups in advanced materials; robotics; information and communication technology; and health, food, water, energy, and the environment.

Saudi Arabia has mobilized significant state and private capital across several investment vehicles to drive a broad, cross-cutting range of sectors in its quest to become a global hub for advanced technologies.

The kingdom's massive capital mobilization remains at an early stage, and it has become a powerful lever to catalyze technological indigenization and lure foreign partnership and knowledge transfers. Still, no amount of funding can recreate a Silicon Valley; it takes time for technology ecosystems to cultivate the rare synergy of capital, talent, and culture. But there are signs of progress. Between 2017 and 2022, startup funding in Saudi Arabia grew more than 20 fold, with financial technology (fintech) startups receiving the most funding.[72] As of 2023, there were at least 216 Saudi fintech companies, compared with only 10 in 2018.[73] Nearly 80 percent of all retail payments in the kingdom are now cashless.[74]

Alongside massive capital deployment, the kingdom has also benefited from proactive new policies and frameworks to cultivate the digital economy, attract foreign firms, and accelerate the indigenization of tech talent, knowledge, and capacity.

FIGURE 2: SAUDI ARABIA'S RECENT TECHNOLOGY POLICIES (2016–2025)[75]

Year	Policy	Purpose
2016	Vision 2030	Provides an ambitious roadmap for economic, social, and public sector transformation, with at least half of its 96 strategic goals directly or indirectly related to technology.
2016	National Transformation Program	Implements Vision 2030 by translating its high-level aspirations into concrete objectives, with a focus on technology leadership and digital transformation.
2018	Fintech Saudi	Catalyzes the Saudi financial technology (fintech) industry by helping develop infrastructure, capabilities, and talent to make the kingdom a fintech hub.
2019	Cloud First Policy	Accelerates cloud migration by requiring civilian government agencies to prioritize the cloud for new information technology investments, among other steps.
2019	Saudi Data & AI Authority	Leads governance of AI and data. This agency's core objectives are AI and data governance, AI innovation, and promoting the kingdom's leadership as a world-leading, data-driven economy.
2019	IoT Regulatory Framework (updated in 2024)	Promotes investment and innovation in the internet of things (IoT) by strengthening the kingdom's regulatory landscape.
2019	E-Commerce Law	Regulates e-commerce by establishing key definitions and protections for consumers and data.
2020	National Strategy for Data & AI	Outlines the long-term strategy to position the kingdom as a global AI and data hub.
2021	Digital Government Authority	Leads e-government efforts to improve delivery of public services by setting standards, implementing digital transformation projects, and promoting digital inclusion.
2021	Research, Development and Innovation Authority	Facilitates research, development, and innovation efforts in alignment with the kingdom's five strategic focus areas, which include AI in information and communications technology (ICT), artificial general intelligence, smart agriculture, and the IoT—together, dubbed "economies of the future."[76]
2023	Personal Data Protection Law	Governs the processing of personal data within the kingdom and of personal data by entities outside the kingdom if it relates to individuals residing within it.
2024	Essential Cybersecurity Controls 2	Reforms the 2018 cybersecurity controls to remove requirements for in-country data hosting, streamline regulations, and require the hiring of Saudis for all cybersecurity positions.
2025	Global AI Hub Law (*draft)*	Proposes legislation to make Saudi Arabia a global hub for data and AI infrastructure. This groundbreaking proposal outlines three models for foreign governments and tech companies to host data centers in the kingdom, with varying levels of sovereign control. One model includes data embassies, whereby the data, infrastructure, and services of a foreign company within Saudi Arabia would fall under the limited jurisdiction of the company's home country.

Several recent laws governing data, cloud, and AI combine to create a regulatory framework to attract foreign investment and partnership while promoting the maturing and Saudization of the country's ICT sector, consistent with Vision 2030's goals.

The volume of new technology policies, institutions, and state-backed capital underscores the kingdom's commitment to strengthen the Saudi information and communications technology (ICT) sector and attract foreign partnerships without recreating past dependencies. In interviews conducted for this report, current and former Saudi officials described the rate of change as "impossible to overstate," citing newfound bureaucratic agility and vast public investment in strategic technologies.[77]

Requirements for local hiring, data hosting, and regional headquarters demonstrate a savvy approach from Riyadh that recognizes it has the leverage to insist on more equitable foreign technology partnerships that not only bring advanced digital infrastructure and services to the kingdom but also contribute to indigenization.[78]

Over the past decade, the kingdom has also stepped out with initial efforts to engage in global standard setting for technology, casting itself as a forward-thinking champion for inclusive, developmentally friendly digital governance. In December 2024, it released the *Riyadh Declaration*, which calls for an "inclusive, sustainable, and governed" digital future and touts the potential of AI for development, globally recognized digital identities, and online safety.[79]

Riyadh recognizes that making the kingdom a regional and even global tech leader will take time and that, in the short to medium term, partnership with foreign technology companies will only grow more important. In this context, the United States and China face a generational opportunity to become Saudi Arabia's preferred partners in achieving Vision 2030, understanding that an exclusive partnership is impossible given the kingdom's deep ties to both powers. Still, both the United States and China bring unique strengths to the technology competition now unfolding across the kingdom.

United States–Saudi Arabia Technology Background

U.S.-Saudi technology cooperation stretches back more than 90 years. Since the kingdom's founding, the United States has played a key role in introducing and developing advanced technology in the country. In the 1940s, Aramco (then the California Standard Oil Company) acquired the kingdom's first computers from IBM and later launched its first television programs in Dhahran in 1957.[80]

By the 1970s and 1980s, years of accumulated oil revenue enabled Riyadh to invest massively in its telecommunications infrastructure. Ericsson won a major deal in 1978 to build the kingdom's early infrastructure, but U.S. companies including AT&T and Cisco supplied much of the underlying lines, routers, and other equipment.[81] With the 1990s internet boom and proliferation of mobile phones, U.S. companies like Microsoft and Motorola gained an early foothold alongside European and Japanese firms.

Broad information technology (IT) adoption reinforced the advantage of U.S. tech firms. Oracle, Cisco, and IBM became essential partners in the kingdom's public sector IT development, helping government ministries digitize their operations. Microsoft has been active in the kingdom for more than a quarter century, and its software remains ubiquitous in Saudi personal computers.[82] American companies also ramped up digital skilling and certification efforts; Apple, Google, Amazon, and others opened training academies or expanded digital skilling opportunities.[83]

U.S. firms played a decisive role in supplying the technology training, equipment, and expertise for the kingdom's digital economy. During this time, U.S. firms developed a reputation among Saudi officials and elites for cutting-edge innovation. Underscoring this, KAUST partnered exclusively with American firms—IBM, Cray Inc., and then Hewlett Packard Enterprise (HPE)—to build its Shaheen line of supercomputers, which remain the most powerful in the Middle East.[84]

The United States also enjoys an enduring—albeit eroding—advantage in technology cooperation at the level of person-to-person ties and higher education. State-funded programs like the King Abdullah Scholarship Program have financed hundreds of thousands of Saudi students to attend U.S. universities during the past two decades.[85] To this day, U.S. and Western universities remain the preferred partners for Saudi universities, although this dominance has weakened as Chinese universities and research institutions have increased outreach, and restrictions on foreign students in the United States grow under the second Trump administration.[86] Still, the Saudi government's cultural attaché in Beijing estimates that, by the end of the decade, 60 percent of its overseas student population will be in the United States, compared with just 5 percent in China.[87]

Two-way capital flows in the technology sector also favor the United States. As of early 2025, roughly 40 percent of the PIF's international investments are linked to the United States, and the PIF's governor, Yasir al-Rumayyan, has hinted that "it could be much more" should Washington lower barriers to inbound investment.[88]

Despite early advantages, U.S. and Western technology firms lost ground in the kingdom's transition to 4G and

5G networks, allowing companies like Huawei to gain a foothold. As Saudi Arabia seeks to become a regional hub for data centers, semiconductors, and AI applications under Vision 2030, U.S. and allied firms have a powerful opportunity to reinforce their position.

China-Saudi Technology Background

In a remarkably short period, ties between Riyadh and Beijing broadened considerably, from a pragmatic relationship over oil into a strategic partnership with technology as an ever-strengthening sinew. This process likely began with Riyadh's decision to liberalize the telecommunications sector in 2003, which opened the door to Chinese firms. They wasted little time. ZTE struck a deal with STC to extend rural telephone service in 2006.[89] Huawei secured deals with Mobily and STC to support their 3G rollouts.[90] As the kingdom diversified its telecommunications vendors, Huawei gained a greater but not yet dominant share. For example, the company was a key vendor in improving connectivity in the holy city of Mecca, a symbolic marker of its growing presence.[91]

The year 2016 proved a turning point. The release of Vision 2030 coincided with General Secretary Xi's visit to Riyadh, creating an opportunity for both parties to explore alignment between the BRI, the DSR, and Vision 2030. Vision 2030's emphasis on world-class connectivity, data centers, and smart cities aligned with Chinese technology offerings from Huawei, ZTE, Tencent, and SenseTime.[92] In particular, the kingdom's early embrace of 4G and 5G gave Huawei an opportunity to edge out Western competitors struggling to match its state-backed subsidies, proactive ground game, and high-level political support.[93]

Huawei was also well positioned to align with Vision 2030's emphasis on indigenization and local talent development. Long before Vision 2030, Huawei had already created a training center in Riyadh in 2006, with encouragement from the Saudi government. Following the plan's release, Huawei brought its Seeds for the Future skilling program to Saudi Arabia in 2015, and it later signed a deal with the MCIT in 2018 to expand ICT skilling opportunities for Saudis.[94] Around this time, Huawei also began introducing its handsets to consumers and integrated surveillance technology for the government as part of its Safe City offerings.[95]

For its part, Beijing saw Saudi Arabia not only as a reliable energy importer for its rapidly expanding economy, but also as a lucrative emerging market and potential investment source for its technology firms seeking to expand and eclipse Western competitors. During General Secretary Xi's January 2016 visit, the two nations launched the Sino-Saudi High-Level Joint Committee, which included a subcommittee on bilateral technology cooperation.[96] By the end of the year, China's National Development and Reform Commission had signed an agreement with Saudi's MCIT to explore synergies between Vision 2030 and the DSR, with a focus on digital infrastructure, smart cities, and e-government.[97]

In a recurring pattern, the kingdom has preferred to look west for technology but will look east when offerings are absent or uncompetitive—mirroring its broader balancing act between the great powers. Underscoring this dynamic, in 2019, STC announced an agreement with three companies to help it deploy 5G across the kingdom: Nokia, Ericsson, and Huawei.[98] Later that year, Huawei touted its role in deploying Zain's 5G network as the largest in the region at the time.[99] STC announced a similar multivendor arrangement to deploy 5G in Neom, announcing partnerships with Huawei and Cisco to provide core network infrastructure, while Ericsson and Nokia supplied radio networks.[100] Although the kingdom generally maintained a preference for diverse telecommunications vendors, Chinese firms significantly expanded their market share during this period.

The mid-2010s also saw research and scientific partnerships deepen between the two countries. A report from the Carnegie Endowment for International Peace analyzed 20 "joint technoscientific projects" between 2007 and 2021, spanning areas including IoT, cloud, e-commerce, smart cities, and 5G. The analysis found that 75 percent of the projects came after 2017, reflecting the steep change in bilateral relations following General Secretary Xi's visit the previous year.[101] According to the report, the Chinese share of Saudi Arabia's international research collaboration rose to 28 percent by 2022–23, exceeding the 26 percent share of the United States.

Two-way technology investments also expanded. In 2017, the PIF partnered with Alibaba Group to launch eWTP Arabia (now ewpartners), a venture capital (VC) fund to support technology startups in both Asia and the Middle East that claims to have invested $400 million in its first funding round.[102] In 2023, the China International Capital Corporation, a partially state-controlled major joint-venture investment bank, opened an office in Saudi Arabia.[103] The PIF had also applied for Qualified Foreign Institutional Investor status in China in 2021. If granted, this would significantly aid the PIF's ability to support Chinese technology companies.[104]

The early 2020s saw Sino-Saudi technology cooperation accelerate. By this time, Riyadh had joined the DSR.[105] In February 2022, the Saudi Digital Academy also

announced a memorandum with Huawei laying out a goal to train 8,000 local talents.[106] That December, General Secretary Xi made another visit to Riyadh, during which the two countries announced major technology cooperation with Huawei on smart cities and cloud services.[107] Indeed, Beijing's willingness to offer surveillance technologies for the kingdom's authoritarian state without related strings concerning human rights or civil liberties has emerged as a troubling competitive advantage.

Following Washington's successful campaign to dislodge HMN Tech from the Sea-We-Me-6 cable linking Europe, the Middle East, and Southeast Asia, China responded in April 2023 by announcing that HMN Tech would partner with Chinese telecommunications companies on a $500 million subsea cable project mirroring the same route, with a landing point in Saudi Arabia.[108]

The kingdom's full-throated embrace of AI in Vision 2030 provides the United States with a powerful and potentially fleeting opportunity to cultivate a new dimension of the bilateral relationship.

Although China has made up impressive ground in its technology partnership with Saudi Arabia, it faces stubborn challenges. Two-way flows of capital and people remain limited. Historically, Chinese companies have enjoyed less of a brand reputation than U.S. tech heavyweights, but that is changing as more Saudis grow familiar with brands like BYD. A 90-plus-year history with the United States also means that Saudis—especially at the elite levels—are far more comfortable with American business practices and culture than with their Chinese equivalents. Weaker people-to-people ties could make it difficult for Chinese companies to satisfy Riyadh's push for Saudization, although Chinese companies have proven quick learners in emerging markets and have ramped up local hiring and Chinese language programs across the country.

Stepping back, Saudi Arabia's full-throated embrace of digital infrastructure and services cracked open the door for Chinese and other foreign firms to loosen the country's longtime dependence on Western technology firms. The kingdom has welcomed this diversification—with Chinese but also Korean and Japanese firms—not only to spur competition between the great powers but also to expand its choice of vendors and signal independence as a rising power. For all these reasons, expecting Riyadh to choose between Washington and Beijing is likely naive: Fundamental to Vision 2030 is a self-image of a more independent, confident, and globally connected nation that partners with all. As Riyadh touted Huawei-led 5G infrastructure during General Secretary Xi's visit, it also welcomed Open Radio Access Networks investments championed by Washington. In the same month that Alat publicly hinted at openness to divesting from Chinese companies, Aramco, its parent company, participated in a $400 million funding round for the Chinese startup Z.ai (formerly Zhipu AI).[109]

Although it may frustrate U.S. officials, Saudi Arabia is likely to see more, not less, intermingling of American and Chinese digital infrastructure and services at every layer of the kingdom's technology stack, from subsea cables to smart cities to AI. The United States and its allies cannot currently meet all the kingdom's technology demands—nor should it, in the case of undemocratic technology applications. Rising U.S. export controls on sensitive technologies, and the now-rescinded Framework for AI Diffusion, have also reinforced Riyadh's push for technology indigenization. Most likely, the kingdom will continue to choose technology partners that will allow it to walk the geopolitical tightrope between the United States and China, maintain access to the best offerings in terms of price and quality, and accelerate its ambitions for indigenization. Should U.S.-China tensions continue to rise, the kingdom may find this balance increasingly difficult to strike. Riyadh may struggle between escalating demands to choose between its top economic partner in Beijing and its longtime security guarantor in Washington.

It may be unrealistic for U.S. policymakers and industry to fully marginalize, let alone sever, growing ties between Riyadh and Beijing. In 15 years, China has gone from Saudi Arabia's low-cost telecommunications vendor and large-scale energy importer to a true strategic partner in its digital transformation. Nevertheless, there are steps to both slow accelerating Sino-Saudi relations and deepen ties with the United States. The kingdom's full-throated embrace of AI in Vision 2030 provides the United States with a powerful and potentially fleeting opportunity to cultivate a new dimension of the bilateral relationship. As the kingdom works to seize AI's potential—and the potential of digitization broadly—it has bold plans to build out data centers, foster a domestic semiconductor design and fabrication ecosystem, and jumpstart a robust ecosystem of AI companies and broad-based adoption. The remaining sections of this report detail the unfolding competition between the United States and China to become the kingdom's technology partner of choice in these vital domains.

Key Domains of Competition

Data Centers

The kingdom has great ambitions for data center buildouts, and it arguably has the energy, land, capital, and political will to realize them. Large-scale data centers are essential to Saudi ambitions for rapid cloud and AI adoption, indigenization, and broader technology leadership.

Many forces drive the kingdom's data center demand. Saudi spending on AI infrastructure is projected to grow by 29 percent annually through 2030, while spending on public cloud services may grow by 23 percent every year over the same period.[110] Rapid cloud migration across the region also fuels the surge, with nearly 70 percent of Middle East companies planning to migrate most of their operations within a year.[111] But as demand skyrockets, domestic data center capacity in the kingdom remains 50 to 80 percent lower than comparable hubs in the United States, China, Singapore, and the neighboring UAE, suggesting considerable opportunity for growth.[112] Indeed, the Saudi data center market could triple from $1.33 billion in 2024 to $3.9 billion by 2030.[113]

For all these reasons, Riyadh has gone all-in on data center infrastructure for both cloud and AI services.[114] The kingdom seeks to become not only a regional hub—eclipsing its Emirati neighbor—but a global hub that can offer low-latency services at the crossroads of Europe, Asia, and Africa. The kingdom's new AI champion, Humain, aspires to handle 7 percent of the world's AI model training and inferencing by the end of the decade.[115]

The kingdom's path ahead is difficult but doable. As of 2025, Saudi Arabia hosts 33 data centers, but it has an additional 42 in the pipeline that will add an estimated 2.2 gigawatts (GW) of IT load capacity, nearly seven times current levels.[116] The kingdom has formidable advantages driving this surge, including supportive policies and flagship initiatives, cheap land and energy, and massive state-backed capital.

Flagship policy visions and megaprojects, like Vision 2030 and Neom, provide long-term market signals for government prioritization of digital infrastructure and services. Detailed policy guidance and regulations like the 2019 Cloud First Policy and 2023 Personal Data Protection Law (PDPL) spur demand for domestic data center infrastructure that is compliant with local hosting and security requirements.[117] The 2023 establishment of a Cloud Computing Special Economic Zone, which provides streamlined permitting and generous financial incentives, offers another magnet.[118]

The kingdom also enjoys relatively affordable, abundant land. Land for industrial projects in Saudi Arabia ranges from $10 to $50 per square meter, far less than the $150 to $600 range in northern Virgina, a top U.S. data center hub.[119] Streamlined permitting and approvals in Saudi Arabia reinforce the appeal.

Cheap energy is another advantage, along with the kingdom's ability to quickly add more generation and transmission capacity. Electricity prices for larger industrial consumers in the kingdom range from just five to six cents per kilowatt-hour—among the lowest prices in the world—and between 45 to 75 percent cheaper than in northern Virginia.[120] Under Vision 2030, the kingdom also plans to dramatically expand its energy capacity from roughly 83 GW in 2023 to 130 GW by the end of the decade.[121] Beyond generation, the state-owned electric utility also plans to spend at least $130 billion to expand the kingdom's transmission capacity, in partnership with Chinese investors and contractors.[122]

The kingdom seeks to become not only a regional hub—eclipsing its Emirati neighbor—but a global hub that can offer low-latency services at the crossroads of Europe, Asia, and Africa.

Despite advantages in land and energy, the kingdom faces headwinds to its data center ambitions. Temperatures can hit 122 degrees Fahrenheit in the summer, raising cooling costs. Limited availability of the water required for cooling compounds the difficulty. Government regulations also limit captive, or behind-the-meter, energy generation projects to under 300 megawatts (MW) to protect its state-backed energy utility, creating interconnection challenges for new data centers.[123] In addition, the country faces a shortage of trained personnel from facility managers and technicians to mechanical engineers.

To overcome these challenges, the kingdom has deployed powerful state-backed investment arms, as outlined in Figure 1. Two key entities now drive the kingdom's data center buildouts. The first is Alat, the $100 billion PIF-backed investment firm created to jumpstart the country's advanced electronics manufacturing for critical inputs like semiconductors. The second is Humain, or Project Transcendence, another $100 billion

PIF-backed initiative launched in May 2025 to spearhead the country's AI leadership.

Humain is fundamental to Riyadh's ambition to become a top 15 AI country by 2030 and a credible peer to Silicon Valley and the UAE, and the company seeks to one day become a top global provider of AI infrastructure.[124] Humain plans to add 1.9 GW in new capacity by 2030—with plans to hit 6.6 GW by 2034.[125] A dominant share of this total new capacity would come from a 1.5 GW, $5 billion data center in Neom's new industrial park, led by the Saudi company DataVolt.[126] For context, public reports in early 2025 suggest that total Saudi data center capacity was around 300 MW.[127] Should Humain realize the upper end of its ambitions, it would increase the kingdom's data center capacity by more than 20 fold over the next decade.

Alat and Humain work synergistically: Humain provides the capital to finance large-scale AI data center buildouts, and Alat helps foster the manufacturing capacity to source many of its inputs domestically. The scale of Saudi Arabia's investment in its AI infrastructure is undoubtedly ambitious, but it also betrays anxiety to rapidly make up lost ground.

Some of this anxiety stems from Riyadh's concern about its relative position vis-à-vis the UAE in terms of data center capacity and AI development. Analysis from DC Byte, a data center analytics firm, suggests that substantially more of the UAE's planned data center capacity is under construction, versus merely planned, compared to the kingdom.[128]

As Riyadh races to transform the kingdom into a hub for global AI infrastructure, China and the United States recognize the opportunity of this capital-intensive technology transition. For its part, Riyadh appreciates the necessity of foreign partnerships for co-investment, expertise, and anchor tenants for new data centers.[129]

The active role of Chinese companies in Saudi Arabia's telecommunications sector provided a strategic advantage as the kingdom embraced data center infrastructure, cloud migration, and AI adoption. Chinese companies secured market share through a combination of competitive costs; strategic partnerships with key government agencies and government-linked entities, including the PIF and STC; and with alignment with national strategic priorities like Vision 2030, Saudization, and data sovereignty.[130]

As described earlier in this report, Huawei forged a close partnership with STC in its transition to 5G, and it worked proactively with the MCIT on digital skilling programs. In a sign of its growing assertiveness, Riyadh resisted pressure from the first Trump administration to limit Huawei's presence in its ICT infrastructure.[131] In 2020, Alibaba also partnered with STC to bring public cloud services to the kingdom, committing to invest $500 million under the new partnership.[132] The company has since announced plans to train 3,000 young people through a new Alibaba Cloud Academy Training Center in the kingdom and later partnered with the PIF to establish a joint cloud computing venture that now operates two data centers in Riyadh.[133]

Sino-Saudi data center cooperation jumped after General Secretary Xi's visit in December 2022. Huawei established a cloud region in Riyadh in partnership with STC, Zain, and Mobily to offer "full-stack cloud services" including databases and AI services.[134] The following year, Huawei also partnered with STC on 5G standards, fiber deployment, and joint research.[135] Separately, China Mobile International (CMI) and Shanghai Lumaotong Group are building 187 MW of data centers nationwide under China's Desert Dragon project, in partnership with a Saudi company.[136] Tencent Cloud officially launched its cloud services in the country in 2025.[137]

Recovering bilateral relations, surging demand for digital services from the COVID-19 pandemic, and the rollout of Saudi policies created a powerful magnet that drew U.S. companies to expand.

Stepping back, Chinese firms have generally brought services, expertise, and skilling opportunities to the kingdom—often backed by co-investments—in exchange for access to the fast-growing Saudi market. Chinese technology companies now engage across the spectrum of Saudi Arabia's emerging data center geography, from core regions like Riyadh and Jeddah to emerging, high-value edge opportunities including Neom.

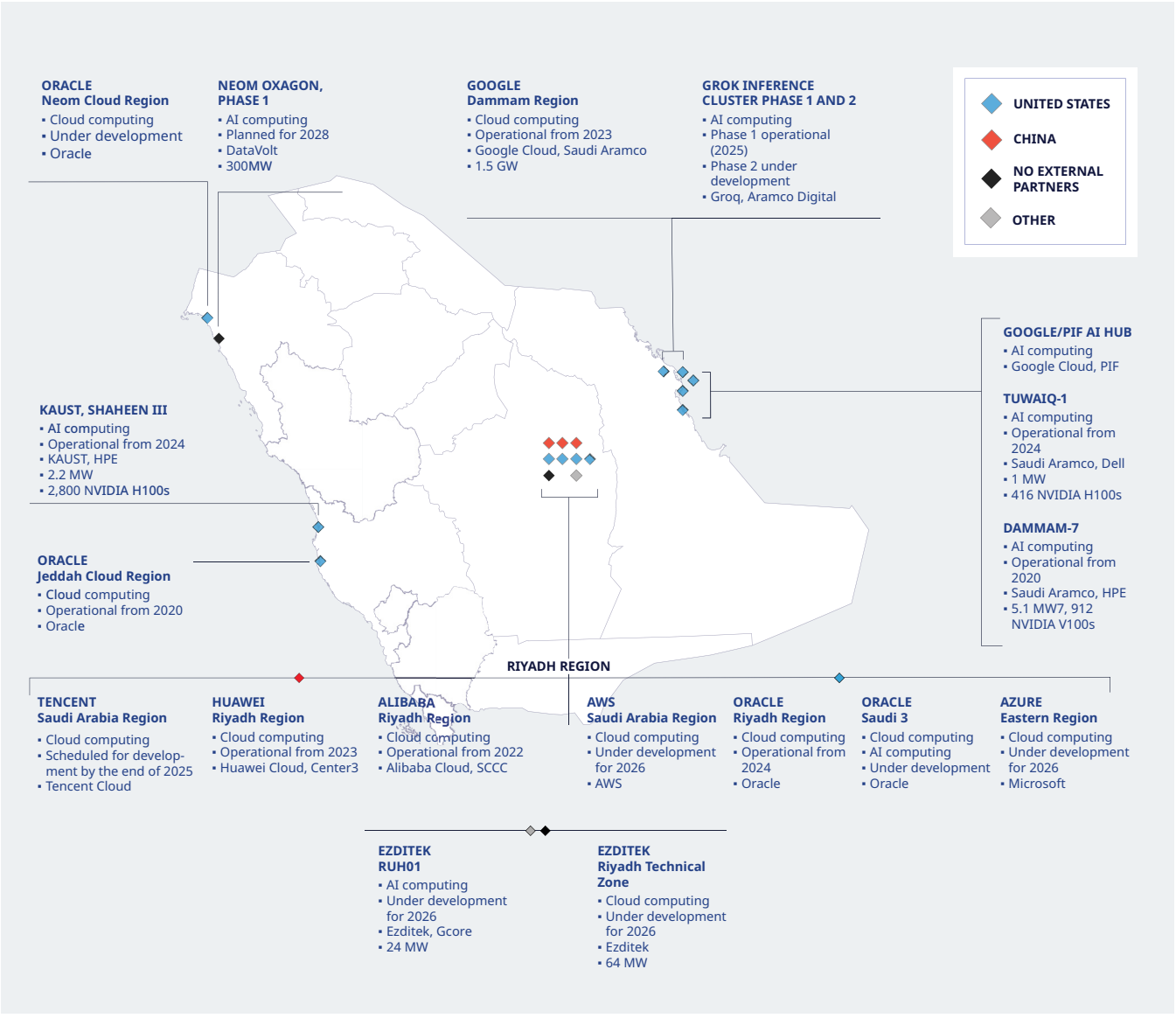
The flurry of Chinese partnerships, however, should not obscure considerable U.S. advantages in this domain. As Huawei and Alibaba increased their Saudi partnerships and presence in the early to mid-2010s, U.S. technology firms were slow to embrace the Saudi market following the 2018 murder of Jamal Khashoggi and the subsequent chill in U.S.-Saudi relations.[138]

This changed around 2020. Recovering bilateral relations, surging demand for digital services from the COVID-19 pandemic, and the rollout of Saudi policies like the Cloud First Policy and the PDPL created a powerful magnet that drew U.S. companies to expand.

Since 2020, Oracle has opened three public cloud regions—one in Jeddah and two in Riyadh—with a fourth planned for Neom as part of a $1.5 billion investment in the kingdom.[139] In February 2023, Microsoft announced a new cloud region in the kingdom's eastern province with a $2.1 billion investment.[140] Google established its own cloud region in Dammam in November 2023, following a "strategic alliance" with an Aramco subsidiary.[141]

At the 2024 LEAP conference, Amazon Web Services (AWS) announced a $5.3 billion investment to create new data center and skilling infrastructure nationwide.[142] Groq also announced a partnership with Aramco Digital to establish the world's largest AI inferencing data center in Dammam with a $1.5 billion investment from Saudi Arabia to accelerate its infrastructure buildout.[143]

FIGURE 3: CLOUD AND AI COMPUTING PROJECTS IN SAUDI ARABIA[144]



Favorable conditions—including energy and land availability, streamlined permitting, and data localization rules—are driving a surge in cloud and AI computing center construction by U.S., Chinese, and Saudi firms. U.S. hyperscalers currently lead data center deployments in the kingdom, although Chinese providers are quickly expanding through local partnerships.

President Donald Trump's May 2025 visit marked a watershed in U.S.-Saudi technology cooperation and underscored the power of AI as an emerging engine for bilateral partnership. During President Trump's visit, the governments announced the largest-ever commercial agreement between the two nations, with more than $600 billion of Saudi investment in the United States. The investments encompassed defense, aerospace, health, and more, including an announced $80 billion for cutting-edge technologies from Oracle, Google, AMD, Uber, and DataVolt.[145]

Of the $80 billion, $20 billion comes from a new partnership between DataVolt and the U.S. company Supermicro to build AI data centers in the United States.[146] Oracle made a new $14 billion, 10-year commitment to expand its cloud infrastructure and services, although details remain scant.[147] AWS also made a new $5 billion investment for a "first-of-its-kind AI Zone" in the kingdom that will combine leading-edge chips, data center infrastructure, and AI services, building on its previous $5.3 billion investment.[148]

Saudi Arabia used the May 2025 visit to launch Humain as its national AI champion and response to the UAE's G42. Humain tapped Tareq Amin, the former head of Aramco Digital, to lead the company, suggesting the kingdom will consolidate its flagship AI investments under this new entity.[149] The company also announced several partnerships with U.S. technology companies during President Trump's visit—chief among them a commitment to deploy 1 GW of new data center capacity, split equally between AMD and NVIDIA chips, starting with an 18,000-unit purchase of NVIDIA's GB300s in 2026.[150] Alongside NVIDIA, Humain has also selected Groq as a provider for inference compute and partnered with both Cisco and Qualcomm to develop cutting-edge AI data centers.[151]

The May 2025 deal with Saudi Arabia has provoked significant debate in Washington. Proponents contend that the United States should leverage its current advantage in AI infrastructure and services to draw key emerging powers, including Saudi Arabia, closer to its orbit and create long-term partnerships and technology

U.S. President Donald Trump joins Crown Prince Mohammed bin Salman, along with U.S. and Saudi business leaders, during a May 2025 visit to announce $600 billion of Saudi investment in the United States, including $80 billion for advanced technology. Under the preliminary agreement, Saudi Arabia could purchase up to 18,000 units of NVIDIA's export-controlled GB300 advanced AI chips in 2026. (Win McNamee/Getty Images)

dependencies on the American market. They imagine a world where failure to help ambitious nations like Saudi Arabia build out their AI infrastructure will allow China to fill the void and deepen partnerships and dependencies of their own.[152] Supporters also note that ensuring access to the fast-growing Saudi market will help compensate for the export-controlled Chinese market, funneling billions of dollars back to U.S. firms to reinvest in R&D to expand their edge.[153]

On a practical level, frontier AI buildouts have grown so cash- and energy-intensive that leading American technology firms have run into challenges in their abilities to finance and power large-scale computing infrastructure on their own. U.S. AI companies have already forged partnerships with investment firms like Blackrock, KKR, and SoftBank to finance data center and energy infrastructure.[154] In 2024, U.S. private investment in AI hit a staggering $109.1 billion.[155] Leading U.S. technology firms now plan to spend up to $320 billion in 2025.[156] In this context, relatively low-cost, risk-tolerant capital from the Gulf states has clear appeal. As many U.S. tech companies consider building new energy generation capacity "behind the meter" as an imperfect solution to domestic bottlenecks, the relative speed and cost of Saudi energy reinforces the draw.[157]

Arguments that China could somehow backfill Saudi AI demand are also overstated—at least for now. Buckling under U.S. export controls, Huawei currently lacks the capacity to send large quantities of its Ascend chips overseas and has prioritized the domestic market.

These advantages, however, also lead critics to forecast a future in which Gulf states may soon host world-leading AI computing infrastructure—not only imperiling the U.S. lead at the AI frontier, but also handing transformative economic and security capabilities to unreliable and undemocratic monarchs whose countries retain deep ties to China.[158] Longtime U.S. allies like Israel may also have concerns about how advanced Saudi AI capabilities could undermine their qualitative military edge. Critics point to the dangers of AI model use that reinforces authoritarian surveillance and repression, AI chip smuggling, and unauthorized access to the precious U.S. model weights—the sensitive intellectual property underwriting an AI model's capability.[159]

As of September 2025, it remains premature to resolve this debate, as details of the U.S.-Saudi agreement remain limited to high-level statements. Still, there is reason to temper arguments on both sides. The supply of advanced AI chips dynamically responds to the market, albeit within constraints on fabrication capacity. Suggesting that increased Saudi demand will invariably cut into access for U.S. firms assumes fixed supply. Between 2024 and 2025, TSMC reportedly increased production of leading-edge, 3-nanometer chips of 30 percent.[160] Moreover, Saudi indigenization efforts appear focused on legacy-node fabrication to meet demand from its expanding digital economy.

The lack of specifics in the government-to-government deal also creates a window of opportunity for technical and governance solutions, including robust requirements for physical and cybersecurity, know-your-customer verification, spot inspections, smuggling crackdowns, and even on-chip mechanisms for location verification. U.S.-designed chips in Saudi Arabia will require ongoing maintenance, support, and a compatible ecosystem, none of which are easily indigenized; still, arguments that access to U.S. chips perpetually "addict" their buyers to America's AI stack are likely overstated. Saudi Arabia may compensate for what it now lacks in advanced AI chip expertise with its considerable ambition and resources. On the other hand, arguments that China could somehow backfill Saudi AI demand are also overstated—at least for now. Buckling under U.S. export controls, Huawei currently lacks the capacity to send large quantities of its Ascend chips overseas and has prioritized the domestic market. Nevertheless, it is reasonable to assume that Huawei or other Chinese companies will someday overcome these limitations, underscoring the need to win and shape key markets now, consistent with appropriate security and governance measures.

Semiconductor Manufacturing and Design

As Saudi Arabia courts foreign partners to build large-scale data centers, it also seeks to build a domestic semiconductor ecosystem leveraging its strategic location, capital, research infrastructure, and educated population.[161]

Riyadh recognizes that it cannot bootstrap a semiconductor design and manufacturing ecosystem to compete at the leading edge (under 5 nanometers) and

has instead focused on attracting partners to advance its research and design ecosystem, as well as its manufacturing capacity for legacy chips (28–40 nanometers).[162] The government sees expanded legacy chip fabrication as a way to meet rising domestic demand, diversify foreign supply chains, and someday become a new source of exports. At the same time, the kingdom seeks to mature its domestic research ecosystem for advanced chips with a focus on fabless designs.

The kingdom has pursued several foreign partnerships to expand its semiconductor manufacturing and design. Although U.S. technology companies enjoyed an early advantage in semiconductor R&D partnerships given their longer history in the country, Chinese entrants soon joined the fray.

Three Saudi entities have emerged as pivotal players in realizing the kingdom's semiconductor partnerships: KACST, Alat, and the National Semiconductor Hub (NSH). KACST first collaborated with IBM in 2008 to launch a Nanotechnology Center of Excellence in Riyadh, the first of its kind in the kingdom.[163] KACST later partnered with Synopsys to provide software for electronic design automation and curriculum design for Saudi universities.[164]

Starting in 2021, KACST also began holding the Future of Semiconductors Forum, another major annual conference to burnish the kingdom's reputation as a regional hub for advanced technology.[165] In 2023, KACST also signed an MOU with China Electric Power Equipment and Technology and Beijing GL-Microelectronics to create the country's first semiconductor design and manufacturing center, deepening bilateral partnership on microelectronics R&D and localization.[166]

The second key entity is Alat, which envisions annual domestic production of 1 million semiconductor wafers by 2030.[167] Senior leaders at Alat have signaled a hybrid vision for building the kingdom's semiconductor industry that combines integrated device manufacturing, or IDM (in which a firm designs and fabricates its own chips), pure-play foundry services (the firm fabricates chips based on other companies' designs), and chip packaging. They have also emphasized an opportunity for the kingdom to carve out a niche in chiplets—modular components of a chip, like cores.[168]

The third player is the NSH, which the kingdom launched in 2024 with $3.2 billion in planned funding from government and private sources to promote chip fabrication, packaging, and testing.[169] By the end of the decade, the NSH aims to draw 25 world-leading experts and 50 fabless semiconductor design companies to the kingdom, while also training up to 5,000 engineers in semiconductor design.[170] The NSH offers a range of incentives for chip design companies to relocate to the kingdom, including free rent, salary support for Saudi hires, working capital loans, and equity injections.[171] Consistent with Vision 2030, the hub wants to foster a fabless chip design ecosystem by the end of the decade—drawing inspiration from the success of other hubs like India, Vietnam, and the United States—to boost domestic capacity for legacy chips, while keeping the door open to leadership in more advanced chips down the road.

NSH Chief Executive Officer Naveed Sherwani has emphasized cultivating Saudi talent while proposing to draw on untapped regional talent from neighboring countries including Egypt, Pakistan, and Bangladesh. In essence, the hub will leverage Saudi capital to harness talent from neighboring countries in the short term, as the kingdom's domestic talent scales up.[172] In May 2025, the NSH announced its inaugural cohort of companies in various stages of funding: 8 of the 12 companies were American, and 1 was Chinese.[173]

The kingdom's AI economy could reach $135 billion by 2030, more than 12 percent of GDP and 40 percent of the entire region's projected AI economy.

Other major initiatives include an agreement between the Saudi Ministry of Investment and Shen Gong New Materials to invest $890 million in a new Chinese industrial park for electronics manufacturing, including "5G IoT Chips and Semiconductor materials," and a $9 billion investment from Foxconn—a Taiwanese company with extensive operations in China—to build a facility to make chips and components for electric vehicles and other electronics.[174] In May 2025, Qualcomm also partnered with Humain and the MCIT to establish a Qualcomm Design Center for semiconductor technology.[175]

Artificial Intelligence

Beyond the physical infrastructure of chips and data centers, the kingdom has pushed for rapid AI adoption and a robust domestic ecosystem of AI research, companies, and services. The opportunity is considerable. Using a broad definition of AI, PwC estimates that the kingdom's AI economy could reach $135 billion by 2030,

more than 12 percent of GDP and 40 percent of the entire region's projected AI economy. It also estimates that between 2018 and 2030, the contribution of AI to Saudi Arabia's annual growth will average 31.3 percent, second only to the UAE.[176]

The kingdom's AI push has some early evidence of success, with caveats. Saudi research in AI has rapidly expanded. In 2025, the Global AI Competitiveness Index ranked the kingdom 15th in the world for producing nearly 30,000 AI-related publications—although this measures quantity, not quality.[177] AI adoption in the kingdom has also surged. In a 15-country survey of advanced economies, the Oliver Wyman Forum found that 68 percent of Saudis reported using generative AI weekly, compared with just 55 percent across all respondents.[178] One estimate, developed in partnership with SDAIA, assesses that generative AI could boost the Saudi economy by $24 billion by the end of the decade.[179]

Smart cities have emerged as a gateway for Sino-Saudi AI collaboration.

SDAIA is among the most important entities driving the country's AI ecosystem. The government established the agency in 2019 to help position the kingdom as a global AI leader, and the following year, it rolled out the Middle East's first national AI strategy mandating AI adoption across the public and private sectors and emphasizing the potential of AI adoption in health care, finance, and logistics.[180]

Consistent with the strategy, the Saudi government has had several successes with AI adoption. During the COVID-19 pandemic, SDAIA developed an AI-enabled app for real-time outbreak tracking.[181] The government has also deployed AI-enabled computer vision systems to manage crowds and ensure safety for Hajj pilgrims.[182] The 2023 Tortoise Media's Government Strategy Index for AI ranked it first in the world.[183]

As the government pushes AI adoption in the public sector, it also seeks to foster a robust private sector AI ecosystem. In 2021, the kingdom launched the PIF-funded Saudi Company for Artificial Intelligence as a "national AI champion" to indigenize the country's AI ecosystem and deliver AI solutions with a focus on smart cities, financial services, media, health care, and entertainment.[184] In 2023, the PIF also launched the Generative AI Accelerator with $1 billion in capital.[185] Wa'ed Ventures, Aramco's VC arm, has since allocated $100 million for AI startups.[186]

U.S. companies are playing a vital role in the kingdom's emerging AI ecosystem. In 2019, Oracle launched a Riyadh innovation hub focused on smart government.[187] SDAIA also trained its Arabic large language model, ALLaM, on Microsoft Azure and partnered with IBM to establish an AI Center of Excellence in Riyadh to train researchers on Arabic natural language processing.[188] AWS is working with Humain to develop a marketplace of AI agents for the Saudi public sector.[189] Google announced a strategic partnership with the PIF in 2024 to create a global AI hub in the kingdom.[190] Cisco is helping Humain build AI infrastructure and design Neom's AI and network infrastructure.[191]

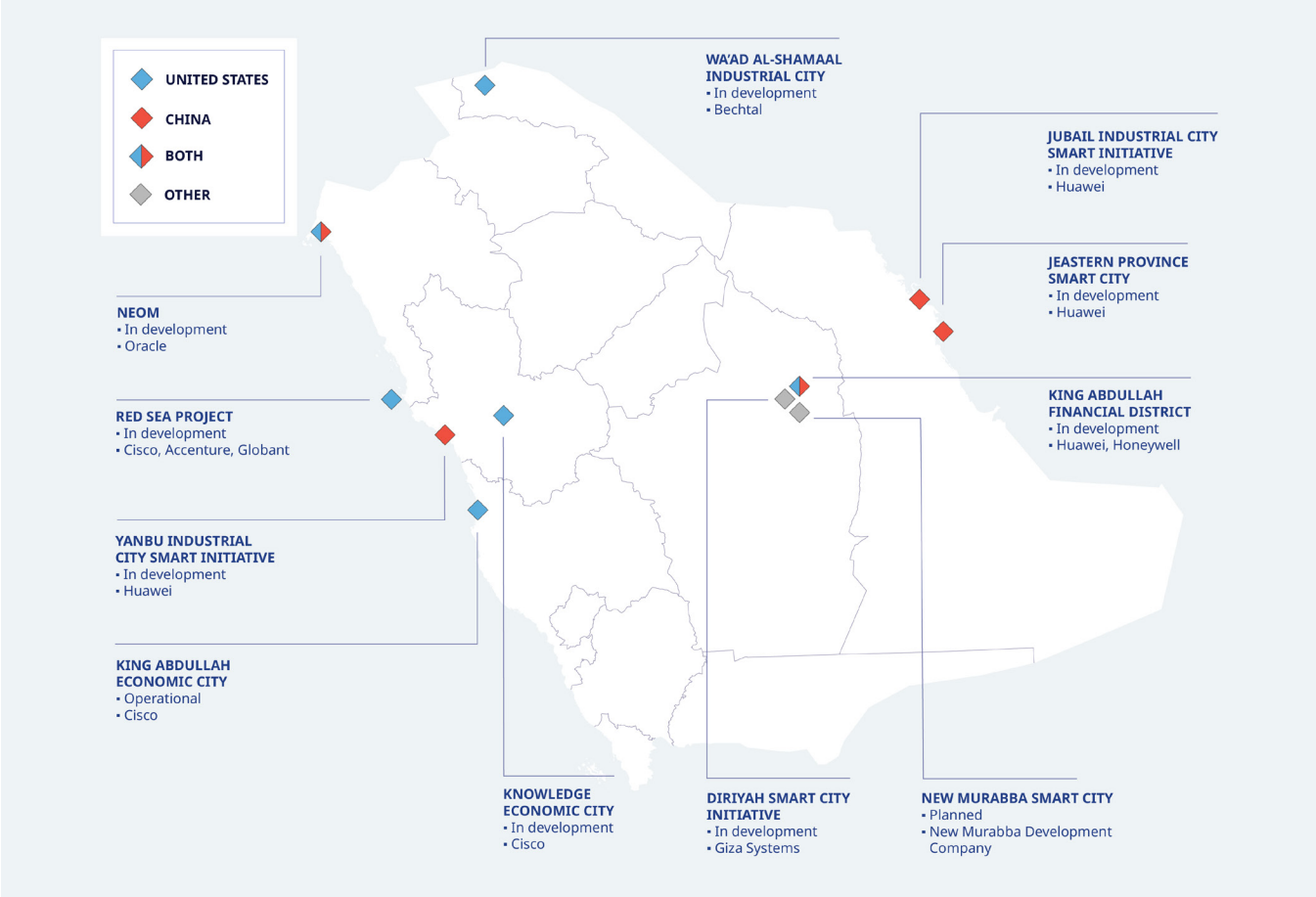
The flurry of agreements underscores the kingdom's preference for working with U.S. firms to strengthen its AI ecosystem. But it has also kept the door open to Chinese companies. Indeed, local interviews and third-party experts suggested that Chinese companies have often been better at bundling AI into broader agreements: for instance, building on previous or new smart city, cloud, and telecommunications partnerships.[192]

Smart cities have emerged as a gateway for Sino-Saudi AI collaboration. Even before the kingdom's embrace of AI, the government had leaned into smart cities to improve services, boost security, and model the country's technology leadership. The government has several smart cities in the pipeline, including Neom, Qiddiya, and Wa'ad al-Shamaal.[193] Security motivates much of their appeal, and the government has made significant investments in AI-enabled smart cameras, biometrics, and predictive policing.[194] This demand is sure to expand ahead of hosting the Expo 2030 Riyadh and the 2034 World Cup.[195] The desire for security is understandable, but the government has repeatedly invoked "security" as a cover to surveil critics and abuse human rights, and the embrace of AI-enabled surveillance technologies risks further empowering Riyadh's authoritarian government.[196] This dynamic has also created an opportunity for Chinese technology firms to meet Saudi smart city demand with offerings perfected in China's technosurveillance state. At the same time, U.S. firms remain active partners in Saudi's smart city buildouts.

As of September 2025, Alibaba Cloud and Huawei both signed MOUs with SDAIA to partner on AI smart city solutions.[197] Dahua Technology launched a joint venture with Alat—backed by a $200 million initial investment—to develop a "highly automated manufacturing hub" for AI-enabled IoT products for cities and commercial areas.[198]

Chinese companies have also expanded efforts around AI skilling. SenseTime and SDAIA partnered to create a national AI curriculum for Saudi schools in areas like computer vision and deep learning, with a goal of benefiting 30,000 students and 2,000 teachers.[199] Huawei

FIGURE 4: SMART CITY PROJECTS IN SAUDI ARABIA[200]



In its push to adopt AI, Saudi Arabia has enlisted U.S. and Chinese firms including Huawei, Cisco, and Oracle to develop smart city projects across the kingdom.

launched a National AI Capability Development Program in 2020, and it has since followed up with several initiatives, like a new Huawei Skills Development Center to train 25,000 ICT professionals in the kingdom.[201] Alibaba partnered with STC and Tuwaiq Academy in February 2025 to train local AI talent.[202]

Chinese entities have again forged strategic partnerships with key Saudi entities. Huawei is building Neom's digital information technology systems.[203] Aramco adopted DeepSeek in its data centers.[204] Even as KAUST relies heavily on NVIDIA's AI chips, it has collaborated extensively with Chinese institutions and has hosted many Chinese scholars and students, perhaps due to its former presidents' connections to China.[205] Indeed, the overwhelming share of Sino-Saudi research cooperation flows from KAUST.[206]

In a sign of the maturing Sino-Saudi AI partnership, the kingdom has begun to invest in Chinese AI companies. Aramco's VC arm participated in a $400 million funding round for the Chinese generative AI firm Zhipu AI. In an interview with the *Financial Times*, a person close to the deal explained the logic: "The Saudis don't want Silicon Valley dominating this industry."[207] Riyadh wants a diversity of foreign vendors, not dependence, in its bid for strategic autonomy and indigenous capacity.

Although U.S. companies have the edge in shaping the kingdom's emerging AI ecosystem, the government will likely keep the door open to Chinese companies to maintain a range of vendors and signal a neutral stance in the escalating U.S.-China technology competition. While the United States maintains a clear advantage in AI hardware for frontier AI training and deployment, the kingdom is pursuing a diversified set of AI investments, from talent to sector-specific applications to smart cities. The foreign companies and governments that best align with the kingdom's vision of indigenizing a robust AI ecosystem and workforce will likely secure the necessary approvals and state capital to scale.

Recommendations

Saudi Arabia is undergoing a rapid and historic transformation to realize Vision 2030, and its leaders see technology as fundamental to its success. They also understand that success cannot come without foreign technology partnership, particularly with the United States. This is especially true for advanced AI applications and adoption, but also for semiconductors, data centers, and other emerging areas not discussed in depth in this report, such as space. The question for Washington is how to meet Saudi demand for digital infrastructure and advanced technologies in areas like AI to box out Chinese alternatives, without compromising sensitive U.S. technologies, offshoring leadership at the AI frontier, or empowering Saudi techno-authoritarianism.

At the same time, Riyadh will likely resist efforts to force outright alignment with the U.S. technology ecosystem, as its relationship with Beijing has expanded into a strategic partnership, and it strives to maintain a foreign policy balanced between the great powers. Still, there is considerable opportunity for U.S. officials and industry to outcompete China's DSR in the heart of Arabia; to that end, this report offers the following recommendations.

Conclude a secure, phased, and verifiable deal with Saudi Arabia for advanced AI chips.

In May 2025, the Trump administration reached a preliminary agreement with Saudi Arabia to lift the cap on previously export-controlled AI chips. As of September 2025, the deal remains under negotiation. Under its initial terms, Humain could purchase hundreds of thousands of top-of-the-line NVIDIA and AMD AI chips to build a 1 GW data center.

The administration has considerable leverage: Huawei's Ascend chips are less performant and less available for foreign deployment given compute shortages within China. Moreover, the UAE's eagerness to conclude a deal raises pressure on the Saudis to do the same. U.S. firms dominate virtually every level of the AI stack, and unlike many other emerging markets, Riyadh strongly prefers best-in-class offerings despite the cost.

This presents a strategic but potentially fleeting opportunity for the United States to secure its place as the kingdom's preferred AI partner. But Saudi Arabia needs American AI more than America needs Saudi capital. Given this, the administration should proceed only if all Saudi recipients of AI chips, including Humain, meet the following conditions.

- Highest standards of physical and cybersecurity
- Rigorous background checks and insider threat training for employees
- Know-your-customer verification
- Guarantees for U.S. companies to deploy, maintain, and oversee the majority of export-controlled AI chips in Saudi data centers
- Assurance that U.S.-designed AI chips do not power applications that facilitate human rights abuses and repression
- Cessation of large-scale partnerships and other support for Chinese firms related to strategic technologies like AI
- Regular audits accounting for AI chip locations and uses
- Divestment of Chinese technology and telecommunications vendors from core digital infrastructure and services related to U.S. security cooperation

A phased approach to a U.S.-Saudi AI deal, whereby chips are released in smaller batches over time, will allow for accountability and trust building over time. The Trump administration's AI Action Plan, released in July 2025, created a mechanism for industry-led consortia to receive government approval for full-stack AI exports. The administration should encourage consortia to develop packages for Saudi Arabia and condition approval based on similar requirements.

Support the expansion of Saudi fabrication capacity for legacy chips while limiting support for leading-edge semiconductor design tools and research.

The United States should welcome increased Saudi capacity to fabricate legacy chips to diversify its supply chains from China, and it should encourage industry and research partnerships to that end. At the same time, Washington should not undermine its leverage by enabling advanced chip design and fabrication in Saudi Arabia and other nations that lack treaty-level alignment with the United States. The risk of technology leakage to China and the potential rise of AI superclusters in undemocratic states outweighs other strategic and commercial benefits.

Establish a process to fast-track inbound investments from allied and partner sources for U.S. strategic technologies.

This could align with the Trump administration's February 2025 America First Investment Policy.[208] Reforms should streamline application criteria, shorten review times, expand dedicated personnel and resources, and include rigorous standards for IP protection, cybersecurity, personnel background checks, and divestment from Chinese firms in strategic technology sectors or with links to the military or security services. For instance, the PIF would need to unwind its $400 million investment in the Chinese company Zhipu AI or, at minimum, commit to no similar investments going forward to receive expedited consideration. The administration could also consider a clean-capital designation for firms that disclose and divest links to adversary-linked firms, expediting approvals.

Leverage people-to-people ties to support Riyadh's Saudization policies.

Saudis are more likely to study at U.S. universities, know Western business practices, and speak English instead of Mandarin. These stronger people-to-people ties help U.S. firms align with Riyadh's efforts to boost Saudi hiring and upskill local talent. But this advantage is eroding. The Chinese government is expanding people-to-people ties by waiving visa restrictions and expanding Mandarin offerings in the kingdom, and Chinese firms are increasing local hiring and upskilling. Tightening U.S. immigration policies and tensions with higher education have also limited Saudi access to American educational institutions, undercutting a longtime advantage.

To expand the United States' people-to-people edge in shaping the kingdom's emerging tech workforce, U.S. higher education institutions with a presence in Saudi Arabia—like the University of California, Berkeley; Stanford University; the Massachusetts Institute of Technology; and the University of Texas at Austin—should expand curricula related to AI and emerging technologies, including responsible technology governance. The Trump administration could also establish a Young Technology Leaders Initiative, modeled on the successful Young African Leaders Initiative, to identify the next generation of promising global talent and strengthen ties with the U.S. ecosystem.[209]

Engage the Saudi Communications, Space, and Technology Commission (CST) about the draft Global AI Hub Law.

The CST released the proposal in April 2025 for comment, giving U.S. diplomats a critical window for engagement. Engagement should prioritize designating American-operated data centers in Saudi Arabia as data embassies that allow for limited U.S. administrative jurisdiction. This would facilitate compliance with U.S. export controls, spot inspections to curb diversion and unauthorized access, workload attestations, and other oversight mechanisms. Data embassies could include carveouts for sovereign cloud and AI services. The administration should deploy advisors from the U.S. government, including the State Department, the Department of Commerce, and the U.S. Center for AI Standards and Innovation, along with representatives of the private sector, to provide technical assistance in finalizing the law.

Pilot a joint effort by the U.S. Department of Homeland Security (DHS), the Department of State, and the Department of Energy (DOE) to bolster AI data center security in strategic overseas markets.

The Trump administration's July 2025 AI Action Plan called for the DHS to create guidance for the private sector to remediate and respond to "AI-specific vulnerabilities and threats."[210] Once this process concludes, the DHS should work with the State Department and the DOE to share best practices with Saudi Arabia and other strategic partners with ambitions for large-scale AI and related energy infrastructure.

Support eventual Saudi transition to 6G through research partnerships.

6G is expected to be the first AI-native telecommunications architecture, with built-in support for intelligent routing and edge-based inference—areas where the United States and its allies remain competitive. If the United States concludes agreements for full-stack AI exports and broader strategic partnerships with the kingdom, it will better position itself to displace Huawei's ubiquitous presence in existing Saudi telecommunications networks down the line. In July 2024, Ericsson extended an R&D partnership with KAUST through 2026 to advanced 5G and 6G. Other U.S. and allied companies should pursue similar partnerships with Neom, MIC, STC, and other key players ahead of the 6G transition.[211]

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