



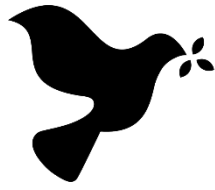
CAMBRIDGE
MIDDLE EAST AND
NORTH AFRICA
FORUM



UK
ABRAHAM
ACCORDS
GROUP

UK AI Diplomacy: Boosting British Influence in MENA and Strengthening the Abraham Accords

22 APRIL 2025



**UK
ABRAHAM
ACCORDS
GROUP**



**CAMBRIDGE
MIDDLE EAST AND
NORTH AFRICA
FORUM**

Copyright © Cambridge Middle East and North Africa Forum Ltd, 2025.

Copyright © Abraham Accords (UK) Ltd, 2025.

All rights reserved. This report or any portion thereof may not be reproduced or used in any manner whatsoever without the publishers' express written consent except for the use of brief quotations in a review.

Cambridge Middle East and North Africa Forum Ltd

Mailing Address: C/O Parker Russell, 122 Leadenhall Street,
London, EC3V 4AB United Kingdom

www.cmenaf.org

Abraham Accords (UK) Ltd

New Derwent House, 69-73 Theobalds Road,
London, WC1X 8TA United Kingdom

www.abraham-accords.uk

While we have made every attempt to ensure that the information in this report has been obtained from reliable sources, the Cambridge Middle East and North Africa Forum is not responsible for any errors or omissions made by the author, or for the results obtained from using this information. All information in this report is provided "as is", with no guarantee of completeness, accuracy, timeliness, or of the results obtained from the use of this information, and without warranty of any kind, express or implied, including, but not limited to warranties of performance, merchantability and fitness for a practical purpose. In no event will the Cambridge Middle East and North Africa Forum, its related partnerships or corporations, or the partners, agents or employees thereof be liable to you or anyone else for any decision made or action taken in reliance on the information in this report, or for any consequential, special or similar damages, even if advised of the possibility of such damages.

First Issue: 22 April 2025

Please consider the environment before printing this document.

UK AI Diplomacy:

Boosting British Influence in MENA and Strengthening the Abraham Accords

22 APRIL 2025

Table of Contents

Background.....	5
About the UK Abraham Accords Group.....	5
About the Cambridge Middle East and North Africa Forum.....	5
About the Research Team.....	5
Foreword.....	7
Executive Summary	9
Priorities for UK AI Diplomacy	9
From Vision to Action: A Roadmap for UK AI Diplomacy.....	10
Navigating the Risks.....	10
A New Chapter in UK-Middle East Partnerships.....	10
I. The UK's Strategic Interests.....	11
UK-Gulf AI Strategies	12
Research Focus	14
II. Energy Optimisation.....	17
Overview.....	17
How AI is Transforming the Energy Landscape of the MENA Region.....	20
Policy Recommendations.....	29
Conclusion	38
III. Health Technology	39
Overview.....	39
How AI is Transforming Healthcare in the Middle East.....	40
The Challenges of AI Healthcare Integration	42
Healthcare and The Abraham Accords: From Boom to Bust.....	44
Beyond Bilateralism: The UK's Cure for a Partnership on Life Support	45
Policy Recommendations.....	47
Ethics and Governance in Health AI.....	55
Conclusion	58
IV. Education and Workforce Upskilling	59
Overview.....	59
Bridging the AI Skills Gap: A UK-MENA Partnership.....	59
Training Tech Workers to Identify AI 'Hallucinations'	60
Integrating Fintech Education into Curricula	62
Bridging the Gender Gap in AI.....	63
Strengthening UK-MENA Collaboration in Tech Innovation.....	64
Conclusion	65
V. AI Governance and Regulation.....	67
Overview.....	67
UK-Middle East Regulatory Collaboration.....	68
AI Regulation in Abraham Accords Countries.....	69
Regulatory Alignment Opportunities	71
A Policy Roadmap for UK AI Regulatory Leadership in the Middle East.....	71
Strategic Advantages of UK AI Regulatory Engagement.....	79
Conclusion	80
Conclusion	82
Policy Recommendations.....	83
Summary of potential UK-led initiatives.....	84
Bibliography	90

Background

About the UK Abraham Accords Group

The **UK Abraham Accords Group (UKAAG)** is a non-partisan and non-profit, UK based organisation dedicated to supporting the implementation and expansion of the historic peace agreements known as the Abraham Accords. The organisation was launched in the British Parliament in September 2021, marking the first anniversary of the Abraham Accords.

UKAAG's mission is to establish a successful parliamentary group to build and maintain bi-partisan support within the UK political system for the Abraham Accords. It also seeks to develop trade, governmental and cultural cooperation, and promote peace and economic prosperity in the region.

Furthermore, UKAAG strives to cut across old divides in parliament, government and the media, reflecting the changing nature of the Middle East. The UK Abraham Accords Group also aims to promote social responsibility, inclusiveness, and embrace high principles of governance as part of the mission.

About the Cambridge Middle East and North Africa Forum

The **Cambridge Middle East and North Africa Forum (MENAF)** is an independent, non-partisan think-tank and registered charity based out of the academic community of the University of Cambridge. The Forum is dedicated to encouraging original, intelligent, and constructive dialogue about the Middle East and North Africa, and to developing and advancing policies that secure Britain's role in it.

In addition to its publicly-available projects and publications—especially *Manara Magazine* and the *Strategic Brief*—the Forum provides independent analysis and recommendations to policymakers in Parliament, Whitehall, and around the world. The Forum hosts regular roundtables and Track II dialogues for London's business, policy, and diplomatic communities.

About the Research Team

Hadas Lorber is Lead Researcher at the Cambridge Middle East and North Africa Forum (MENAF). She is Founder and Head of the Institute for Applied Research in Responsible Artificial Intelligence at HIT – Holon Institute of Technology, where she leads initiatives to advance R&D in partnership with Israel's tech industry, to integrate responsible frameworks into AI innovation. Hadas also leads the Israel-U.S. Relations Project at the Institute for National Security Studies (INSS), strengthening strategic partnerships between the two countries, and teaches at Reichman University's Raphael Recanati International School.

In 2024, she founded the AI Forum at the Israel-America Chamber of Commerce, fostering cross-sector dialogue. Previously, Hadas was the Senior Director for Foreign Policy at Israel's National Security Council (NSC), where she led the U.S.-Israel Strategic Dialogue, including US efforts to deepen the Abraham Accords and the Tech Dialogue, aligning Israel's AI policy with global standards in collaboration with White House initiatives.

Hadas holds a master's degree in international relations from the Hebrew University of Jerusalem and an International Baccalaureate (IB) diploma from the OFS, Singapore.

Matthew Davies is Director of Policy at the UK Abraham Accords Group, having been with UKAAG since March 2024. Matthew is a graduate of the University of Glasgow and holds an MA with distinction in International Relations from King's College London.

Arielle Vogel Valk is an Associate Researcher at the Cambridge Middle East and North Africa Forum (MENAF) and a former fellow of the inaugural Young Leaders' Initiative, where she conducted research on Arab-Israeli relations in the context of the ongoing Middle East war. She has since worked in the Startup segment at Amazon Web Services (AWS), following several years in the Israeli public sector.

Her previous roles include serving as Deputy Defence and Military Attaché to the Visegrád Group—Poland, the Czech Republic, Hungary, Slovakia—as well as Slovenia, representing the Israeli Ministry of Defence. In this capacity, she worked to strengthen diplomatic and defence technology cooperation across the region.

Arielle holds a Bachelor of Science in International Political Economy from City, University of London.

Samir Al Hajar is an Associate Researcher at the Cambridge Middle East and North Africa Forum (MENAF) and a former Current Affairs Analyst with the Strategic Brief with a focus on the GCC region. Samir is an Energy Engineer based in Berlin with experience in renewable energy, including hydrogen, e-mobility, power-to-x, and wind energy.

Samir is currently pursuing a Master's in Renewable Energy Systems at the Technical University of Berlin (TU Berlin).

Uri Inspector is an Associate Researcher at the Cambridge Middle East and North Africa Forum (MENAF), where he was previously a Fellow in the Forum's Young Leaders' Initiative. He is a contributor to The National Interest, writing on artificial intelligence in Middle Eastern militaries, public policy, and the US-China tech race.

Uri holds a Master's in Middle Eastern Studies from Harvard University, where he focused on political economy, geopolitics, and Arabic, and worked as a Research Assistant at the Harvard Kennedy School. He graduated top of his year from UCL, receiving the departmental prize for best dissertation.

Uri began his career as a journalist at CNBC and has since worked in business development at a leading American law firm. He will be joining Herbert Smith Freehills as a solicitor in August 2025.

James Gillham is an Associate Researcher at the UK Abraham Accords Group. He is experienced in political campaigning, having been a team member for a Congressional primary campaign in California's 47th district for a Republican candidate. He also served on Sir Liam Fox's campaign team for North Somerset in the 2024 UK general election and most recently, Robert Jenrick's campaign during the Conservative Party leadership contest.

In addition to his work on political campaigns, James has worked in Sir Liam Fox's Parliamentary office in Westminster, and has experience in the pharmaceutical manufacturing industry, having worked as a researcher for a cleanroom system manufacturing company.

Foreword

*By Sir Liam Fox, Chair of the UK Abraham Accords Group;
Former British Secretary of State for Defence, and International Trade*

Despite the continued economic and military dominance of the United States and the rise of new powers, especially China, the United Kingdom continues to be a major global player. With a permanent seat at the UN Security Council, the world's fifth largest military budget, and key roles in global institutions such as the IMF and World Bank, the UK maintains substantial influence, underpinned by a strong democracy and a commitment to freedom and the rule of law. A top destination for FDI, with three of the world's top ten universities and a buoyant creative and innovative culture, it is well placed to be at the centre of emerging technologies—in particular, artificial intelligence.

Artificial intelligence will disrupt, reshape, and transform existing methods and practices of business, diplomacy, and warfare. The race to lead the world in AI is already shaping the global order in the twenty-first century, with AI focused competition taking place between states over access to the most advanced semiconductors, intellectual property rights, and possession of critical minerals.

The competition between the West and China (and the latter's allies in Moscow and Tehran) is one in which the forces of freedom are counterposed to the forces of autocracy, where competing visions over individual rights and state-centric collective order are contrasted. In the previous Cold War, President Ronald Reagan and Prime Minister Margaret Thatcher sought not to manage competition but to win it by recognising which states fell on either side of the ledger, and which were balanced in between that could be won over. This approach enabled the forces of freedom, democracy, and the rule of law to retain global dominance, at least until recently.

Many of the key states which the free world needs as partners sit in places like the Gulf, already making huge investments in AI, understanding that 'data is the new oil'. The UAE and Saudi Arabia, for example, are undergoing periods of rapid economic and social transformation, driven by the need to diversify their economies away from a reliance on fossil fuels. It is imperative for the UK's economic health and national security interests regarding safe AI and Chinese MCF, that the UK leads in collaborating with these states in building AI ties and developing international regulations that are protective but not stifling for innovation.

As Chairman of the UK Abraham Accords Group, I have seen the goodwill that all signatory countries to the Abraham Accords have towards the United Kingdom. These states—Israel, Bahrain, Morocco, and the United Arab Emirates—all recognise the shared historical, cultural, and security interests that exist with the UK. I believe that the UK should be more active in its foreign policy in the MENA region, pro-actively supporting our allies and vigorously challenging the ambitions of Iranian leadership. Through AI co-operation, the UK can achieve this position of leadership, and build soft power ties between the UK and the MENA region through people-to-people exchanges and interconnections in business and education.

As a former Secretary of State for Defence, I have long voiced concerns regarding the malevolent threat that Iran poses to the Middle East and the world. An inherently destabilising force, Iran wishes to destroy the State of Israel and succeed in securing hegemonic control of the region. Iran is in a significantly weaker position now than before the Hamas terrorist attacks of 7 October 2023. With weakened regional proxies, a collapsed Syrian ally and having sustained significant damage to its air defences, the Iranian regime also faces increased dissent at home despite the brutal and murderous treatment of any critics. Yet, the threat persists and the strengthening, widening, and deepening of the Abraham Accords is a key tool in keeping the Iranian regime under control.

When I served as Secretary of State for International Trade and President of the Board of Trade, I saw the powerful benefits that an interconnected, globalised economy can bring to citizens all over the world. The Abraham Accords have demonstrated that trade can bring peace and prosperity by building trust between peoples. The success of the Abraham Accords from a trade perspective is evident from the statistics, even following the outbreak of the Israel-Hamas war. Trade between the Abraham Accords signatories has increased since the Accords were signed in 2020. From 2023 to 2024, trade between Israel and Bahrain increased by 843%, reaching \$108.5mn. Trade between Israel and the UAE in the

same period increased by 10% to reach \$3.24bn. Trade also increased between Israel and Morocco, reaching \$109.9mn, an increase of 40% in that year. Businesses are people, and through trade the Abraham Accords add a human face to what may previously have been monolithic nation-states, characterised by distrust and fear.

The Abraham Accords remain strong thanks to the strategic patience shown by leaders in Manama, Abu Dhabi, and Rabat. The mutual strategic threat from Iran and the benefits of bountiful trade have kept the Abraham Accords intact, despite immense pressure. By strengthening the Abraham Accords through enhanced security co-operation, partners such as the UK can enjoy a shared future in which mutual prosperity and security go hand in hand. This paper argues that AI is one of the sectors which the UK is already admired for and has many relative strengths in, and that these would be welcomed by the Abraham Accords countries, in addition to UK leadership in AI regulation.

And, finally, as a former medical doctor I am excited by the opportunities that AI will bring to revolutionise the field of medicine and healthcare. The process of prevention, diagnostics, and treatments will be vastly improved through AI, such as through the prospect of more efficient medical bureaucracies, personalised treatments, and faster breakthroughs in drug-discovery. In this field, AI will bring lasting positive benefits for healthier and more prosperous societies in the UK and around the world.

This paper, produced by the UK Abraham Accords Group and the Cambridge Middle East and North Africa Forum, looks at AI as a diplomatic tool, an instrument of twenty-first century statecraft. By taking this pioneering approach, and by following the recommendations laid out in this paper, the UK can achieve significant strategic, economic, and diplomatic goals that will strengthen the historic Abraham Accords, weaken Chinese footprint in the Middle East, and boost British influence in the region.

Executive Summary

By Hadas Lorber

Artificial intelligence (AI) is transforming our world—not just how we live and think, but also how nations relate to one another. As the ‘revolution’ accelerates, it is becoming increasingly clear that AI is not just a driver of economic growth, but also a powerful tool in shaping international alliances and influencing the global balance of power.

In this paper, we wish to explore the role of UK AI diplomacy towards Israel, the UAE, Bahrain, Morocco, and Saudi Arabia, focusing on how AI can expand the UK’s influence in the Middle East, deepen the Abraham Accords, and serve as a counterbalance to China’s deepening presence in the region.

The UK has deep roots in the Middle East, both politically and economically. From its mandate periods in Transjordan, Palestine, and Iraq to its current partnerships with Gulf countries, the UK’s ties to the region serve as a foundation for advancing new types of cooperation. Now, in an era of rapid technological transformation, strengthening these relationships through AI diplomacy offers both opportunities and challenges.

The Abraham Accords of 2020 were a pivotal moment in the region’s diplomatic history, normalising relations between Israel and several Arab states, including the UAE, Bahrain, and Morocco. Since its signing, we have seen a wave of diplomatic and economic openings, yet the full promise of these agreements is still unfolding, constrained by geopolitical tensions, particularly the ongoing war in Gaza between Israel and Hamas. While areas like cybersecurity and defence technology are witnessing collaboration between Abraham Accords signatories, there is an acute need for deeper and more sustainable connections.

At the same time, China’s foothold in the MENA region is expanding rapidly, powered by initiatives like the Belt and Road and an aggressive push to export AI-driven solutions, including surveillance technology. This raises critical concerns about privacy, sovereignty, and the future of open innovation. The UK can play a unique role here by offering its partners an alternative grounded in transparency, trust, and democratic values.

In this web of geopolitical complexity, the UK is presented with a rare opportunity to transform its post-Brexit status and position itself as a stabilising force in the region. Its leadership in AI governance positions the UK as a credible partner for nations seeking to harness the opportunities provided by AI while mitigating its risks. With its strong AI research ecosystem, start-ups, and globally prominent companies, the UK is well-placed to lead. And by channelling that into key sectors—energy, health, education, and regulation—it can expand its influence in the region, strengthen the Abraham Accords by providing technological and economic incentives for deeper cooperation, and counterbalance China’s growing presence by promoting AI standards that align with democratic values and open-market principles.

Priorities for UK AI Diplomacy

To make a meaningful impact, several key areas emerge as critical pillars for collaboration in the field of AI. In this research, we decided to focus on four ‘soft’ sectors that represent both necessary and high-impact areas as far as economic resilience, regional growth, and influence are concerned:

- **Energy optimisation:** AI is key to transforming how countries manage their energy needs—from improving smart grid operations to forecasting renewable output and reducing emissions. For energy-focused nations like Saudi Arabia and the UAE, these technologies are vital to meeting sustainability goals such as those set out by Vision 2030 and Net Zero 2050. The UK’s expertise in AI-powered energy systems positions it as an ideal partner in this field. In return, deeper cooperation would strengthen UK influence, expand market access for British firms, and counter growing Chinese dominance in the MENA region’s energy infrastructure.
- **Health technology:** AI is already revolutionizing healthcare—powering better diagnostics, streamlining hospital operations, and enabling bio-convergence. Countries across the Middle East are looking to harness these tools to modernise their systems and reduce healthcare costs. The UK,

with its known health-tech ecosystem and institutions like the NHS and University of Oxford, can support these goals through joint research, investment in digital health infrastructure, and fast-tracked innovation partnerships.

- **Education and workforce upskilling:** A future-ready workforce is critical for regional resilience and innovation. The UK's universities and AI training programmes can help its partners build a skilled talent pool, reduce reliance on foreign expertise, and create inclusive opportunities—especially for women. These partnerships also open doors for UK-based ed-tech firms and educational collaborations.
- **AI governance and regulation:** As AI becomes more integrated into everyday life, countries are recognising the need for ethical and transparent regulatory frameworks. The UK, through initiatives like the AI Safety Summit, is already shaping global standards in this field. By working with partners in the MENA region to co-develop these frameworks, the UK can help align them with democratic norms while offering an alternative to Chinese-style digital governance.

From Vision to Action: A Roadmap for UK AI Diplomacy

Turning strategy into practice means translating AI's potential into tangible initiatives. Given the current geopolitical landscape, our suggested roadmap would leverage AI diplomacy as a pragmatic, depoliticised avenue to maintain and strengthen Abraham Accords partnerships. Key action items for the UK include:

1. **Establishing a UK-Abraham Accords AI forum:** A multilateral working group to coordinate AI-driven economic initiatives.
2. **Facilitating AI-driven energy partnerships:** Supporting collaborative AI projects in renewable energy, smart grids, and cybersecurity, ensuring regional economic interdependence; Establishing joint ventures to reduce dependence on Chinese-dominated supply chains; Developing UK-MENA partnerships in securing and processing critical minerals necessary for AI and energy.
3. **Establishing AI-driven health partnerships:** Facilitating joint research and innovation for healthcare solutions; Supporting AI-enhanced early disease detection, predictive analytics, and personalized medicine; Enhancing Digital Health Infrastructure by promoting UK-led initiatives to improve telemedicine, electronic health records, and AI-based patient management systems; Facilitating Investment in Health-Tech including UK-backed venture funds for AI-driven healthcare start-ups in the region.
4. **Promoting AI workforce development and joint research:** Expanding AI education, exchange programs, and joint R&D projects to build long-term technological synergies; Promoting initiatives to increase women's participation in AI-related fields across the Middle East.
5. **Leading AI regulatory roundtables:** Establishing an Abraham Accords AI Governance Forum and joint sector-specific sandboxes will align standards and foster collaboration, positioning Britain as the region's AI standard setter.
6. **Leveraging AI to strengthen people-to-people ties:** Encouraging AI-driven initiatives in entrepreneurship that foster civil society cooperation beyond high-level diplomacy.

Navigating the Risks

While the opportunities are significant, the UK must also be mindful of the risks involved with the more integrated use of AI. Energy partnerships could create new dependencies, healthcare collaborations may raise data privacy concerns, and cultural or infrastructural barriers could limit educational efforts. Initiatives to promote UK-style regulation in the field of AI may not resonate with all partners, especially those aligned with China. A thoughtful, adaptive approach will be essential in all of these policy areas.

A New Chapter in UK-Middle East Partnerships

In an era of disruption and shifting alliance structures, we believe that AI offers a chance to write a new chapter in UK-MENA relations—one that is built on innovation, shared prosperity, and responsible leadership. With sustained commitment, the UK can not only help anchor the Abraham Accords, but also shape a more inclusive and secure future for AI in the region.

I. The UK's Strategic Interests

By Matthew Davies

Artificial intelligence (AI) will continue to have a transformative influence on the social, political, and economic lives of both individuals and nation states. The race to be the world's foremost AI power is underway between the United States and China. This race, and the innovative AI capabilities that it will produce, will define the geopolitical landscape of the world in the coming decades.

In March 2025, British Foreign Secretary David Lammy outlined the United Kingdom's position on the geopolitics of AI. Lammy described the competition as a 'hyper-competitive race between nations', of which it is 'essential that the UK, the US and our allies' governments and companies work together ever more closely to win that technological race'.¹ Technology, Lammy outlined, is at 'the frontline of geopolitics. As we move from an era of AI towards Artificial General Intelligence, we face a period where international norms and rules will have to adapt rapidly'.²

Firstly, AI has been described as a potential 'Revolution in Military Affairs' (RMA). An RMA is defined as the introduction of a technology which produces a 'paradigm shift in the nature and conduct of military operations which either renders obsolete or irrelevant one or more core competencies of a dominant player, or creates one or more new core competencies, in some dimension of warfare, or both'.³ The potential for AI to be considered an RMA is observable in the military use of autonomous weapons systems such as drones; decision support; logistics; and modelling and simulation.⁴ These military applications of AI are already shifting global power balances, such as in the wars between Russia and Ukraine, and Israel and Hamas. Furthermore, access to the most high-powered semiconductors, which are predominantly produced in Taiwan and South Korea, has shaped the dynamics of the Indo-Pacific region, and is one of the factors fuelling Chinese aggression towards Taiwan.⁵ Just as AI influences geopolitics in the Indo-Pacific, AI will influence the balance of power in the Gulf and the broader Middle East, which will in turn affect the global balance of power—especially considering China's military use of AI.

Significant concerns exist over China's strategy of 'military-civil fusion' (MCF). The US State Department defines MCF as 'an aggressive national strategy of the Chinese Communist Party... to enable the PRC to develop the most technologically advanced military in the world... a key part of MCF is the elimination of barriers between China's civilian research and commercial sectors, and its military and defence industrial sectors. Joint research institutions, academia, and private firms are all being exploited to build the PLA's future military systems—often without their knowledge or consent'.⁶ Technological breakthroughs in civilian fields, therefore, are leveraged by the Chinese military. This is likely to disrupt regional and global power balances, threatening the US-led liberal international order and advancing Chinese global leadership. Chinese hegemony is a threat to the values and interests of the United Kingdom and its allies—hence why Foreign Secretary Lammy argued that 'like no technology before it, [AI] will shape not just our economic prospects, but our national security'.⁷

Strategy, as Emeritus Professor of War Studies at King's College London Sir Lawrence Freedman defines it, is 'about getting more out of a situation than the starting balances of power would suggest. It is the art of creating power'.⁸ The transformative qualities of AI mean that it is unsurprising that nation states, cognisant of both the leverage against adversaries that AI advantage offers and the profound economic benefits it provides, are looking to develop their domestic AI capabilities. Some, such as Arab states of

¹ Lammy, D. (2025). "The FCDO means business: Foreign Secretary's British Chambers of Commerce speech", *British Chambers of Commerce Driving International Trade Conference*, 20 March 2025, retrieved from: <https://www.gov.uk/government/speeches/the-fcdo-means-business-foreign-secretarys-british-chamber-of-commerce-speech-march-2025>.

² Ibid.

³ Hundley, R.O. (1999). "Past Revolutions, Future Transformations: what can the history of revolutions in military affairs tell us about transforming the U.S. military?", *Defense Advanced Research Project Agency by RAND's National Defense Research Institute*, p.xiii.

⁴ Daniels, O.J. (2022). "The 'AI RMA': The Revolution Has Not Arrived (Yet)", *The Andrew W. Marshall Papers*, pp.14–18, retrieved from: https://www.andrewmarshallfoundation.org/wp-content/uploads/2022/11/AIRMA_FINAL.pdf.

⁵ Ibid.

⁶ U.S Department of State (2020). "Military-Civil Fusion and the People's Republic of China", retrieved from: <https://www.state.gov/wp-content/uploads/2020/05/What-is-MCF-One-Pager.pdf>.

⁷ Lammy (2025). "The FCDO means business".

⁸ Freedman, L. (2013). *Strategy: a history*. Oxford: Oxford University Press, p.xii.

the Gulf, have invested large sums of money to become regional—and perhaps even global—leaders in AI. Economic diversification from oil revenues drives this ambition, as does the opportunity to become more connected to the global economy. The UK meanwhile, has sought to maximise AI influence through the promotion of safe regulatory frameworks for AI. In 2023, British Prime Minister Rishi Sunak convened the world's first AI Safety Summit at Bletchley Park in Buckinghamshire.⁹ The summit, attended by US Vice President Kamala Harris, tech moguls Sam Altman of OpenAI and Elon Musk of X, Tesla, and SpaceX, and European Union Commission President Ursula von der Leyen, reinforced the UK's ambition to be a world leader in AI.

It is clear that the United Kingdom has identified AI as a means to further its global influence. In a speech prior to the 2023 AI Safety Summit, Prime Minister Sunak made it clear that AI is an issue that the UK intends to lead on, arguing that 'I'm completely confident in telling you the UK is doing far more than other countries to keep you safe... The British people should have peace of mind that we're developing the most advanced protections for AI of any country in the world.'¹⁰ Announcing the creation of a new taskforce for AI safety called the AI Safety Institute, Sunak highlighted the risks of AI, explaining that 'AI could make it easier to build chemical or biological weapons. Terrorist groups could use AI to spread fear and destruction on an even greater scale. Criminals could exploit AI for cyber-attacks, disinformation, fraud'.¹¹ However, the risks of AI can be matched, if not exceeded, by the transformative benefits that it may bring to the UK and the world. Sunak argued that 'by making the UK a global leader in safe AI, we will attract even more of the new jobs and investment that will come from this new wave of technology. Just think for a moment about what that will mean for our country. The growth it will catalyse, the jobs it will create, the change it can deliver—for the better'.¹²

Sunak's successor, Sir Keir Starmer, has continued in the effort to make the UK one of the foremost global AI powers. Referring to the 2025 AI Action Plan authored by Matt Clifford CBE, the Prime Minister argued that 'it is our responsibility to make sure that Britain maintains its position as a world leader in AI, even as the competition increases. Some countries are going to make AI breakthroughs and export them to the world. Other countries will be left to buy those breakthroughs by importing them. This Action Plan sets out how Britain will be the former—a plan to make our country an AI superpower'.¹³ This reflects the bipartisan nature of the UK's AI ambitions, and how important AI now is to British grand strategy.

UK-Gulf AI Strategies

Clearly, the UK's focus on artificial intelligence safety follows Freedman's definition of strategy, as the UK seeks to create power influencing global AI regulation and harness its capacity for innovation to advance AI and boost economic productivity and growth. The objective of this paper is to offer the Government of the United Kingdom of Great Britain and Northern Ireland a strategy for leveraging the country's AI capabilities to achieve economic, diplomatic, and national security priorities, discussed below.

One must understand firstly, that the UK is a leader in the field of AI. The Prime Minister identified the UK's unique AI capabilities as being as follows:

'We start from a position of strength. This is the nation of Babbage, Turing and Lovelace—driving change is in our DNA. Already, Britain is the third largest AI market in the world. We have established a world-leading infrastructure for AI safety. Vast resources of talent in our universities and scientific institutions. Numerous technology companies, operating at the AI frontier, are proud to call our country home. And our values of democracy, open commerce and the rule of law are suited to the test of the times—crucial for the free exchange of ideas needed to maximise AI's potential'.¹⁴

⁹ Milmo, D. and Stacey, K. (2023). "Five takeaways from the UK's AI safety summit at Bletchley Park", *The Guardian*, 2 November 2023, retrieved from: <https://www.theguardian.com/technology/2023/nov/02/five-takeaways-uk-ai-safety-summit-bletchley-park-rishi-sunak>.

¹⁰ Sunak, R. (2023). "Prime Minister's Speech on AI", 26 October 2023, *The Royal Society, London*, retrieved from: <https://www.gov.uk/government/speeches/prime-ministers-speech-on-ai-26-october-2023>.

¹¹ Ibid.

¹² Ibid.

¹³ Starmer, K. (2025). "Government response: AI Opportunities Action Plan: Government Response", *Department for Science, Innovation and Technology*, 13 January 2025, retrieved from: <https://www.gov.uk/government/publications/ai-opportunities-action-plan-government-response/ai-opportunities-action-plan-government-response#foreword-by-the-prime-minister>.

¹⁴ Ibid.

Former Prime Minister Sunak offered a similar analysis of the UK's AI attractiveness, stating that 'we've already got strong foundations. Third in the world for tech, behind only the US and China. The best place in Europe to raise capital. All of the leading AI companies—choosing the UK as their European headquarters. The most pro-investment tax regime. The most pro-entrepreneur visa regime, to attract the world's top talent, and the education reforms to give our own young people the skills to succeed'.¹⁵

The UK's AI capabilities are recognised by Stanford University's Global AI Vibrancy Tool (GVT), which ranks the UK as the third most powerful AI nation, behind the two superpowers of the United States and China in this field.¹⁶ The GVT measures AI 'vibrancy' (defined as the level of activity, development, and impact of AI technologies within a country) across eight pillars. These are: Research and Development; Responsible AI; Economy; Education; Diversity; Policy and Governance; Public Opinion; and Infrastructure. Three sub-indices are used: an innovation index; an economic competitiveness index; and a policy, governance, and public engagement index.¹⁷

The UK's position of global leadership is reflected in its GVT score. The UK scores higher on the policy and governance pillar than any other nation, whilst also receiving high scores on R&D and education. The UK boasts top computer science universities, such as the University of Oxford, University of Cambridge, and Imperial College London, which produce advanced research and provide prestigious study schemes. The UK is also advanced in the field of AI in both the private sector and government, as it is home to leading AI companies such as DeepMind, but also has an already advanced focus in the political sphere on AI—one notable finding of the GVT was that AI has been mentioned in parliamentary proceedings in the UK more than in any other country.¹⁸ This clearly demonstrates, therefore, that the UK is one of the most influential countries in the world of AI.

Aspiration to AI superpower status is not limited to the UK. British allies in the Gulf States are in the process of making huge investments in artificial intelligence. Continuing the process of economic diversification away from oil, Saudi Arabia and the United Arab Emirates have released ambitious AI strategies that aim to position themselves as significant players in AI. For the Gulf States, it is an increasingly common view that 'data is the new oil'.¹⁹

Having created the Saudi Data and Artificial Intelligence Authority in 2019, the Kingdom of Saudi Arabia published its National Strategy for Data and AI in 2020.²⁰ The ambition of this strategy is to 'elevate the Kingdom as a global leader in the elite league of data-driven economies'.²¹ The strategy focuses its attention on five sectors, three of which (energy, healthcare, and education) are studied in this paper. Looking to 'position the KSA as the global hub where the best of data and AI is made reality',²² Riyadh has proposed a 40bn USD (30.6bn GBP) investment fund for AI to fuel the creation of a Silicon Valley-style start-up ecosystem, with a particular focus on data and coding. Saudi Arabia has also hosted multiple conferences on AI, including the Global AI Summit 2024, the annual LEAP Tech Event, and the upcoming Smart Data and AI Summit 2025.²³ Riyadh's most eye-catching initiative, however, is 'Project Transcendence', an AI investment from the Public Investment Fund worth 100bn USD (76.4bn GBP) designed to transform the region into a tech hub, sprawling with start-ups and data centres.²⁴ Project Transcendence seeks to support huge AI investments with a focus on building AI literacy, infrastructure, and talent development.²⁵ By 2030, Saudi Arabia expects to train one million AI professionals, and for AI to contribute 12% to Saudi GDP by the same year.²⁶

¹⁵ Sunak (2023), "Prime Minister's Speech on AI".

¹⁶ Fattorini, L. et al. (2024). "The Global Vibrancy Tool", *Institute for Human Centred AI, Stanford University*, September 2024, p.19.

¹⁷ Ibid, pp.6–7.

¹⁸ Ibid, p.20.

¹⁹ Winter-Levy, S. (2024). "The Emerging Age of AI Diplomacy", *Foreign Affairs*, 28 October 2024, retrieved from: <https://www.foreignaffairs.com/united-states/emerging-age-ai-diplomacy>.

²⁰ Saudi Data and AI Authority. *National Strategy for Data and AI*, retrieved from: <https://sdaia.gov.sa/en/SDAIA/SdaiaStrategies/Pages/NationalStrategyForDataAndAI.aspx>

²¹ Ibid.

²² Ibid.

²³ Winter-Levy. (2024). "The Emerging Age of AI Diplomacy".

²⁴ Benito, A. (2024). "Saudi Arabia launches \$100 Billion AI initiative to lead in global tech", *CIO*, 11 November 2024, retrieved from: <https://www.cio.com/article/3602900/saudi-arabia-launches-100-billion-ai-initiative-to-lead-in-global-tech.html>.

²⁵ Vella, H. (2024). "Saudi Arabia Launches \$100B Initiative to Develop AI Ecosystem", *AI Business*, 20 November 2024, retrieved from <https://aibusiness.com/responsible-ai/saudi-arabia-launches-100b-initiative-to-develop-ai-ecosystem#close-modal>.

²⁶ "State of AI in Saudi Arabia", *GAIA Summit*, pp.8 and 42, retrieved from: <https://globalaisummit.org/Documents/StateofAIinSaudiArabia.pdf>.

Similarly, the UAE has invested heavily in artificial intelligence. The UAE has had a dedicated AI minister since 2017, and in 2018 launched an AI strategy which aims to make the UAE the world's leading AI power by 2031, and which claims that AI will add 91bn USD (70bn GBP) to the UAE economy within six years.²⁷ This, the strategy argues, aligns with the UAE's stated mission of becoming the world's best country by 2071.²⁸ The strategy outlines eight strategic objectives to achieve the goal of global leadership in AI, and these are to:

- Build a reputation as an AI destination
- Increase the UAE's competitive assets in priority sectors through the deployment of AI
- Develop a fertile ecosystem for AI
- Adopt AI across customer services to improve lives and government
- Attract and train talent for future jobs enabled by AI
- Bring world-leading research capability to work with target industries
- Provide the data and supporting infrastructure essential to become a test bed for AI
- Ensure strong governance and effective regulation²⁹

The UAE has set several priority sectors where AI will be the focus of their development. These sectors include healthcare and energy, two of the sectors studied in this paper. In March 2024, it was announced that the UAE intended to create a state-owned investment firm, backed by G42, the UAE's leading AI company, and the 300bn USD (229bn GBP) asset rich Mubadala Investment Co., one of the UAE's three sovereign wealth funds, to invest in semiconductors and AI (in particular, AI infrastructure such as data centres and core AI capabilities and applications, including LLMs, robotics, life sciences, and data). The firm, named MGX, targets 100bn USD (76bn GBP) of assets under management in the next few years.³⁰ In September 2024, MGX, BlackRock, Microsoft, and Global Infrastructure Partners created a joint AI infrastructure investment vehicle with 30bn USD (23bn GBP) in private equity capital and 100bn USD (76bn GBP) in investment potential.³¹ In January 2025, OpenAI announced four equity funders of a 500bn USD (382bn GBP) 'Stargate Project' for US AI infrastructure, of which MGX was one.³²

The UAE also provides an interesting case study for Western-encouraged Chinese tech decoupling. In 2024, G42 (which also has a partnership with OpenAI) received a 1.5bn USD (1.15bn GBP) investment from American company Microsoft.³³ Yet, as part of this investment, as Sam Winter-Levy explains, G42 'divested from Chinese firms and stripped out its Huawei',³⁴ as part of a broader pattern in which the UAE, reportedly, committed to locking 'down its data centres, stripping them of Chinese hardware that might have backdoors, screening customers and workers, and monitoring how buyers use their chips'.³⁵ In June 2024, UAE AI Minister Omar Al Olama argued that 'The honest truth is in the AI space today, I think we need to be selective of who we work with... There is going to be a lot of discussions between the UAE and the US of what they are comfortable that we do with other players around the world and what they aren't comfortable [with]... But on the AI front, I think there is going to be complete alignment between the UAE and the US'.³⁶ Bahrain and Morocco have also committed to developing domestic AI capabilities and will be studied in this paper as Abraham Accords signatories who can deepen their relationship with Israel and the other signatory nations to strengthen the Abraham Accords and build regional stability.

Research Focus

It is, therefore, clear that the United Kingdom shares an ambition with Gulf states to become a recognised AI superpower. The UK would be wise to leverage its own capabilities and unique AI advantages to boost its influence in the region and promote regional stability. For a multi-level analysis

²⁷ UAE Government. "National Program for Artificial Intelligence", *UAE National Strategy for Artificial Intelligence 2031*, p.7.

²⁸ Ibid, pp.8-11.

²⁹ Ibid.

³⁰ Fast Company Middle East (2024). "Abu Dhabi unveils AI investment firm, aims \$100bn AUM", 12 March 2024, retrieved from <https://fastcompany.me.com/news/abu-dhabi-unveils-ai-investment-firm-aims-100-billion-aum/>.

³¹ Allen, G.C. et al., "The United Arab Emirates' AI Ambitions: Key Implications for Maintaining U.S. AI Leadership", *CSIS Wadhvani AI Center, Center for Strategic and International Studies*, January 2025, pp.4-5.

³² Ibid.

³³ Winter-Levy (2024). "The Emerging Age of AI Diplomacy".

³⁴ Ibid.

³⁵ Ibid.

³⁶ Harris, T. (2024). "'Selective' UAE courting US, not China on AI: minister", *AI Monitor*, 11 June 2024, retrieved from: <https://www.ai-monitor.com/originals/2024/06/selective-uae-courting-us-not-china-ai-minister>.

of UK AI diplomacy towards the Middle East, the paper will explore the bilateral, regional, and global levels to understand how the UK can achieve three strategic objectives:

Bilateral: Expand UK strategic and commercial ties to the region, using UK expertise to help the UAE, Bahrain, Morocco and Saudi Arabia safely achieve their AI objectives.

Regional: Strengthen the Abraham Accords by promoting multilateral AI co-operation between the UK and Israel, the UAE, Morocco, Bahrain and Saudi Arabia. The paper takes the view that Israeli-Saudi normalisation will be best achieved by increasing co-operation sectorally, and that AI is important enough to Saudi economic interests to help facilitate normalisation. Just as trade has sustained the Abraham Accords to date, AI co-operation will continue to bind Israel to the Gulf States and newly formalised relations with countries such as Morocco.

Global: Weaken Chinese influence in the UAE, Bahrain, Morocco, and Saudi Arabia—‘swing states’ of global competition—by encouraging divestment from Chinese AI companies.

The United Kingdom has deep historical and strategic ties to the region and these three objectives will help facilitate a more prosperous and peaceful Middle East, whilst encouraging decoupling from Chinese tech which has the potential to threaten Western, and indeed, Middle Eastern security.

Firstly, a UK-GCC free trade agreement has been a priority of British Governments since the UK exited the European Union. An FTA with the Gulf can contribute to the Prime Minister’s ambition to boost economic growth, which he described as the ‘defining mission of my government’. AI ought to be a priority area of this potential FTA, given the shared ambitions to AI global leadership and the huge investments being made by the Gulf states. British Minister of State for Trade Policy Douglas Alexander provided an update to the House of Commons on the progress of UK-GCC FTA negotiations in December 2024, where he argued that ‘A mutually beneficial FTA between the UK and the GCC will deliver economic growth, higher wages and new investment. A deal will deliver targeted growth that could increase bilateral trade by 16%, potentially adding an extra 8.6 billion GBP a year to trade between the UK and GCC countries in the long run. This 8.6bn GBP is on top of the 57.4bn GBP worth of trade that we already have.’³⁷ Clearly, deepening UK-Gulf bilateral ties through increased trade and investment, particularly in AI, is in the UK’s economic interests, and existing AI co-operation can provide a framework for new ties. In particular, UK-Gulf AI co-operation already occurs with Qatar. In December 2024, the UK and Qatar launched a research commission to study potential areas of future AI collaboration, a project jointly run by Queen Mary University of London and Hamad bin Khalifa University in Doha.³⁸

The stability of the Middle East is routinely threatened by the Islamic Republic of Iran and its network of proxy groups, termed the ‘Axis of Resistance’. Vulnerability to oil shocks is one security threat to the UK, with both the Bab el-Mandeb and Hormuz straits carrying large amounts of oil through their waters every day. The Houthi rebels in Yemen, supported by Iran, have intensified their attacks on global commercial shipping in the Bab el-Mandeb since the Israel-Hamas war erupted. Iran’s sponsoring of terror groups that seek to destroy Israel and destabilise Gulf monarchies—important UK allies—is another grave threat to regional and global stability. If regional stability is shaken in the region, the UK may subsequently face migratory pressures. To protect the UK’s economic and national security interests, the government must promote regional stability, and one of the most effective multilateral frameworks promoting regional stability in the Middle East at present is the Abraham Accords.

The Accords, signed in September 2020, normalised relations between Israel and the UAE, Bahrain, and, latterly, Morocco—establishing diplomatic and economic ties where previously none (or very few and strictly covert) existed. The Accords provide a template for economic prosperity through increased business and trade interactions, and the seedlings of a security architecture to counterbalance, and isolate Iran. By helping forge closer ties between our allies in the region, the UK can counterbalance and protect itself and its allies from Iranian threats, and foster a more cohesive and integrated approach to regional security. The closeness of UK security interests to the Gulf’s was recognised by former British

³⁷ Alexander, D. (2024). “Free Trade Agreement with the Gulf Cooperation Council (GCC): Update on Continuous Negotiations”, *House of Commons, Statement UIN HCWS333*, 18 December 2024, retrieved from: <https://questions-statements.parliament.uk/written-statements/detail/2024-12-18/hcws333>.

³⁸ Foreign, Commonwealth, & Development Office (2024). “UK and Qatar launch project to boost artificial intelligence collaboration”, retrieved from: <https://www.gov.uk/government/news/uk-and-qatar-launch-project-to-boost-artificial-intelligence-collaboration>.

Prime Minister Theresa May who said to the GCC in 2016 that ‘Gulf security is our security’.³⁹ The exportation of terrorism that stems from Iran and the Islamic Revolutionary Guard Corps (IRGC), the migratory patterns that originate in a destabilised Middle East and end in the UK, and the vulnerability to oil shocks all mean that regional security in the Middle East must be a priority for UK foreign policy.

The shared strategic threat from Iran has sustained the Abraham Accords through the pressures put on it by the Israel– Hamas war. Saudi Arabia shares these security concerns regarding Iran, and the relationship between the two has been described as a ‘Cold War’.⁴⁰ In September 2019, Iran directly attacked Saudi Arabia by bombing Aramco oil facilities in Abqaiq and Khurais.⁴¹ The expansion of the Abraham Accords to Saudi Arabia would involve the leader of the Islamic world recognising the State of Israel, and mean two of the United Kingdom’s closest allies in the region establishing diplomatic relations and overtly co-operating on security issues. Through people-to-people, business-to-business, and formal government-to-government ties, the Accords provide the region with greater stability and the prospect of peaceful coexistence.

Prior to the 7 October attacks in Israel, speculation was rife that Saudi Arabia and Israel were preparing to normalise relations imminently. In a September 2023 interview on Fox News, Saudi Crown Prince and Prime Minister Mohammed bin Salman declared that ‘every day we get closer’⁴² to a deal normalising relations with Israel, adding that this would be ‘the biggest historical deal since the end of the Cold War’.⁴³ This deal has been paused since 7 October, but is not off the table. Indeed, the Saudi Ambassador to the UK Prince Khalid bin Bandar Al Saud stated in January 2024 that ‘absolutely, there is interest’⁴⁴ from Saudi Arabia to pursue normalisation with Israel, clarifying that a deal ‘was close, there is no question. For us, the final end point definitely included nothing less than an independent state of Palestine. So, while we still—going forward after 7 October—believe in normalisation, it does not come at the cost of the Palestinian people’.⁴⁵ Mutual security concerns from Iran are driving unlikely partnerships between Israel and moderate Gulf monarchies. A Saudi–Israel normalisation agreement would be the most significant product of this strategic alignment, and dramatically and positively alter the balance of power in the Middle East.

The Integrated Review Refresh, published in March 2023 reaffirmed the UK’s commitment to the region, arguing ‘that there is significant competition for influence in the context of wider geopolitical shifts’⁴⁶ in the Middle East. Given the background of global strategic competition between the United States (and the West) and China, and by extension the forces of freedom and autocracy, it is imperative for Western security that regional leaders such as Saudi Arabia and the UAE align geopolitically with the West, or at least maintain a balanced position between the West and China that does not threaten Western security. The three strategic objectives of this project are purposefully designed to provide actionable policy recommendations covering a multi-level analysis of British security interests in the Middle East. By leveraging the United Kingdom’s unique AI capabilities and advantages, the UK Government can deepen its relationship with allies who share similar ambitions (though different capabilities) and foster regional integration, and thus stability, through facilitating AI interchanges between Abraham Accords signatories and potential signatories. Lastly, the epochal geopolitical event of our time, global competition between the West and China, will be influenced by important swing states falling on either side of that ledger. It is imperative that our allies in the Middle East such as Saudi Arabia and the UAE develop safe AI practices which do not threaten Western security through the development of Chinese AI, which may be unsafe or used for military purposes.

³⁹ May, T. (2016). “Prime Minister’s Speech to the Gulf Co-operation Council 2016”, *Gulf Co-operation Council, Manama*, Statement UIN HCWS333, retrieved from: <https://www.gov.uk/government/speeches/prime-ministers-speech-to-the-gulf-co-operation-council-2016>.

⁴⁰ Cliffe, J. (2020). “Iran and Saudi Arabia are locked in a Cold War-style stand-off- but the situation is even more volatile”, *The New Statesman*, 8 January, retrieved from: <https://www.newstatesman.com/world/2020/01/iran-and-saudi-arabia-are-locked-cold-war-style-stand-situation-even-more-volatile>.

⁴¹ BBC News (2019). “Saudi Arabia oil attacks: Weapons debris ‘proves Iran behind them’”, 18 September 2019, retrieved from: <https://www.bbc.co.uk/news/world-middle-east-49746645>.

⁴² Fox News, “‘GOOD NEGOTIATIONS’: Saudi crown prince says ‘every day’ is a day closer to peace with Israel”, [Online Video], retrieved from: https://www.youtube.com/watch?v=Y_u8ghPr3HE.

⁴³ Ibid.

⁴⁴ Gritten, D. (2024). “Saudi Arabia interested in Israel normalisation deal after war”, *BBC News*, 9 January 2024, retrieved from: <https://www.bbc.co.uk/news/world-middle-east-67922238>.

⁴⁵ Ibid.

⁴⁶ UK Government (2023). “Integrated Review Refresh 2023: Responding to a more contested and volatile world”, *UK Government Publications*, 13 March 2023, retrieved from: https://assets.publishing.service.gov.uk/media/641d72f45155a2000c6ad5d5/11857435_NS_IR_Refresh_2023_Supply_AllPages_Revision_7_WEB_PDF.pdf.

II. Energy Optimisation

By Arielle Vogel Valk & Samir Al Hajar

Overview

Recent geopolitical events, climate disasters, and the Covid-19 pandemic have triggered the ‘first global energy crisis’⁴⁷, according to the International Energy Agency. Europe was most affected, with 40% of its gas supply⁴⁸—a third of total energy resources⁴⁹—held up as a result of Russia’s 2022 invasion of Ukraine. Countries are now experiencing what some experts call a period of ‘energy post-trauma’.

Indeed, the UK is currently confronting an unprecedented energy crisis⁵⁰ on several fronts: domestic households, corporate consumers, and energy producers are all affected by it. Since the outbreak of the Russia-Ukraine war, the number of British families experiencing fuel poverty has risen by over 1.5 million⁵¹; businesses suffering from high energy costs are downsizing operations and are projected to decrease market competitiveness by over 70% in the next two years⁵²; and energy companies have been bearing the burden of the 78% windfall tax on North Sea oil and gas⁵³, which experts warn⁵⁴ can significantly deter future investments in domestic energy production.

As the government strategizes recovery measures, energy security—the ability to anticipate, withstand, adapt to, and rapidly recover from energy supply disruptions while maintaining stable and affordable access to energy without reliance on foreign pipelines—is becoming a top priority for policymakers and business communities alike. The integration of AI into the energy sector is key for achieving this. AI-powered technologies such as machine learning (ML) and the Internet of Things (IoT) are revolutionising⁵⁵ the way energy is produced, distributed, and consumed, with applications ranging from smart grids to renewable energy solutions. Advancements in AI are significantly enhancing the efficiency, reliability, and sustainability of energy systems. In smart grids, for example, AI delivers impressive returns⁵⁶ with an 11.76% gain in energy efficiency and grid stability, a 66.67% reduction in prediction errors, and a 20% decrease in operational expenses when compared to traditional systems. AI-powered smart grid technology and energy efficiency solutions also have the potential to create up to 1.3 trillion USD (993 billion GBP) in economic value by 2030.⁵⁷ By integrating AI across the energy sector and its innovation cycles, the UK can accelerate the transition to net zero while giving a boost to its economy.

⁴⁷ International Energy Agency (2025). “The global energy crisis”, retrieved from: <https://www.iea.org/reports/world-energy-outlook-2022/the-global-energy-crisis>.

⁴⁸ European Commission (2022). “Questions and Answers on REPower EU: Joint European action for more affordable, secure and sustainable energy”, 8 March 2022, retrieved from: https://ec.europa.eu/commission/presscorner/detail/en/qanda_22_1512.

⁴⁹ BP (2022). “BP Statistical Review of World Energy”, retrieved from: <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2022-full-report.pdf>.

⁵⁰ Jack, S. (2022). “How can the government solve the energy crisis?”, *BBC News*, 5 January 2022, retrieved from: <https://www.bbc.co.uk/news/business-59883892>.

⁵¹ National Energy Action (2025). “Timeline of the energy crisis”, retrieved from: <https://www.nea.org.uk/energy-crisis/energy-crisis-timeline/>.

⁵² PwC (2024). “81% of UK business expect to raise prices in the next two years in response to high energy costs – PwC research”, 5 February 2024, retrieved from: <https://www.pwc.co.uk/press-room/press-releases/research-commentary/2024/81-of-uk-businesses-expect-to-raise-prices-in-the-next-two-years.html>.

⁵³ EnergyNow.com (2024). “UK Increases Windfall Tax on North Sea Oil Producers”, 30 October 2024, retrieved from: <https://energynow.com/2024/10/uk-increases-windfall-tax-on-north-sea-oil-producers/#:~:text=LONDON%2C%20Oct%2030%20%28Reuters%29%20%E2%80%93%20The%20British%20government,year%2C%20finance%20minister%20Rachel%20Reeves%20announced%20on%20Wednesday>.

⁵⁴ Gosden, E. (2025). “Harbour Energy posts loss as windfall tax wipes out profits”, *The Times*, 6 March 2025, retrieved from: https://www.thetimes.com/article/48fa0d45-5c1d-454a-be92-2cf8d22f95bb?_gl=1*1m3sut7*_gcl_au*NDYzNTE3NzkoLjE3NDE3OTYzNTI.*_ga*NTg4NTQ1NDUxLjE3NDE3OTYzNTI.*_ga_X7E6ERDZVV*MTc0MTc5NjM1MS4xLjEuMTc0MTc5Njc0OC4wLjAuMA.

⁵⁵ Catapult Energy Systems (2021). “AI in Energy”, 22 June 2021, retrieved from: <https://es.catapult.org.uk/report/ai-in-energy/>.

⁵⁶ Novati, N.D., Maulina, S.D. and Smith, S. (2024). “Smart Grids: Integrating AI for Efficient Renewable Energy Utilization”, *International Transactions on Artificial Intelligence*, 3(1), retrieved from: https://www.researchgate.net/publication/385870185_Smart_Grids_Integrating_AI_for_Efficient_Renewable_Energy_Utilization.

⁵⁷ Al-Zubi, I. (2025). “Energy and AI: the power couple that could usher in a net-zero world”, *World Economic Forum*, 29 January 2025, retrieved from: <https://www.weforum.org/stories/2025/01/energy-ai-net-zero/7>.

For the UK to overcome its current energy challenges and realise its goal of becoming a ‘clean energy superpower’⁵⁸ by 2030—one of the Labour Party’s main manifesto pledges—incorporating AI into its energy strategy can be pivotal. This can broadly be categorised into three main areas: Securing critical minerals, metals, and REEs used both for AI and clean energy technologies; Adapting energy infrastructure to the rising demands of AI while protecting it from cyber threats and operational failures; and integrating AI into existing and emerging energy systems. Combinedly investing in these strategic priorities can help the government see its commitment⁵⁹ to fully decarbonised UK power systems realised, in addition to reducing energy costs, stimulating economic growth, and facilitating energy independence from actors like Russian President Vladimir Putin in the next five years.

But this is not an endeavour for the UK to pursue alone. One of the key lessons learnt from the events leading up to the energy crisis is that partnerships with economically reliable and politically aligned partners are vital for maintaining national energy resilience.

The UK’s allies in the MENA region, namely Saudi Arabia, the UAE, Israel, Morocco, and Bahrain, have a lot to offer, each in their own domain. GCC partners are rich in natural resources, from vast hydrocarbon reserves to critical minerals and renewable energy potential. Saudi Arabia⁶⁰—the world’s top oil exporter—holds roughly a fifth of the world’s petroleum reserves, as well as significant natural gas, iron ore, gold, and copper deposits. The UAE⁶¹, ranking seventh in crude oil resources and fifth in exports, also produces 6 billion cubic feet of natural gas daily and is a key supplier of gypsum—a mineral vital for construction and agriculture. Though smaller in oil and gas reserves, Bahrain⁶² has a robust metal processing capacity, hosting the world’s largest single-site aluminium smelter and accounting for 2% of global supply. The three kingdoms also boast significant human and financial capital as well as ambitious economic diversification plans⁶³ that place technological innovation at the forefront of investment strategies. Israel⁶⁴, a world leader in AI-powered renewable energy solutions, contributes world-class R&D and a thriving start-up ecosystem. Meanwhile, Morocco⁶⁵ is developing one of the region’s largest clean energy sectors and is establishing itself as a leader in green hydrogen production.

Recognising the region’s potential, the UK has already established strong partnerships with MENA countries in the fields of energy, minerals, and technology. Saudi Arabia shares energy ambitions with the UK and has emerged as a valuable ally in recent years. The two kingdoms uphold several energy-technology bilateral partnerships⁶⁶ and MoUs, and have recently inaugurated a minerals cooperation partnership⁶⁷ as part of their mutual effort to secure supply chains. Abu Dhabi and London have also cemented their energy ties through MoUs⁶⁸ and collaborative projects in clean hydrogen production.⁶⁹ While the groundwork and will for collaboration exist, catering to the Kingdoms’ specific and quite different energy needs is a challenge to overcome. Here, Bahrain plays a critical role. Leveraging its small size, agility in adopting new technologies, and cost-competitiveness, Manama is carefully positioning

⁵⁸ Labour Party (2024). “Change: Labour Party Manifesto 2024”, retrieved from: <https://labour.org.uk/wp-content/uploads/2024/06/Labour-Party-manifesto-2024.pdf>.

⁵⁹ Ibid.

⁶⁰ Organization of the Petroleum Exporting Countries (2025). “Saudi Arabia: Facts and Figures”, retrieved from: <https://www.opec.org/saudi-arabia.html>.

⁶¹ Mamchii, O. (2024). “5 Major Natural Resources of UAE”, *Best Diplomats*, 6 September 2024, retrieved from: <https://bestdiplomats.org/natural-resources-of-uae/#:~:text=Though%20less%20so%20than%20oil%20and%20gas%2C%20minerals,essential%20minerals%2C%20such%20as%20limestone%2C%20copper%2C%20and%20gypsum.>

⁶² Alba Smelter (2024). “A Partnership Rooted in Sustainability: Alba Renews Alumina Supply Contract with Alcoa”, 15 October 2024, retrieved from: <https://www.albasmelter.com/en/article/alba-renews-alumina-supply-contract-with-alcoa>.

⁶³ PwC (2025). “Five GCC economic themes to watch in 2025”, 8 January 2025, retrieved from: <https://www.pwc.com/m1/en/blog/five-economic-themes-to-watch-2025-gcc.html>.

⁶⁴ Israel Ministry of Economy and Industry (2025). “Israel Economic Missions to the USA”, 5 March 2025, retrieved from: <https://itrade.gov.il/usa/ai-powered-smart-grids-israel-is-the-powerhouse-of-the-cell/>.

⁶⁵ APA News (2025). “Morocco emerges as a leading force in green hydrogen production”, 13 March 2025, retrieved from: <https://apanews.net/morocco-emerges-as-a-leading-force-in-green-hydrogen-production/>.

⁶⁶ Gov.uk (2024). “The Kingdom of Saudi Arabia and United Kingdom Strategic Partnership Council” Economic and Social Pillar Joint Statement”, 15 May 2024, retrieved from: <https://www.gov.uk/government/publications/united-kingdom-and-kingdom-of-saudi-arabia-strategic-partnership-council-economic-and-social-pillar-joint-statement--2/the-kingdom-of-saudi-arabia-and-united-kingdom-strategic-partnership-council-economic-and-social-pillar-joint-statement.html>.

⁶⁷ Gov.uk (2023). “UK and Saudi Arabia pledge to deliver closer cooperation on critical minerals”, 11 January 2023, retrieved from: <https://www.gov.uk/government/news/uk-and-saudi-arabia-pledge-to-deliver-closer-co-operation-on-critical-minerals>.

⁶⁸ Gov.uk (2023). “UK and United Arab Emirates agree to boost energy security and unlock investment”, 13 January 2023, retrieved from: https://www.gov.uk/government/news/uk-and-united-arab-emirates-agree-to-boost-energy-security-and-unlock-investment?utm_source=chatgpt.com.

⁶⁹ ADNOC (2021). “ADNOC, bp and Masdar agree to expand UAE-UK new energy partnership”, 17 September 2021, retrieved from: <https://www.adnoc.ae/en/news-and-media/press-releases/2021/adnoc-bp-and-masdar-agree-to-expand-uae-uk-new-energy-partnership>.

itself as the UK's gateway to the broader Gulf region.⁷⁰ Large and small, these Gulf partners have a clear interest in attracting global investors and strengthening ties with the UK, particularly in anticipation of a post-Brexit UK-GCC free trade agreement. Britain is also pursuing its clean energy targets beyond the Gulf. At the 2023 Morocco-UK Strategic Dialogue, both nations reaffirmed their commitment to climate action, clean energy, and green growth through a new strategic framework.⁷¹ Key projects include the Xlinks Morocco-UK Power Project⁷², which aims to construct a 4,000 km (2,500 mile) subsea cable that supplies up to 8% of the UK's electricity from Moroccan renewables by 2031. The UK and Israel, under the previous Sunak Conservative government, signed the 2030 Roadmap⁷³, outlining ambitious objectives for a strategic partnership in clean technologies, climate innovation, and academic collaboration for environmental challenges through exchange programs and research grants.

Despite being one of the least integrated regions of the world, the MENA region holds immense potential for regional cooperation and trade, especially in the energy sector that powers its economies. Several joint initiatives have already emerged from the Abraham Accords, including the trilateral electricity-for-water agreement⁷⁴ between Israel, Jordan, and the UAE; the bilateral research partnership⁷⁵ between Israel and Morocco in energy and technology; and three memoranda of understanding⁷⁶ (MoU) signed between Bahrain and Israel covering energy innovation and technology transfer.

Further collaborative projects between signatories were in the works until 7 October 2023. The ongoing Middle East war and its resulting political tensions reduced collaboration to a minimum that, according to regional experts, resembles pre-Accords levels. Reviving the Accords framework requires the diplomatic umbrella of a mutual friend. The UK is well-positioned to take on this role by leveraging its robust industry, academic institutions, regulatory frameworks, and economic ties to facilitate strategic partnerships. Not only would it get closer to becoming a global standard setter and lead exporter in clean technologies, but it could also contribute to long-term environmental sustainability by promoting peace and stability in a currently volatile MENA region.

The UK's broader geopolitical interests would also be advanced. The MENA is increasingly becoming a key battleground in the East-West rivalry, particularly in energy and technology—areas central to great power competition. While China's involvement in the region is not new, having MOUs⁷⁷ and strategic partnerships in place with the majority of MENA countries, its presence has significantly expanded in recent years through large-scale infrastructure investments, critical minerals partnerships, and state-backed energy ventures. In 2024, the Middle East was the top recipient of China's Belt and Road Initiative (BRI)⁷⁸ with 39 billion USD (30 billion GBP) in deals, half of which was invested in Saudi Arabia and the UAE. The energy sector accounted for 62% of these investments, including 30% in green energy projects like solar, wind, and waste-to-energy. China has become a key partner in the region's green energy transition and economic diversification plans, supporting projects like the building of solar plants in Saudi Arabia, the UAE, and Morocco. Notably, Saudi Arabia's trade and investment with China⁷⁹, which was once predominantly oil-based, is now shifting toward a broader focus on green technologies.

⁷⁰ Lea, R. (2024). "Why Bahrain wants to be the UK's gateway to the Gulf", *The Times*, 22 November 2024, retrieved from: https://www.thetimes.com/business-money/economics/article/why-bahrain-wants-to-be-the-uks-gateway-to-the-gulf-bw5f88xbw?utm_source=chatgpt.com.

⁷¹ Kingdom of Morocco Ministry of Foreign Affairs (2023). "The governments of Morocco and the United Kingdom signed, on May 09, 2023 in Rabat, a Strategic Framework for Cooperation on climate action, clean energy and green growth", 9 May 2023, retrieved from: <https://diplomatie.ma/en/morocco-and-uk-sign-strategic-framework-cooperation-climate-action-clean-energy-and-green-growth>.

⁷² Xlinks (2025). "What is the Morocco – UK Power Project?", retrieved from: <https://xlinks.co/morocco-uk-power-project/>.

⁷³ Gov.uk (2023). "2030 roadmap for UK-Israel bilateral relations", 21 March 2023, retrieved from: <https://www.gov.uk/government/publications/2030-roadmap-for-uk-israel-bilateral-relations/2030-roadmap-for-uk-israel-bilateral-relations>.

⁷⁴ The Times of Israel (2021). "Israel, Jordan sign huge UAE-brokered deal to swap solar energy and water", 21 November 2021, retrieved from: <https://www.timesofisrael.com/israel-jordan-sign-uae-brokered-deal-to-swap-solar-energy-and-water/>.

⁷⁵ International School Bar-Ilan University (2022). "Israel-Morocco Research Cooperation Agreement Signed at Bar-Ilan University", 16 November 2022, retrieved from: <https://biuiinternational.com/news/israel-morocco-research-cooperation-agreement-signed-at-bar-ilan-university/>.

⁷⁶ Bahrain News Agency (2020). "Bahrain and Israel sign cooperation agreements", 1 December 2020, retrieved from: <https://www.bna.bh/en/BahrainandIsraelsigncooperationagreements.aspx?action=article&id=587990>.

⁷⁷ El Yaakoubi, A. and Zhu, J. (2022). "Saudi Arabia to host China-Arab summit during Xi visit, sources say", *Reuters*, 30 November 2022, retrieved from: <https://www.reuters.com/world/middle-east/saudi-arabia-host-china-arab-summit-during-xi-visit-sources-say-2022-11-30/>.

⁷⁸ Nedopil, C. (2025). "China Belt and Road Initiative (BRI) Investment Report 2024", *February 2025*, retrieved from: https://greenfdc.org/wp-content/uploads/2025/02/Nedopil-2025_China-Belt-and-Road-Initiative-BRI-Investment-Report-2024-1.pdf.

⁷⁹ White, E. (2024). "China's ties with Saudi Arabia buoyed by green tech", *Financial Times*, 4 December 2024, retrieved from: https://www.ft.com/content/fobabafc-57e6-434f-9d94-013c312dc0f9?utm_source=chatgpt.com.

Chinese clean technology exports to the Kingdom have reached a record high at 40.2 billion USD (30.7 billion GBP) in the first three quarters of 2024, up from 34.9 billion USD (26.7 billion GBP) during the same period in 2023. Beijing's dominance in rare earth elements and battery materials—crucial for the development of renewable technologies—allows it to emerge as a key trading partner for those looking to transition to clean energy sources. China is also investing heavily in the region's tech and telecommunications infrastructure, with most GCC countries engaging with Huawei for 5G.⁸⁰ Associated issues with safety and privacy are of particular concern to the US and its allies seeking to limit China's technological influence in the region through countermeasures such as the India-Middle East-Europe Economic Corridor (IMEC), a competitor to the BRI.

China, now more than ever, holds the key to the MENA's most pressing issues: cheap technology. Both its technological and financial offerings resonate well with the region's economic diversification and energy transition plans. National AI growth strategies—and the resources they require—enhance this further, bolstering China's strategic leverage in a region balancing its economic and geopolitical interests between East and West. With this strategic urgency in mind, the UK and its Western allies must overcome bureaucratic obstacles and act swiftly through strategic investment and crafty diplomacy. Strengthening partnerships with the MENA in clean energy and technology is not only essential for the UK's net-zero goals but also for its strategic objectives in a region that is at the heart of the rapidly shifting global order.

How AI is Transforming the Energy Landscape of the MENA Region

UAE

The UAE, a major oil and gas producer, aims to diversify its energy mix and reduce carbon emissions. As part of its Net Zero⁸¹ by 2050 strategy⁸², the country targets 13% renewable energy by 2030 and 44% by 2050. The UAE is a key player in global energy trade, exporting 2.7 million⁸³ barrels per day, while also investing heavily in green hydrogen and nuclear power. The country operates the Barakah Nuclear Plant⁸⁴, the first in the Arab world. As of March 2022, its second reactor became operational, increasing the plant's capacity to 2.8 GW. Additionally, the UAE is developing a carbon-trading⁸⁵ market through the Abu Dhabi Global Market, supporting its commitment to reducing carbon emissions. Since the signing of the Abraham Accords in 2020, Israel has also sought to leverage its technological expertise as a pillar of its foreign policy. AI is now becoming a focal point for UAE-Israel collaboration, particularly in the fields of energy and sustainability.

The United Arab Emirates has been making significant strides in incorporating AI into the energy sector and has, in general, been proactive in creating policies that encourage innovation within the field of AI, beginning with the UAE Strategy for Artificial Intelligence⁸⁶ in 2017, outlining how AI will be an integral part of the UAE Centennial 2071. This is a government strategy to make the country the world's leading nation by its 100th anniversary, in addition to fully diversifying its economy away from fossil fuels.

The UAE aims to be a leading AI tech hub⁸⁷ while leveraging AI to achieve Net Zero goals by 2050, becoming the first Middle Eastern nation to commit to net-zero carbon emissions. A key initiative is Digital DEWA, launched by Dubai Electricity and Water Authority (DEWA), which focuses on four pillars: Solar Energy, Energy Storage, AI, and Digital Services. The AI pillar seeks to make DEWA the first digital

⁸⁰ Middle East Council on Global Affairs (2024). "The Belt and Road Initiative Ten Years On: China and the Middle East in a changing Geopolitical Landscape", April 2024, retrieved from: <https://mecouncil.org/wp-content/uploads/2024/10/The-Belt-and-Road-Initiative-Ten-Years-On-Report.pdf>.

⁸¹ Masdar (2021). "UAE announces Net Zero by 2050 strategic initiative", 18 October 2021, retrieved from: <https://masdar.ae/en/news/newsroom/uae-announces-net-zero-by-2050-strategic-initiative>.

⁸² Embassy of the United Arab Emirates Washington DC (2025). "UAE Energy Diversification", retrieved from: https://www.uae-embassy.org/discover-uae/climate-and-energy/uae-energy-diversification?utm_source=chatgpt.com.

⁸³ Nakhle, Dr C. (2017). "The UAE balances oil riches with green energy drive", 11 July 2017, retrieved from: https://www.crystolenergy.com/uae-balances-oil-riches-green-energy-drive/?utm_source=chatgpt.com.

⁸⁴ Barrett, A., Timponi, R. and Macri, S. (2022). "ENEC's second nuclear reactor train accelerates UAE national decarbonization and gas self-sufficiency goals", *S&P Global*, 19 April 2022, retrieved from: https://www.spglobal.com/commodity-insights/en/research-analytics/successful-commercial-operation-for-enecs-second-nuclear?utm_source=chatgpt.com.

⁸⁵ U.AE (2025). "The UAE's Net Zero 2050 Strategy", retrieved from: https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/environment-and-energy/the-uae-net-zero-2050-strategy?utm_source=chatgpt.com.

⁸⁶ U.AE (2025). "UAE Strategy for Artificial Intelligence", retrieved from: https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/government-services-and-digital-transformation/uae-strategy-for-artificial-intelligence?utm_source=chatgpt.com.

⁸⁷ UAE National Program for Artificial Intelligence (2018). "UAE National Strategy for Artificial Intelligence 2031", retrieved from: <https://ai.gov.ae/wp-content/uploads/2021/07/UAE-National-Strategy-for-Artificial-Intelligence-2031.pdf>.

utility firm using autonomous systems for renewable energy and storage, improving efficiency and customer experience. Another major project is the Mohammed bin Rashid Al Maktoum Solar Park, the world's largest single-site solar park.

The Abu Dhabi National Oil Company (ADNOC) has also been leading⁸⁸ the adoption of advanced AI in the energy sector. In November 2024, it partnered with G42, Microsoft, and AIQ to launch ENERGYai, an autonomous AI-driven platform designed to perform complex tasks such as seismic analysis, real-time process monitoring, and reservoir modelling. This initiative highlights the UAE's dedication to integrating cutting-edge technology into the energy industry, aiming to enhance operations and provide more precise production predictions.

Another indicator of the UAE government's commitment to fostering an innovation-friendly environment for AI integration into Energy Management Systems (EMS) is their tariff reduction agreements designed to lower costs for tech companies, and encourage greater AI innovation and investment in the country's energy sector.

The UAE's AI-Driven Transition to Renewable Energy

Overall, it is clear that the UAE has been spearheading the integration of AI technology to optimize energy production, transition to renewable energy, and enhance overall efficiency across the energy sector. The UAE ranks as the world's fifth-largest oil exporter, with its extraction industry already leveraging modelling software and algorithms to optimize operations. As the country transitions to renewable energy, artificial intelligence presents a significant opportunity to drive innovation in the energy sector. Expanding this sector to more companies and fostering the development of AI-driven systems within the UAE could accelerate progress. The UAE is exploring AI-powered initiatives to enhance energy efficiency domestically while also analysing global supply and demand trends for oil. Innovation in energy supply and utilities remains a priority, from implementing smart grids to improving water recycling. Supporting small businesses and utility providers in testing and refining these technologies will be essential for building a more efficient and sustainable infrastructure. As the UAE continues to invest in emerging technologies and create a supportive regulatory environment, it is paving the way for a more sustainable, efficient, and data-driven future in its energy field.

Masdar, a leading renewable energy company based in the UAE, specializes in the development of and investment in clean energy projects, including solar, wind, and green hydrogen. As part of its commitment to advancing sustainable energy solutions, Masdar announced plans in January 2025 to construct a 6 billion USD (4.6 billion GBP), 5GW solar power plant that will generate green hydrogen and support over 19GWh of battery storage, making it the largest project of its kind to date. Scheduled to commence operations in two years, the plant's battery system will provide a steady 1GW output, ensuring electricity for more than 700,000 homes.

The push for renewable energy is also driven by plans to develop AI data centres and early-stage initiatives to produce 'green' hydrogen—a transitional fuel created through electrolysis powered by renewable energy. The goal is to export this hydrogen to countries where high electricity costs make local production less viable.

UAE-Israel Cooperation in Clean Energy Production

Since the signing of the Abraham Accords, the UAE and Israel have strengthened their collaboration in AI-driven clean energy solutions. A major milestone was the 2021 trilateral agreement between Israel, the UAE, and India, featuring Israeli company Ecoppia, which specializes in robotic solar cleaning technology. This partnership enabled the deployment of autonomous, water-free robots in India for a UAE solar project, demonstrating the role of AI in optimizing renewable energy maintenance. In May 2023, Abu Dhabi's Mohamed bin Zayed University of Artificial Intelligence (MBZUAI) partnered with OurCrowd Arabia, a subsidiary of Israel's OurCrowd, to accelerate AI technology growth in Abu Dhabi. While not exclusively focused

⁸⁸ Reuters (2024). "UAE's ADNOC to deploy autonomous AI in the energy sector for the first time", 4 November 2024, retrieved from: https://www.reuters.com/business/energy/uaes-adnoc-deploy-autonomous-ai-energy-sector-first-time-2024-11-04/?utm_source=chatgpt.com.

on energy, this initiative has the potential to drive AI innovations that enhance clean energy solutions.

Israeli companies are playing a crucial role in supporting the UAE's sustainability goals. GenCell, a leader in green hydrogen fuel cells, was a key presence at COP28, emphasizing how its affordable hydrogen technology can harness the UAE's solar and wind resources. Another major player, SolarEdge, provides AI-driven smart energy solutions, optimizing solar power generation and storage.

The UAE's focus on AI-powered energy demand management—including grid forecasting, energy optimization, and carbon reduction—aligns with Israel's strength in AI-driven clean energy innovation. This synergy is expected to enhance carbon trading, smart grids, and renewable energy integration, paving the way for a more advanced AI-powered energy market in the region.

Bahrain

Bahrain's economy has historically depended on oil and gas, with fossil fuels accounting for over 97%⁸⁹ of the nation's energy consumption. In 2021, oil rents contributed 10.9%⁹⁰ to GDP, reflecting the country's reliance on hydrocarbons. However, under its Vision 2030 strategy, Bahrain aims to diversify its energy mix and reduce dependence on fossil fuels.

Given its geographical constraints, Bahrain has formed strategic partnerships to expand renewable capacity. Collaborations with Saudi Arabia (e.g., a 2GW solar plant⁹¹ to power industries like Alba) and the UAE (for wind energy) bolster its clean energy transition. Locally, Bahrain invests in projects such as the Seef Properties⁹² and Askar Landfill solar farms. Additionally, the nation is exploring nuclear energy⁹³, including small modular reactors (SMRs), to enhance energy security and sustainability. Through both regional cooperation⁹⁴ and domestic initiatives, Bahrain is gradually advancing toward a more resilient and sustainable future in its energy industry.

Bahrain has embraced AI as part of its broader efforts to diversify its economy and reduce dependence on fossil fuels. Like its GCC counterparts, Bahrain aims to modernize key sectors under its Vision 2030 strategy, launched in 2008. This vision focuses on sustainability, economic diversification, and creating a business-friendly environment by developing industries such as finance, tourism, technology, and aluminium production.

While AI was not a primary focus when the strategy was launched, it has since become integral to Bahrain's digital transformation and innovation agenda, aligning with its modernisation goals and efforts to build sustainable industries. Bahrain continues to strengthen cooperation with regional allies, particularly Saudi Arabia, whose guidance influences Bahrain's strategic development. Bahrain is leveraging AI to modernise its energy sector in line with its Vision 2030. Tatweer Petroleum has integrated AI into operations through partnerships and pilot projects. In 2018⁹⁵, they collaborated with the University of Bahrain to explore AI applications, launching initiatives like beam pump classification using machine learning and emulsion detection based on surface temperature and pressure data.

⁸⁹ CEIC (2014). "Bahrain BH: Fossil Fuel Energy Consumption: % of Total", retrieved from: https://www.ceicdata.com/en/bahrain/environmental-energy-production-and-consumption/bh-fossil-fuel-energy-consumption--of-total?utm_source=chatgpt.com.

⁹⁰ The Global Economy (2021). "Bahrain: Oil revenue", retrieved from: https://www.theglobaleconomy.com/Bahrain/oil_revenue/?utm_source=chatgpt.com.

⁹¹ Vassileva, A. (2024). "Saudi Arabia, Bahrain explore 2GW solar project", *Renewables Now*, 30 August 2024, retrieved from: https://renewablesnow.com/news/saudi-arabia-bahrain-explore-2-gw-solar-project-report-867449/?utm_source=chatgpt.com.

⁹² Seef Properties (2025). Retrieved from: <https://www.seef.com.bh/>.

⁹³ Lea, R. (2024). "Why Bahrain wants to be the UK's gateway to the Gulf", *The Times*, 22 November 2024, retrieved from: https://www.thetimes.com/business-money/economics/article/why-bahrain-wants-to-be-the-uks-gateway-to-the-gulf-bw5f88xbw?utm_source=chatgpt.com®ion=global.

⁹⁴ Masdar (2024). "Masdar and Bapco Energies to develop up to 2GW of wind projects in the Kingdom of Bahrain", 1 May 2024, retrieved from: <https://masdar.ae/en/news/newsroom/masdar-and-bapco-energies-to-develop-up-to-2gw-of-wind-projects>.

⁹⁵ Tatweer Petroleum (2025). "Oil & Gas 4.0 and Artificial Intelligence", retrieved from: <https://tatweerpetroileum.com/oil-gas-4-0-and-ai/>.

Regional cooperation has also played a key role. In 2022, Nogaholding⁹⁶ (now part of Bahrain Petroleum Company) partnered with the UAE's AIQ to integrate AI and digital tools into Tatweer's upstream operations, enhancing efficiency, optimising performance, and reducing risks. AIQ's machine learning tools aim to improve resource management and safety in oil and gas operations.

BAPCO is similarly advancing AI integration. AI algorithms enhance petroleum exploration by improving seismic data analysis, refining processes through real-time optimization, and predictive maintenance to reduce downtime and costs. Additionally, BAPCO partnered⁹⁷ with Palantir Technologies to deploy AI-driven solutions via the Foundry platform, enabling data-driven decision-making, operational efficiency, and sustainable energy management. These initiatives align with Bahrain's broader digital transformation and sustainability goals.

Bahrain-Israel Collaboration in Sustainability

Bahrain is enhancing its collaboration with Israel⁹⁸ to adopt technologies aimed at improving water management and addressing climate change challenges as part of broader efforts to strengthen bilateral relations. Since formalising ties under the Abraham Accords in September 2020, Bahrain and Israel have sought to expand cooperation across various sectors, with both countries expressing interest in agricultural technology and innovations targeting net-zero carbon emissions. Additionally, a partnership with Israel's Sheba Medical Center will involve Bahraini doctors working in Israel, in addition to the establishment of an innovation centre in Bahrain. These initiatives aim to leverage Israeli expertise to support Bahrain's sustainability goals and technological advancement.

AI's Potential in Bahrain's Energy Transition

There are still plenty of gaps⁹⁹ that AI technology can fill in Bahrain's energy sector, specifically in its energy transition process. Improving the reliability and efficiency of renewable energy sources like solar and wind is one of them. He AI can help overcome challenges such as energy variability by providing better forecasting, reducing uncertainty, and optimising resource utilisation. It should be noted that AI-driven smart grids will automate energy management, ensuring stable supply even under unpredictable conditions. However, awareness and trust remain key barriers to AI adoption in the GCC, as many still view it as a 'black box' technology, specifically when it comes to resource management. There is a need for transparency and increased public awareness to foster acceptance as many do not fully trust the technology. Like Saudi Arabia and the UAE, Bahrain still lacks a regulatory framework to allow substantial AI application, especially in the energy sector. Questions remain whether the government should invest more in research and development or directly in start-ups instead.

It is an accepted fact that Bahrain and Saudi Arabia are the two closest allies in the GCC, and many see Bahrain being the testing ground for the possible inclusion of Saudi Arabia into the Abraham Accords. This is especially true when examining Bahrain's start-up friendly ecosystem. If corporations begin with small-scale projects and gradually expand, Bahrain has the potential to become a regional hub for technology and innovation, across other GCC countries. Capitalising on these projects can attract international attention and open new markets for innovation. Amazon has already set up a regional centre in Bahrain, alongside multiple data centres. Strengthening economic cooperation between Bahrain, the UAE, and Israel could open access to the Saudi market for cutting-edge solutions. While the oil and gas sector will remain a priority, the country is also advancing in economic and educational development.

Additionally, the UK could play a pivotal role, continuing its historically important diplomatic and strategic involvement in Bahrain's energy sector. The UK's structured approach to formulating deals can maximise profits and assist the small kingdom in addressing economic challenges. In

⁹⁶ Arabian Business (2022). "Bahrain energy firm signs deal for AI oil drilling technology", 9 December 2022, retrieved from: https://www.arabianbusiness.com/industries/energy/bahrain-energy-firm-signs-deal-for-ai-oil-drilling-technology?utm_source=chatgpt.com.

⁹⁷ Energy Central (2025). "AI 'can help in energy transition towards renewable sources'", 19 February 2025, retrieved from: <https://energycentral.com/news/ai-%E2%80%99can-help-energy-transition-towards-renewable-sources%E2%80%99>.

⁹⁸ Reuters (2023). "Bahrain to use Israeli tech to achieve net zero goals", *Arabian Gulf Business Insight*, 8 September 2023, retrieved from: <https://www.agbi.com/article/bahrain-to-use-israeli-tech-to-achieve-net-zero-goals/>.

⁹⁹ Ibid.

addition to this, the UK remains a hub for major companies and investors, providing market diversification opportunities for its GCC ally.

Morocco

Unlike oil-rich GCC countries, Morocco has a unique energy landscape due to its heavy dependence on imported fossil fuels¹⁰⁰, which account for over 80% of its total energy consumption. Coal alone supplies more than 70% of the country's electricity and made up 62% of Morocco's electricity production in 2022, with renewables (hydropower, wind, and solar) contributing 38%.

To reduce fossil fuel dependency, Morocco launched its National Energy Strategy¹⁰¹ in 2009, targeting 52% renewable energy capacity by 2030 and 80% by 2050. Key projects include the Noor Ouarzazate¹⁰² Solar Complex, one of the world's largest concentrated solar power plants, and the Tarfaya Wind Farm.¹⁰³

Morocco is also positioning itself as a green hydrogen hub¹⁰⁴, leveraging its abundant solar and wind resources. The country has signed agreements with Germany, the EU, and other partners to develop large-scale hydrogen production for export. However, challenges remain, including energy storage limitations, infrastructure upgrades, and reducing coal dependency.

The New Development Model (NDM) aims to transform Morocco by 2035 and focuses on economic growth and industrialization, by reducing reliance on imports and boosting key sectors like renewable energy production. Additionally, the model also stresses the importance of renewable energy leadership with the goal of becoming a global hub for green energy, with massive investments in solar, wind, and green hydrogen,¹⁰⁵ investing in solar and wind projects to add approximately 6.5 GW by 2027, an impressive goal for a developing country. Moreover, the NDM focuses on socio-economic transformation and sustainability, rather than a diversification of its economy and economic liberalisation alone. Unlike GCC countries' strategies, Morocco is looking towards implementing gradual reforms and encouraging foreign investment at a steady pace, rather than building mega-projects and creating a sovereign AI ecosystem.

Notwithstanding, Morocco has started integrating AI into its national strategy, although this does not play as central a role as it does in some Gulf countries like Saudi Arabia and the UAE. AI is reshaping¹⁰⁶ Morocco's energy sector by optimising renewable energy, improving energy distribution, enhancing efficiency, and strengthening grid management. AI aids solar power projects like the Noor Solar Complex by predicting weather patterns and optimizing panel angles. It also enhances energy distribution by reducing losses and balancing supply. At the level of consumers, AI-powered smart systems improve energy efficiency in homes and businesses. Grid management also benefits from AI through predictive maintenance and demand forecasting.

Some of the focus for implementing this transition has come in the form of support for research and training, exemplified in the work being carried out at University Mohammed VI Polytechnic (UM6P), focusing on education and research in renewable energy, and collaborating with industrial leaders. After establishing the Green Tech Industry, the institute began training professionals in renewable energy, smart grids, and green technologies. Investment efforts have also targeted supercomputing,

¹⁰⁰ U.S. Department of Commerce International Trade Administration (2025). "Morocco Country Commercial Guide", retrieved from: [https://www.trade.gov/country-commercial-guides/morocco-energy#:~:text=Per%20the%20ministry%20of%20energy,%2C%20solar%20\(7.82%20percent\).](https://www.trade.gov/country-commercial-guides/morocco-energy#:~:text=Per%20the%20ministry%20of%20energy,%2C%20solar%20(7.82%20percent).)

¹⁰¹ Akzente GIZ (2025). "Morocco's energy transition", retrieved from: <https://akzente.giz.de/en/stimmen/moroccos-energy-transition>.

¹⁰² World Bank Group (2017). "Morocco: Noor Quarzazate Concentrated Solar Power Complex", March 2017, retrieved from: https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2022-02/MoroccoNoorQuarzazateSolar_WBG_AfDB_EIB.pdf.

¹⁰³ Nareva (2024). "Tarfaya wind farm", retrieved from: <https://www.nareva.ma/en/project/wind-farm-tarfaya>.

¹⁰⁴ Alkousaa, R. (2024). "Germany, Morocco agree alliance to support green hydrogen production and exports", *Reuters*, 28 June 2024, retrieved from: https://www.reuters.com/sustainability/climate-energy/germany-morocco-agree-alliance-support-green-hydrogen-production-exports-2024-06-28/?utm_source=chatgpt.com.

¹⁰⁵ Derrick, M. (2025). "How Morocco's Green Tech is Powering Africa's Sustainability", *Sustainability Magazine*, 27 January 2025, retrieved from: https://sustainabilitymag.com/sustainability/q-a-with-ahmed-chebak-director-of-the-green-tech-institute?utm_source=chatgpt.com.

¹⁰⁶ IA Maroc (2024). "Case Study: AI for Renewable Energy Management in Morocco", retrieved from: https://www.intelligenceartificiellemaroc.com/en/blog/case-study-ai-for-renewable-energy-management-in-morocco/?utm_source=chatgpt.com.

exemplified by the establishment¹⁰⁷ of the African Supercomputing Centre in February 2021, partially powered by green energy. This centre supports research in genomics, climate modelling, and agriculture.

AI Integration in Morocco's Renewable Energy Projects: Enhancing Operations and Addressing Challenges

AI is playing an increasingly vital role¹⁰⁸ in Morocco's renewable energy sector, particularly in large-scale projects like the Noor Ouarzazate Solar Park and the Tarfaya Wind Farm. By implementing AI algorithms, operators can forecast energy production based on weather patterns, balance supply and demand, and make real-time adjustments to optimise efficiency. Predictive maintenance, powered by AI, further enhances operational efficiency by anticipating equipment failures and reducing downtime.

Among the most promising¹⁰⁹ technological innovations driving the transition to sustainable energy are Advanced Battery Storage Technologies, which play a crucial role in managing the intermittency of renewable energy sources. Smart Grid Technologies, powered by AI and IoT, are enhancing grid efficiency, reliability, and overall energy management. Another key innovation is Green Hydrogen Production, which has the potential to decarbonise sectors such as industry, agriculture, and transportation. A notable example is UM6P's pilot electrolyser project, developed in collaboration with Chariot Hydrogen and Oort Energy, which aims to scale up hydrogen production as a viable green alternative. By advancing these technologies, UM6P is strengthening Morocco's position in the global renewable energy transition while contributing to a more sustainable and emissions-free energy landscape.

However, significant challenges remain¹¹⁰, especially for the Noor Ouarzazate Solar Park. Disputes over the best energy storage technologies, high operational and maintenance costs, and difficulties integrating fluctuating solar energy into the national grid hinder the plant's efficiency and sustainability. AI-driven innovations are critical to addressing these challenges, improving energy management, reducing costs, and ensuring long-term reliability in Morocco's clean energy transition.

Morocco-Israel Collaboration in AI and Energy

Morocco and Israel have initiated collaborative efforts integrating AI into the energy sector, reflecting their strengthening bilateral relations. There have been several actions taken, including an agreement¹¹¹, signed in May 2022 to collaborate on various technological fronts, including artificial intelligence, agricultural technology, renewable energy, and smart cities.

Saudi Arabia

Saudi Arabia is the world's largest exporter of crude oil and holds about 17%¹¹² of the world's proven petroleum reserves. The country's economy has historically been driven by its vast hydrocarbon resources, with oil and gas contributing around 50%¹¹³ of its GDP. However, as part of its Vision 2030¹¹⁴ strategy, Saudi Arabia is actively working to diversify its energy mix, reduce its reliance on fossil fuels, and develop a more sustainable and technologically advanced energy sector.

¹⁰⁷ University Mohamed VI Polytechnic (2021). "UM6P launches the Data Center and Africa's Most Powerful Super Calculator for scientific research and innovation", 19 February 2021, retrieved from: <https://www.um6p.ma/en/node/713>.

¹⁰⁸ IA Maroc (2024). "Case Study: AI for Renewable Energy Management in Morocco".

¹⁰⁹ Derrick (2025). "How Morocco's Green Tech is Powering Africa's Sustainability".

¹¹⁰ Eljehtimi, A. (2024). "Moroccan solar plans hampered by dispute over technology", *Reuters*, 27 February 2024, retrieved from: <https://www.reuters.com/world/africa/moroccan-solar-plans-hampered-by-dispute-over-technology-2024-02-27/>.

¹¹¹ Aamari, O. (2022). "Morocco-Israel Tech Cooperation to Include AI, Energy, Innovation", *Morocco World News*, 27 May 2022, retrieved from: <https://www.moroccoworldnews.com/2022/05/45532/morocco-israel-tech-cooperation-to-include-ai-energy-innovation/>.

¹¹² U.S. Energy Information Administration (2023). "Saudi Arabia – 2023 primary energy data", retrieved from: https://www.eia.gov/international/overview/country/sau?utm_source=chatgpt.com.

¹¹³ Ibid.

¹¹⁴ Saudi Arabia Public Investment Fund (2025). Retrieved from: https://www.pif.gov.sa/en/?gad_source=1&gbraid=0AAAAABozKaR1HCh5gzcC3-i9aoUjuLQOY&gclid=CjoKCOjwytS-BhCKARIsAMGJyzom5QjVvrNWFW3TIsjTb4j2XJRuo4I6Cm66ydyPpE4BxpWKvQHnNEkaAnhkeALw_wcB.

One of the key pillars of this transformation is AI and digitalisation¹¹⁵, which are being integrated into oil and gas operations, renewable energy projects, and energy efficiency initiatives. The country has set ambitious targets, including increasing the share of renewables to 50% of its energy mix by 2030¹¹⁶, with the rest being generated from natural gas. Major projects such as NEOM¹¹⁷, the King Salman Energy Park (SPARK)¹¹⁸, and the Saudi Green Initiative¹¹⁹ aim to position Saudi Arabia as a leader in AI-driven energy innovation.

Saudi Arabia, like the UAE, unveiled plans to transform the country's economy in its *Saudi Vision 2030*, which outlines plans to rely less on its fossil fuel industry, and rather promote the country's production of renewable energy, trade, natural resources, and tourism. With the main objective of the Vision 2030 programme being to modernise the economy and promote sustainable development, Saudi Arabia has also decided to position itself as a leader in AI-driven energy solutions. Artificial intelligence is expected¹²⁰ to contribute 12.4% of Saudi Arabia's GDP, highlighting its growing impact on the Kingdom's economy by 2030.

Saudi Arabia relies heavily on its fossil fuel industry, and the kingdom understands the huge technological capacity required to make a shift in this area. Nowhere is this more evident than in the changes implemented by Saudi Arabia's state-owned oil company, Saudi Aramco, the biggest producer of petroleum oil in the world, responsible for 10% of the world's oil supply.

Additionally, Saudi Arabia recognises the importance of AI technology for improving its fossil fuel capacities, specifically in optimising processes, analysing large data, and enhancing facility monitoring and drilling areas. This goal can be thoroughly accomplished in combination with supercomputers, which the country has recognised with the expansion¹²¹ of its supercomputing capabilities—10 supercomputers are based in Saudi Arabia, 7 of which rank among the world's top 500. It is notable that 3 of these supercomputers are owned by Aramco. Saudi Aramco has utilised supercomputers for seismic processing and reservoir simulation since 2001. Managed by the company's employees, they run on an open-source platform, enabling efficient data analysis and modelling. In September 2024, the company signed several MoUs at its Global Artificial Intelligence Summit¹²² in order to support Aramco's AI ecosystem, allow the company to train and deploy LLMs, to improve its operational capacities, deploy industrial generative AI solutions, as well as to launch Saudi Accelerate Innovation (SAIL). These powerful systems are used across various fields, including scientific research and energy management, highlighting the Kingdom's commitment to advancing AI-driven innovation. While the country is clearly making use of the benefits AI and supercomputing have to offer, there still lie hurdles for deeper implementation. This includes the need for extensive investments, capable infrastructure and skilled personnel.

AI can play a transformative role in Aramco's initiatives by enhancing efficiency, optimising processes, and enabling sustainable practices. In lithium production, AI-driven geological modelling can improve resource identification, while machine learning optimizes extraction and refining. In carbon capture, AI-powered sensors enable real-time monitoring, predictive maintenance reduces downtime, and energy optimisation enhances efficiency. Aramco's 100 million USD (76 million GBP) R&D investment at KAUST¹²³ can leverage AI for accelerated scientific discovery, digital twins, and autonomous research. AI also contributes to sustainability by tracking emissions, modelling energy transition pathways, and strengthening cybersecurity. By integrating AI, Aramco can maximise efficiency, reduce costs, and accelerate its shift toward a more sustainable future in the energy industry.

¹¹⁵ Saudi Arabia Vision 2030 (2025). "Overview", retrieved from: https://www.vision2030.gov.sa/en/overview?utm_source=chatgpt.com.

¹¹⁶ Saudi Arabia Ministry of Finance (2024). "Kingdom of Saudi Arabia: Green Financing Framework", March 2024, retrieved from: <https://ndmc.gov.sa/investorsrelations/Documents/Green-Financing-Framework-KSA-16April2024.pdf>.

¹¹⁷ NEOM (2025). Retrieved from: www.neom.com.

¹¹⁸ King Salman Energy Park (2025). Retrieved from: <https://www.spark.sa/>.

¹¹⁹ Saudi & Middle East Green Initiatives (2025). "SGI: steering Saudi Arabia towards a green future", retrieved from: <https://www.sgi.gov.sa/about-sgi>.

¹²⁰ White, A. "A Gulf Apart: Analyzing AI in Saudi Arabia and the UAE", *Gulf International Forum*, retrieved from: <https://gulffif.org/a-gulf-apart-analyzing-ai-in-saudi-arabia-and-the-uae/>.

¹²¹ Wahab, S. (2015). "Seven KSA supercomputers in Top 500 list", *Arab News*, retrieved from: <https://www.arabnews.com/node/809551/amp>.

¹²² Alitech (2024). "Saudi Aramco Signs MoUs to Collaborate on Advanced AI and Supercomputing Solutions 2024", 12 September 2024, retrieved from: <https://alitech.io/blog/saudi-aramco-signs-mous-to-collaborate-advanced-ai/>.

¹²³ Aramco (2024). "Aramco plans \$100m funding for KAUST to support cutting-edge R&D", 12 August 2024, retrieved from: [https://www.aramco.com/en/news-media/news/2024/aramco-plans-\\$100m-funding-for-kaust-to-support-cutting-edge-r-and-d](https://www.aramco.com/en/news-media/news/2024/aramco-plans-$100m-funding-for-kaust-to-support-cutting-edge-r-and-d).

NEOM is a futuristic urban project integrating AI across urban planning, energy, and daily operations. A key feature of the project, The Line, utilises AI-driven digital twins for real-time simulations and optimisations, while its subsidiary, Tonomus, analyses resident data to provide predictive and personalised services. In February 2025, NEOM partnered with DataVolt to develop a 5 billion USD (3.8 billion GBP) and 1.5GW net-zero AI data centre in its Oxagon industrial zone, reinforcing its role as an AI-powered city. NEOM's Green Hydrogen Project, developed with ACWA Power and Air Products, uses AI to optimize its 3.9GW solar, wind, and storage capacity. AI balances supply and demand, enables predictive maintenance, and enhances supply chain efficiency, reducing costs and downtime. These AI-driven innovations position NEOM as a global leader in smart cities and clean energy, advancing Saudi Arabia's Vision 2030 to reduce fossil fuel dependence.

Diversification Beyond Oil

There are several other ventures that Aramco is pursuing to expand beyond oil and natural gas production. In January 2025, the petrochemical giant announced¹²⁴ that it will be investing in lithium in a partnership with Saudi mining and metals company Ma'aden. Recognising that global demand has increased thanks to renewable energy infrastructure growth and EV production, the company has entered this joint venture to facilitate the extraction of energy transition minerals, support the expansion of sustainable energy solutions and enhance portfolio diversification for a lower-carbon future. Aramco's dedication to diversifying its portfolio does not stop at mining investments, as it is also collaborating¹²⁵ with Carbon Clean and Samsung Engineering & Construction to develop a pioneering carbon capture facility employing Carbon Clean's CycloneCC technology. This initiative aims to efficiently capture CO₂ emissions directly from natural gas turbine exhaust streams, showcasing commitment to embedding sustainable practices across its operations. Saudi Aramco has committed¹²⁶ to investing 100 million USD (76 million GBP) over the next decade in research and development projects at King Abdullah University of Science and Technology (KAUST). This strategic partnership aims to accelerate innovations with both environmental and commercial benefits, focusing on areas such as energy transition, sustainability, materials science, upstream technologies, and digital solutions. Aramco's investment in R&D underscores its support for the Paris Agreement and its ambition to achieve net-zero Scope 1 and Scope 2 greenhouse gas emissions across its wholly owned and operated assets by 2050.

Saudi Arabia's Position in the Global AI Race

Saudi Arabia, similarly to the UAE, is caught between the US and China, with both countries fighting to establish their influence over and partnerships with the oil-rich country. As of February 2025,¹²⁷ Saudi Aramco began to utilize DeepSeek to enhance their operations at their data centre in Dammam, with their director admitting that they are already seeing the positive impact the major Chinese AI company has had on their operational efficiency. Around the same time¹²⁸, Saudi Arabia invested 1.5 billion USD (1.1 billion GBP) in the American AI chip start-up Groq, to help increase its export of AI chips to the country in addition to expanding digital centre in Dammam, following an MoU signed between the company and Aramco Digital in September 2024. This showcases how Saudi Arabia is also leveraging the China and US tug-of-war struggle to their own advantage.

¹²⁴ Derrick, M. (2025). "The Impact of Aramco's Move to Invest in Lithium Production", *Energy Digital*, 20 January 2025, retrieved from: <https://energydigital.com/oil-and-gas/aramco-investment-in-lithium-production>.

¹²⁵ Derrick, M. (2024). "About Aramco, Carbon Clean & Samsung E&A's CycloneCC Tech", *Energy Digital*, 7 December 2024, retrieved from: <https://energydigital.com/technology-and-ai/aramco-carbon-clean-and-samsung-e-a-join-to-capture-carbon>.

¹²⁶ Derrick, M. (2024). "Aramco Drives Energy Innovation and Injects US\$100m into R&D", *Energy Digital*, 14 August 2024, retrieved from: <https://energydigital.com/articles/aramco-drives-energy-innovation-and-injects-us-100m-into-r-d>.

¹²⁷ Cointime (2025). "DeepSeek has started operations at Saudi Aramco Digital Data Center", 10 February, retrieved from: <https://www.cointime.ai/flash-news/deepseek-has-started-operations-at-saudi-aramco-digital-data-center-17104>.

¹²⁸ Nellis, S. (2025). "AI chip startup Groq secures \$1.5 billion commitment from Saudi Arabia", *Reuters*, 10 February 2025, retrieved from: <https://www.reuters.com/technology/artificial-intelligence/ai-chip-startup-groq-secures-15-billion-commitment-saudi-arabia-2025-02-10/>.

Israel

Israel's energy sector¹²⁹ is undergoing a transformation as the country seeks to reduce its reliance on fossil fuels and expand its renewable energy capacity. Natural gas remains the dominant source of electricity generation, accounting for approximately 70% of Israel's energy mix. The discovery of offshore gas fields, such as Tamar and Leviathan, has significantly reduced Israel's dependence on imported fuels and positioned the country as a potential energy exporter in the future. However, despite ambitious renewable energy targets, progress in clean energy deployment has been slow.

Israel aims to generate 30%¹³⁰ of its electricity from renewable sources by 2030, with solar power playing a central role. Currently, renewables contribute around 10–12% of the total electricity supply, primarily¹³¹ from solar photovoltaics. Wind energy remains limited due to geographic and regulatory constraints, while hydrogen is still in its early development stages, with ongoing research into production and storage solutions. Energy storage¹³² and grid modernisation¹³³ are key challenges, as the government seeks to integrate more renewables while maintaining grid stability. The Israeli government continues to push¹³⁴ for technological innovation and private sector involvement to accelerate the transition toward a more sustainable and resilient energy system.

Israel's advanced AI research ecosystem is significantly transforming its energy landscape, focusing on optimising smart grids, enhancing energy efficiency, and integrating renewable sources. Key institutions like the Technion¹³⁵ — Israel Institute of Technology have pioneered predictive maintenance solutions for smart grids, reducing grid downtime by up to 50%¹³⁶ through early detection of potential equipment failures. Tel Aviv University (TAU) is advancing AI-based demand response systems to predict and manage energy consumption, and balance supply and demand more effectively.

In 2024, Ben-Gurion University¹³⁷ (BGU) launched 'The Institute,' in collaboration with industry leaders, to drive AI integration across sectors, including energy. Meanwhile, the Weizmann Institute of Science leverages AI for automated grid management and environmental forecasting to address energy distribution and climate challenges.

AI applications in Israel extend to renewable energy optimisation, particularly in forecasting solar and wind power output, which helps stabilise the national grid and enhances energy storage efficiency. Battery management systems and energy storage technologies are also undergoing AI-driven optimisation.

Israeli researchers frequently share insights at global conferences, such as AI Week Tel Aviv¹³⁸ and IEEE Power & Energy Society events¹³⁹, and participate in discussions hosted by the Israel Smart Energy Association (ISEA)¹⁴⁰, which further position Israel as a global leader in AI-based smart energy solutions.

Israel is advancing energy efficiency and sustainability through AI integration in companies and smart grid technology. Companies like GenCell¹⁴¹ focus on hydrogen and ammonia-based fuel cells, leveraging

¹²⁹ Mordor Intelligence (2025). "Israel solar energy market size & share analysis – growth trends & forecasts", retrieved from: <https://www.mordorintelligence.com/industry-reports/israel-solar-energy-market#:~:text=In%202021%2C%20the%20renewable%20energy,renewable%20energy%20generation%20in%202021.>

¹³⁰ U.S. Department of Commerce International Trade Administration (2025). "Israel Country Commercial Guide", retrieved from: <https://www.trade.gov/country-commercial-guides/israel-energy#:~:text=A%20Government%20of%20Israel%20decision,will%20provide%20the%20remaining%2010%25.>

¹³¹ Mordor Intelligence (2025). "Israel solar energy market size & share analysis – growth trends & forecasts".

¹³² EnergyTrend (2024). "Israel Emerges as Pivotal Player in Energy Storage System Sector, Fueling Future Market Growth", 11 March 2024, retrieved from: <https://www.energytrend.com/research/20240311-45415.html>.

¹³³ Israel Ministry of Economy and Industry (2025). "Israel's Economic and Trade Mission to the WTO and Switzerland", retrieved from: <https://itrade.gov.il/switzerland/smart-grids-and-ai-how-israel-is-powering-the-future-of-electricity/>.

¹³⁴ Scheer, S. (2025). "Israel asks public to put solar panels on roofs to produce electricity", *Reuters*, 4 February 2025, retrieved from: [https://www.reuters.com/sustainability/climate-energy/israel-asks-public-put-solar-panels-roofs-produce-electricity-2025-02-04/#:~:text=Israel%20asks%20public%20to%20put%20solar%20panels%20on%20roofs%20to%20produce%20electricity,-By%20Steven%20Scheer&text=JERUSALEM%2C%20Feb%204%20\(Reuters\),as%20a%20key%20natural%20resource.](https://www.reuters.com/sustainability/climate-energy/israel-asks-public-put-solar-panels-roofs-produce-electricity-2025-02-04/#:~:text=Israel%20asks%20public%20to%20put%20solar%20panels%20on%20roofs%20to%20produce%20electricity,-By%20Steven%20Scheer&text=JERUSALEM%2C%20Feb%204%20(Reuters),as%20a%20key%20natural%20resource.)

¹³⁵ Technion Israel Institute of Technology (2025). Retrieved from: <https://www.technion.ac.il/en/>.

¹³⁶ Tran, B. (2025). "AI-Powered Smart Grids: How They Are Revolutionizing Energy Distribution", *PatentPC*, 4 March 2025, retrieved from: https://patentpc.com/blog/ai-powered-smart-grids-how-they-are-revolutionizing-energy-distribution-latest-stats?utm_source=chatgpt.com.

¹³⁷ Ben Gurion University of the Negev (2025). Retrieved from: <https://www.bgu.ac.il/en/>.

¹³⁸ AI Week (2025). "AI Week 2025", retrieved from: <https://ai-week.com/>.

¹³⁹ IEEE Power & Energy Society (2025). "Conferences & Meetings", retrieved from: <https://ieee-pes.org/conferences-meetings/>.

¹⁴⁰ Israeli Smart Energy Association (2025). Retrieved from: <https://www.isea.org.il/>.

¹⁴¹ GenCell Energy (2025). Retrieved from: <https://www.gencellenergy.com/>.

AI to optimize energy management and predict maintenance needs. GenCell's collaboration with EV Motors launched Israel's first off-grid hydrogen-powered EV charging station. Phinergy, specialising in metal-air technology for energy storage and EVs, has potential for AI-driven energy consumption monitoring to extend battery life. Driivz actively uses AI in EV charging infrastructure, optimising load balancing, predictive maintenance, and energy consumption analysis to enhance charging station efficiency.

Israel also leads in global smart grid ¹⁴² innovation, with AI, deep tech, and energy management systems transforming electricity distribution. Start-ups and established companies are helping utilities optimise power distribution, reduce losses, and integrate renewables. Key players include:

- mPrest, providing AI-based grid management
- Powercom, offering smart meters and AI-driven energy software
- Gnrgy, optimizing smart grids for EVs
- GRID-IN, delivering SaaS-based low-voltage grid monitoring
- Nortex Technologies, developing advanced metering infrastructure (AMI)
- Synvertec, enhancing grid stability to support renewable energy
- SATEC, with AI-powered power meters
- ZOOZ Power and Nostromo Energy, advancing energy storage to balance power demand

Through AI integration, Israel is strengthening its grid resilience, predictive maintenance, and real-time monitoring, driving the global energy sector toward a more intelligent and sustainable future.

Renewable Energy and AI Collaboration Between the UK and Israel

The Global Business Innovation Programme (GBIP)¹⁴³ has been instrumental in fostering partnerships between UK businesses and Israeli counterparts in the renewable energy sector. This initiative focuses on key areas such as integrated energy systems, solar power, local energy systems with storage solutions, and clean fuels for transport and industry—particularly hydrogen. These collaborations provide a strong foundation for AI-driven advancements in energy management and optimization.

Although direct AI partnerships between Israel and the UK in the energy sector are not widely documented, the existing frameworks in renewable energy and technological cooperation create significant opportunities for AI integration. The UK's ambition to lead in AI development, reflected in its 14 billion GBP investment strategy, aims to generate over 13,000 jobs and accelerate AI-driven innovation across industries, including energy. This commitment, combined with Israel's strong AI ecosystem, sets the stage for future AI applications in renewable energy and smart grid solutions.

Policy recommendations

Securing Critical Minerals Supply Chains

Critical minerals, metals, and rare earth elements (REEs) are essential for producing green energy systems and advanced technologies, from smartphones to electric cars. They are also the building blocks of computer hardware and data centres, which are vital for the development and scaling of AI technologies.

While deposits of these vital resources are dispersed across multiple geographies, their production is concentrated in the hands of several key players¹⁴⁴: Australia accounts for more than half of the world's lithium supply, South Africa for more than 70% of platinum, and the DRC for over 70% of cobalt.

¹⁴² Israel Ministry of Economy and Industry (2025). "Israelische Wirtschafts - und Handelsmission in Deutschland", retrieved from: <https://itrade.gov.il/germany/2025/03/03/smart-grids-and-ai-how-israel-is-powering-the-future-of-electricity/>.

¹⁴³ Innovate UK Business Connect (2025). "Global Business Innovation Programme", retrieved from: <https://iuk-business-connect.org.uk/programme/global-business-innovation/>.

¹⁴⁴ Calderon, J.L. (2022). "How Critical Minerals Became So Critical", *Milken Institute Review*, 31 October 2022, retrieved from: <https://www.milkenreview.org/articles/how-critical-minerals-became-so-critical>.

Meanwhile, China dominates REE production while also controlling much of the mineral refining process, creating a bottleneck in global supply chains. In total, it accounts for more than half of the world's critical mineral supply and 80% of its raw material refining. It is also the largest producer of solar photovoltaic panel manufacturing and lithium-ion batteries, cementing its position as the lead supplier of electric vehicles and granting it significant leverage¹⁴⁵ in the global AI arms race.

China's dominance in supply chains exposes the UK to a high risk of shocks, both economically and politically. Diversifying supply chains is therefore a top priority for the UK government, particularly as it increases its adoption of new clean technologies. The MENA region can be a strategic partner for doing so, allowing the UK to realise the three stated goals outlined in its Critical Minerals Strategy¹⁴⁶: accelerated domestic growth capabilities, collaboration with international partners, and enhanced responsiveness, transparency, and responsibility for international markets.

The MENA region has the potential¹⁴⁷ to become a dominant player in the critical minerals market. It has abundant reserves of natural resources that are the subject of increasing global demand. Saudi Arabia¹⁴⁸, for instance, holds deposits of copper, zinc, iron, aluminium, manganese, and chromium, as well as 25% of the world's tantalum reserves—metals that are essential for tech and energy industries. As part of its ambitions to reduce domestic fossil fuel demand and pursue economic diversification, Riyadh is investing heavily in its mining industry¹⁴⁹, aiming to increase its GDP contribution by 58 billion USD (44.3 billion GBP) in the next 10 years. Likewise, the UAE's growing mineral sector¹⁵⁰—estimated at over 10 billion USD (7.6 billion GBP)—is expected¹⁵¹ to contribute 5% to non-oil GDP by 2030.

While it does not have significant mineral and metal reserves, Bahrain plays a strategic role in global supply chains through refining and manufacturing. For example, Alba¹⁵²—one of the world's largest aluminium smelters—is a major supplier of refined aluminium, which is essential for the aerospace, automotive, construction, and renewable energy industries. Aside from aluminium, Bahrain has well-established industries¹⁵³ in steel, iron, and other metal processing, serving as a regional hub for metal-based manufacturing.¹⁵⁴

Beyond the Gulf, Morocco is a leading player in the global phosphate industry¹⁵⁵—a critical mineral for battery manufacturing and agriculture—holding about 70% of the world's estimated reserves and ranking as the world's largest producer. The Moroccan economy relies heavily on its minerals sector, which makes up nearly a quarter of its exports and accounts for 10% of its GDP.

Israel is at the forefront with cutting-edge technologies¹⁵⁶ that extract minerals like potash and magnesium from seawater, and are subject to growing international attention.¹⁵⁷ Courtesy of these

¹⁴⁵ Bolstad, P. (2021). "Energy Independence Doesn't Mean What It Used To", *Foreign Policy*, 26 July 2021, retrieved from: <https://foreignpolicy.com/2021/07/26/energy-independence-climate-change-us-national-security/>.

¹⁴⁶ Gov.uk (2023). "Resilience for the Future: The UK's Critical Minerals Strategy", 13 March 2023, retrieved from: <https://www.gov.uk/government/publications/uk-critical-mineral-strategy/resilience-for-the-future-the-uks-critical-minerals-strategy>.

¹⁴⁷ SRMG Think (2024). "Strengthening MENA Supply Chains for Clean Energy", retrieved from: https://www.srmgthink.com/sites/default/files/2024-12/Strengthening%20MENA%E2%80%99s%20Supply%20Chains%20for%20Clean%20Energy_Final_10%20Dec%20%281%29.pdf.

¹⁴⁸ Harshan, A. (2024). "Saudi Vision 2030: Kingdom mining industry's journey to become 'Regional Powerhouse'", *Global Business Outlook*, 29 January 2024, retrieved from: <https://globalbusinessoutlook.com/economy/saudi-vision-kingdom-mining-industrys-journey-become-regional-powerhouse/>.

¹⁴⁹ Haytayan, L. and Yahyaoui, A. (2024). "Life Beyond Oil: Saudi Arabia's Mining Ambitions", *Natural Resource Governance Institute*, 16 October 2024, retrieved from: <https://resourcegovernance.org/articles/life-beyond-oil-saudi-arabia-mining-ambitions#:~:text=As%20part%20of%20its%20goal,to%20%24.75%20billion%20by%202035>.

¹⁵⁰ Zawya (2023). "UAE's minerals sector set to hit \$10bln by 2025, say experts", 17 March 2023, retrieved from: <https://www.zawya.com/en/markets/commodities/uaes-minerals-sector-set-to-hit-10bln-by-2025-say-experts-suxqk3uc>.

¹⁵¹ Minerals Meridian. "UAE's mining sector to contribute 5% to non-oil GDP by 2030", retrieved from: <https://mineralsmeridian.com/2023/10/15/uaes-mining-sector-to-contribute-5-to-non-oil-gdp-by-2030/>.

¹⁵² Alba Smelter (2025). Retrieved from: <https://www.albasmelter.com/en/>.

¹⁵³ Bahrain Steel (2025). "About Us", retrieved from: https://www.bahrainsteel.com.bh/?utm_source=chatgpt.com#!/aboutus.

¹⁵⁴ ReportLinker (2025). "Bahrain Metal Products Industry Outlook 2024-2028", retrieved from: <https://www.reportlinker.com/clp/country/665901/726415>.

¹⁵⁵ Capmad (2024). "Mining Resources: Critical and Strategic Metals In Morocco", 12 July 2024, retrieved from: <https://www.capmad.com/mining-en/mining-resources-critical-and-strategic-metals-in-morocco/>.

¹⁵⁶ ICL. "2022 Corporate Responsibility (ESG) Report", retrieved from: <https://icl-group-sustainability.com/reports/icl-a-glance/>.

¹⁵⁷ Sharma, A. (2025). "India-Israel critical minerals partnership on cards for AI/ML-driven exploration", *CNBC TV18*, 18 February 2025, retrieved from: <https://www.cnbctv18.com/business/india-israel-critical-minerals-partnership-on-cards-for-ai-ml-driven-exploration-19560798.htm>.

technologies, Israel ranks sixth in global potash production.¹⁵⁸ It also recently announced plans to establish a raw materials plan for domestic production of defence technologies.

Their strategically important geographies also give these countries an upper hand in global trade. Key ports¹⁵⁹ like the UAE's Jebel Ali and Morocco's Tanger Med Port play an important role in importing and exporting raw materials¹⁶⁰ within the region while also acting as transit hubs for materials sourced from Africa, Asia, and South America. GCC countries are particularly invested¹⁶¹ in supply chain resilience, adapting infrastructure, regulation, and economic partnerships to remove supply chain obstacles and ensure frictionless trade.

For the UK to capitalise on these opportunities and reduce Chinese influence in Middle Eastern 'swing states', it should strategically invest in the region's minerals sector.

Bilateral Partnerships in Critical Minerals

Building on the recent minerals cooperation agreement¹⁶² signed between the UK and Saudi Arabia, the UK could consider expanding its access to Gulf minerals by signing similar bilateral agreements with the UAE and Bahrain. The UAE is actively pursuing government-to-government (G2G) partnerships in essential minerals as part of its strategic objectives¹⁶³, and Bahrain has a lot to offer in metal processing. A wider Gulf material alliance would serve several UK interests simultaneously. It would diversify and strengthen supply chains vital for AI and renewable energy while also creating new avenues for joint business ventures in mining and processing. Importantly, it could also accelerate negotiations for a comprehensive UK-GCC free trade agreement¹⁶⁴—which is a top priority for the UK at present.

Joint R&D in Mineral Processing

The UK could leverage its robust industry and academic institutions to facilitate joint R&D initiatives between MENA partners focused on technologies—potentially AI-driven—that optimise mineral extraction and processing. Israel's expertise¹⁶⁵ in desalination and mineral extraction from seawater could help the UK and Abraham Accords countries co-develop mineral recovery methods. Research and development efforts could also be geared toward developing AI-enhanced mineral mapping technologies¹⁶⁶, allowing resource-rich countries like Saudi Arabia and the UAE to identify and develop their reserves more effectively. Saudi Arabia is already exploring AI integration in mineral exploration, and the UK could enhance these efforts by integrating its advanced tech industry.

UK-MENA Critical Minerals Investment Fund

To serve the shared objective of securing critical minerals supplies, the UK and its MENA partners could create a dedicated investment fund aimed at financing exploration and refining projects. The UK is already investing¹⁶⁷ in overseas projects that grant it greater access to critical minerals and

¹⁵⁸ Pistilli, M. (2025). "Top 10 Potash Countries by Production", *Investing News Network*, 26 February 2025, retrieved from: <https://investingnews.com/daily/resource-investing/agriculture-investing/potash-investing/top-potash-countries-by-production/>.

¹⁵⁹ Harmon, R. (2024). "8 ports in the MENA region make Lloyd's List's One Hundred Ports 2024", *Logistics Middle East*, 28 August 2024, retrieved from: <https://www.logisticsmiddleeast.com/ports-free-zones/8-ports-in-the-mena-region-make-lloyds-lists-one-hundred-ports-2024>.

¹⁶⁰ DMCC (2024). "The Future of Trade: Critical Minerals Edition", retrieved from: <https://2509857.fs1.hubspotusercontent-na1.net/hubfs/2509857/FOT/Future%20of%20Trade/FOT%20Critical%20Minerals%20Edition%202025/The%20Future%20of%20Trade%20-%20Special%20Critical%20Minerals%20Edition%202025.pdf?hsCtaAttrib=186150004265>.

¹⁶¹ Bin Al Khalifa, A. (2024). "How the Gulf's nations are adapting to global supply chain challenges", *World Economic Forum*, 2 December 2024, retrieved from: <https://www.weforum.org/stories/2024/12/gulf-countries-supply-chain-resilience/>.

¹⁶² Gov.uk (2023). "UK and Saudi Arabia pledge to deliver closer cooperation on critical minerals", 11 January 2023, retrieved from: <https://www.gov.uk/government/news/uk-and-saudi-arabia-pledge-to-deliver-closer-co-operation-on-critical-minerals>.

¹⁶³ Dempsey, H. and Cornish, C. (2024). "How Gulf states are putting their money into mining", *Financial Times*, 1 April 2024, retrieved from: <https://www.ft.com/content/59298650-540a-43cd-86f8-a6c6db0aa906>.

¹⁶⁴ Gov.uk (2024). "Trade Update: UK-Gulf Cooperation Council FTA negotiations", 19 February 2024, retrieved from: <https://www.gov.uk/government/news/trade-update-uk-gulf-cooperation-council-fta-negotiations>.

¹⁶⁵ ICL Group (2025). Retrieved from: <https://www.icl-group.com/innovation/>.

¹⁶⁶ Davies, R.S. et al. (2025). "Artificial intelligence and machine learning to enhance critical mineral deposit discovery", *Geosystems and Geoenvironment*, 4(2), May 2025, retrieved from: <https://www.sciencedirect.com/science/article/pii/S2772883825000111>.

¹⁶⁷ Gov.uk (2024). "UK approves use of export finance to secure critical minerals", 31 October 2024, retrieved from: <https://www.gov.uk/government/news/uk-approves-use-of-export-finance-to-secure-critical-minerals>.

has recently approved export finance in this field.¹⁶⁸ It could partner with like-minded GCC countries such as Saudi Arabia, which has committed to a 100 billion USD (76.4 billion GVP) investment in its mining sector as part of its Vision 2030 plan, in order to access larger capital pools and share financial risks. The fund could also support regional innovation in this sphere, investing in start-ups and joint ventures that utilise AI technologies for critical minerals and mining efforts. A UK-MENA investment fund would create a unified bloc in the critical minerals sector that would benefit partners' overall trade and investment strategies.

Energy and AI Infrastructure

The ability to develop, deploy, and scale AI technology hinges on robust infrastructure. Safe to say that whoever can develop supporting infrastructure at the speed at which they develop AI technologies will stay ahead in the AI arms race. To quote¹⁶⁹ former US national security advisor Jake Sullivan, 'One thing is for certain: If we don't rapidly build out this infrastructure in the next few years, adding tens or even hundreds of gigawatts of clean power to the grid, we will risk falling behind.'

Indeed, China's permitting regulatory frameworks and public-private sector relations allow it to move faster than the West, not only in terms of developing and implementing AI but also in building the necessary infrastructure to sustain it. The rise of DeepSeek¹⁷⁰—China's leading frontier AI research lab and the most downloaded free app on Apple's US App Store after overtaking OpenAI's ChatGPT—was made possible by the strong and rapid backing from state-affiliated investors for infrastructure projects, including building two new data centres and acquiring 10,000 Nvidia A100 chips in the value of 180 million USD (137.6 million GBP).

In an effort to counter the rising threat of a Chinese domestic ecosystem capable of developing AI at scale, three of the largest US technology¹⁷¹ giants—Oracle, OpenAI, and SoftBank—have recently invested 500 billion USD (382 billion GBP) in a joint venture called Stargate. The new company will be the 'largest AI infrastructure project in history', according to US President Donald Trump¹⁷², and is a step toward leading in the AI arms race, remaining ahead of China and other competitors.

A closer look into the AI arms race dynamics of the MENA reveals similar priorities, with Saudi Arabia and the UAE making significant infrastructure investments to bolster their positions as regional AI leaders. At the LEAP 2025 technology conference¹⁷³, Saudi Arabia announced investments totalling 14.9 billion USD (11.4 billion GBP) in AI and supporting infrastructure, with 7.9 billion USD (6 billion GBP)¹⁷⁴ dedicated to building data centres across Riyadh, Jeddah, Dammam, and Neom, expanding the Kingdom's data centre capacity fourfold to over 1 gigawatt in the coming years. Abu Dhabi¹⁷⁵ has also been proactively expanding its data capacity, with approximately 1.5 billion USD (1.1 billion GBP) in investment flowing towards data centres expected to increase national capacity from 250 to around 500 MW by 2027.

¹⁶⁸ Gov.uk (2023). "£15 million funding boost to strengthen supply of critical minerals", 27 February 2023, retrieved from: <https://www.gov.uk/government/news/15-million-funding-boost-to-strengthen-supply-of-critical-minerals>.

¹⁶⁹ The American Presidency Project (2024). "Remarks by National Security Advisor Jake Sullivan on Artificial Intelligence and National Security at the National Defense University", 24 October 2024, retrieved from: <https://www.presidency.ucsb.edu/documents/remarks-national-security-advisor-jake-sullivan-artificial-intelligence-and-national>.

¹⁷⁰ Allen, G.C. (2025). "DeepSeek, Huawei, Export Controls, and the Future of the U.S.-China AI Race", *Center for Strategic and International Studies*, 7 March 2025, retrieved from: <https://www.csis.org/analysis/deepseek-huawei-export-controls-and-future-us-china-ai-race>.

¹⁷¹ Duffy, C. (2025). "Trump announces a \$500 billion AI infrastructure investment in the US", *CNN Business*, 21 January 2025, retrieved from: <https://edition.cnn.com/2025/01/21/tech/openai-oracle-softbank-trump-ai-investment/index.html>.

¹⁷² Jacobs, J. (2025). "Trump announces up to \$500 billion in private sector AI infrastructure investment", *CBS News*, 22 January 2025, retrieved from: <https://www.cbsnews.com/news/trump-announces-private-sector-ai-infrastructure-investment/>.

¹⁷³ Economy Middle East (2025). "LEAP 2025: Saudi Arabia solidifies status as global AI hub with \$14.9 billion investment", 10 February 2025, retrieved from: <https://economymiddleeast.com/news/leap-2025-saudi-arabia-solidifies-status-as-global-ai-hub-with-14-9-billion-investment/>.

¹⁷⁴ Ibid.

¹⁷⁵ Globe Newswire (2025). "UAE Data Center Portfolio Report 2025: Around \$1.5 Billion in New Investments is Expected to Flow into Upcoming Data Centers in UAE by 2027", 14 March 2025, retrieved from: <https://www.globenewswire.com/news-release/2025/03/14/3042835/0/en/UAE-Data-Center-Portfolio-Report-2025-Around-1-5-Billion-in-New-Investments-is-Expected-to-Flow-into-Upcoming-Data-Centers-in-UAE-by-2027.html#:~:text=The%20existing%20data%20center%20capacity%20in%20UAE%20is,into%20upcoming%20data%20centers%20in%20UAE%20by%202027.>

As the race for AI dominance accelerates, so does power demand, with data centre requirements¹⁷⁶ expected to increase by 165% until 2030. Training large models like GPT-4 already consumes as much electricity as 100 UK homes in a year for a single run, and with AI adoption expanding, NextEra Energy¹⁷⁷ predicts a 55% rise in global power demand over the next two decades, with AI-driven data centres accounting for 17% of that growth.

The increase in demand will pose a significant challenge for governments and businesses to ensure a reliable power grid. Big AI data centres¹⁷⁸ currently consume around 100 MW, and there are plans in motion for data centres that will require upwards of 1 GW, placing immense pressure on power grids to keep pace with the electricity load. Meeting this growing demand requires investments in dedicated energy solutions, including management, maintenance, storage, and cooling systems¹⁷⁹, to prevent grid overloads and ensure continuous operations to sustain AI development ambitions.

The UK is uniquely positioned to lead in developing such solutions. For the government's goals of becoming a global AI leader *and* a clean energy superpower, harnessing AI to enhance green energy initiatives is just as crucial as addressing its environmental impact. Recognising this, the UK's recently launched AI action plan¹⁸⁰ outlines 50 ambitious steps to attract AI firms and talent while addressing infrastructure challenges. Key initiatives include a 14 billion GBP investment in data centres across the UK, the establishment of designated 'AI Growth Zones' to accelerate AI infrastructure planning, and the creation of a dedicated AI Energy Council—chaired by the Science and Energy Secretaries—to tackle power and energy challenges. Additionally, the Net Zero by 2050¹⁸¹ strategy, with major investments in renewable energy, smart grids, and energy storage, will help mitigate AI-related infrastructure strains. Taken together, the UK can take the lead on sustainable AI infrastructure projects alongside its strategic MENA partners.

Data Centre Optimization Accelerator

Maintaining data centres' efficiency in the face of growing AI demands is an endeavour that transcends geographical borders. An accelerator dedicated to scalable yet sustainable energy solutions for AI-driven data centres could meet the common needs of UK and MENA partners. UK-based private sector technology companies such as AWS¹⁸² can host start-ups from across the region to develop solutions for some of the emerging issues posed by AI growth. Areas can include energy management, cooling solutions, renewable energy integration, modular and edge data centres, and waste heat recovery, among others.

Connective Telecommunications Infrastructure Projects

Before the outbreak of the Israel-Hamas war, the Trans Europe Asia System (TEAS) fibre-optic cable project¹⁸³ was gaining momentum as a revolutionary infrastructure project connecting Israel, Saudi Arabia, and other Gulf states. This 20,000-kilometre (12,400 mile) cable, running from France to India, would have been the first terrestrial cable to span across the Arabian Peninsula, from Saudi Arabia, through Jordan, and ultimately to Israel. Considering its vast potential for enhanced digital connectivity, trade partnerships, and economic growth, TEAS received strong backing from US, UK, Israeli, and Gulf investors.

¹⁷⁶ Goldman Sachs (2025). "AI to drive 165% increase in data center power demand by 2030", 4 February 2025, retrieved from: <https://www.goldmansachs.com/insights/articles/ai-to-drive-165-increase-in-data-center-power-demand-by-2030>.

¹⁷⁷ McCartney, G. (2025). "NextEra Energy expects 55% jump in global power demand over the next 20 years, CEO says", *Reuters*, 10 March 2025, retrieved from: https://www.reuters.com/business/energy/ceraweek-nextera-energy-expects-55-jump-global-power-demand-over-next-20-years-2025-03-10/?utm_source=chatgpt.com.

¹⁷⁸ Spencer, T. and Singh, S. (2024). "What the data centre and AI boom could mean for the energy sector", *International Energy Agency*, 18 October 2024, retrieved from: <https://www.iea.org/commentaries/what-the-data-centre-and-ai-boom-could-mean-for-the-energy-sector>.

¹⁷⁹ McKinsey Electronics (2024). "The Future of Data Center Cooling: AI Innovations and Advanced HVAC Motor Technologies", 20 December 2024, retrieved from: <https://www.mckinsey-electronics.com/post/the-future-of-data-center-cooling-ai-innovations-and-advanced-hvac-motor-technologies>.

¹⁸⁰ Gov.uk (2025). "Prime Minister sets out blueprint to turbocharge AI", 13 January 2025, retrieved from: <https://www.gov.uk/government/news/prime-minister-sets-out-blueprint-to-turbocharge-ai>.

¹⁸¹ HM Government (2021). "Net Zero Strategy: Build Back Greener", October 2021, retrieved from: <https://assets.publishing.service.gov.uk/media/6194dfa4d3bf7f0555071b1b/net-zero-strategy-beis.pdf>.

¹⁸² Amazon Web Services (2025). "Clean Energy Accelerator", retrieved from: <https://aws.amazon.com/energy-utilities/clean-energy-accelerator/>.

¹⁸³ Cochrane, P. (2023). "Israeli-backed internet cable aims to link country to Saudi Arabia and Gulf States", *Middle East Eye*, 3 April 2023, retrieved from: <https://www.middleeasteye.net/news/israel-saudi-arabia-gulf-states-internet-cable-link>.

Though its current status is unclear, reviving TEAS is strategically important for the UK for several reasons. First, it would bolster the UK's AI growth initiatives by providing the high-speed, reliable data transfer essential for AI systems to function efficiently across regions. Second, it would reduce reliance on Chinese telecommunications infrastructure—countering its Digital Silk Road Initiative¹⁸⁴—which includes submarine cables, 5G, and AI investments. A secure and independent internet link would allow energy markets, financial trading, and strategic communications to operate without reliance on Chinese or potentially adversarial infrastructure. Third, it would enhance connectivity between Abraham Accords signatories. Importantly, it could also lay down important groundwork for a prospective Israel–Saudi normalisation deal.

The UK could leverage its diplomatic position to support the initiative in bilateral dialogues, bridging diplomatic gaps that emerged since 7 October 2023.

AI-Powered Cybersecurity for Energy Infrastructure

As critical energy assets become more reliant on technology, they are also exposed to more technical vulnerabilities. Spoilers are already taking advantage of this. Critical energy infrastructure is becoming the target of choice for both state-sponsored and ransomware-motivated hackers. Hence, in 2023, 90% of the biggest energy businesses experienced cyberattacks globally.¹⁸⁵ Aside from the financial burden—costing the UK energy sector up to 111 million GBP daily¹⁸⁶—these attacks jeopardise critical services such as electricity, gas, water, and food supplies, which can ignite socio-political unrest.

The UK's National Cyber Security Centre (NCSC)¹⁸⁷ warns that threats to critical infrastructure are enduring and significant, exacerbated by geopolitical tensions, particularly with Russia, China, and Iran. Integrating AI into energy systems escalates these risks. To strengthen cyber resilience, the UK must deepen cooperation with international allies facing similar threats as well as the private sector to develop advanced defence mechanisms capable of ensuring the operational stability of critical energy systems.

AI-powered cybersecurity solutions are emerging at the forefront of defence, enabling real-time threat detection and prevention. The UK can leverage existing collaborations in cybersecurity with GCC partners, Israel, and Morocco to develop AI-driven solutions tailored to the energy sector. Following the 7 October terrorist attacks, Israel, a long-standing cybersecurity leader and 'tier 1' cyber partner of the UK, refined its ability to respond to cyber emergencies. With extensive experience in securing strategic infrastructure during an emergency, it offers valuable know-how and sophisticated technologies¹⁸⁸ that can serve the UK and Abraham Accords countries alike.

Creating a joint UK–Abraham Accords cyber task force would strengthen energy defences. Partnering countries could exchange insights on attacker identities and share protection strategies. Collaboration could also explore co-developing AI-based intrusion detection systems specifically tailored to the MENA region's energy infrastructure. As this initiative deals with civilian infrastructure—a more politically palatable area of cybersecurity at present—it could potentially include Saudi Arabia, who, with its energy intensive economy, would be a significant beneficiary.

While cooperation in cybersecurity has been ongoing between AA signatories since the signing of the agreement (and covertly beforehand), this would offer partnering countries a unique

¹⁸⁴ Kurlantzick, J. (2020). "Assessing China's Digital Silk Road Initiative", *Council on Foreign Relations*, retrieved from: <https://www.cfr.org/china-digital-silk-road/>.

¹⁸⁵ Renewable UK (2025). "Growing cyber security threats in the energy sector and how businesses stay resilient", 5 March 2025, retrieved from: <https://www.renewableuk.com/news-and-resources/guest-blog/growing-cyber-security-threats-in-the-energy-sector-and-how-businesses-stay-resilient/>.

¹⁸⁶ Smart Energy (2020). "The true cost of cyberattacks", 27 January 2020, retrieved from: <https://www.smart-energy.com/features-analysis/the-true-cost-of-cyberattacks/>.

¹⁸⁷ National Cyber Security Centre (2023). "NCSC warns of enduring and significant threat to UK's critical infrastructure", 14 November 2023, retrieved from: <https://www.ncsc.gov.uk/pdfs/news/ncsc-warns-enduring-significant-threat-to-uks-critical-infrastructure.pdf>.

¹⁸⁸ Wrobel, S. (2025). "Israeli AI cybersecurity startup valued at \$1.1 billion after major funding round", *The Times of Israel*, 17 February 2025, retrieved from: <https://www.timesofisrael.com/israeli-ai-cybersecurity-startup-valued-at-1-1-billion-after-major-funding-round/>.

opportunity to bolster the protection of critical energy assets through a multilateral framework that includes the UK.

AI to Optimize Energy Systems

AI requires energy, and energy systems require AI. While developments in AI contribute towards increased energy demand and, consequently, carbon emissions, the technology's overall impact remains positive when applied to low-carbon technologies. In fact, AI is an integral part of the solutions used to mitigate its own negative effects.

Smart grids¹⁸⁹ are one visible application of AI's integration into energy systems. AI-powered technologies enhance multiple functions that reduce operational costs and environmental impact¹⁹⁰, including forecasting future energy demand and optimising energy distribution. They also enhance the overall lifespan of smart grids through threat detection and predictive maintenance. Importantly, AI can support the integration of renewable energy sources into power grids, which can be particularly useful for countries like Saudi Arabia and the UAE, where economic diversification strategies hinge on the expansion of renewable energy sources.

AI is also transforming the broader energy landscape by accelerating the adoption of low-carbon technologies¹⁹¹ in energy, food, and mobility—sectors responsible for half of global emissions. By 2035, AI is projected to reduce annual emissions in these industries by the equivalent of approximately 3-6 gigatons of CO₂ (GtCO₂e), exceeding the total annual emissions of the United States. In the energy sector alone, AI could cut emissions by roughly 1.8 GtCO₂e per year through improved renewable energy efficiency.¹⁹² AI-powered technologies optimise renewable energy systems (REs) such as solar, wind, and hydropower by refining resource forecasting using satellite imagery, sensor data, and weather models. DeepMind's AI technology¹⁹³, for example, has improved wind power forecasting by up to 20%. AI also optimises the management of energy storage systems, ensuring that excess renewable energy is stored efficiently for later use. By predicting periods of high and low generation, AI helps balance supply and demand by adjusting storage systems and ensuring energy availability during periods of low output.

A clear beneficiary of these technologies is Morocco¹⁹⁴, which increasingly relies on domestic production of renewable systems to reduce its reliance on energy imports. The North African country boasts some of the best solar and wind resources globally, such as the Noor-Ouarzazate Solar Complex, and is positioning itself as a renewable energy leader, planning to generate 52% of its energy from renewable sources by 2030. Integral to its strategy¹⁹⁵ is exporting renewable energy sources to Europe, where there is increased appetite for a substitute to Russian gas. The UK, in turn, is exploring undersea cables to import Moroccan solar and wind power that are expected to meet 8% of its energy needs by 2030.

¹⁸⁹ Kumar, R.S. et al. (2023). "Impact of artificial intelligence techniques in distributed smart grid monitoring system", *Smart Energy and Electric Power Systems*, retrieved from: <https://www.sciencedirect.com/science/article/abs/pii/B978032391664600005X#:~:text=This%20chapter%20proposes%20a%20comparative%20analysis%20of%20various,storage%20system%2C%20renewable%20energy%20integration%2C%20and%20energy%20security.>

¹⁹⁰ Marques, P.C. and Oliviera, P. (2024). "Artificial Intelligence Technologies Applied to Smart Grids and Management", July 2024, retrieved from: https://www.researchgate.net/publication/383142309_Artificial_Intelligence_Technologies_Applied_to_Smart_Grids_and_Management.

¹⁹¹ Stern, Lord N. and Romani, M. (2025). "What is AI's role in the climate transition and how can it drive growth?", *World Economic Forum*, 16 January 2025, retrieved from: <https://www.weforum.org/stories/2025/01/artificial-intelligence-climate-transition-drive-growth/#:~:text=1%20Power%20sector%3A%20AI%20enhances%20renewable%20energy%20efficiency%2C,adoption%20could%20reduce%20emissions%20by%20~0.6%20GtCO2e%20annually.>

¹⁹² Ukoba, K., Olatunji, K. and Madyira, D.M. (2024). "Optimizing renewable energy systems through artificial intelligence: Review and future prospects", 22 May 2024, retrieved from: <https://journals.sagepub.com/doi/10.1177/0958305X241256293>.

¹⁹³ Pennington, D. (2019). "Google and DeepMind bring machine learning and better efficiency to wind farms", *Techspot*, 27 February 2019, retrieved from: <https://www.techspot.com/news/78953-google-deepmind-bring-machine-learning-better-efficiency-wind.html#:~:text=According%20to%20Google%2C%20early%20tests%20of%20this%20machine,farms%20to%20within%20a%2010%25%20margin%20of%20error.>

¹⁹⁴ Bensalem, S. (2024). "Morocco's energy diversification", retrieved from: <https://www.ebsco.com/research-starters/power-and-energy/morocco-energy-diversification#:~:text=As%20of%202021%2C%20the%20country%20imported%20over%2091%25,energy%20sources%20such%20as%20solar%2C%20wind%2C%20and%20hydropower.>

¹⁹⁵ Josephs, J. (2023). "Can Morocco solve Europe's energy crisis?", *BBC News*, 4 May 2023, retrieved from: <https://www.bbc.co.uk/news/business-65415529>.

Like any dual-use technology, AI can support energy transition efforts but can also hinder them. Technological advancements have driven faster and cheaper oil production¹⁹⁶ by improving drilling efficiency and enabling exploration in previously unfeasible areas, leaving oil-rich countries to balance national net-zero strategies with private companies likely to capitalise on the advancements in the fossil fuel sector. Like in many industries integrating AI, oil and gas companies benefit from significant reductions in time and the costs of production, encouraging further investment and increasing the availability of fossil fuels on the market.

Countries grappling with the rising energy demands of AI are on the hunt for accessible energy, and nuclear energy is emerging as the solution.¹⁹⁷ Over 30 governments¹⁹⁸ and major tech giants¹⁹⁹ have expressed renewed interest in nuclear energy, aiming to triple global nuclear capacity by 2050 to sustain AI's energy requirements. For countries with relatively limited natural resources, such as Bahrain, Israel, and Morocco, these systems are particularly useful and can serve as an area for future partnership.

The UK is a key player in advancing clean energy technologies and, with its own ambitious energy targets, stands to gain from collaborating with its MENA partners across various areas.

Renewable Energy Technology Transfer

The Gulf has some of the world's most abundant solar and wind resources, yet it remains behind²⁰⁰ in deploying renewable energy. Although its solar potential is two to three times greater than much of Europe's, it contributes only 0.9% of global renewable energy output as of 2023. The UAE is a notable exception, leading the region with 4% of its electricity coming from renewable sources in 2021 and holding more than 60% of the region's renewable capacity. While all GCC countries have made strides in increasing their share of renewable energy sources, fossil fuels remain a dominant component of their energy mix. Significant efforts are required to close the gap between the region's renewable energy potential and its actual deployment.

For most GCC countries²⁰¹, the challenge lies not in green energy funding or national priorities but in a lack of technological capacity. Israel and Morocco, both with sophisticated solar technologies and experience with large-scale solar farms, can help the UAE, Bahrain, and perhaps even Saudi Arabia use their natural resources to create solar infrastructure. Combining Israel and Morocco's technological expertise—much of which is AI-based—with the GCC's access to capital could prompt innovative solutions for energy storage and grid integration. This would, in effect, address the intermittency challenges of renewable energy.

Aside from being a main beneficiary of such a partnership, Bahrain can also play a unique role within it. By leveraging its close ties with both Israel and Saudi Arabia, Manama can act as a potential testing ground for future Saudi-Israeli collaborations—particularly within the AA framework. With a small population and an early adopter approach to new technologies, it could serve as a litmus test for small-scale AI projects, which, if successful, can be more easily implemented in the larger Saudi market. Bahrain could become a unique pathway for AI-driven Israeli ventures to access Saudi markets until the potential normalisation of Israeli-Saudi ties. Not only would this support Bahrain's own tech ecosystem, but it could also gain diplomatic credit for advancing regional cooperation.

¹⁹⁶ Dang, S. and McCartney G. (2025). "AI leading to faster, cheaper oil production, executives say", *Reuters*, 13 March 2025, retrieved from: <https://www.reuters.com/business/energy/ceraweek-ai-leading-faster-cheaper-oil-production-executives-say-2025-03-13/>.

¹⁹⁷ Walther, C.C. (2025). "The AI-Fueled Nuclear Renaissance. Are We Losing Our Biggest Bet?", *Forbes*, 17 March 2025, retrieved from: <https://www.forbes.com/sites/corneliawalther/2025/03/17/the-ai-fueled-nuclear-renaissance-are-we-losing-our-biggest-bet/>.

¹⁹⁸ Stanway, D. and Gardner T. (2023). "Nuclear sector must overcome decades of stagnation to meet COP28 goal", *Reuters*, 7 December 2023, retrieved from: <https://www.reuters.com/sustainability/climate-energy/nuclear-sector-must-overcome-decades-stagnation-meet-cop28-tripling-goal-2023-12-07/>.

¹⁹⁹ Manuel, O. and Inskeep, S. (2024). "Bill Gates is going nuclear: How his latest project could power U.S. homes and AI", *NPR*, 14 June 2024, retrieved from: <https://www.npr.org/2024/06/14/nx-s1-5002007/bill-gates-nuclear-power-artificial-intelligence>.

²⁰⁰ Sim, L.C. and Young, K.E. (2024). "Solar Power in the Gulf: Leaders and Laggards in Regulatory Support for Solar Power Deployment", *Middle East Institute*, December 2024, retrieved from: <https://mei.edu/sites/default/files/2024-12/Solar%20Power%20in%20the%20Gulf%20-%20Leaders%20and%20Laggards%20in%20Regulatory%20Support%20for%20Solar%20Power%20Deployment.pdf>.

²⁰¹ Morgan, O. (2024). "The Abraham Accords and a Sustainable Middle East", *The Sycamore Institute*, 29 January 2024, retrieved from: <https://www.sycamoreinstitute.org/post/the-abraham-accords-and-a-sustainable-middle-east>.

The UK can take on key roles in these partnerships, including harmonising regulatory frameworks and facilitating the training needed to deploy and manage new technologies in different markets. Given its deep-rooted ties to the MENA region's energy sector, the UK is uniquely positioned to drive this transition, which would, in turn, strengthen its commercial and diplomatic presence in the region.

Morocco, Israel, and the UK also stand to gain from a trilateral cooperation framework that leverages AI-driven Israeli innovations to address challenges at Noor Ouarzazate Solar Park. The UK could serve as a mediator, much like the UAE did in the Israel-Jordan water-for-solar energy deal²⁰², by providing the regulatory and financial framework necessary for collaboration. This would showcase the UK's ability to drive pragmatic cooperation in the region while positioning Morocco as a regional leader in renewable energy, and deepening Israel's economic and diplomatic ties with its North African ally.

Energy Management and Smart Grid Consortium

International Energy Agency projections²⁰³ show that in order for the world's energy industry to achieve zero net carbon emissions by 2050, investment in electricity grids will need to average around 600 billion USD (459 billion GBP) each year until 2030. Achieving such an objective requires a host of public-private and cross-border collaborations, and the UK can position itself at the forefront of this transition.

To support national net-zero initiatives *and* AI growth strategies, the UK could lead a smart grid consortium with the public and private sectors of its AA allies, who offer advanced smart grid and AI technologies. Leveraging the UK's leadership in smart grids²⁰⁴—including its Smart Grid Forum—the consortium could develop scalable, AI-powered solutions for grid optimisation, predictive maintenance, and decentralised energy management. These innovations would be critical in overcoming challenges associated with integrating renewable energy sources into existing power grids.

Israel, a leader in AI-powered smart grid technologies²⁰⁵, can contribute through start-ups like mPrest and Powercom²⁰⁶, offering innovative solutions to its AA partners. Meanwhile, the UK can strengthen bilateral and multilateral energy ties by building on existing strategic partnerships, such as the 2023 MoU with the Emirates Nuclear Energy Corporation (ENEC) on nuclear technologies and the 2021 UK-UAE Memorandum of Cooperation on hydrogen and renewables, which lay the foundation for future UAE-Israel-UK collaborations. Similarly, the UK-Morocco Green AI Partnership²⁰⁷ could focus on integrating Morocco's clean energy capacity with AI-driven grid solutions.

Like the UAE, Saudi Arabia is experiencing similar obstacles with integrating renewable energies into its fossil-fuel-based grids and could benefit from Israel's expertise. Bahrain and the UAE could act as a corridor for Israeli technologies to reach Saudi Arabia, which is a difficult task in the absence of formal diplomatic ties in the current geopolitical context. The UAE and Bahrain are also well known for their swift and frictionless implementation of new technologies, acting as an attractive testing ground for new solutions that align with their smart grid strategies²⁰⁸, which could then be scaled to the larger and more complex Saudi market. With established ties between

²⁰² The Times of Israel (2021). "Israel, Jordan sign huge UAE-brokered deal to swap solar energy and water", 22 November 2022, retrieved from: <https://www.timesofisrael.com/israel-jordan-sign-uae-brokered-deal-to-swap-solar-energy-and-water/>.

²⁰³ International Energy Agency (2025). "Electricity 2025", February 2025, retrieved from: <https://www.iea.org/reports/electricity-2025>.

²⁰⁴ Gov.uk (2014). "Factsheet on Smart Grid Development in the UK", 20 June 2014, retrieved from: <https://www.gov.uk/government/publications/factsheet-on-smart-grid-development-in-the-uk>.

²⁰⁵ Israel Ministry of Economy and Industry (2025). "Israel Trade and Economic Mission to Ghana", retrieved from: <https://itrade.gov.il/ghana/2025/03/13/smart-grids-and-ai-how-israel-is-powering-the-future-of-electricity/>.

²⁰⁶ Ibid.

²⁰⁷ Kingdom of Morocco Ministry of Foreign Affairs African Cooperation and Moroccan Expatriates (2023). "The governments of Morocco and the United Kingdom signed, on May 09, 2023 in Rabat, a Strategic Framework for Cooperation on climate action, clean energy and green growth.", 9 May 2023, retrieved from: <https://diplomatie.ma/en/morocco-and-uk-sign-strategic-framework-cooperation-climate-action-clean-energy-and-green-growth>.

²⁰⁸ Dubai Electricity & Water Authority (2022). "DEWA implements its Smart Grid Strategy 2021-2035", 19 April 2022, retrieved from: <https://www.dewa.gov.ae/en/about-us/media-publications/latest-news/2022/04/dewa-implements-its-smart-grid-strategy-2021-2035>.

both nations, the UK can support these efforts by acting as a diplomatic umbrella for B2B partnerships, effectively paving the way for the eventual normalisation of relations.

Green hydrogen presents a significant opportunity to enhance grid integration, particularly in regions facing challenges with renewable energy storage and distribution. As a flexible and scalable solution, it can store excess renewable energy and convert it back to balance supply and demand when needed. Israeli innovation, particularly from start-ups like H2Pro known for cost-effective green hydrogen production, could support Gulf partners in their energy transitions, including major projects like NEOM, while streamlining Morocco's green hydrogen value chain and optimising its exports to the EU.

Through a UK-AA Smart Grid Consortium, the UK could help accelerate the deployment of cutting-edge energy solutions that meet the region's growing demands for AI-driven technologies and renewable energy integration.

Conclusion

At the height of a global AI arms race and clean energy transition, the UK is in a pivotal moment to proactively advance its strategic interests through AI diplomacy in energy and technology. Answers to its domestic energy challenges and broader geopolitical interests can both be found in the MENA region. Bahrain, Israel, Morocco, and the UAE can, separately and combined, support two of the UK's most ambitious objectives: becoming a clean energy and AI superpower. They offer valuable propositions in critical minerals, AI-supporting infrastructure development, and clean energy systems—three necessities for a clean energy transformation.

While outside the scope of this chapter, it is important to note that AI has broader applications within the energy sector that can also serve as potential areas for collaboration. It can, for example, reduce carbon emissions by optimising technologies across 'impact industries' like agriculture, sanitation, transportation, construction, and waste management. Some of the MENA's most pressing challenges—such as water scarcity and extreme heat—could be addressed through a collaborative AI effort in these spheres. AI also supports systemic shifts by improving climate modelling and informing climate policy, as well as enhancing carbon credit and renewable energy trading markets.

Opportunities for collaboration are many, but time is of the essence. As China increasingly asserts its influence in the MENA region, it is imperative that the UK deepen its ties with regional allies. It could strengthen its regional alliance network by taking on the much-needed role of mediator in reviving post-7 October 2023 relations between Israel and the Arab world. Through targeted investment and crafty diplomacy, Britain can position itself as a leader in renewable energy technologies while strategically shaping regional power dynamics.

III. Health Technology

By Uri Inspector

Overview

Soaring costs and chronic disease burdens, aging populations, workforce shortages and the impact of COVID-19 have stretched global healthcare systems to a breaking point. Facing unprecedented strains on traditional care delivery models, governments, providers and regulators are betting on the burgeoning applications of AI in healthcare to drive cost efficiencies and improve population health.

Catalysed by the vast growth of available clinical, genomic and demographic data, AI systems have been deployed to enhance diagnosis and medical imaging, to better predict patient outcomes, to perform precision surgery via robotics and to expedite drug discovery.²⁰⁹ The data are promising. AI algorithms have achieved up to 96% accuracy in cancer diagnoses, outperforming the 70% accuracy of traditional methods, while reducing diagnosis errors by 25–30%.²¹⁰ Recent analysis shows that AI could reduce preclinical drug development time and costs by 25–50%.²¹¹

Leading hospitals are using AI to automate routine admin tasks that consume up to 70% of clinicians' time.²¹² AI voice transcription alone is saving doctors up to three hours daily. AI 'command centres' at US hospitals have cut patient transfers by 60%, emergency waits by 25%, and post-surgical bed stays by 70%, some generating 40 million USD (30.6 million GBP) in efficiency savings.²¹³

Amid chronic financial strain and runaway demand in the NHS, it is no surprise that successive UK governments have leapt at the opportunities presented by the AI healthcare revolution. Under Rishi Sunak, the UK invested 100 million GBP in the AI Life Sciences Accelerator Mission, launching eight NHS–industry–university joint ventures.²¹⁴ New health secretary Wes Streeting vows to make the UK a 'medical technology superpower' as a lever for growth.²¹⁵ Prime Minister Sir Keir Starmer has pledged to harness vast NHS patient data to develop AI tools for care, diagnostics, and hospital management. With missed appointments costing 1 billion GBP yearly, he sees AI—via an NHS federated data platform—as key to streamlining services. The platform has already enabled 114 more patients to be treated each month.²¹⁶

Founded in 2019, the NHS AI Lab drives the testing, evaluation, and scaling of AI technologies for healthcare integration. In 2023, the Lab's 21 million GBP AI Diagnostic Fund was launched to equip the NHS with AI tools for detecting cancer and heart disease, including automated lung cancer screening. The lab's Artificial Intelligence in Health and Care Award provided 113 million GBP to 83 AI healthcare projects. The Lab is also developing a National AI Strategy for Health and Social Care, shaping the ethical and regulatory aspects of healthcare AI adoption through 2030.

²⁰⁹ Alowais, S.A., Alghamdi, S.S., Alsuhbany, N. et al. (2023). "Revolutionizing Healthcare: The Role of Artificial Intelligence in Clinical Practice," *BMC Medical Education* 23, retrieved from: <https://bmcmmeduc.biomedcentral.com/articles/10.1186/s12909-023-04698-z#Abs1>. Bajwa, J., Munir, U., Nori, A. and Williams, B. (2021). "Artificial Intelligence in Healthcare: Transforming the Practice of Medicine," *Future Healthcare Journal*, 8(2), July 2021, retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8285156/>.

²¹⁰ Esteve, A., Kuprel, B. Novoa, R.A. et al. (2017). "Dermatologist-Level Classification of Skin Cancer with Deep Neural Networks." *Nature* 542, retrieved from: <https://www.nature.com/articles/nature21056>; National Academy of Medicine (2022). "Artificial Intelligence in Health Care: The Hope, the Hype, the Promise, the Peril", Washington, DC: The National Academies Press.

²¹¹ Wellcome Trust (2023). "Unlocking the Potential of AI in Drug Discovery", retrieved from: https://cms.wellcome.org/sites/default/files/2023-06/unlocking-the-potential-of-ai-in-drug-discovery_report.pdf.

²¹² McKinsey & Company (2025). "Transforming Healthcare with AI," 10 March 2020, retrieved from: <https://www.mckinsey.com/industries/healthcare/our-insights/transforming-healthcare-with-ai>.

²¹³ "Can Artificial Intelligence Make Health Care More Efficient?" *The Economist*, March 27, 2024. Retrieved from: <https://www.economist.com/technology-quarterly/2024/03/27/can-artificial-intelligence-make-health-care-more-efficient?>

²¹⁴ Gov.uk, Department for Science, Innovation and Technology, Department of Health and Social Care (2023). "New £100 Million Fund to Capitalise on AI's Game-Changing Potential in Life Sciences and Healthcare," 29 October 2023., retrieved from: <https://www.gov.uk/government/news/new-100-million-fund-to-capitalise-on-ai-game-changing-potential-in-life-sciences-and-healthcare>.

²¹⁵ Gov.uk, Department of Health and Social Care (2024). "Independent Investigation Ordered into State of NHS," 11 July 2024, retrieved from: <https://www.gov.uk/government/news/independent-investigation-ordered-into-state-of-nhs>.

²¹⁶ Smyth, C. (2025). "Artificial Intelligence Scans to Be Used in NHS Hospitals to Spot Illness," *The Times*, 13 2025, retrieved from: <https://www.thetimes.com/uk/politics/article/artificial-intelligence-scans-nhs-hospitals-illness-jq6lc676c>.

Early NHS AI trials in radiology have cut reporting times by 30% and significantly improved stroke detection.²¹⁷ In 2025, the NHS launched an 11 million GBP trial of the EDITH AI system for breast cancer screening, allowing a single specialist to assess mammograms instead of two.²¹⁸ AI could save the NHS 12.5 billion GBP annually by freeing staff time, and this is already visible; British start-up Cera's AI home care platform is saving 1 million GBP per day by preventing hospital admissions, with potential annual savings of 1 billion GBP if scaled nationwide.²¹⁹

Powered by the Oxford–Cambridge–London ‘golden triangle’, the UK is a global bio research powerhouse led by a dynamic private sector. DeepMind’s AlphaFold, developed by UCL researchers and now owned by Google, revolutionised protein structure prediction and won a Nobel Prize.²²⁰ DeepMind has a long-term collaboration with London’s Moorfields Hospital concerning AI analysis of eye scans.²²¹ Meanwhile, Oxford’s Exscientia raised \$70 million from the Gates Foundation and signed a 1.2 billion USD (920 million GBP) deal with Bristol Myers Squibb, highlighting UK health tech’s global health impact.²²²

How AI is Transforming Healthcare in the Middle East

As global healthcare undergoes a transformative shift, the UK’s Middle Eastern allies are moving decisively with the tide. In their quest for diversified economies and technological prowess, AI-driven healthcare innovation is a strategic priority for Abraham Accords signatory countries and the Kingdom of Saudi Arabia alike.

Saudi Vision 2030’s Healthcare Transformation Program targets full AI integration in healthcare by 2030 and nationwide digital medical records by 2025.²²³ The Crown Prince has announced a 65 billion USD (49.7 billion GBP) investment in healthcare infrastructure development geared towards telemedicine, health analytics, and mobile health. Recent milestones include the opening of Seha Virtual Hospital in Riyadh in 2022, the world’s largest virtual hospital, as well as King Faisal Specialist Hospital’s performance of the world’s first fully robotic liver and heart transplants.²²⁴

The UAE has made health tech central to its ‘Centennial 2071’ vision, aiming for world-class care and global medical tourism leadership. AI is key, with the ‘AI Strategy 2031’ prioritising healthcare and the ‘4th Industrial Revolution Strategy’ promoting robotic and wearable medical technologies.²²⁵ Since 2014, the government has poured over 2.15 billion USD (1.64 billion GBP) into AI and machine learning-driven healthcare solutions, underscoring a commitment to digital transformation in medicine. In 2022,

²¹⁷ NHS England (2024). “The Innovation Ecosystem Programme – How the UK Can Lead the Way Globally in Health Gains and Life Sciences Powered Growth,” 25 November 2024, retrieved from: <https://www.england.nhs.uk/long-read/the-innovation-ecosystem-programme/>.

²¹⁸ Gov.uk, Department of Health and Social Care, Department for Science, Innovation and Technology (2025). “World-Leading AI Trial to Tackle Breast Cancer Launched,” 13 February 2025, retrieved from: <https://www.gov.uk/government/news/world-leading-ai-trial-to-tackle-breast-cancer-launched>.

²¹⁹ Taylor, P. (2024). “Healthcare AI from Cera Could Save NHS and UK £1bn a Year,” *Pharmaphorum*, 3 May 2024, retrieved from: <https://pharmaphorum.com/news/healthcare-ai-cera-could-save-nhs-and-uk-ps1bn-year>.

²²⁰ Peel, M. and Murgia, M. (2024). “Google DeepMind Duo Share Nobel Chemistry Prize with US Biochemist,” *Financial Times*, 9 October 2024, retrieved from: <https://www.ft.com/content/ba14c3a1-ac8e-42b9-a5ba-9d73cc1fff4c>.

²²¹ Moorfields Eye Hospital NHS Foundation Trust (2025). “Google DeepMind: A medical research partnership revolutionising the way professionals carry out eye tests, leading to earlier detection of common eye diseases,” retrieved from: <https://www.moorfields.nhs.uk/research/google-deepmind>.

²²² Wodecki, B. (2022). “AI Drug Discovery Startup Exscientia Secures \$70M Gates Foundation Deal to Research COVID Therapeutics,” *AI Business*, 28 January 2022, retrieved from: <https://aibusiness.com/verticals/ai-drug-discovery-startup-exscientia-secures-70m-gates-foundation-deal-to-research-covid-therapeutics>.

²²³ Saudi Arabia Vision 2030 (2025). “Health Sector Transformation Program,” retrieved from: <https://www.vision2030.gov.sa/en/explore/programs/health-sector-transformation-program>; Zawya (2024). “Saudi Arabia to Integrate AI Across the Healthcare Sector by 2030,” 10 June 2024, retrieved from: <https://www.zawya.com/en/business/healthcare/saudi-arabia-to-integrate-ai-across-the-healthcare-sector-by-2030-hqu6q6zl>.

²²⁴ King Faisal Specialist Hospital & Research Centre (2024). “KFSHRC Performs the World’s First Fully Robotic Heart Transplant,” 9 December 2024, retrieved from: <https://www.kfshrc.edu.sa/en/news/2024/09/kfshrc-performs-the-worlds-first-fully-robotic-heart-transplant>.

²²⁵ UAE (2023). “UAE Centennial 2071,” 14 June 2023, retrieved from: <https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/innovation-and-future-shaping/uae-centennial-2071>; Benito, A. (2024). “The UAE emerges as a global leader in AI, driving innovation and future technology,” *CIO*, 26 November 2024, retrieved from: <https://www.cio.com/article/3612893/the-uae-emerges-as-a-global-leader-in-ai-driving-innovation-and-future-technology-2.html>; UAE (2023). “The UAE’s Fourth Industrial Revolution (4IR) Strategy,” 7 November 2023, retrieved from: <https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/government-services-and-digital-transformation/the-uae-strategy-for-the-fourth-industrial-revolution>.

the healthcare arm of Abu Dhabi's sovereign wealth fund, Mubadala, merged with AI giant G42 Healthcare to create M42, a huge AI-led healthcare corporation.²²⁶

AI healthcare innovation is also driving international investment in the UAE. In 2023, the Ministry of Health partnered with US analytics giant SAS to launch the country's first AI Healthcare Centre of Excellence, which has applied AI to streamline clinical licensing, transplant matching, radiology diagnostics, pharmaceutical stock management and public health analytics.²²⁷ PureHealth, the UAE's largest healthcare provider, is partnering with Dell Technologies to use generative AI for early diagnosis, data analysis, and personalised care.²²⁸

As part of 'Digital Morocco 2030', Morocco is investing 1.1 billion USD (840 million GBP) to digitise public services and position itself as North Africa's tech hub. In 2025, Rabat announced plans to digitise children's health records for automated vaccination coordination. AI use in healthcare has grown 15% annually since 2018, with 5% of major hospitals adopting robotic surgery. Casablanca's Clinique Dar Salam cut breast cancer diagnosis time from 20 to 3 minutes using AI imaging, while leading private healthcare provider AKDITAL has partnered with French firm Dassault Systèmes to integrate machine learning into its services, including digital twin organ modelling.²²⁹

Health tech firms account for 25% of Israel's vaunted start-up ecosystem, encompassing 1,600+ start-ups and over 70 innovation hubs. Israel consistently ranks near the top of the Global Healthcare Innovation Index, driven by first-rate talent, research institutions, government support and a fully digital, interoperable health record system—a goldmine for AI firms.²³⁰ Israel's health AI start-ups are cutting costs through efficiency and preventative care. In a Harvard-backed trial, MedAware saved 1.3 million USD (1 million GBP) at two hospitals by catching prescription errors—potentially saving hundreds of millions nationwide.²³¹

The Israel Innovation Authority (IIA), the government's support and investment arm for R&D, launched a 256 million USD (196 million GBP) National Digital Health Program to advance health technology. The IIA has since spearheaded such initiatives as AION Labs, an incubator for AI-driven drug discovery start-ups formed alongside Amazon Web Services, AstraZeneca, Merck, Pfizer and Israel's own Teva Pharmaceuticals.²³² Other leading pharmaceutical companies, such as Britain's GSK, host AI R&D centres in Israel. The IIA's 'International Health-Tech Partnership' links Israeli start-ups with top global hospitals like Mayo Clinic and the UK's NHTA to fast-track tech deployment. In December 2024, it launched a 36 million USD (27.5 million GBP) Bio-Convergence lab to develop AI-driven biochips, diagnostics, and smart implants—positioning biotech as a key 'growth engine'.²³³

Israel's Sheba Medical Center, ranked the world's eighth-best hospital, hosts the 'ARC Innovation Center', where doctors, researchers, and start-ups collaborate on AI-driven diagnostics, remote healthcare and robotics. ARC has introduced fully digital patient rooms to Sheba, with real-time AI monitoring, easing burdens on medical staff. It has deployed Israeli med-tech in US hospitals. A recent

²²⁶ G42 (2022). "G42 Healthcare and Mubadala Health Join Forces," 6 October 2022, retrieved from: <https://www.g42.ai/resources/news/g42-healthcare-and-mubadala-health-join-forces>.

²²⁷ TTP Media Group (2023). "UAE Ministry of Health launches Centre of Excellence for AI in healthcare", 23 October 2023, retrieved from: <https://www.itp.net/industry/uae-ministry-of-health-launches-centre-of-excellence-for-ai-in-healthcare#:~:text=UAE%20Ministry%20of%20Health's%20Centre%20of%20Excellence%20for%20AI&text=The%20first%20is%20licensing%20medical,apply%20for%20medical%20facility%20licenses>.

²²⁸ PureHealth (2023). "PureHealth Partners with Dell Technologies to Utilise Generative AI to Further Enhance Healthcare Services in Abu Dhabi," 3 November 2023, retrieved from: <https://purehealth.ae/purehealth-partners-with-dell-technologies-to-utilise-generative-ai-to-further-enhance-healthcare-services-in-abu-dhabi/>.

²²⁹ Idaomar, C., Idaomar, D., Hannaoui, M. et al. (2024). "Applications of Artificial Intelligence in Morocco's Healthcare Sector: A Springboard to Medical Excellence," *Journal of Computer and Communications*, 12(9), September 2024, retrieved from: <https://www.scirp.org/journal/paperinformation?paperid=135983>; 7News Morocco (2024). "Moroccan Healthcare Advances with AKDITAL and Dassault's 'Digital Twin' Technology," 12 November 2024., retrieved from: <https://en.7news.ma/moroccan-healthcare-advances-with-akdital-and-dassaults-digital-twin-technology/>.

²³⁰ FreOpp (2024). "World Index of Healthcare Innovation," retrieved from: <https://freopp.org/world-index-of-healthcare-innovation/>.

²³¹ Shemer, S. (2020). "Israeli Medtech Startup MedAware, Harvard Show AI Reduces Prescription Errors," *NoCamels*, 20 January 2020, retrieved from: <https://nocamels.com/2020/01/medtech-medaware-israel-startup-harvard-patient-safety/>.

²³² Sheeran, D., and Spigelman, G. (2021). "AWS Joins Pharma and Biotech Leaders in Launching AION Labs to Transform Therapeutics," 13 October 2021, retrieved from: <https://aws.amazon.com/blogs/industries/aws-joins-pharma-and-biotech-leaders-in-launching-aion-labs-to-transform-therapeutics/>.

²³³ Israel Innovation Authority (2025). "Israel Innovation Authority Announces Investment of NIS 75 Million to Establish Groundbreaking Research and Development Lab for Bio-Devices and Bio-Chips," 13 January 2025, retrieved from: https://innovationisrael.org.il/en/press_release/nis-75-million-for-new-groundbreaking-bio-devices-and-bio-chips-lab/.

partnership with Baptist Health South Florida created a yearly competition rewarding Israeli start-ups that streamline hospital administration with contracts with American hospitals, funding, and mentorship.²³⁴ The inaugural winner, CatAI, efficiently extracts medical data from smartphone cameras, facilitating remote patient monitoring.²³⁵ In March 2025, ARC launched three new 'AI Centers for Hospital Care', including the world's first AI-powered emergency department and an 'AI Academy' to train clinicians in AI applications.²³⁶

AI pervades Bahrain's Economic Vision 2030 and the Digital Government Strategy 2022, with healthcare as a sector focus. In 2020, Bahrain became the first GCC country to use sophisticated hospital robots to reduce staff exposure to COVID-19 by 80%, and the kingdom's Ministry of Health has since pledged to further integrate robotics into nursing care.²³⁷ In January 2023, the King Hamad American Mission Hospital was inaugurated in Manama, described as a 'futuristic, smart hospital, technology-enabled to create a holistic healing environment'.²³⁸

Tamkeen, Bahrain's labour fund, has partnered with the Royal College of Surgeons in Ireland to introduce a Large Language Model for simulating case studies with virtual patients for Bahraini medical students. The Kingdom has prioritised innovation in telemedicine and remote consultations, becoming the first country to connect to Saudi Arabia's Seha network, and has leveraged its strong IT infrastructure to deploy mobile health apps and digitise health records.²³⁹

The Challenges of AI Healthcare Integration

Despite boundless enthusiasm from policy elites, various local hurdles have curtailed the potential of the healthcare revolution. Regulatory and workforce issues, infrastructure limitations and cultural barriers have hamstrung the deployment of AI in hospitals and clinics; Recognising and addressing these challenges is crucial for harnessing the transformational promise of AI in healthcare.

MENA countries all face similar regulatory setbacks. While each country has made progress, the absence of clear, dedicated legal frameworks creates uncertainty for clinicians and innovators. In Israel, AI-enabled medical tools are regulated under traditional medical device laws, leaving innovators to navigate a patchwork approval process without clear standards for algorithm validation.²⁴⁰ In Saudi Arabia and Morocco, AI healthcare tools are still regulated under outdated general medical device laws. In the UAE, AI governance is fragmented across federal, ministerial, and emirate-level policies.²⁴¹ Without harmonised, sector-specific rules, innovators face ambiguity around algorithm standards, slowing the adoption of new technologies.

Successfully deploying AI in a hospital requires clinicians who understand how to interpret AI outputs, technicians to maintain the systems, and data experts to fine-tune algorithms. Arab countries currently lack sufficient local expertise in these areas, thus relying overwhelmingly on expatriates and external

²³⁴ Start-Up Nation Central (2023). "The First-Ever Hospital2Hospital Tech Challenge: Start-Up Nation Central Joins Forces with U.S.-Based Baptist Health South Florida and ARC Innovation at Sheba Medical Center to Launch Tech Challenge," 25 June 2023, retrieved from: <https://startupnationcentral.org/hub/news/the-first-ever-hospital2hospital-tech-challenge-start-up-nation-central-joins-forces-with-u-s-based-baptist-health-south-florida-and-arc-innovation-at-sheba-medical-center-to-launch-tech-challenge/>.

²³⁵ Start-Up Nation Central (2023). "Start-Up Nation Central Announces CatAI Is Winner of Hospital2Hospital Clinical Capacity Tech Challenge with U.S.-Based Baptist Health South Florida, Sheba ARC Innovation, and TriVentures," 19 September 2023, retrieved from: <https://startupnationcentral.org/hub/news/start-up-nation-central-announces-catai-is-winner-of-hospital2hospital-clinical-capacity-tech-challenge-with-u-s-based-baptist-health-south-florida-sheba-arc-innovation-and-triventures/>.

²³⁶ Spiro, J. (2025). "Sheba Medical Center Unveils Three New AI Centers for Hospital Care," *CTech*, 6 March 2025, retrieved from: <https://www.calcalistech.com/ctechnews/article/r1snomdjkl>.

²³⁷ McArthur, R. (2020). "Trial of Medical Robots Proving Successful in Bahrain," *Healthcare IT News*, 28 May 2020, retrieved from: <https://www.healthcareitnews.com/news/emea/trial-medical-robots-proving-successful-bahrain>.

²³⁸ Bahrain News Agency (2023). "HRH the Crown Prince and Prime Minister Inaugurates the King Hamad American Mission Hospital," 26 January 2023, retrieved from: [The Jerusalem Post, 19 January 2023, retrieved from: <https://www.jpost.com/health-and-wellness/article-729985>.](https://www.bna.bh/en/HRHtheCrownPrinceandPrimeMinisterinauguratesTheKingHamadAmericanMissionHospital.aspx?cms=q8FmFJgiscL2fwIzON1%2BDgdhHHmPFSM91MUg1BoDuno%3D; Siegel-Itzkovich, J. (2023).)

²³⁹ Arab News (2022). "Bahrain to Be First to Connect with Saudi Arabia's Seha Virtual Hospital," 24 June 2022, retrieved from: <https://www.arabnews.com/node/2110306/saudi-arabia>.

²⁴⁰ Bareket, E. and Cohen, Adv. A. (2025). "Israel: Digital Health Laws and Regulations 2024," *International Comparative Legal Guides*, 4 March 2025, retrieved from: <https://iclg.com/practice-areas/digital-health-laws-and-regulations/israel>.

²⁴¹ Mansour, T. and Bick, M. (2024). "How can physicians adopt AI-based applications in the United Arab Emirates to improve patient outcomes?" *Digit Health*, 27 September 2024, retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC11440542/>.

vendors. Surveys show Saudi and Bahraini clinicians lack confidence in using and trusting AI tools.²⁴² Many Israeli doctors lack the digital skills to use the advanced AI tools the ‘Start-Up Nation’ produces.²⁴³ This is mirrored in the UK, where reviews routinely find that NHS staff need more training to understand and use AI systems.²⁴⁴ Professionals in the UAE, UK, and Israel worry about AI accountability and transparency—who is liable for misdiagnosis errors? How do algorithms arrive at decisions?²⁴⁵

Different nations face differing obstacles. Morocco’s weak data infrastructure limits AI adoption, especially in rural areas where many clinics remain paper-based and lack reliable IT or internet for advanced systems.²⁴⁶ In contrast, the UAE has made great strides in IT. Abu Dhabi’s Malaffi, launched in a partnership between the Health Ministry, Mubadala and US firm InterSystems, has created the region’s first health information exchange platform, enabling providers to securely access and share patient data.²⁴⁷ However, data remains fragmented across different emirates, rendering seamless integration and true interoperability elusive.

An almost identical challenge is faced in the UK; while the NHS wields vast datasets, legacy IT systems and siloed data across disparate Trusts impede AI integration. This was made clear during MENAF’s interviews with health tech start-up founders. Outdated or incompatible electronic records make it difficult for hospitals to deploy AI tools or integrate them into workflows. This fragmentation inhibits the development of AI models, which rely on unified, high-quality data.

Data infrastructure is a key area where Israel can offer valuable leadership. Its decades-long use of fully digital, interoperable health records across the entire healthcare system—anchored by a cradle-to-grave public HMO model—has created a rich, unified data repository ideally suited for feeding AI development.

Some argue that strict data protection laws and strong public privacy expectations are also limiting AI development. The UK’s GDPR, like Saudi’s Personal Data Protection Law and the UAE Health Data law impose strict requirements that threaten the pace of innovation.²⁴⁸ In Israel, a major 2024 amendment to the Privacy Protection Law introduced stricter compliance duties for health data handlers.²⁴⁹ This will force companies to invest in de-identification and cybersecurity, and navigate consent requirements. Israeli researchers report facing hurdles in using historical health datasets because obtaining informed consent for AI research on legacy data is logistically complex.²⁵⁰

Global public pressure is intensifying legislative scrutiny. Past incidents—such as an NHS trust sharing 1.6 million patient records with Google’s DeepMind without proper consent—have raised public concern over data misuse in the UK.²⁵¹ As a result, developers face cautious data governance processes and must build robust privacy safeguards, which can slow experimentation and deployment.

Surmounting such barriers will require a holistic approach: strong data governance, human capital development and active trust-building. These challenges are best addressed through international

²⁴² Alsaedi, A.R. et al. (2024). “Perceived Worries in the Adoption of Artificial Intelligence Among Healthcare Professionals in Saudi Arabia: A Cross-Sectional Survey Study,” *Nursing Reports*, 28 November 2024, retrieved from: <https://www.mdpi.com/2039-4403/14/4/271>; AlSairafi, N. and AlMoosa, Z. (2023). “Artificial Intelligence in Health Care: Enhancing Efficiency in the Kingdom of Bahrain,” *Bahrain Medical Bulletin* 45 (3), September 2023, retrieved from: https://bahrainmedicalbulletin.com/Sep_2023/BMB-22-362.pdf.

²⁴³ Startup Nation Central (2023). “Global Health Challenges Meet Israeli Health Tech Solutions,” 20 July 2023, retrieved from: <https://startupnationcentral.org/hub/blog/global-health-challenges-meet-israeli-health-tech-solutions/>.

²⁴⁴ Thornton, N., Hardie, T., Horton, T. et al. (2024). “Priorities for an AI in Health Care Strategy,” 26 June 2024, retrieved from: <https://www.health.org.uk/reports-and-analysis/briefings/priorities-for-an-ai-in-health-care-strategy>.

²⁴⁵ Mansour and Bick (2024). “How can physicians adopt AI-based applications in the United Arab Emirates to improve patient outcomes?”

²⁴⁶ Intelligence Artificielle Maroc. “AI in Moroccan Healthcare: Innovations and Challenges,” 10 January 2024, retrieved from: <https://www.intelligenceartificiellemaroc.com/en/blog/ai-in-moroccan-healthcare-innovations-and-challenges/>.

²⁴⁷ Mansour and Bick (2024). “How can physicians adopt AI-based applications in the United Arab Emirates to improve patient outcomes?”

²⁴⁸ Healthcare World (2024). “Healthcare and AI in the Kingdom of Saudi Arabia,” 18 December 2024, retrieved from: <https://healthcareworld.com/healthcare-and-ai-in-the-kingdom-of-saudi-arabia/>.

²⁴⁹ Novogroder-Shoshan, Y., and Tavory, T. (2025). “Medical Data Privacy: Practical Implications of Israel’s Privacy Law Amendment for Life Science Companies,” *Arnon, Tadmor-Levy*, 27 February 2025, retrieved from: <https://arnontl.com/news/medical-data-privacy-practical-implications-israels-privacy-law-amendment-life-science-companies/>.

²⁵⁰ Ravia, H. (2018). “Challenges to AI Medical Research under Israeli Law,” *Pearl Cohen*, 3 August 2023, retrieved from: <https://www.pearlcohen.com/challenges-to-ai-medical-research-under-israeli-law/>.

²⁵¹ Hern, A. (2017). “Google DeepMind 1.6m Patient Record Deal ‘Inappropriate’ – Data Guardian,” *The Guardian*, 16 May 2017, retrieved from: <https://www.theguardian.com/technology/2017/may/16/google-deepmind-16m-patient-record-deal-inappropriate-data-guardian-royal-free>.

collaboration, with each country leveraging its respective strengths to support others—enabling regional and global healthcare systems to realise AI’s full potential and deliver more effective, trusted care.

Healthcare and The Abraham Accords: From Boom to Bust

With surging AI healthcare investment and untapped synergy between Gulf dynamism and Israeli R&D, it is no surprise that the promise of collaborative health innovation was both a catalyst for the signing of the Abraham Accords and a conduit for cooperation. Healthcare leaders were instrumental in cementing the Accords, visiting the UAE, Morocco and Bahrain for high-level negotiations several times before normalisation was formalised.

Dr Yitzhak Kreiss, Director-General of Sheba, proposed a regional health initiative at the 2019 ‘Peace to Prosperity’ Summit in Bahrain, including joint training, research, and medical tourism.²⁵² As a result, the Israel-Bahrain agreement explicitly highlighted healthcare collaboration. Israel and the UAE announced ‘immediate’ health sector cooperation within 10 days of signing their agreement.²⁵³ A breathless array of joint ventures was to follow.

Early collaborations tackled COVID-19, with G42 Healthcare and Israel’s NanoScent co-developing breath-based testing using Machine Learning. Initial Israel-UAE cooperation on AI-driven remote monitoring and digital health (both Gulf priority areas) saw partnerships between SURE Universal and HBK Department of Projects, and between SJM Group and INMED. In August 2021, Israel’s Illumigyn, creator of the world’s first remote gynaecology platform, partnered with the UAE’s Digital Health Innovation 2048 to deploy 2,500 AI-powered gynoscope imaging systems throughout the Emirates.²⁵⁴

Israel-Gulf dealmaking soon shifted from transactional arrangements to joint development and R&D. In January 2022, Abu Dhabi’s health ministry and IIA established joint seminars and collaborative clinical trials for bioconvergence innovation.²⁵⁵ The Sheba Medical Center signed agreements with both G42 Healthcare and PureHealth focused on AI-driven medical technology.²⁵⁶

Much of King Hamad American Mission Hospital’s advanced technology comes from Sheba, which also launched an ARC Innovation Center branch onsite to embed Israeli MedTech directly into clinical workflows.²⁵⁷ Salmaniya Medical Complex, Bahrain’s largest public hospital, has also worked with ARC to deploy Israeli medical technology and collaborate on research and training.²⁵⁸ In May 2022, Israel and Morocco signed an agreement to collaborate on Artificial Intelligence, biotechnology, medical technologies and pharmaceuticals.²⁵⁹ The University of Rabat and Israel’s Ben-Gurion University launched a scientific research partnership and student exchange program for ‘data science and health care’.²⁶⁰

Israeli start-ups quickly cashed-in on their access to new markets. Aidoc’s AI diagnosis software is used in 10% of Morocco’s private radiology centres and at Sheikh Shakhbout Medical City, among the UAE’s

²⁵² Williams, D. (2022). “Digital Medicine Connects Hospitals in Gulf and Israel,” *The Circuit*, 20 November 2022, retrieved from: <https://circuit.news/2022/11/20/digital-medicine-connects-hospitals-in-bahrain-uae-and-israel/>.

²⁵³ State.gov (2020). “Abraham Accords: Declaration of Peace, Cooperation, and Constructive Diplomatic and Friendly Relations,” 15 September 2020, retrieved from: https://www.state.gov/wp-content/uploads/2020/09/Bahrain_Israel-Agreement-signed-FINAL-15-Sept-2020-508.pdf; Barrington, L. and Williams, D. (2020). “UAE, Israel Health Ministers Agree to Enhance Cooperation on Health,” *Reuters*, 24 August 2020, retrieved from: <https://www.reuters.com/article/world/uae-israel-health-ministers-agree-to-enhance-cooperation-on-health-idUSKBN25K1IE/>.

²⁵⁴ Embassy of the United Arab Emirates (2022). “The UAE and Israel: Two Years of Progress,” 17 October 2022, retrieved from: <https://www.uae-embassy.org/sites/default/files/2022-10/Accords%20UAE-ISR%20Partnerships%2010.17.22%5B43%5D.pdf>.

²⁵⁵ Department of Health – Abu Dhabi (2022). “Department of Health – Abu Dhabi and the Israel Innovation Authority Announce Collaboration on Key Healthcare Innovations,” 26 January 2022, retrieved from: <https://www.doh.gov.ae/en/news/DoH-and-the-Israel-Innovation-Authority-announce-collaboration-on-key-healthcareinnovations>.

²⁵⁶ G42 (2022). “G42 Healthcare, Israel’s Sheba Medical Centre to Team Up on Joint Research,” 25 November 2022, retrieved from: <https://www.g42.ai/resources/news/g42-healthcare-israels-sheba-medical-centre-team-joint-research>.

²⁵⁷ Klein Leichman, A. (2023). “Israeli Medical Innovation Hub Opens in Bahraini Hospital,” *ISRAEL21c*, 1 February 2023, retrieved from: <https://www.israel21c.org/israeli-medical-innovation-hub-opens-in-bahraini-hospital/>.

²⁵⁸ Williams (2022). “Digital Medicine Connects Hospitals in Gulf and Israel.”

²⁵⁹ i24 News (2022). “Israel, Morocco Sign Historic Tech and Science Agreement,” 26 May 2022, retrieved from: <https://www.i24news.tv/en/news/israel/technology-science/1653581157-israel-morocco-sign-historic-tech-and-science-agreement>.

²⁶⁰ Morocco World News (2023). “Abraham Accords Have Deepened Strategic Alliance Between Morocco, Israel,” February 2023, retrieved from: <https://www.moroccoworldnews.com/2023/02/36281/abraham-accords-have-deepened-strategic-alliance-between-morocco-israel/>.

leading specialty hospitals. Meanwhile, Israeli firm Zebra Medical Vision's AI imaging tools are integrated into 7% of Moroccan clinics and hospitals.²⁶¹

Yet just as the momentum compounded behind these historic partnerships, the Hamas attacks on 7 October 2023, brought regional healthcare collaboration to paralysis. Israeli hospital administrators interviewed by MENAF said messages and calls to their Gulf partners suddenly went unanswered. Sheba's partners in Bahrain were ordered by the government to halt all joint projects, while public boycotts targeted King Hamad American Mission Hospital over its Israeli connections. Immediately after 7 October, Bahrain recalled two doctors training at Sheba, ceasing medical education exchange, even though most other international trainees remained.

Even before the war, Abraham Accords healthcare deals faced major hurdles. Israeli and Gulf insiders interviewed by MENAF cited a 'mismatch of expectations': Israeli start-ups sought Gulf funding, while Gulf institutions wanted Israeli expertise with minimal investment. Many Israelis remained excessively focused on the US market, overlooking the UAE's potential as both a domestic market and a strategic gateway to Asia, slowing meaningful progress. From the start, a basic lack of trust and mutual understanding hampered deal-making. One healthcare industry leader told MENAF that, while isolated instances of fruitful collaboration existed, 'very little meaningful institutional healthcare collaboration happened. A lot of meetings were held, documents were signed. No major joint hospital or innovation projects actually materialised.'

Each geography presented unique challenges and priorities. The UAE's fragmented healthcare system, with separate authorities for Dubai, Abu Dhabi, and the smaller emirates, made decision-making and implementation slow, requiring numerous separate meetings. However, this disjointed structure also meant collaborations were less vulnerable to unilateral cancellations in the event of a political crisis.

The UAE's transient, expatriate-dominated healthcare workforce further complicated efforts; over 90% of staff are immigrants on short-term employment, and frequent job-hopping among doctors disrupts long-term patient relationships. Further, it prevents the development of a mentorship-based medical education model, as seen in Israel and the US. While an expatriate labour market insulated UAE-Israel partnerships from public backlash over the war, it also slowed progress due to fundamental differences in system structures and training approaches.

In contrast, Bahrain's centralised system, led by its Ministry of Health and key stakeholders like the Economic Development Board, enabled a more focused approach. Israeli healthcare leaders found particular enthusiasm in Manama for technological innovation, which led to the ground-breaking deployment of ARC in the Kingdom. According to one Israeli hospital administrator, the challenges to Bahrain-Israeli ties were 'bottom-up'. With far more native Bahraini involvement and central government control in the healthcare sector, public sentiment towards Israel made collaboration vulnerable to political volatility.

Beyond Bilateralism: The UK's Cure for a Partnership on Life Support

An unwavering champion of the Abraham Accords, the UK is uniquely positioned to help revive stalled healthcare collaboration. With strong historic ties to both the Gulf and Israel and global leadership in medical research and biotech, Britain can serve as a stabilising and stimulating force in resuscitating regional partnerships. Indeed, multiple sources told MENAF that the UK's stable foreign policy and reputation, compared to perceived US volatility, renders Westminster the 'ideal' mediator in restoring ties.

Britain can build on a robust foundation of life sciences and healthcare collaboration with its Middle Eastern allies. In 2021, the UAE and the UK launched a Sovereign Investment Partnership, committing 1 billion GBP to invest in British life sciences innovations. An MoU on AI collaboration in life sciences followed later that year.²⁶² A summit on UK-UAE Collaboration in healthcare AI was hosted by the UAE-

²⁶¹ Chaimaa, I., Idaomar, D., Hannaoui, M. et al. (2024). "Applications of Artificial Intelligence in Morocco's Healthcare Sector: A Springboard to Medical Excellence," *Journal of Computer and Communications*, 12(9), retrieved from: <https://www.scirp.org/journal/paperinformation?paperid=135983>.

²⁶² Gov.uk (2021). "UAE and UK Launch Sovereign Investment Partnership with Initial £1 Billion in Life Sciences," March 24 2021, retrieved from: <https://www.gov.uk/government/news/uae-and-uk-launch-sovereign-investment-partnership-with-initial-1-billion-in-life-sciences>; Gov.uk (2021). "UK-United Arab Emirates Memorandum of Cooperation on Industrial and Advanced

UK Business Council in January 2025. The two countries have strong educational ties, with eight UK university branches present in the UAE and over 8,000 Emiratis studying in the UK.²⁶³ Collaboration also pervades the private sector. In 2023, PureHealth acquired the UK's largest private hospital group, Circle Health, in a 1.2 billion USD (920 million GBP) deal.²⁶⁴ Partnerships like that between Moorfields in London and its Emirati arm in Dubai—both using DeepMind's AI for eye scans—demonstrate how institutional twinning can transfer expertise.

UK-Israel collaboration on medical innovation is a hallmark of successful bilateralism. Through Horizon, the EU's flagship research program, Israel is one of the UK's top five research partners, particularly in health projects.²⁶⁵ Institutions such as the UK-Israel Science Council and Britain-Israel Research and Academic Exchange facilitate an array of joint ventures in health tech and AI.²⁶⁶ The UK-Israel Tech Hub, the first ever government-led initiative focused on bilateral tech partnerships (rather than conventional trade ties), fosters joint innovation and integrates Israeli health tech in the UK economy.²⁶⁷ The UK-Israel Tech Gateway, formed by the Hub in partnership with IIA, connects top Israeli start-ups with the NHS for joint R&D and implementation.

The Hub's Dangoor Health-Tech Academy fast-tracks the integration of Israeli medical innovations into NHS hospitals.²⁶⁸ Through the Academy, Israeli start-ups gain insight into NHS needs and regulations, while the NHS accesses cutting-edge Israeli technology. It is a proven model that could serve as a blueprint for UK collaboration with multiple Abraham Accords signatories, and could itself be expanded to include Gulf partners.

The UK-Israel AI in Drug Discovery Taskforce is also the first of its kind, bringing together leaders from pharma, start-ups, academia, healthcare, and government—and providing grant funding to drive collaboration. The focus on pharmaceuticals is unsurprising; Israeli companies supply approximately 100 million prescription items to the UK annually.²⁶⁹ Indeed, even in the midst of a war, in August 2024, IIA and Britain's DSIT announced a 2.4 million USD (1.8 million GBP) joint fund for AI drug discovery and quantum technologies.²⁷⁰ The grants (up to 200k GBP per project) encourage UK and Israeli researchers to co-develop AI drug discovery algorithms.

The UK can leverage this vigorous foundation of flourishing bilateral healthcare collaboration with its Middle Eastern allies to create forums for multilateral synergy, modelled on previous global healthcare initiatives it has led with other allies. At the Bletchley Park Summit, Britain launched the Global AI for Development Initiative—a UK-led partnership using AI to tackle health and development challenges in low-income countries, starting with Africa. The UK's Foreign, Commonwealth & Development Office committed 38 million GBP as part of an 80 million GBP multi-partner program (with Canada, the US, the Gates Foundation, and African institutions) to build local AI capacity for health and sustainable development.²⁷¹

Technologies Collaboration,” 25 May 2023, retrieved from: <https://www.gov.uk/government/news/uk-united-arab-emirates-memorandum-of-cooperation-on-industrial-and-advanced-technologies-collaboration>.

²⁶³ Foreign, Commonwealth & Development Office and Department for Science, Innovation and Technology (2025). “UK Science and Innovation Network Summary: United Arab Emirates (UAE),” 12 February 2025, retrieved from:

<https://www.gov.uk/government/publications/uk-science-innovation-network-summary-united-arab-emirates/uk-science-and-innovation-network-summary-united-arab-emirates-uae>.

²⁶⁴ Chipman, A. (2023). “PureHealth Acquires the UK's Largest Private Healthcare Group for \$1.2b,” *Digital Health*, 1 September 2023, retrieved from: <https://www.digitalhealth.net/2023/09/purehealth-acquires-the-uks-largest-private-healthcare-group-for-1-2b/>.

²⁶⁵ Gov.uk (2024), “UK Science & Innovation Network: Country Summary – Israel,” 26 March 2024, retrieved from: <https://www.gov.uk/government/publications/uk-science-innovation-network-country-snapshot-israel/uk-science-innovation-network-country-summary-israel>.

²⁶⁶ UK Government, (2024). “UK Science & Innovation Network: Country Summary – Israel,” 26 March 2024, retrieved from: <https://www.gov.uk/government/publications/uk-science-innovation-network-country-snapshot-israel/uk-science-innovation-network-country-summary-israel>.

²⁶⁷ UK-Israel Tech Hub (2025). “Health-Tech,” *UK-Israel Tech Hub*, retrieved from: <https://ukisraelhub.com/health-tech/>.

²⁶⁸ Spiro, J. (2024). “The Dangoor Health-Tech Academy Launched to Connect UK Healthcare with UK-Israel Tech Companies,” *CTech*, 4 November 2024, retrieved from: <https://www.calcalistech.com/ctechnews/article/hkbtpeibye>.

²⁶⁹ Department for International Trade, “UK-Israel Free Trade Agreement: The UK Strategic Approach”, 18 July 2022, retrieved from: <https://assets.publishing.service.gov.uk/media/62d5786ce90e071e798d118a/uk-israel-free-trade-agreement-the-uk-strategic-approach.pdf>

²⁷⁰ Wrobel, S. (2024). “Amid Ongoing War, Israel and the UK Launch Fund for Joint Tech Research Projects,” *The Times of Israel*, 3 March 2024, retrieved from: <https://www.timesofisrael.com/amid-ongoing-war-israel-and-the-uk-launch-fund-for-joint-tech-research-projects/>.

²⁷¹ Gov.uk (2023). “UK Unites with Global Partners to Accelerate Development Using AI,” 2 November 2023, retrieved from: <https://www.gov.uk/government/news/uk-unites-with-global-partners-to-accelerate-development-using-ai>.

Over the next five years, this initiative will support home-grown African AI labs, fund PhD training, and help at least 10 countries set up responsible AI governance frameworks. The UK is acting as a global coordinator and standard-setter for equitable AI in healthcare and beyond, and there are clear precedents for British leadership on MENA healthcare dealmaking.²⁷²

In a turbulent political climate, health—a universal need, the foundation of all economies—is the most opportune platform for deepening Abraham Accords cooperation. Experts on Israel-Gulf joint ventures interviewed by MENAF frequently cited healthcare as ‘the easiest sector in which to operate’, given its relative lack of political controversy. Indeed, even before the Abraham Accords, dozens of affluent Emiratis, Bahrainis, Saudis, Kuwaitis received treatment from Israeli doctors, including members of Gulf royal families.

In MENAF’s conversations with experts, the importance of initial ‘trust-building’ and people-to-people connections was reiterated. Pragmatism, rather than overt advocacy, will be key to ensuring durable progress. Given widespread scepticism in their populations, Arab signatories to the Accords have adopted a gradual, sector-focused approach to cooperation with Israel. Westminster should align its strategy accordingly, fostering discrete, long-term collaboration in targeted industries. A cautious, phased approach is recommended.

Policy Recommendations

AI Healthcare Roundtables & Exchanges

Building on the momentum of the UAE-UK Business Council’s 2024 AI in Healthcare Roundtable, the UK should sponsor regular knowledge exchange forums that unite policymakers, clinicians, and tech leaders from the signatory countries. By leveraging shared interest in genomics, health data, and AI in drug discovery, these forums can rebuild trust, identify common priorities, and fast-track pilot projects. As a next step, Moroccan, Emirati, and Bahraini entrepreneurs could engage with UK hospitals and firms—following the model of the UK-Israel Tech Hub’s Dangoor HealthTech Academy.²⁷³

The UK’s successful cross-sector multilateral knowledge exchanges with other allies can be replicated in the MENA region with AA signatory countries. In March 2025, King’s College London, the UK Department for Science and the Medicine Research Council (MRC) hosted a ‘Bio & Digital Health’ Forum focused on AI and bio-health cooperation with Japan and South Korea. The event brought together Japan’s trade organization (JETRO) and pharma companies, alongside South Korea’s science and health ministries.²⁷⁴ It marked the first time these three nations openly exchanged cutting-edge digital health technologies and explored joint R&D against shared challenges, from viral infections to aging-related diseases.

Leveraging this proven convening power, the UK could host a ‘UK-Middle East Health-tech Summit’ under the auspices of the Accords, inviting delegations from Israel, the UAE, Bahrain, Morocco, and Saudi Arabia to London to discuss AI in healthcare, with British experts facilitating. This kind of UK-led mediation can help address any lingering distrust by focusing on practical goals with mutual benefits, like improving cancer diagnosis or managing diabetes with AI.

By organising trade missions, hackathons, or joint accelerator programs, the UK government can bring together UK firms (like Babylon Health, DeepMind Health, GSK’s AI unit) with counterparts in AA states (like Israel’s Healthy.io or UAE’s G42 Healthcare) to forge partnerships. These Public-Private Partnerships (PPPs) can create win-win outcomes—British companies would get access to new markets and diverse data to improve their AI, while local healthcare would receive advanced solutions and build capacity. Such models could be explicitly replicated among AA countries themselves, with UK entities mentoring or co-investing. For instance, the NHS could act as an advisor to a Bahrain-Israel pilot of a

²⁷² Philea Europe Association (2019). “Wellcome Trust Launches New £75 Million Five-Year Programme on Data for Science and Health,” *Philea*, 1 February 2022, retrieved from: <https://philea.eu/wellcome-trust-launches-new-75-million-five-year-programme-on-data-for-science-and-health/>.

²⁷³ Krieger, C. (2025). “Israeli MedTech Startups Showcase AI Innovations During UK Visit,” *Jewish News*, 6 March 2025, retrieved from: <https://www.jewishnews.co.uk/israeli-medtech-startups-showcase-ai-innovations-during-uk-visit/>.

²⁷⁴ London Daily News (2025). “UK Partners with Asia to Boost AI and Biohealth Research,” *London Daily News*, 6 March 2025, retrieved from: <https://www.londondaily.news/uk-partners-with-asia-to-boost-ai-and-biohealth-research/>.

new AI radiology tool in their hospitals, validating results and sharing best practices from its own deployments.

The UK can draw on its global regulatory reputation to foster collaboration on AI governance. A policy exchange between NHS AI Lab experts and regulators from Israel and the UAE could align standards on AI safety, data protection, and healthcare tool accreditation. The UK can share crucial insights from its recent NHS AI regulatory sandbox experience, ‘AI Airlock’, wherein the safety of healthcare AI models are tested in secure environments overseen by regulators.²⁷⁵

Given the importance of data flow for training AI tools and joint research, one outcome could be an agreement on frameworks that enable secure sharing of health data between the countries for joint AI projects. This can be modelled on initiatives already explored by British policymakers. In September 2024, a UAE-UK Business Council white paper proposed the development of a UAE-UK health data hub to harmonise ethical and technical guidelines for AI in healthcare to facilitate cross-border clinical trials.²⁷⁶ Implementing joint standards in the short term, perhaps via an MoU on health data cooperation among the UK, the UAE, and Israel, would set the groundwork for deeper technical collaboration.

The British Council is well-placed to lead regular AI healthcare roundtables, building on its track record in scientific collaboration, such as the BIRAX UK-Israel partnership. Working with the UK Science & Innovation Network, it can convene NHS AI experts, Gulf health officials, and Israeli innovators for policy dialogue—mirroring successful models like Wilton Park’s AI in Africa forums.²⁷⁷ Support from a respected UK institution would anchor the exchanges in ethical AI and healthcare impact, providing credibility and reassuring Gulf participants through the UK’s established frameworks and standards.

A blended funding model can efficiently sustain the roundtables. Modest UK public support—such as from FCDO collaboration budgets or targeted grants—could cover coordination and expert facilitation, while Gulf sovereign wealth funds like Mubadala or Saudi Arabia’s Public Investment Fund could sponsor venues and travel as part of their innovation outreach. Public-private sponsorship is also possible with health-tech firms co-funding events in exchange for visibility. The British Council, possibly through its Gulf Science and Innovation programmes, could leverage existing cultural diplomacy funds.

Joint Research Grants

The UK can draw on its dynamic research funding agency UK Research and Innovation (UKRI) and private funders like Wellcome to create collaborative grant programs targeting AI in healthcare. Small consortia involving UK and AA country institutions could be invited to apply for funding. For example, a call might fund 5–10 joint projects on themes like AI for diabetes care in Middle Eastern populations, or intelligent hospital management systems.

Mirroring and expanding successful UK-Israel scientific cooperation, such seed funding would incentivise cross-border teams and generate proof-of-concept solutions. Institutions such as the UK Abraham Accords Group, the UK-Israel Tech Hub, the UAE-UK Business Council and The Association of British HealthTech Industries could partner to spearhead these efforts. In the future, a UK-Israel-Gulf AI Health Research Symposium could showcase grant recipients’ findings and products, demonstrating the tangible benefits of collaboration.

To this end, the UK-Brazil joint research on AI in Health provides a valuable model to replicate in the MENA context. UKRI, via the Medical Research Council (MRC), leads an ongoing cooperation with São Paulo’s Research Foundation (FAPESP) to fund bilateral AI-health studies. In 2024, MRC and FAPESP launched their 5th joint call, committing up to 6 million GBP for collaborative research into AI applications for biomedical challenges relevant to Brazil.²⁷⁸

²⁷⁵ Gov.uk (2024). “AI Airlock: The Regulatory Sandbox for AIaMD,” 4 December 2024, retrieved from: <https://www.gov.uk/government/collections/ai-airlock-the-regulatory-sandbox-for-aiamd>.

²⁷⁶ Flannery, A. (2024). “Data Collaboration at the Heart of UAE-UK Partnership to Improve Cancer Care,” *Intelligent Health Tech*, 12 September 2024, retrieved from: <https://www.intelligenthealth.tech/2024/09/12/data-collaboration-at-the-heart-of-uae-uk-partnership-to-improve-cancer-care/>.

²⁷⁷ Wilton Park (2024). “AI in Africa: Advancing Responsible and Equitable Artificial Intelligence for Health,” 4 December 2024, retrieved from: <https://www.wiltonpark.org.uk/app/uploads/2025/01/WP3458-AI-in-Africa-report.pdf>.

²⁷⁸ São Paulo Research Foundation (FAPESP) (2024). “Bilateral Collaborations with the UK on AI in Health Will Be Supported,” 4 August 2024, retrieved from: <https://fapesp.br/16666/bilateral-collaborations-with-the-uk-on-ai-in-health-will-be-supported>.

This programme pairs British and Brazilian scientists to co-develop AI solutions in digital health and examine social determinants of health, with support for travel and knowledge exchange between the UK and Latin America. By jointly setting priorities and pooling funds, UKRI has taken a coordination lead in aligning UK research excellence with Brazil's health needs—a model for how UK institutions can broker research partnerships among Abraham Accords countries in AI-driven healthcare.

UKRI's proven track record on bilateral R&D positions it as a valuable leader in UK-MENA research grants, designing transparent, peer-reviewed grants focused on regional health priorities like diabetes or telemedicine. Its leadership would assure Gulf and Israeli partners of rigorous evaluation and alignment with global standards, reducing risk. UKRI investment or funds from the NHS AI Lab's innovation budget can signal commitment, with Gulf and Israeli partners expected to match via sovereign funds or research agencies. Following the MRC-FAPESP model, each side funds its own researchers and shares outcomes. Industry could also contribute funding or resources in exchange for early access to results. This approach spreads risk, fosters shared ownership, and mirrors successful UK-India and UK-Brazil collaborations.

AI-Enabled Digital Twin Hospitals and Telemedicine Collaboration

As hospitals digitise, 'digital twins'—virtual replicas of hospital systems—enable AI to optimise operations. The UK could pilot a digital twinning project with a Gulf hospital, such as Bahrain's King Hamad American Mission Hospital, pairing it with an NHS trust. This would involve IoT integration, electronic records, and UK-developed AI to simulate scenarios like outbreak surges.

Such an initiative would help Gulf hospitals develop efficiency and resilience, and give UK researchers valuable real-world testbeds for hospital AI systems. By 2030, one could envision several Gulf and Israeli hospitals operating as digital twins with UK counterparts, continuously exchanging data-driven best practices. This aligns with the GCC states' push for smart healthcare infrastructure.

'Digital Twin' technology also presents manifold benefits at the national policy level. With its strong health research base, the UK could help develop a digital twin of, say, Bahrain's health system, enabling policymakers to simulate the impact of policies before real-world rollout. Such collaboration on predictive policy modelling would strengthen UK-MENA ties by aligning health strategies and sharing evidence.

This could be scaled into broader collaborations in telemedicine. COVID-19 highlighted the importance of remote care delivery, as telehealth adoption surged in both the UK and MENA. AI can further enhance remote care by providing virtual triage, symptom checking, and decision support. The UAE, for example, launched telemedicine apps (in partnership with telecom companies like Du) to reach remote patients.²⁷⁹ AI chatbots and voice assistants integrated into these platforms can handle initial consultations or follow-up questions, easing the load on doctors. The NHS has trialled AI symptom checkers (like the Babylon Health app) which demonstrated how automated triage can efficiently route patients to appropriate care or self-care advice.

An NHS-led partnership could link a top UK teaching hospital—such as King's Health Partners or Moorfields' digital wing—with leading Gulf hospitals to create a digital replica for training, predictive maintenance, and remote specialist tele-consultations. The NHS's imprimatur would lend proven clinical governance to these pilots, easing Gulf partners' concerns about reliability and patient safety. As seen with Moorfields Eye Hospital's branch in Dubai and other UK health ventures abroad, British clinical oversight attracts regional buy-in.

The British private sector can play a key role. UK digital health company Huma (formerly MedoPad) has partnered with Dubai Health Authority and Saudi's Tamer Group to deploy remote patient monitoring apps (using AI to track vital signs) in Emirati and Saudi hospitals.²⁸⁰ This not only improved patient care

²⁷⁹ Bose, S. (2024). "AI Strengthening Healthcare in the UAE," *Syenza News*, 10 January 2024, retrieved from: <https://news.syenza.com/ai-strengthening-healthcare-in-the-uae/>.

²⁸⁰ GBO Correspondent (2020). "The beginning of AI revolution in UAE healthcare", *Global Business Outlook*, 8 October 2020, retrieved from: <https://globalbusinessoutlook.com/featured/the-beginning-of-ai-revolution-in-uae-healthcare/>; Huma Blog (2022). "Huma and Tamer bring digital 'hospital at home' platform to the Kingdom of Saudi Arabia," 16 May 2022, retrieved from:

but also acted as a public-private partnership (PPP) model where a UK company worked with a government provider to localise an innovation.

This initiative could be led by the NHS AI Lab or Healthcare UK. Financing such an ambitious project would likely involve PPPs. Gulf sovereign wealth funds are natural financiers—indeed, Saudi Arabia's PIF has already invested in UK digital health firms like Babylon to bring AI telehealth to the Saudi Ministry of Health. A similar model applies here: Gulf partners fund infrastructure and tech as a healthcare investment, while the UK contributes expertise and possible seed funding from NHS England or Innovate UK for early prototyping. Health tech firms may co-invest or supply equipment, viewing the project as a proving ground that NHS validation would boost globally.

UK–Gulf–Israel AI Training Centres

As Gulf states strive to build a tech-skilled local healthcare workforce and reduce reliance on foreign staff, partnerships with the UK and Israel in medical training present a compelling opportunity.²⁸¹ Notably, the Sheba–PureHealth partnership prioritises 'education and staff training'. One can also find inspiration in the Children's Hospital of Philadelphia's hosting of paediatric experts from Israel and the UAE to exchange expertise on two separate occasions, including a joint conference.²⁸²

The UK could spearhead fellowship programs placing Middle Eastern doctors in the NHS AI Lab and UK specialists in Gulf hospitals—or co-develop MSc programs in Health Data Science curricula with universities in Bahrain or Morocco. UK companies can offer professional development courses to help regional clinicians understand and interpret AI tools. British tech firms in MENA could embed training modules into implementation, driving market penetration and capacity building.

Building on these collaborations, a virtual UK–Israel–Gulf 'AI Medical Training Hub' could be launched, with regional centres of excellence—such as AI simulation centres in Abu Dhabi and Tel Aviv—jointly operated by UK, local, and international partners. Modelled on Israel's dynamic public-private R&D clusters and Sheba's ARC, these centres could house state-of-the-art medical simulators, AI labs, and classrooms for professional development.

The NHS and regional universities can partner with leading centres like Sheba and specialists in the UAE to co-develop curricula and learning platforms. The UK's Royal Colleges and Health Education England could assist in curriculum design and credentialing, ensuring that courses meet international standards and attract students. Doctors, nurses, and healthcare IT specialists from across the Accords countries could enrol to learn about deploying AI in clinical practice, whether it is mastering an AI diagnostic tool or navigating ethical issues of AI data. Over 3–5 years, this could yield a new network of 'AI-proficient' healthcare workers in each country, gradually building Israeli-Arab trust and reducing the skills gap. Additionally, joint residency programs should be revived, with the British involvement bolstering credibility and helping to smooth over political sensitivities which hinder bilateral arrangements.

A leading UK university—such as Imperial or UCL—could anchor the initiative by developing AI in medicine curricula and standards, while the British Council facilitates academic and cultural exchange, as it did with BIRAX. With world-class centres like Oxford's Big Data Institute and the Alan Turing Institute, the UK offers both content and pedagogical leadership. This model would ensure training emphasises ethics, clinical safety, and research excellence, building trust in the quality of certification among Gulf and Israeli participants.

Such UK oversight mitigates the risk for Gulf partners investing in human capital – a British-accredited program assures that the workforce being trained will meet international standards and be capable of driving local AI health projects. The centres could rotate between London, Tel Aviv, and Abu Dhabi,

<https://www.huma.com/blog-post/huma-and-tamer-bring-digital-hospital-at-home-platform-to-the-kingdom-of-saudi-arabia>.

²⁸¹ Silva Paulo, M., Loney, T. and Lapão, L. (2019). "How Do We Strengthen the Health Workforce in a Rapidly Developing High-Income Country? A Case Study of Abu Dhabi's Health System in the United Arab Emirates," *Human Resources for Health*, 17, retrieved from: <https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-019-0345-9>.

²⁸² Children's Hospital of Philadelphia (2021). "In Celebration of the Abraham Accords, CHOP Hosts Pediatric Experts from the United Arab Emirates (UAE) and Israel," 14 September 2021, retrieved from: <https://www.chop.edu/news/celebration-abraham-accords-chop-hosts-pediatric-experts-united-arab-emirates-uae-and-israel>; Children's Hospital of Philadelphia (2022). "SEHA Hospitals in Collaboration with CHOP and Schneider Host First Conference," 1 November 2022, retrieved from: <https://www.chop.edu/news/seha-hospitals-collaboration-chop-schneider-host-first-conference>.

enabling two-way exchange: UK researchers serve as instructors, while Gulf and Israeli experts contribute local case studies—all within a shared UK-led framework.

Funding for the training centres can be blended from public, philanthropic, and private sources. The UK could utilise scholarship and capacity-building funds (for example, the FCDO's Gulf engagement fund) to sponsor faculty exchanges and initial curriculum development. The British Council already invests in AI skill-building abroad, recently providing 1.7 million GBP to train over 10,000 teachers in AI in Jamaica, demonstrating how UK public funds can kick-start international AI education.²⁸³

Gulf partners would likely fund infrastructure and scholarships through their vast national AI strategy budgets, as the UAE and Saudi Arabia have already done under their Vision programs. Philanthropic support could complement this—for instance, from Gulf-based foundations or UK charities like the Wellcome Trust or the Dangoor Family. A public-private model could also involve tech companies sponsoring labs or curricula in return for branding and early access to talent. UK inputs ensure academic excellence, Gulf funding demonstrates local commitment, and private sector support keeps training aligned with real-world skill needs.

Expanded Bi-national Innovation Hubs

In the medium term, trilateral Digital Health Innovation Accelerators could emerge. Building on Sheba's ARC model, the UK, Israel, and UAE could launch joint R&D hubs—such as a London–Abu Dhabi Health AI Accelerator—co-funded by UAE sovereign funds and UK–Israeli venture capital, to support start-ups tackling regional health challenges with Israeli mentorship. Morocco, with its emerging tech sector, could host a satellite accelerator focused on Francophone Africa and Middle East health needs, backed by UK and Israeli innovation agencies. Together, these hubs would form a UK–Accords innovation ecosystem to fast-track AI health solutions across the region.

As a capstone, the UK could champion an 'AI Healthcare Innovation Accelerator' that operates at a regional scale. This would be a long-term program or institution, perhaps under the auspices of an Abraham Accords multilateral fund, aimed at continuously fostering cutting-edge medical AI solutions. It could provide substantial funding, mentorship, and access to test markets in all partner countries for start-ups and research projects.

Innovate UK's experience running incubators and accelerators bridging academia and industry, along with the NHS AI Lab's clinical expertise, renders these entities the ideal convenors of the innovation hubs. UK universities could offer mentorship and infrastructure, while British teams ensure NHS alignment and regulatory standards to de-risk collaboration and ease multi-market entry.

Funding should follow a blended model: UK seed funding via Innovate UK or British Council's Venture Catalyst programmes, matched by Gulf sovereign investors like Mubadala or Mumtalakat. Public investment from the UK serves as a quality signal, attracting further private capital—mirroring models like the UK–UAE Life Sciences Agreement. Multinational health firms and VCs could co-invest in exchange for early access to innovation. A jointly capitalised innovation fund could award grants or equity to start-ups with UK–Gulf–Israel teams, as seen in US–UK or EU–UK innovation partnerships. This structure spreads early-stage risk and fosters sustainable, cross-regional AI healthcare ecosystems.

A 'Regional Immune System': AI-Powered Disease Surveillance Network

AI can serve as a transformative tool for early disease detection and outbreak prevention, which is inherently global in scope and collaborative by necessity. A famous example is BlueDot, a Canadian AI system that scanned data and flagged an unusual pneumonia outbreak in Wuhan days before COVID-19 was officially recognized.²⁸⁴ Such AI-driven surveillance can scan news, social media, and health records to catch emerging outbreaks in real time.

²⁸³ The Daily Herald (2025). "British Council's £1.7M to Foster AI Development Skills in Schools," *The Daily Herald*, 20 March 2025, retrieved from: <https://www.thedailyherald.sx/regional/british-council-s-1-7m-pounds-sterling-to-foster-ai-development-skills-in-schools>.

²⁸⁴ MacIntyre, C.R., Chen, X., Kunasekaran M. et al. (2023). "Artificial Intelligence in Public Health: Current Trends and Future Possibilities," *Journal of Education and Health Promotion*, 12, retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC10052500/>.

COVID-19 spurred innovative AI-based health surveillance in Abraham Accords countries. Sheba established a unique COVID-19 immunity tracking cohort, with over 9,000 healthcare workers giving monthly blood samples and detailed data on their infections and vaccinations. Researchers built an ‘antigenic map’ of coronavirus exposure and antibody responses, then applied AI algorithms to this large dataset to determine the broadest neutralizing viral antigens. This AI-led project has enabled Sheba and partners to identify optimal vaccine targets for current and even future coronavirus variants.²⁸⁵

The pandemic catalysed international collaboration. A notable example is the partnership between G42 and the UK’s Oxford Nanopore Technologies to develop a rapid, population-scale testing solution. By combining Oxford’s advanced gene-sequencing technology with G42’s expertise in automation and AI, the initiative significantly reduced the cost and logistical complexity of mass testing. Integrated into the UAE’s national testing strategy, the project exemplified how British scientific innovation and Emirati capacity for large-scale implementation can work in tandem.²⁸⁶

The next pandemic is a matter of ‘not if, but when’. Going forward, Emirates’ global flight network and highly ethnically-diverse workforce could be an invaluable asset with which to expand Israel’s AI-driven disease surveillance. For example, flight attendants and crew could volunteer for regular health monitoring. Israeli and British AI systems could analyse this real-time data to detect early signs of emerging infections (‘sentinel surveillance’), given that airline staff are among the first exposed during outbreaks. With appropriate privacy safeguards, such a programme—perhaps a partnership with UAE health authorities and UK/Israeli researchers—could serve as an early warning system for pandemics, feeding data into predictive models that inform all partners.

In the long run, a fully operational, AI-driven ‘Regional Disease Surveillance Network’ could be established, with the UK as a key partner. The UK, with its experience in initiatives like the Global Influenza Surveillance, the NHS AI Lab’s National COVID-19 Chest Imaging Database and genomic surveillance of COVID-19 variants, can provide technical leadership in designing the system’s architecture and algorithms. The Surveillance Network would continuously collect epidemiological data from all member countries – including genomics (pathogen sequences), clinical syndromic data, climate data and mobility data (e.g. airline travel patterns and pilgrimage-related data for Hajj or Umrah in Saudi Arabia) to feed AI models that can predict and detect health threats.

For instance, if a novel virus strain emerges, AI analysis of shared data would flag it early and alert all network members to take coordinated action via travel advisories and targeted testing. The UK could then lend its experience in using predictive models to plan COVID-19 vaccine rollouts and to project NHS bed capacity needs. Gulf countries and Israel can use AI to model outcomes of expanding preventive screening or introducing a new treatment nationwide.

Built on Emirati logistics expertise and Israeli innovation, this network could be institutionalised via a multilateral agreement and perhaps linked with global bodies like the WHO. The trust built through UK-Abraham Accords collaborations and earlier data sharing agreements will be crucial here, as countries agree to share sensitive health information for collective security. The UK can lend its robust regulatory credibility to ensure secure data sharing.

AI can also analyse clinical and epidemiological data to spot disease trends and flag at-risk individuals early, enabling targeted prevention. The UAE is already applying this—SEHA uses predictive AI to monitor chronic patients and reduce emergency admissions through early alerts.²⁸⁷

The UK has developed risk prediction tools (e.g. for hospital readmission or deterioration) that could be adapted to Gulf populations.²⁸⁸ A joint UK-GCC initiative might share anonymised health data and AI models to improve the accuracy of such predictions across different ethnicities and environments. By

²⁸⁵ Ghert-Zand, R. (2023). “Sheba Pandemic Research Institute and Partners Developing Pan-Coronavirus Vaccine,” *The Times of Israel*, 6 July 2023, retrieved from: <https://www.timesofisrael.com/sheba-pandemic-research-institute-and-partners-developing-pan-coronavirus-vaccine/>.

²⁸⁶ McArthur, R. (2020). “UAE and UK partnership unveils scalable solution for COVID-19 detection,” *Mobihealth News*, 10 June 2020, retrieved from: <https://www.mobihealthnews.com/news/emea/uae-and-uk-partnership-unveils-scalable-solution-covid-19-detection#:~:text=Abu%20Dhabi%E2%80%99s%20Group%2042%20,%E2%80%9D>.

²⁸⁷ Copper Digital (2025). “How Artificial Intelligence Can Save Millions of Lives and Trillions of Dirham,” retrieved from: <https://copperdigital.com/blog/how-artificial-intelligence-can-save-millions-of-lives-and-trillions-of-dirham/>.

²⁸⁸ UK Department of Health (2011). “Risk Prediction Tools,” March 2011, retrieved from: https://assets.publishing.service.gov.uk/media/5a7c2c8e5274a25a9140ab0/dh_129779.pdf.

pooling expertise, UK and Middle Eastern health teams could develop stronger AI models for shared concerns like diabetes and cardiovascular risk, enabling targeted prevention.

The UK offers strong precedents for this model. During the pandemic, it treated genomic sequencing as a global public good, launching the 2021 New Variant Assessment Platform to sequence COVID-19 samples for other countries and train labs worldwide. Through this program, the UK partnered with countries like Brazil, Ethiopia, Kenya, Nigeria, and Pakistan—sharing real-time expertise to track COVID variants—demonstrating its role as a trusted convenor and provider of advanced health tech in global crises.²⁸⁹

Similarly, during the pandemic, Health Data Research UK (HDR) launched the International COVID-19 Data Alliance (ICODA), uniting researchers from 19 countries to share and analyse health data. Using its trusted ‘Five Safes’ governance framework, HDR enabled secure cross-border collaboration. ICODA highlights the UK’s ability to unite governments, industry, and researchers in global data-driven health alliances to address major health challenges. A similar model could convene MENA health data stakeholders to address future pandemics and regional priorities like diabetes and cancer through shared data and AI.

A regional AI-enabled disease surveillance network would most credibly be led by the UK Health Security Agency (UKHSA), capitalising on the UK’s global leadership in epidemiology. UKHSA has already engaged in cooperative surveillance efforts, notably signing a 2024 agreement with the new Gulf Health Council’s CDC to exchange data and best practices for epidemic monitoring.²⁹⁰ With UKHSA at the helm, the project can ensure robust data governance, train Gulf and Israeli health teams in analytics, and align with global systems like WHO pandemic hubs.

UK leadership would instil trust among all parties, with UKHSA’s impartiality and scientific rigour helping to bridge political divides and keep the focus on health security. It also offers quality assurance; Gulf partners investing in advanced AI surveillance can rely on UKHSA’s guidance to avoid pitfalls around data privacy or algorithm bias—challenges the UK has already addressed in its NHS AI efforts.

Funding for the surveillance network can leverage a multi-donor model, reflecting its public-good nature. The UK could contribute through global health security funds—such as DHSC’s programme or UKRI’s COVID-19 lessons learned fund—offering expertise and catalytic grants rather than major capital. Gulf states might procure the cloud infrastructure and AI tools as part of their vast national digital health budgets. The UK’s contribution may thus be expertise-in-kind and smaller catalytic grants rather than large capital outlays.

Additionally, philanthropic and multilateral support can be woven in. Institutions like the Wellcome Trust and the Gates Foundation—both of which have funded the WHO’s pathogen surveillance network—could be engaged to co-fund specific components, such as training labs in AI-driven epidemiology, developing open-data platforms, or supporting equitable access to surveillance tools across the region.²⁹¹ A governance mechanism like a joint trust fund under WHO’s Eastern Mediterranean office could pool these resources, ensuring transparency.

A cost-sharing model—where each signatory country contributes a set share of its health budget—could ensure long-term sustainability, with UK institutions providing oversight and tech updates. This mirrors successful cross-border disease surveillance consortia in Europe, Africa, and Asia, combining local ownership with global expertise.

²⁸⁹ Smout, A. (2021). “UK to Track COVID-19 Variants with Genomic Sequencing across World,” *Reuters*, 7 July 2021, retrieved from: <https://www.reuters.com/business/healthcare-pharmaceuticals/uk-track-covid-19-variants-with-genomic-sequencing-across-world-2021-07-07/>.

²⁹⁰ Gulf Center for Disease Prevention and Control (. "GCDC Prevention Signs a Cooperation Agreement with the United Kingdom Health Security Agency to Promote Public Health." *Gulf Center for Disease Prevention and Control*, December 4, 2023, retrieved from: <https://gulfcdc.org/en/News/GCDC-Prevention-signs-a-cooperation-agreement-with-the-United-Kingdom-Health-Security-Agency-to-promote-public-health>.

²⁹¹ Bonislowski, A. (2024). “WHO International Pathogen Surveillance Network Launches With \$4M in Donor Funding,” *GenomeWeb*, 23 May 2024, retrieved from: <https://www.genomeweb.com/research-funding/who-international-pathogen-surveillance-network-launches-4m-donor-funding>.

AI in Genomics & Genetic Diseases

Genetic diseases are common in the Gulf due to high consanguinity and the ‘founder effect’, raising the risk of conditions like sickle cell anemia, thalassemia, and metabolic syndromes. Research in Emirati populations has identified unique genetic risk factors, including five genes linked to Type 2 diabetes.²⁹²

Gulf nations have recently launched enormous genomic research initiatives to support better prediction, prevention, and treatment of genetic and chronic illnesses. Bahrain has boosted its genomic medicine investment, raising its annual gene sequencing capacity to 20,000 whole genomes—2.5 times its previous level.²⁹³ Launched in 2018, the Saudi Genome Program aims to build a comprehensive national genetic database, while G42’s Biogenome Project seeks to sequence the entire genome of every Emirati citizen.²⁹⁴ G42’s genomics centre leverages AI algorithms via its Artemis supercomputer to analyse genomic data at an unprecedented scale.²⁹⁵

In 2022, Israel launched the Psifas Genomic Medicine Initiative to collect and analyse clinical and genomic data from hundreds of thousands of volunteers. Israel’s significant Arab Bedouin population exhibits very similar genetic traits to native Emiratis, and sharing expertise in genomics could be indispensable to the efforts of both countries.

The UK can bring world-leading expertise in genomic data analysis and governance to this framework. Established nearly two decades ago, the UK Biobank is the world’s leading genetic research database, distinguished by its scale and long-term data collection. Its longevity lends it unparalleled research value, allowing experts to track disease emergence and progression over extended periods. In March 2025, 14 drugs companies partnered with the Biobank to contribute to research on AI-driven early diagnosis of cancers, autoimmune conditions and dementia.²⁹⁶

In January 2025, British start-up Lifebit, developer of the world’s first federated genomics platform for unified and secure research over distributed big data, announced a long-term partnership with Pfifas.²⁹⁷ This could serve as a model for further bilateral and multilateral partnerships in the region. UK-UAE-Israel research teams could jointly address regional genetic diseases, using machine learning to identify novel markers and drug targets.

A UK-led trilateral Genomics AI Taskforce could be established to share best practices, align data standards, and perhaps pilot cross-border studies (with Bahrain and Morocco included over time). Such collaboration would leverage the UK’s analytic expertise to turn the rich genomic data being generated in UAE and Israel into medically actionable knowledge.

To this end, the UK’s Wellcome Sanger Institute in Cambridge could take the lead, in partnership with Genomics England. The Sanger Institute is a global leader in genomic research and has spearheaded international partnerships, such as the H3Africa consortium, in which it partnered with NIH and others to co-fund and build local genomics capacity in 30 African Institutions.²⁹⁸ In turn, Genomics England will offer implementation know-how for integrating genomic AI into healthcare.

Through efforts like the 100,000 Genomes Project, Genomics England has established the gold-standard framework for data security, consent, and ethical oversight in genomics.²⁹⁹ The UK’s strengths in

²⁹² Bizzari, S., Nair, P., Hana, S. et al. (2023). “Spectrum of Genetic Disorders and Gene Variants in the United Arab Emirates National Population: Insights from the CTGA Database,” *Frontiers in Genetics*, 4 May 2023, retrieved from: <https://www.frontiersin.org/journals/genetics/articles/10.3389/fgene.2023.1177204/full>.

²⁹³ Cheriyan, G. (2024). “How Digital Innovation Is Reshaping Healthcare in the Middle East,” *World Economic Forum*, 8 October 2024, retrieved from: <https://www.weforum.org/stories/2024/10/digital-innovation-reshaping-healthcare-middle-east/>.

²⁹⁴ Saudi Arabia Vision 2030. “The Saudi Genome Program,” retrieved from: <https://www.vision2030.gov.sa/en/explore/projects/the-saudi-genome-program>; G42. “Emirati Genome Program Adds Sample Collection Centers,” retrieved from: <https://www.g42.ai/resources/news/emirati-genome-program-adds-sample-collection-centers>.

²⁹⁵ Stewart, A. “Abu Dhabi’s Omics’ Research to Bridge Arab Genetics Gap,” *WIRED Middle East*, 19 May 2024, retrieved from: <https://wired.me/science/health/abu-dhabi-omics-arab-genetics-research-gap/>.

²⁹⁶ Cookson, C. (2025). “Protein Project Uses AI to Boost Disease Treatment,” *Financial Times*, 5 March 2025, retrieved from: <https://www.ft.com/content/cc2ec1ae-f514-427b-94af-b865a28df7c3>.

²⁹⁷ Lifebit (2025). “Lifebit and Psifas Partner to Advance Genomic Research in Israel,” 23 January 2025, retrieved from: <https://www.lifebit.ai/blog/lifebit-psifas-partner-advance-genomic-research-israel/>.

²⁹⁸ Wellcome (2021). “First Recipients of Research Grants to Support Genomic Studies in Africa Announced,” 27 January 2021, retrieved from: <https://wellcome.org/press-release/first-recipients-research-grants-support-genomic-studies-africa-announced>.

²⁹⁹ Genomics England, “Ethics,” retrieved from: <https://www.genomicsengland.co.uk/initiatives/newborns/ethics>.

bioinformatics and ethical regulation would help ensure that Gulf and Israeli genomic data are handled to NHS-level standards. This de-risks Gulf investment in genomic medicine by providing a clear ethical and technical blueprint.

Gulf philanthropic bodies and sovereign wealth funds — such as KAUST’s fund and Mubadala — could co-endow a genomic innovation fund and finance a regional genome centre. To draw private sector interest, the partnership could create a public–private co-investment fund for genomic start-ups, with pharma and analytics firms contributing in exchange for access to anonymised data under strict UK-led governance. The project could also attract multilateral funding from institutions like the World Bank or Islamic Development Bank.

Ethics and Governance in Health AI

In a safety-critical field like healthcare, AI must be especially accurate, fair, and transparent to avoid harm, bias, and loss of trust. Without robust ethical safeguards, algorithms risk compromising patient privacy.

Acknowledging the need for ethical oversight, the NHS created a Code of Conduct for data-driven health technologies and established the AI Security Institute to rigorously evaluate algorithms before use. The UK’s Medicines and Healthcare products Regulatory Agency (MHRA) classifies AI diagnostic tools as medical devices, demanding strict evidence of safety and efficacy before approval.³⁰⁰

AI bias is a major concern—UK studies have shown, for example, that skin cancer tools trained mostly on fair skin may miss tumours on darker skin.³⁰¹ In response, the UK requires developers to assess bias and comply with equality laws. The NHS AI Lab’s ‘AI Ethics Initiative’ funds research on the ethics of AI in healthcare. In 2021, the Initiative partnered with University Hospitals Birmingham to launch ‘STANDING Together’, an international consensus effort uniting 350 experts from 58 countries to set standards for inclusive, unbiased AI health datasets.³⁰²

The British approach offers a template for countries like the UAE, Bahrain, Israel, Morocco, and Saudi Arabia. MENA countries could follow suit by ensuring AI systems are trained on representative local datasets that include Middle Eastern patient demographics to avoid cultural or ethnic biases.

The NHS AI Lab has emerged as a global coordinator role for healthcare AI policy. The Lab was commissioned by the international Global Digital Health Partnership to identify gaps in international governance of health AI and propose common solutions. The resulting white paper—informed by policy reviews and expert input from many nations—lays out recommendations for regulating and deploying AI safely across health systems. The Lab’s role in drafting global AI guidelines highlights the UK’s strength as a neutral broker of best practices. This is an exportable model; the UK can credibly engage MENA regulators to craft joint AI health standards.³⁰³

Regulatory capacity is another challenge. Many Gulf states currently rely on FDA or CE-marked approvals for medical AI. To localise oversight, they are beginning to issue their own guidance. Notably, Saudi Arabia’s regulator (SFDA) has pioneered guidance (MDS-G010) for AI/Machine Learning-based medical devices, seeking to blend international best practices (FDA, IMDRF, etc.) into a national framework.³⁰⁴ This binding guidance lays out requirements for manufacturers to obtain approval for AI in healthcare. However, as the SFDA case shows, new regulations can be complex; Saudi’s rules incorporate global standards but leave some ambiguity in enforcement.

³⁰⁰ UK Parliament Post (2020). “Artificial Intelligence in Healthcare, June 2020,” *PostNote*, 637, December 2020, retrieved from: <https://researchbriefings.files.parliament.uk/documents/POST-PN-0637/POST-PN-0637.pdf>.

³⁰¹ *Ibid*.

³⁰² NHS England (2025), “The AI Ethics Initiative Embedding ethical approaches to AI in health and care” retrieved from: <https://transform.england.nhs.uk/ai-lab/ai-lab-programmes/ethics/>

³⁰³ Global Digital Health Partnership (2020). “Creating an International Approach Together: A GDHP White Paper on Ethics and Governance of AI in Health,” December 2020, retrieved from: https://transform.england.nhs.uk/media/documents/GDHP_Creating_an_international_approach_together.pdf.

³⁰⁴ Solaiman, B. (2024). “Regulating AI-Based Medical Devices in Saudi Arabia: New Legal Paradigms in an Evolving Global Legal Order,” *Asian Bioethics Review*, 16(3), 21 June 2024, retrieved from: <https://link.springer.com/article/10.1007/s41649-024-00285-6>.

Here, UK regulators (MHRA and others) could collaborate with Gulf counterparts to clarify and streamline processes. For example, the NHSX's AI and Digital Regulations Service is a model that Gulf states could replicate to guide companies through compliance with local laws.³⁰⁵

Adapting UK safety standards for the Middle East would involve establishing clear approval pathways for AI health tools; adopting ethics guidelines similar to the NHS's; and training local regulators on AI risk management. In parallel, the UK and Israel could co-develop shared validation protocols, enabling mutual recognition of AI systems and ensuring consistent safety standards across borders. This would prevent duplicate approvals and accelerate the international rollout of beneficial AI.

Data security is a further conundrum. AI in health relies on vast amounts of sensitive patient data, which raises questions about how that data is stored, shared, and protected. MENA countries are strengthening data protection laws; the UAE's recent Personal Data Protection laws and Saudi Arabia's regulations require strict localisation requirements for health data.³⁰⁶ However, these rules can complicate cross-border AI research and the use of international cloud services.

Collaborative projects will require pooling data—for example, combining UK and Israeli patient datasets to train a robust AI model for rare diseases. Federated learning offers a solution by keeping data local while sharing insights. Instead of transferring patient data, the AI *model* is deployed in each country, learns from local datasets, and only the trained parameters are shared centrally. This approach would comply with local laws while enabling collaborative AI development.

This approach was successfully used in some international COVID research and could be standard procedure for UK-MENA projects. Additionally, partners can agree on common de-identification protocols—e.g. using the same standards to anonymise data so that even if data is shared, it is as privacy-protected as possible.

Cultural differences influence consent expectations. The UK's GDPR requires specific consent and ethics approval for research, so Middle Eastern partners must ensure shared data meets these standards. Joint projects should align consent frameworks—for example, Bahraini participants should be informed if Genomics England will analyse their genomic data. Joint ethics panels of UK and partner-country experts can ensure AI projects meet shared ethical standards, reviewing risks like genetic discrimination and guiding responsible communication. In genomic work, data agreements should ban misuse, limit access, and include clear accountability measures.

Another aspect of governance is technical standardisation. For data sharing to even work, the data needs to be interoperable (common formats, coding, etc.). The UK's NHS has data standards (like the SNOMED CT clinical coding, FHIR for data exchange) which are also used or being adopted in parts of the Middle East (for instance, UAE's Health Information Exchange Malaffi uses international standards).³⁰⁷ Aligning on these standards regionally will ease collaboration – it would ensure that an AI model trained on NHS data can interpret, say, Saudi electronic health record data correctly. The British Standards Institution (BSI) is already looking at international AI standards including medical AI; involving MENA stakeholders in that process (perhaps through ISO committees or direct BSI partnerships) will help propagate common standards.

In essence, data governance in UK-MENA health AI partnerships should be treated as seriously as the science itself. By proactively crafting agreements and employing technologies that prioritise privacy, security, and ethics, stakeholders can prevent problems and set a global example.

The Camel in the Room

In 2023, the UK and Saudi Arabia issued a joint statement wherein the UK pledged to assist in the transformation of the Saudi healthcare system.³⁰⁸ The opening of a branch of Harley Street's famous

³⁰⁵ NHS England. "The AI and Digital Regulations Service," retrieved from: <https://transform.england.nhs.uk/ai-lab/ai-lab-programmes/regulating-the-ai-ecosystem/the-ai-and-digital-regulations-service/>.

³⁰⁶ Gcore (2024). "AI Regulations in the Middle East in 2024," 2 December 2024, retrieved from: <https://gcore.com/blog/ai-regulations-2024-middle-east>.

³⁰⁷ UK Parliament Post (2020). "Artificial Intelligence in Healthcare, June 2020."

³⁰⁸ Gov.uk (2023). "United Kingdom and Kingdom of Saudi Arabia Strategic Partnership Council: Economic and Social Pillar Joint Statement," 7 June 2023, retrieved from: <https://www.gov.uk/government/publications/united-kingdom-and-kingdom-of-saudi-statement>.

Priory Wellbeing Centre in Saudi Arabia marked the first international mental health clinic in the Kingdom, with additional centres planned. King's College Hospital will be opening a branch in Jeddah.³⁰⁹ Around 30% of the doctors at this 214 million USD (163 million GBP) facility will come from the UK, and Saudi nurses will receive training in London.³¹⁰

As a key healthcare partner to both Riyadh and Jerusalem, Britain is well-positioned to facilitate dialogue and joint projects between Saudi Arabia and Israel, even informally. UK-backed health initiatives have been tied to diplomatic progress, with Britain explicitly framing its AI healthcare deployments in Saudi Arabia as strengthening bilateral ties. A key example is Babylon Health, the UK AI healthcare start-up backed by Saudi Arabia's Public Investment Fund in 2019, whose platform was adopted by the Saudi health ministry for patient services.³¹¹ UK HealthTech platform Proximie has also entered into a strategic partnership for AI-driven digitisation of the Kingdom's operating theatres.³¹²

Collaborative medical projects tend to rise above politics, focusing on shared human benefits; this makes them ideal for quietly building trust between nations lacking formal diplomatic ties. The UK can leverage its role as a facilitator of cutting-edge healthcare AI to foster a trilateral rapport.

The Proximie surgical telepresence technology is a prime candidate for future collaboration. The platform already connects operating rooms globally, so one can envisage a future where a specialist in Israel's Sheba virtually assists a surgery in Riyadh (or vice versa) through Proximie, under a UK-led training program.

The Seha Virtual Hospital (SVH) is another innovation that could be jointly leveraged. SVH has dramatically expanded access to specialist care in Saudi Arabia's vast geography and even treated Syrian earthquake survivors remotely.³¹³ With a relatively low number of hospital beds per capita, Britain has created over 10,000 'virtual wards', which allow patients to leave hospitals early and be monitored in their homes through wearable devices. However, the NHS' virtual wards have failed to bring down costs, often increasing them.³¹⁴ One joint venture could see the NHS partner with SVH to exchange knowledge on scaling telemedicine. In turn, this Saudi 'hospital of the future' could connect with Israeli hospitals for regional tele-consultations.

The Panda in the Room

Prioritising AI in healthcare allows the UK to offer an attractive high-tech alternative to China's growing influence in the region. Beijing has been ramping up its tech diplomacy through initiatives like the 'Health Silk Road', using medical aid, telehealth, and AI technology exports to deepen its footprint.³¹⁵ By scaling up its AI healthcare collaborations, Britain offers Saudi Arabia, Israel, and their neighbours a different model. For example, instead of a Saudi hospital deploying a black-box AI system from China, the UK could provide an NHS-tested AI diagnostic tool with transparent algorithms and co-training for Saudi staff. In Israel, rather than accepting unchecked Chinese investment, joint R&D with the UK can keep Jerusalem aligned with fellow democracies on tech standards.

An added strength of the UK's approach is its emphasis on AI ethics and governance, which could shape regional norms for the better. Riyadh has shown enthusiasm for this approach. In October 2023, ahead of Saudi Arabia's participation in the AI Safety Summit at Bletchley Park, Saudi Data and AI Authority

[arabia-strategic-partnership-council-economic-and-social-pillar-joint-statement/united-kingdom-and-kingdom-of-saudi-arabia-strategic-partnership-council-economic-and-social-pillar-joint-statement-7-june-2023](#).

³⁰⁹ Saudi Arabia Ministry of Commerce (2024). "The Kingdom of Saudi Arabia and United Kingdom Strategic Partnership Council: Economic and Social Pillar Joint Statement," 14 May 2024, retrieved from: <https://mc.gov.sa/en/mediacenter/News/Pages/14-05-24-01.aspx>.

³¹⁰ Abuljadayel, F. (2022). "\$214m King's College Hospital to Launch in Jeddah by the End of 2023," *Arab News*, 21 March 2022, retrieved from: <https://www.arabnews.com/node/2046871/business-economy>.

³¹¹ Dartnell-Steinberg, C. (2019). "Saudi Arabian Sovereignty Contributes to NHS-Associated Babylon Health's \$550M Raise," *MobiHealthNews*, 5 August 2019, retrieved from: <https://www.mobihealthnews.com/news/emea/saudi-arabian-sovereignty-contributes-nhs-associated-babylon-healths-550m-raise>.

³¹² Proximie (2024). "UK-Based Proximie Aims to Foster Strategic Partnerships in Saudi Arabia," August 2024, retrieved from: <https://www.proximie.com/press/uk-based-proximie-aims-to-foster-strategic-partnerships-in-saudi-arabia>.

³¹³ Takla, R. and Hadchity, M. (2025). "Saudi Virtual Hospital at Forefront of AI Integration, Deputy Minister Says," *Arab News*, 10 February 2025, retrieved from: <https://www.arabnews.com/node/2589699/business-economy>.

³¹⁴ The Economist (2024). "Can Artificial Intelligence Make Health Care More Efficient?" 27 March 2024, retrieved from: <https://www.economist.com/technology-quarterly/2024/03/27/can-artificial-intelligence-make-health-care-more-efficient>.

³¹⁵ Banerji, A. (2022). "Health Silk Route: China and the Middle East," *Modern Diplomacy*, 15 May 2022, retrieved from: <https://www.economist.com/technology-quarterly/2024/03/27/can-artificial-intelligence-make-health-care-more-efficient>.

hosted a roundtable in Riyadh on AI ethics and regulation. The UK can capitalise on this by exporting its best practices in AI governance alongside the technology itself. Concretely, this means that when British firms or hospitals deploy AI solutions in Saudi or Israel, they also advise on data protection, bias mitigation, and regulatory compliance.

Such guidance could help Saudi Arabia and Israel converge on shared AI standards—for example, agreeing on privacy protocols for health data or ethical guidelines for AI-driven diagnoses—which would render future collaboration smoother. The UK's principled stance becomes a selling point: it assures all parties that joint projects will meet high ethical benchmarks, assuaging potential public or political concerns. Indeed, Britain and its allies pride themselves on using AI in line with democratic values, contrasting with the more opaque Chinese approach.

Over time, UK-led AI healthcare programs in the Middle East could form a regional community of practice, where Saudi, Israeli, Emirati, and Bahraini professionals collaborate through shared training, data agreements, and governance. This would further normalise interaction between Saudis and Israelis.

Conclusion

The rapid advancement of AI in healthcare presents a transformative opportunity for the UK to strengthen its partnerships across the Middle East while reinforcing its position as a global leader in medical innovation. The UK's established expertise in AI regulation, genomic research, and healthcare technology makes it uniquely suited to act as a bridge between the Abraham Accords signatories and Saudi Arabia, fostering renewed collaboration even in the wake of geopolitical tensions. By leveraging its deep ties with both Israel and the Gulf states, Britain can facilitate trilateral initiatives in AI-driven medical training, disease surveillance, and digital health innovation, offering a neutral platform for cooperation that transcends political sensitivities.

At the same time, the UK's leadership in AI governance and ethical frameworks offers Middle Eastern partners a compelling alternative to growing Chinese influence in the region's health sector. By embedding transparency, data security, and patient-centric AI ethics into its partnerships, Britain can help shape the region's AI healthcare ecosystem in alignment with democratic values. Initiatives such as joint training programs, AI research hubs, and digital twin hospitals provide tangible pathways for long-term collaboration, ensuring that the momentum behind AI-driven healthcare innovation continues to thrive. In positioning itself as a trusted partner, the UK not only strengthens its own economic and technological standing but also contributes to regional stability and integration through the unifying power of medical progress.

IV. Education and Workforce Upskilling

By James Gillham

Overview

As a result of rapid digital transformation and the global race for technological innovation, artificial intelligence (AI) has been catapulted to the forefront of national policymaking agendas. Governments from the United Kingdom to the Middle East and North Africa (MENA) region all recognise that harnessing AI's full potential is beneficial not only for promoting economic diversification but also for ensuring long-term strategic independence and security (see: Saudi Arabia's Vision 2030 includes direct references to AI in 66 out of its 96 goals³¹⁶). Factors contributing to the UK's robust AI ecosystem include a world-leading academic research environment, advanced regulatory frameworks³¹⁷, a highly skilled and educated workforce, and significant private-sector innovation.

By delivering targeted education services to students and professionals studying and working in the technology field and hailing from the MENA region, the UK can bolster its influence in the region as well as create deeper links between Abraham Accords signatory countries. Key objectives as part of such educational initiatives are fostering enhanced technical proficiency and higher standards in AI governance across the MENA region. Rapid advancements in AI have significantly increased the demand for a skilled workforce proficient in AI methodologies and ethical frameworks. The global AI market is forecast to expand from approximately 164 billion GBP (214 billion USD) in 2024 to 1 trillion GBP (1.3 trillion USD) by 2030³¹⁸, underlining the urgent need for enhanced AI literacy among tech professionals.

The UK is in a unique position in this respect, being home to some of the world's most renowned academic institutions such as the University of Oxford, the University of Cambridge, Imperial College London, and University College London (UCL). The UK's offerings in education include PhD scholarships, fellowship exchanges, and tailored vocational training programmes—each building technical expertise and addressing specific skill gaps. The UK also has a favourable regulatory environment, which is a critical enabler for innovation and research in AI. This legal landscape permits rigorous academic exploration alongside private sector innovation, providing significant advantages over competing nations where regulatory environments may be less flexible or conducive to innovation. By leveraging these capabilities through joint research and training collaborations, the UK can seek to significantly reduce the MENA region's reliance on external providers of technology, particularly China, as well as deepen economic ties between the UK and Abraham Accords signatory countries.

Bridging the AI Skills Gap: A UK-MENA Partnership

The current skills gap in the field of AI technologies provides an opportunity for the UK to take a significant stake in training existing and future professionals as well as students. Training could also be coupled with the promotion of effective regulatory and governance mechanisms related to AI Large Language Models (LLMs).

Formal exchange programmes for students and professionals in the tech field and from the MENA region could offer targeted courses and practical workshops designed specifically around real-world AI applications, regulatory frameworks, ethical considerations, and the risks associated with the use of AI in high-stakes policy areas. Exchanges could also foster a deeper appreciation of UK educational values and practices, and UK-backed standards in AI safety and governance, while establishing enduring diplomatic and economic ties, potentially contributing to the reduction of the MENA region's reliance on external tech providers such as China.

In parallel with UK-based training, establishing joint UK-MENA AI training centres in the region could broaden the impact and reach of the UK's strategic goals in this sector. This could initially take the form of hybrid models involving online modules led by UK professors, particularly in partnership with

³¹⁶ SDAIA and Vision 2030. (n.d.), retrieved from: <https://sdaia.gov.sa/en/SDAIA/SdaiaStrategies/Pages/sdaiaAnd2030Vision.aspx>.

³¹⁷ Hampton Partners. (2024). Why the UK has become a global leader in AI. Hampton Partners, retrieved from: <https://www.hamptonpartners.com/news/newsdetail/why-the-uk-has-become-a-global-leader-in-ai/>.

³¹⁸ Markets and Market (2024). "Artificial Intelligence (AI) Market", May 2024, retrieved from: <https://www.marketsandmarkets.com/Market-Reports/artificial-intelligence-market-74851580.html>.

academic and research institutions like UCL, Imperial College London, and the Alan Turing Institute. UK experts could also deliver short-term workshops and bootcamps on-site in countries like the UAE and Saudi Arabia, allowing for tailored, sector-specific instruction in emerging AI governance practices.

Potential Academic Institutions for Collaboration

Researchers at Oxford University have developed a novel method to detect ‘hallucinations’ by Large Language Models (LLMs)—discussed in more detail below. This method increases the reliability of AI-generated information, particularly in high-stakes fields such as law and medicine.³¹⁹ Newcastle University offers a PhD studentship titled ‘Improving Reliability in Vision-Language Models: Reducing Hallucination in Multimodal AI Systems.’ This doctoral programme aims to investigate the factors contributing to ‘hallucination’, develop innovative strategies for its mitigation, and establish new benchmarks for their evaluation.³²⁰

Comparable academic programmes exist throughout the MENA region, and new partnerships targeting collaboration with these institutions could significantly amplify mutual benefits. Israel hosts the Technion-Israel Institute of Technology, renowned for its advanced AI research and innovation ecosystems, presenting strong opportunities for research exchanges. In the UAE, the Mohamed bin Zayed University of Artificial Intelligence (MBZUAI)³²¹ is specifically dedicated to AI research and training, offering an ideal partner for joint training programmes and research projects. Bahrain's University of Bahrain, with its growing emphasis on technological innovation, represents another valuable partner for capacity-building initiatives in this area –offering a Master's degree in AI systems.³²² In Morocco, the Mohammed VI Polytechnic University actively invests in digital technology and AI, providing an established academic hub³²³ for collaborative research and innovation exchanges. Saudi Arabia's King Abdullah University of Science and Technology (KAUST) similarly offers advanced AI research programmes and facilities³²⁴ that could complement UK initiatives, fostering deeper bilateral collaboration.

To ensure sustainability and exercising impact over the longer term, the UK government should consider institutionalising AI education. A UK-MENA AI education initiative, modelled after the UK's existing educational partnerships, could facilitate regular academic exchanges, reciprocal fellowships, and the development of shared curricula. For instance, UK-based AI fellowships could be created to support MENA region-based researchers working at British universities. In addition to this, a UK-MENA AI safety task force comprised of experts from academia, government, and industry could further efforts for the responsible development and regulation of AI tools, with an emphasis on mitigating ‘hallucinations’, building resilience against disinformation, and exporting the ethical standards pertaining to AI.

Joint fundraising efforts aimed at establishing new academic initiatives could include UK Government Department for Science, Innovation & Technology (DSIT) funds, MENA Governments' co-funding mechanisms through arms like Saudi Arabia's Public Investment Fund and the UAE's G42 AI Diplomacy, as well as private sector sponsorships from leading companies in the field such as Microsoft, Google DeepMind, and OpenAI.

Training Tech Workers to Identify AI ‘Hallucinations’

AI hallucinations refer to inaccurate information produced by LLMs that is based on flawed data, incomplete context, or limitations in the training methods of AI. AI hallucinations are defined as incidences when an LLM (Large Language Model) ‘perceives patterns or objects that are non-

³¹⁹ University of Oxford (2024). “Major research into ‘hallucinating’ generative models advances reliability of artificial intelligence”, 20 June 2024, retrieved from: <https://www.ox.ac.uk/news/2024-06-20-major-research-hallucinating-generative-models-advances-reliability-artificial>.

³²⁰ Jobs.ac.uk (2025). “PhD Studentship: Improving Reliability in Vision-Language Models: Reducing Hallucination in Multimodal AI Systems”, 29 January 2025, retrieved from: <https://www.jobs.ac.uk/job/DLQ396/phd-studentship-improving-reliability-in-vision-language-models-reducing-hallucination-in-multimodal-ai-systems>.

³²¹ Mohamed bin Zayed University of Artificial Intelligence (2025). “AI Research”, retrieved from: <https://mbzuai.ac.ae/research/>.

³²² University of Bahrain. (2025, February 18). M.Sc. in Artificial Intelligence Systems - College of Engineering. College of Engineering, retrieved from: https://engineering.uob.edu.bh/graduate/m-sc-in-ai_systems/.

³²³ University Mohamed VI Polytechnic (2025). Retrieved from: <https://www.um6p.ma/en>.

³²⁴ GenAI Factory. (n.d.). KAUST, retrieved from: <https://www.kaust.edu.sa/en/research/generative-ai/gen-ai-factory>.

existent’.³²⁵ It is essential that developers tackle this issue and users are aware of it. As AI models become more sophisticated and ever more widely used in high-stakes sectors, hallucinations pose significant risks with regard to the interpretations of the law, financial predictions, medical diagnostics, and the dissemination of public information. According to AI expert Arvind Narayanan from Princeton University, hallucinations are intrinsic to how LLMs function and may never be fully eradicated. This underscores the need for a highly skilled workforce capable of identifying AI errors and implementing corrective measures in AI-driven decision-making processes, ensuring that the use of AI provides accurate and consistent results.

Oxford University has recently conducted research with the aim of investigating and diagnosing the causes of AI hallucinations. In addition to the pioneering work done by Oxford, the UK Government has taken a leading role in tackling AI hallucinations through policy and international collaboration. The AI Security Institute (AISI), launched by the Department for Science, Innovation & Technology (DSIT) in 2023, is tasked with evaluating and testing frontier AI systems to identify and mitigate hallucination risks.³²⁶ The Institute builds on the 2023 AI Safety Summit at Bletchley Park, where the UK secured international commitments to conduct pre- and post-deployment evaluations of advanced AI models.³²⁷

Risks for the economy from hallucinations are numerous³²⁸ and include:

- The erosion of confidence in business: Inaccurate AI-generated reports could lead to poor business decisions, and financial and reputational damage.
- Legal and Ethical Implications: AI hallucinations in legal contexts may result in wrongful convictions, flawed contracts, and legal malpractice.
- Public Sector Misinformation: AI-generated misinformation in government and media could mislead policymakers and the public, affecting governance and social trust.
- Economic and National Security Risks: Flawed AI models may be exploited for misinformation campaigns or result in strategic miscalculations.

Compounding the above risks is that AI models trained on low-quality data are more prone to hallucinations. A study conducted at the Massachusetts Institute of Technology (MIT) found that LLMs that rely on biased or low-quality datasets produce hallucinations 40% more often than those trained on meticulously curated data.

Case study: Gauthier v. Goodyear Tyre & Rubber Co., 2023

AI is a tool rapidly gaining widespread use in the legal field, but the risk that hallucinations can pose has led to repercussions for those involved in the past. A famous example of this is the case of Gauthier v. Goodyear Tyre & Rubber Co. in 2023, when a lawyer representing the plaintiff used a generative AI model to provide legal precedent for their case. The AI model had produced two false results of non-existent cases, and the lawyer was eventually ordered to pay a 2,000 USD fine³²⁹ for the use of fabricated information and required to complete a course on the use of AI within the legal field.

Case Study: DeepSeek R-1

A recent development in the world of LLMs has been the blockbuster release of the Chinese AI model, DeepSeek. It entered the public’s consciousness when it temporarily overtook ChatGPT in downloads in the Apple App Store, sparking concern among policymakers over the use of Chinese AI models in the West. Compared with Western AI models, DeepSeek is much cheaper to use (free of charge, in fact), and

³²⁵ IBM (2023). “What are AI hallucinations?”, 1 September 2023, retrieved from: <https://www.ibm.com/think/topics/ai-hallucinations>.

³²⁶ About | The AI Security Institute (AISI). (n.d.), retrieved from: <https://www.aisi.gov.uk/about>.

³²⁷ Street, P. M. O. 1. D. (2023, November 2). World leaders, top AI companies set out plan for safety testing of frontier as first global AI Safety Summit concludes. *GOV.UK*, retrieved from: <https://www.gov.uk/government/news/world-leaders-top-ai-companies-set-out-plan-for-safety-testing-of-frontier-as-first-global-ai-safety-summit-concludes>.

³²⁸ Taplin, S. (2024). “AI Hallucinations: How Can Businesses Mitigate Their Impact?”, *Forbes*, 15 August 2024, retrieved from: <https://www.forbes.com/councils/forbestechcouncil/2024/08/15/ai-hallucinations-how-can-businesses-mitigate-their-impact/>.

³²⁹ Baker Botts (2024). “Trust, But Verify: Avoiding the Perils of AI Hallucinations in Court”, 9 December 2024, retrieved from: <https://www.bakerbotts.com/thought-leadership/publications/2024/december/trust-but-verify-avoiding-the-perils-of-ai-hallucinations-in-court>.

is more efficient in the use of hardware³³⁰ in training. This has led many to believe that Chinese companies are ahead of those in the West when it comes to developing AI models.

However, it has been noted that the DeepSeek R-1 model has a hallucination rate of 14.3 percent³³¹ – likely a result of less training of the model. This is significantly higher than the current ChatGPT flagship model’s (GPT-4o) hallucination rate of 1.5 percent.³³² The discrepancy between hallucination rates of LLMs should serve as a warning to companies, governments and individuals seeking to base decisions off the use of AI. This could provide valid reasons for countries seeking to integrate AI models into their economic and government activities to divest from Chinese technology and invest in more reliable Western models instead.

Outside of accidental hallucinations, there exists a more intentional form of disinformation that DeepSeek AI has been found to spread. For decades now, the Chinese government has sought to alter public discourse through a policy of ‘guidance’, which differs from overt censorship in the sense that guidance promotes state-backed narratives rather than simply directing institutions and national media as to what to say. This approach applies to DeepSeek as well, meaning that if prompted, this language model can often provide results favourable to the interests of the Chinese government rather than simply providing the most accurate answer.

Integrating Fintech Education into Curricula

An important sector in which the UK holds a key competitive advantage is fintech, with companies like Monzo, Revolut and Wise all hailing from Britain. Factors which contribute to this vibrant growing sector include a supportive regulatory environment, close proximity to global financial leaders in the City of London, a highly flexible, skilled and educated workforce at ready availability, and access to ample capital. Currently, the UK fintech market is valued at £16.21 billion³³³ and is expected to achieve a compound annual growth rate of 10 percent between 2025 and 2030. As such, focusing on exchange programmes between MENA states and the UK on the education of workers in the fintech sector would also be beneficial.

The rise of neobanks in the UK has shifted the market and necessitates greater workforce literacy in the area of fintech. A neobank is a non-traditional form of banking, operating online without the use of physical premises. In the UK, the proportion of consumers using neobanks as their primary form of banking has risen from 1 percent³³⁴ in late 2020 to nearly 10 per cent by 2024. UK regulations on neobanks offer a more streamlined process for startups in the sector than for traditional banking – especially compared with regulatory environments in other mature economies. Writing for Andreessen Horowitz, Simon Taylor³³⁵ makes the case for the UK being a global hub for the rapidly growing fintech sector. One advantage he cites is the relative flexibility afforded to startups in the sector due to the ability for new banks to acquire a license “with restrictions”. This is designed for startups with limited access to capital, allowing them to operate as digital banks. The potential benefit of this process is the opportunity to acquire venture capital while operating with restrictions, paving a way for such startups to eventually achieve a full banking license. Other countries do not offer such flexibility, thus giving UK fintech regulations a decisive advantage.

Another key regulatory advantage the UK possesses is the Financial Conduct Authority’s Regulatory Sandbox.³³⁶ This tool, provided to both established and new players in the field, allows for the testing of financial services and products in an authentic business environment and in real-time. This allows

³³⁰ Rogers, R. (2025). “Hands On With DeepSeek’s R1 Chatbot”, *Wired*, 27 January 2025, retrieved from: <https://www.wired.com/story/deepseek-chatbot-hands-on-vs-chatgpt/>.

³³¹ Vectara (2025). “DeepSeek-R1 hallucinates more than DeepSeek-V3”, 30 January 2025, retrieved from: <https://www.vectara.com/blog/deepseek-r1-hallucinates-more-than-deepseek-v3>.

³³² Github. “Hallucination Leaderboard”, retrieved from: <https://github.com/vectara/hallucination-leaderboard>.

³³³ Mordor Intelligence (2024). “UK Fintech Market Size & Share Analysis – Growth Trends & Forecasts (2025–2030)”, retrieved from: <https://www.mordorintelligence.com/industry-reports/united-kingdom-fintech-market#:~:text=UK%20Fintech%20Market%20Analysis,19%20pandemic%20accelerated%20this%20growth>.

³³⁴ Rolfe, A. (2025). “The rise of neobanks and changing banking trends in the UK”, *Payments Cards and Mobile*, 10 February 2025, retrieved from: <https://www.paymentscardsandmobile.com/the-rise-of-neobanks-and-changing-banking-trends-in-the-uk/#:~:text=According%20to%20the%20latest%20research,solutions%20over%20traditional%20banking%20institutions>.

³³⁵ Taylor, S. (2023). “The UK Is a Fintech Regulatory Superpower”, *Andreessen Horowitz*, 21 September 2023, retrieved from: <https://a16z.com/global-payments-uk/>.

³³⁶ Financial Conduct Authority (2024). “Regulatory Sandbox”, 9 May 2024, retrieved from: <https://www.fca.org.uk/firms/innovation/regulatory-sandbox>.

businesses to quickly determine the market potential of such services and products without actually having to enter the market. Electronic Money Institution (EMI) licenses are also offered to neobanks wanting to allow online money transfers, but this does not allow such organisations to lend.

Potential methods and schemes for achieving increased harmony between the UK and MENA states with regard to the financial technology sector include:

- The launching of bilateral regulatory sandboxes modelling themselves on the FCA regulatory sandbox. This could include mutual oversight conducted between regulatory authorities in the UK and those of MENA countries.
- UK-backed online fintech education courses backed by reputable institutions and companies, giving those taking such courses in-depth education on UK fintech regulations, the challenges involved in fintech startups and how to reach a global market.
- Offering training on the use of AI within the fintech sector, specifically engaging in areas such as fraud identification, automated compliance and customer service.
- Further regulatory alignment between all parties in fintech, a prospect made increasingly likely due to ongoing free trade agreement negotiations between the UK and the Gulf Cooperation Council.

Aligning fintech education with the UK's strategic goals

Britain's competitive advantage in the fintech sector and its regulation provides great opportunity to promote British interests, the strengthening of the Abraham Accords and the counteraction of Chinese influence in the region. By providing education to MENA workers on the operation of fintech and how it interacts with regulators in the UK, it creates the possibility of greater future synergies between the actors involved with greater regulatory alignment.

Neobanks and fintech education clearly highlight the potential of UK technology as an innovative, viable alternative to Chinese AI-driven financial platforms. The aforementioned regulatory alignment has the potential to set market standards which favour ties with the UK over ties with China, thus decreasing MENA dependency on Chinese platforms, and building tech ecosystems more aligned with democratic norms and transparency. Leveraging the UK's fintech leadership would create additional opportunities for deeper collaboration, fostering stability through economic prosperity, inclusive growth, and enhanced cross-border investments, which are core objectives of the Abraham Accords too.

Bridging the Gender Gap in AI

Globally, 17 percent of AI workers are women. This figure rises to 42 percent in the UAE.³³⁷ Thus, it is vital that any education strategy regarding AI in the MENA region recognises the importance of inclusivity in this field. AI systems are prone to biases, including those related to gender, which can lead to discriminatory practices.

Educational programmes can equip professionals with the skills necessary to detect and resolve issues like sexist assumptions in AI models. By promoting gender diversity in AI development, new initiatives can also work towards creating more equitable and unbiased AI systems.

Case study: Amazon ditches AI Recruitment Tool due to Inbuilt Discrimination against Women

In 2015, Amazon's internal recruitment system was found to have demonstrated significant gender bias³³⁸ in its outputs. This occurred due to pre-existing conditions including a large overrepresentation of men in the company. Thus, the self-teaching algorithm sought qualities existing in those already

³³⁷ Inc.Arabia (2024). "Meet Yasmin Al Enazi: Trailblazer and AI Ambassador", 28 June 2024, retrieved from: <https://en.incarabia.com/women-in-ai-and-robotics-666014.html>.

³³⁸ Dastin, J. (2018). "Insight – Amazon scraps secret AI recruiting tool that showed bias against women", *Reuters*, 11 October 2018, retrieved from: <https://www.reuters.com/article/world/insight-amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK0AG/>.

employed in the company in the recruitment of new employees, resulting in the development of a significant bias towards male applicants.

Eventually, the recruitment system was scrapped despite Amazon's constant drive for automation. No doubt, many eligible female candidates may have been wrongfully overlooked due to this system's bias. This example creates a clear case for the need for AI users and developers to be constantly vigilant of potential gender biases that may arise from the use of such technology.

How Inclusiveness Strengthens the AI Sector

The UK-based Turing Institute is one organisation which seeks to address this issue head-on. One of the core tenets of their public policy programme is Women in Data Science and AI³³⁹, including targeted workshops, mentorships and scholarships specifically designed to increase the representation of women in the field of AI and tech. The Turing Institute highlights the importance of the inclusion of women in AI, citing biases that have arisen in technology and AI models that do not take an inclusive approach, using the example of Google Translate, which has been found to demonstrate gender bias when carrying out certain translations.

The inclusion of women in the AI sector is essential in ensuring the reliability of AI models. Gender biases can potentially cost AI firms and users alike. Advancements in the regulation of AI must be tied to broader governance reform aimed at gender diversity. The Alan Turing Institute's fellowships and mentorships could be replicated or expanded to include MENA scholars, reinforcing shared values on equity and responsible AI development.

Strengthening UK-MENA Collaboration in Tech Innovation

The development of AI is highly dependent on high-powered GPUs and data centres. MENA countries have a significant cost advantage in this area due to their access to cheap energy, particularly from oil and natural gas. The cost of electricity per kWh in the MENA region can be 2–5 times lower than in the UK.

For example, UK energy prices for non-domestic consumers in 2024 stood at 0.315 USD/kWh as of 2024³⁴⁰, making the UK the country with the highest industrial energy prices globally³⁴¹. In comparison, Saudi Arabia's industrial prices as of 2024 stood at 0.07 USD/kWh³⁴². In the UK, high energy costs are a major challenge for AI start-ups and data centres. The UK's focus on pursuing a net zero energy strategy further increases operational expenses. Assuming there will be no dramatic downward change in energy prices in the short to medium term, it is vital that British tech talent is given the opportunity to develop new technology elsewhere with lower costs. The ability to access such resources in the MENA region could prove beneficial to UK-based AI workers looking to undertake power and hardware-intensive work in developing new tech.

While physically relocating AI infrastructure to the Gulf may present challenges such as data protection concerns, legal jurisdiction issues, and cloud-based partnerships present a viable alternative. British AI start-ups could gain access to low-cost cloud services based in the MENA region through partnerships with Microsoft Azure, Oracle Cloud Infrastructure, and Amazon Web Services (AWS), all of which have looked to expand their operations in the region. These partnerships would allow British firms to reduce costs without relocating staff or assets.

Achieving this mutually beneficial exchange could be possible due to the rapidly growing cloud services industry in MENA countries. Due to the relatively low energy costs paired with broadly pro-AI governments of the region, tech companies from across the globe are looking to construct data centres

³³⁹ The Alan Turing Institute (2025). "Public Policy", retrieved from: <https://www.turing.ac.uk/research/research-programmes/public-policy/public-policy-themes/women-data-science-and-ai>.

³⁴⁰ Department for Energy Security and Net Zero. (2025, March 27). *Industrial energy price statistics*. GOV.UK. retrieved from: <https://www.gov.uk/government/collections/industrial-energy-prices>.

³⁴¹ Freeman, D. (2024). "We're number one... in unaffordable electricity", *Institute of Economic Affairs*, 7 October 2024, retrieved from: <https://iea.org.uk/were-number-one-in-unaffordable-electricity/#:~:text=International%20Industrial%20Electricity%20Prices&text=UK%20industrial%20electricity%20prices%20at,h igher%20than%20the%20IEA%20median>.

³⁴² Climatescope (2024). "Saudi Arabia", retrieved from: <https://www.global-climatescope.org/markets/saudi-arabia>.

in the Gulf. One such example of this is the new Delinea data centre³⁴³ in Dubai, offering Microsoft Azure cloud computing services.

Saudi Arabia is a key driver of the expansion of the Middle East's growing AI sector, having pledged 77 billion GBP (100 billion USD) into 'Project Transcendence',³⁴⁴ which aims to channel large amounts of funding into AI training, data centres and tech start-ups.

Such data centres make it possible and attractive for UK AI developers to use MENA technology infrastructure, allowing a lower total output cost in the use and development of AI.

Strategic Benefits for the UK

Deepening AI partnerships with countries in the MENA region in the field of education can significantly reinforce the UK's influence and foster closer diplomatic and economic relationships. By positioning itself as the preferred partner in AI education and research aimed at technology development, the UK can secure enduring collaborative agreements, enhancing its international standing and influence. Such partnerships could also counterbalance China's current dominance in AI within the region, consequently augmenting the UK's soft power and reputation as a responsible leader in AI governance in the region and beyond it. In addition to this, as professionals in the GCC engage with British educational and research institutions, they could gain exposure not only to technical expertise but also to British culture and values, expanding the UK's attractiveness as a global destination in the field. Such soft power dynamics pave the way for future economic cooperation, cross-cultural exchanges, and international alliances beneficial to UK interests.

Strategic Benefits for MENA States

By engaging closely with the UK, countries in the MENA region can substantially enhance their AI sovereignty, effectively reducing reliance on Chinese technological infrastructure and geopolitical vulnerabilities associated with it. This strategic shift supports greater regional autonomy in technological advancement and safeguards national interests against external influence. Moreover, adopting UK standards in AI safety, transparency, and governance could align MENA countries with emerging international best practices, significantly reducing risks associated with AI misuse or regulatory gaps. This enhanced governance framework would bolster confidence among the public, business communities, and governments, mitigating economic and political risks stemming from AI hallucinations or misinformation. Furthermore, strengthening economic and research collaborations with the UK would foster long-term bilateral cooperation, creating sustainable avenues for technological innovation, joint research initiatives, and shared stakes in economic growth. This mutual partnership facilitates access to cutting-edge AI research and education, driving regional innovation and ensuring long-term strategic stability and economic resilience.

Conclusion

With a rapidly growing AI ecosystem in the MENA region, it is vital for UK AI diplomacy in the region to include a focus on mutually beneficial educational and research schemes. Such schemes can work to the benefit of a wide array of British interests. From the promotion of equality between men and women through the education of tech workers on the potential for gender biases arising in AI technology to the potential of regulatory alignment in financial technology (a sector which is increasingly integrating AI into its services), both areas in which British soft power can be promoted, educational schemes between the UK and MENA with regards to AI can be a powerful tool in promoting British interests overseas. Recent cuts to the overseas development aid budget in the UK mean that other avenues of gaining soft power must be found, with aforementioned benefits of educational schemes being valuable avenues through gaining such power.

Counterbalancing Chinese influence in the region through the promotion of education of MENA-based tech workers on the potential harms of AI hallucinations must also be at the top of the agenda. Western

³⁴³ Rowley, S. "New Dubai data centre built on Microsoft Azure", retrieved from: <https://dcmagazine.com/data-centres/new-dubai-data-centre-built-on-microsoft-azure/>.

³⁴⁴ Benito, A. (2024). "Saudi Arabia launches \$100 Billion AI initiative to lead in global tech", *CIO*, 11 November 2024, retrieved from: <https://www.cio.com/article/3602900/saudi-arabia-launches-100-billion-ai-initiative-to-lead-in-global-tech.html>.

AI models are on average more reliable in terms of their outputs than those trained in China. To compete with the low cost of using Chinese AI technology, educational schemes that provide training on the identification of hallucinations and how to prevent their harmful effects should be expanded.

Exchange programmes for researchers, policymakers and engineers are a potentially powerful vehicle through which such education can be facilitated. Not only will this achieve the goals mentioned previously, but also the deepening of economic ties between the UK and the MENA region, such as through the facilitating of British AI firms using cloud-based software from data centres based in MENA countries. If successful, educational collaboration could create the potential for further regulatory alignment, and the fostering of new connections as part of both bilateral and multilateral frameworks.

V. AI Governance and Regulation

By Uri Inspector

Overview

The UK leads the world in AI governance. In November 2023, the first Global AI Safety Summit was hosted in historic Bletchley Park, bringing together governments—including the US, the EU, China, and Middle Eastern states—alongside tech firms and technical experts. The result was the Bletchley Declaration, an unprecedented joint statement by 28 countries committing to international cooperation on AI risk management. The declaration affirms that AI should be ‘safe, human-centric, trustworthy and responsible’.³⁴⁵

At Bletchley, even bitter geopolitical rivals found common ground on AI. The UK’s success in hosting this summit showcased its ability to act as a bridge-builder in AI governance discussions. It set the tone for ongoing global dialogue on frontier AI safety, with the UK as a leader.

Britain was a founding member of the Global Partnership on AI (GPAI) in 2020 and has been an active voice in that forum’s projects on data governance and AI ethics. It also helped shape the OECD’s AI Principles—the world’s first intergovernmental standard for AI policy—adopted in 2019. The UK’s advocacy for these principles (which stress human rights, transparency, safety, and international cooperation) contributed to their endorsement by over 50 countries including the G20 nations.³⁴⁶

The UK has leveraged its G7 presidency and other forums to champion initiatives like the OECD AI Policy Observatory and the Global Privacy Assembly’s work on AI—further demonstrating its commitment to international coordination.³⁴⁷ London has further supported the development of trust frameworks for AI at bodies like the Council of Europe and UNESCO, ensuring that issues such as algorithmic bias and accountability are addressed in global agreements. This multilateral engagement has given the UK a reputation as a pragmatic bridge-builder between the EU, the US, and other blocs on AI matters.

Beyond its convening gravitas, the UK has devised innovative AI governance tools. Then Prime Minister Rishi Sunak announced the creation of the AI Safety Institute (AISI) in late 2023, the world’s first global AI safety hub, with an unparalleled 100 million GBP investment.³⁴⁸ The AISI, later renamed the AI Security Institute, evaluates frontier AI models for risks—from societal harms like bias to existential biochemical threats. It is the world’s best resourced testing institution, and international tech giants have flocked to London to ensure AISI tests their models.

Compounding this regulatory innovation, the UK’s MHRA launched the ‘AI Airlock’ in 2024—a first-of-its-kind regulatory sandbox for AI in healthcare.³⁴⁹ Historically, the UK has pioneered the use of regulatory sandboxes; controlled environments where businesses can test innovative technologies under regulatory supervision. The AI Airlock pilot brings together regulators, NHS leaders, and industry to test AI medical devices in a controlled environment, identifying regulatory challenges early and informing future guidance.

Britain’s agile, empirical approach reflects a ‘soft law’ strategy vis-à-vis AI. Rather than imposing immediate and broad legislation, the UK is creating nimble processes to study and manage AI risks in real time. As such, Westminster diverges from Brussels in ways that position the UK as an attractive market and regulatory partner to emerging markets. The EU’s AI Act presents comprehensive,

³⁴⁵ Gov.uk (2025). “[The Bletchley Declaration by Countries Attending the AI Safety Summit, 1–2 November 2023](https://www.gov.uk/government/publications/ai-safety-summit-2023-the-bletchley-declaration/the-bletchley-declaration-by-countries-attending-the-ai-safety-summit-1-2-november-2023),” 13 February 2025, retrieved from: <https://www.gov.uk/government/publications/ai-safety-summit-2023-the-bletchley-declaration/the-bletchley-declaration-by-countries-attending-the-ai-safety-summit-1-2-november-2023>.

³⁴⁶ Center for AI and Digital Policy (2021). “[Artificial Intelligence and Democratic Values: 2021 AI and Democratic Values Index](https://wp.oecd.ai/app/uploads/2022/02/Center-for-AI-and-Digital-Policy.pdf)”. *OECD.AI*, February 2022, retrieved from: <https://wp.oecd.ai/app/uploads/2022/02/Center-for-AI-and-Digital-Policy.pdf>

³⁴⁷ Gov.uk (2024). “[G7 Ministerial Declaration: Deployment of AI and Innovation](https://www.gov.uk/government/publications/g7-ministerial-declaration-deployment-of-ai-and-innovation/g7-ministerial-declaration),” 15 March 2024, retrieved from: <https://www.gov.uk/government/publications/g7-ministerial-declaration-deployment-of-ai-and-innovation/g7-ministerial-declaration>.

³⁴⁸ Gov.uk (2023). “[Prime Minister launches new AI Safety Institute](https://www.gov.uk/government/news/prime-minister-launches-new-ai-safety-institute),” 2 November 2023, retrieved from: <https://www.gov.uk/government/news/prime-minister-launches-new-ai-safety-institute>.

³⁴⁹ Gov.uk (2024). “[AI Airlock: The Regulatory Sandbox for AIaMD](https://www.gov.uk/government/collections/ai-airlock-the-regulatory-sandbox-for-aiamd),” 9 May 2024, retrieved from: <https://www.gov.uk/government/collections/ai-airlock-the-regulatory-sandbox-for-aiamd>.

horizontal regulations that impose strict, binding rules (for example, extensive high-risk system requirements). The EU is also establishing new enforcement bodies across member states.³⁵⁰

In contrast, the UK's 2023 'pro-innovation' AI White Paper opts for a flexible framework: instead of a single overarching AI law, it empowers existing regulators to apply five guiding principles (safety, transparency, fairness, accountability, and contestability) within their sectors.³⁵¹ Crucially, the UK imposes no new statutory obligations on AI developers at this stage. This light-touch, sectoral strategy aims to encourage innovation and investment, avoiding the heavy compliance burdens of the EU model. It also means businesses interact with familiar regulators, though a downside is potential inconsistency across sectors.

The UK's nuanced approach resonates with many Middle Eastern countries. Like the UK, countries such as the UAE and Saudi Arabia have favoured guidelines over early legislation.³⁵² Britain's emphasis on collaboration and flexibility is well-aligned with this 'soft law' ethos. Unlike the EU's complex rules or the US's embattled regulators and litigious culture, the UK offers a middle path that combines rigour with adaptability.

For Middle Eastern regulators seeking to harness AI for economic growth while managing risks, the UK model appears both comprehensive and business-friendly. Additionally, the UK's diplomatic and historical ties in the region, and its reputation for strong legal frameworks, make it a natural partner to help develop AI governance in culturally appropriate, non-hegemonic ways.

UK-Middle East Regulatory Collaboration

The United Kingdom's regulatory engagement with the Middle East is already underway, most notably with Abu Dhabi. In September 2021, the UK and the UAE signed a landmark Memorandum of Understanding focused on artificial intelligence cooperation.³⁵³ This agreement, part of a broader 'Partnership for the Future', provides a framework for knowledge transfer, investment, and standards development in AI between the two countries. The MoU facilitates joint research and exchange of best practices, signalling mutual interest in shaping AI governance.

The UK-UAE AI partnership is supported by high-level political will. The Emirati Minister for AI (also Minister of Industry and Advanced Technology) and UK ministers have engaged in ongoing dialogue. This existing rapport provides a solid foundation for expanding regulatory cooperation to multilateral forums involving other Abraham Accords states.

The UK and Israel have a long-standing technology partnership that extends into AI governance. Through the UK-Israel Hub, British and Israeli experts have convened roundtables on issues like online safety and AI ethics (e.g. Cyber Week 2019 in Tel Aviv) to share regulatory perspectives.

This cooperation was formalised and boosted by the 2030 Bilateral Roadmap announced in March 2023, which included a dedicated MoU on science and technology. Under the MoU, the UK and Israel designated AI as a priority for joint collaboration between their science and innovation ministries, committing not only to collaborative research but also to policy exchanges and testbeds in AI. The roadmap also commits Britain to 'explore opportunities for regional cooperation... in coordination with the emerging regional architecture' of the Abraham Accords.³⁵⁴

³⁵⁰ European Union. (2024). "Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act)," *Official Journal of the European Union*, 1689, 13 June 2024, retrieved from: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_2024.01689.

³⁵¹ Gov.uk (2023). "AI Regulation: A Pro-Innovation Approach," 3 August 2023, retrieved from: <https://www.gov.uk/government/publications/ai-regulation-a-pro-innovation-approach/white-paper>.

³⁵² Nakkach, T. (2024). "AI regulation and policy landscape in the Middle East," *Centre for Assuring Autonomy*, University of York, 15 March 2024, retrieved from: <https://www.york.ac.uk/assuring-autonomy/news/blog/ai-regulation-middle-east/>.

³⁵³ Gov.uk (2021). "UAE and UK Launch Sovereign Investment Partnership with Initial £1 Billion in Life Sciences," 24 March 2021, retrieved from: <https://www.gov.uk/government/news/uae-and-uk-launch-sovereign-investment-partnership-with-initial-1-billion-in-life-sciences>; Gov.uk (2021). "UK-United Arab Emirates Memorandum of Cooperation on Industrial and Advanced Technologies Collaboration," 25 May 2023, retrieved from: <https://www.gov.uk/government/news/uk-united-arab-emirates-memorandum-of-cooperation-on-industrial-and-advanced-technologies-collaboration>.

³⁵⁴ Gov.uk (2023). "2030 Roadmap for UK-Israel Bilateral Relations," 21 March 2023, retrieved from: <https://www.gov.uk/government/publications/2030-roadmap-for-uk-israel-bilateral-relations/2030-roadmap-for-uk-israel-bilateral-relations>.

Israel's involvement in global forums like the OECD AI Governance Forum and the Council of Europe's AI Convention mirrors the UK's, showing increasing alignment in AI ethics. Going forward, the UK can leverage its strong bilateral rapport with Israel to promote region-wide standards that include Israel, the UAE, and beyond.

While not yet an Abraham Accords signatory, Saudi Arabia's potential inclusion could transform regional cooperation—and the UK is well-placed to support its AI ambitions. While no dedicated UK–Saudi AI MoU has been announced, discussions are ongoing under broader science and digital cooperation frameworks. The UK's expertise in regulatory sandboxes and standards could directly support SDAIA's work. For example, UK regulators could advise Saudi counterparts on implementing AI ethics guidelines or running pilot oversight programs.

There is ample potential for cooperation via multilateral structures. Saudi Arabia co-leads the Global Partnership on AI (GPAI) working group on innovation, and has engaged in G20 discussions on AI governance, in which the UK is a leading participant. By deepening ties with SDAIA, the UK can help harmonise Saudi Arabia's emerging AI rules with international norms—a step that would ease Israel–Saudi AI collaboration if diplomatic relations warm. In essence, the groundwork is laid for the UK to act as a go-between linking Israeli and Gulf Arab AI initiatives under a common regulatory understanding.

AI Regulation in Abraham Accords Countries

Each country in the Accords bloc has approached AI governance with its own strategic priorities, yet common threads of soft-law guidance and pro-innovation flexibility run through their policies. Understanding these approaches reveals opportunities for regulatory alignment under UK leadership.

United Arab Emirates

The UAE is a regional trailblazer in AI policy. It appointed the world's first Minister of State for AI in 2017 and launched an ambitious 'National AI Strategy 2031'. Rather than early legislation, the UAE has relied on high-level principles and sector-specific guidelines to steer AI development. In 2022, the UAE government issued 'Ethical AI Principles'—a non-binding code for AI developers emphasising fairness, transparency, and human oversight.³⁵⁵ This was followed in April 2023 by Generative AI Guidelines, which address responsible use of AI like large language models, aiming to protect privacy and intellectual property.³⁵⁶

Regulators in the UAE's multidisciplinary free zones have also updated rules. Dubai International Financial centre amended the data protection law to cover AI processing.³⁵⁷ The overall approach is pro-innovation: encourage AI adoption in government and industry while articulating voluntary best practices. With its mix of visionary government support and evolving guidelines, the UAE provides a relatively agile regulatory environment that could sync well with the UK's flexible framework. Alignment opportunities include co-developing AI audit standards or safety certification processes, building on the UAE's existing ethics guidelines.

Israel

As a global tech powerhouse, Israel has adopted a balanced approach to AI governance. The country currently has no AI-specific statute, but in 2023 it introduced a comprehensive 'Artificial Intelligence Policy' that emphasises responsible innovation. This policy, developed by the Ministry of Innovation, Science and Technology and the Ministry of Justice, deliberately opts for principle-based, sector-specific regulation over blanket laws, much like in the UK. It encourages regulators in each field (health,

³⁵⁵ White & Case LLP (2024). "AI Watch Global Regulatory Tracker – UAE", *White & Case Insights*, retrieved from: <https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-uae#:~:text=In%202023%2C%20the%20ADGM%20and,13>.

³⁵⁶ Shankar, S.V. (2024). "Why AI safety is important and how the UAE is committing to it", *Wired Middle East*, 1 August 2024, retrieved from: <https://wired.me/technology/ai-safety-how-the-uae-commits-to-it/>.

³⁵⁷ Masons, P. (2023). "DIFC Sets Out AI Requirements in Updated Data Protection Regulations," *Out-Law News*, 29 September 2023, retrieved from: <https://www.pinsentmasons.com/out-law/news/difc-sets-out-ai-requirements-in-updated-data-protection-regulations>.

finance, etc.) to issue guidelines and use tools like regulatory sandboxes for AI—echoing the UK’s methods.³⁵⁸

The Israeli framework sets out ethical principles (closely aligned with the OECD’s AI Principles) such as human-centric design, non-discrimination, transparency, safety, and accountability. Notably, it remains open to introducing horizontal AI legislation if common risks emerge across sectors. Israel also established bodies to coordinate AI governance: a proposed AI Policy Coordination Center and a national forum bringing together regulators, academia, and industry.³⁵⁹

In practice, Israel has been proactive in certain domains—e.g. the Privacy Protection Authority addressed AI in data privacy, and guidelines exist for AI in financial services. The country’s focus on expert-driven, flexible regulation mirrors the UK approach, making UK–Israel cooperation relatively seamless. Both can share lessons on sandboxing and standards development. For Abraham Accords partners, Israel’s participation in a UK-led forum would be invaluable, given its technical expertise and similar regulatory philosophy.

Saudi Arabia

The Kingdom has rapidly advanced its AI agenda as part of its Vision 2030 economic reforms. SDAIA spearheads AI strategy with a mandate to issue policies, governance frameworks, and standards for AI across sectors. To date, Saudi Arabia has not enacted a dedicated AI law; instead, it released national guidelines and sectoral frameworks to guide AI ethics and deployment. For example, SDAIA has outlined principles for trustworthy AI (ensuring AI is secure, transparent, and augments human capabilities) applicable to government projects.³⁶⁰

Specific standards are being developed in priority fields like smart city services, healthcare AI systems, and biometrics. Additionally, in 2021 Saudi Arabia introduced a Personal Data Protection Law to safeguard data—a critical foundation for AI governance.³⁶¹ A challenge for Saudi regulators is balancing an innovation-friendly environment with conservative social values and security concerns. The UK’s experience in threading that needle could help.

Potential alignment areas include ensuring AI systems comply with privacy laws and accountability mechanisms for high-risk AI, drawing on the UK’s work on algorithmic transparency. As Saudi Arabia edges toward possible normalisation with Israel, having a common reference model for AI ethics—facilitated by UK guidance—would smooth joint projects. For instance, a Saudi–Israeli smart agriculture AI partnership could follow agreed-on ethical codes.

Bahrain

Bahrain, though small, has big digital ambitions. Its ‘Economic Vision 2030’ and National Digital Government Strategy (2022) highlight AI as a tool for government efficiency and economic diversification. Bahrain established a normative framework by enacting a Personal Data Protection Law in 2018, aligning with EU GDPR principles, and is now working to codify a legal framework for AI use.³⁶² In practice, Bahrain’s approach has been to integrate AI into existing strategies rather than create standalone AI regulations.

For example, the Central Bank of Bahrain’s fintech sandbox allows AI-driven financial solutions under oversight.³⁶³ In 2019, Bahrain partnered with the World Economic Forum’s Centre for the Fourth

³⁵⁸ White & Case LLP (2024). “AI Watch Global Regulatory Tracker – Israel,” 4 November 2024, retrieved from: <https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-israel>.

³⁵⁹ AI Innovation Israel (2023). “Israel Establishes National Expert Forum to Guide AI Policy and Regulation,” 23 September 2023, retrieved from: https://aiisrael.org.il/press_release/israel-establishes-national-expert-forum-to-guide-ai-policy-and-regulation/.

³⁶⁰ Saudi Data and Artificial Intelligence Authority (SDAIA) (2023). “AI Principles,” September 2023, retrieved from: <https://sdaia.gov.sa/en/SDAIA/about/Documents/ai-principles.pdf>.

³⁶¹ Data Guidance (2024). “Saudi Arabia – Data Protection Overview,” retrieved from: <https://www.dataguidance.com/jurisdictions/saudi-arabia>.

³⁶² Baig, A., and Khan, S. (2025). “An Overview of Bahrain’s Personal Data Protection Law (PDPL),” *Securiti*, 19 January 2025, retrieved from: <https://securiti.ai/overview-of-bahrain-personal-data-protection-law-pdpl/>.

³⁶³ El Treki, R. (2018). “Central Bank of Bahrain (CBB) launch regulatory sandbox for fintech firms,” *Al Tamimi & Co Insights*, February 2018, retrieved from: <https://www.tamimi.com/law-update-articles/central-bank-bahrain-cbb-launch-regulatory-sandbox-fintech-firms-2/>.

Industrial Revolution to develop and pilot new guidelines for AI procurement in the public sector. Designed in collaboration with the Economic Development Board and the Information & eGovernment Authority (iGA), these guidelines aim to ensure the responsible and sustainable adoption of AI technologies by government entities.³⁶⁴

Bahrain's nimble and path-breaking regulatory environment—which was among the first in the Gulf to regulate open banking and crypto-assets—could extend to AI with the UK's input. Opportunities for alignment include Bahrain joining the UK's AI sandbox programmes or adopting UK AI governance best practices to bolster its nascent framework. As a tolerant, innovation-driven society, Bahrain can serve as a testbed for region-wide standards (e.g. AI in digital courts or e-government, where it is already experimenting).

Morocco

Morocco's AI regulatory environment is still emerging, with efforts focused on data protection and digital rights. The country's core legislation is Law 09-08 (enacted 2009) on Personal Data Protection, enforced by the CNDP (data protection authority).³⁶⁵ While not AI-specific, this law and its amendments (including adherence to Convention 108+ of the Council of Europe) provide a basis for regulating AI applications that process personal data.

Morocco has acknowledged the importance of AI in its Digital Morocco 2030 strategy, but concrete AI policies are yet to emerge. The challenges Morocco faces include limited local AI expertise and ensuring regulatory enforcement. The UK can assist by sharing its capacity-building programmes to help Morocco develop AI oversight capabilities. Aligning Morocco's approach with that of Abraham Accords peers could allow the Kingdom to participate meaningfully in regional and global AI initiatives.

Regulatory Alignment Opportunities

While each Abraham Accords country is at a different stage, their regulatory philosophies are compatible—emphasising innovation, gradual rulemaking, and ethical guardrails. As such, several alignment opportunities stand out. All have endorsed ethical AI principles based on frameworks like the OECD's—a UK-led process could harmonise these into a unified code of conduct for AI in Abraham Accords countries. Since each nation supports sandboxing to test AI safely, the UK could also coordinate a regional network of AI sandboxes, connecting bodies like the UAE's ADGM, Saudi Arabia's SDAIA, and Israel's Innovation Authority across sectors such as finance and healthcare.

Data protection is another commonality. Strong privacy laws exist or are emerging in each nation (the UAE and Saudi Arabia rolled these out in 2021, Bahrain in 2018, Israel and Morocco earlier). The UK, with its ICO expertise, can guide how these data laws interface with AI (for instance, advising on provisions for AI transparency and data usage).

Moreover, these states are watching international developments closely: Israel and Morocco have ties to European regulatory dialogues, while the UAE and Saudi Arabia are engaged in the GPAI and G20. The UK can act as a connector, ensuring Middle Eastern voices are heard in global AI standard-setting, which in turn encourages regional rules to align with global norms. This creates fertile ground for a UK-facilitated alignment on AI governance, benefiting regional integration and reducing friction in cross-border initiatives.

A Policy Roadmap for UK AI Regulatory Leadership in the Middle East

To capitalise on these opportunities, a structured policy roadmap can guide the UK's engagement as an AI governance leader in the Middle East. Such a roadmap could span short-term actions to kick-start

³⁶⁴ Government of Bahrain, "Artificial Intelligence", retrieved from: https://www.bahrain.bh/wps/portal/en!/ut/p/zo/fY69DoIwFEZfpQtzL_6gKzFGdCLGAbqYotZ6obZQLsbHt_EBHL_knJOPC95w4eUb_rSQMXrqOW1Hc8_MWqv0BoCpuKyjK025d18ccrht-4ef_kArYT5MouVDBk_kQbzo_3o3PQHZhIUZPwwboVodXBhotknSsX2ZCZgKziUs_g5lEI2TZDSjMKKaUyESPIBhmjDFnUNrFNKktyyGLqTGzMDbTF-wHg9I/.

³⁶⁵ Data Guidance (2024). "Morocco - Data Protection Overview", retrieved from: <https://www.dataguidance.com/jurisdictions/morocco>.

collaboration, medium-term strategies to institutionalise cooperation, and a long-term vision for sustained UK influence and regional integration in AI.

UK-Led AI Regulatory Roundtables and Workshops

The UK should convene regular roundtable discussions with like-minded regulators from Abraham Accords countries and prospectively Saudi Arabia. Using the convening power demonstrated at Bletchley Park, the UK can host these forums in London or in the Gulf to candidly exchange views on AI policy challenges (e.g. AI in finance, surveillance concerns, liability for AI decisions). These roundtables would build trust and set a common agenda. A practical outcome could be the formation of working groups on specific issues like AI ethics guidelines harmonisation or data sharing arrangements. By establishing itself as a neutral moderator, the UK can encourage direct Israel-Arab engagement on AI governance in a depoliticized setting.

Britain's vibrant AI private sector and research institutions can play a pivotal role in shaping Middle Eastern AI governance through international partnerships. Leading UK AI firms like DeepMind and Arm could bring credibility and technical expertise to Middle East initiatives. Already active in global AI governance—DeepMind played a key role in the AI Safety Summit—their involvement would strengthen regional efforts.³⁶⁶

British AI labs could host joint workshops with the UAE's Technology Innovation Institute or Israel's AI researchers on safe AI development practices. The University of Oxford's renowned AI ethics scholars might partner with academic centres in Abu Dhabi or Tel Aviv to advise on local AI ethics boards. Additionally, the new Britain-Israel Investment Group (BIIG) offers a template for industry cooperation: it combines UK and Israeli tech 'to solve regional technology and sustainability issues', demonstrating how joint innovation can support governance goals. Similar multilateral consortia—bringing in UK firms and Abraham Accords innovators—could tackle regulatory challenges from AI for water management to cross-border data sharing frameworks.

Other global partnerships can serve as blueprints for Abraham Accords integration. The UK has established Fintech Bridge agreements with countries like Singapore, which facilitate regulatory cooperation and streamline entry for fintech firms into each other's markets. Through the UK-Singapore Fintech Bridge, regulators hold regular dialogues on topics such as AI governance, cryptocurrency regulation, and data portability in finance. In fact, UK and Singaporean officials have discussed aligning AI regulatory frameworks and even the development of a UK digital pound in such forums.³⁶⁷

Likewise, the UK participates in transatlantic discussions (with US regulators) and in OECD and G7 working groups on AI in financial services. Adapting these collaboration formats to the Abraham Accords context is a promising next step. The UK could spearhead a 'UK-Middle East Fintech Bridge' that brings together Israel, the UAE, Bahrain, Morocco and other regional players to share regulatory best practices for AI—from sandbox experiences to guidelines on ethical AI use.

Bilateral Regulatory Secondments

As a quick win, the UK can implement a programme of regulatory secondments and training. This means hosting officials from SDAIA, the UAE's AI Office, Israel's Innovation Authority, etc., for short stints at UK bodies like the AISI or ICO. These officials could observe UK AI oversight practices first-hand. Conversely, UK regulators can be embedded as advisors within Middle Eastern ministries on a temporary basis.

Such knowledge exchange accelerates capacity building and creates personal networks of reformers familiar with UK best practices. In the short term, even a handful of seconded experts can help draft AI guidelines or review algorithms in the host country, seeding UK-style approaches. The UK FCDO could fund these under technical cooperation agreements already in place with Gulf states.

³⁶⁶ Reuters (2023). "Britain Publishes Bletchley Declaration on AI Safety." 1 November 2023, retrieved from: <https://www.reuters.com/technology/britain-publishes-bletchley-declaration-ai-safety-2023-11-01/>.

³⁶⁷ HM Treasury and Monetary Authority of Singapore (2022). "Memorandum of Understanding on the UK-Singapore FinTech Bridge," HM Treasury, 25 November 2022, retrieved from: https://assets.publishing.service.gov.uk/media/6380bb8fe90e0723443452f8/Memorandum_of_Understanding_on_the_UK-Singapore_FinTech_Bridge_FINAL_AGREED_TEXT_PDF.pdf.

Along with roundtables and secondments, such exchanges would not only harmonise regulatory standards, but sharpen regulatory tools in a region beset by regulatory incapacity. UK regulators are already deploying AI to enhance their supervisory toolkit; The FCA uses machine learning to analyse large datasets of transactions and spot outliers or patterns that may indicate fraud or market manipulation—augmenting traditional oversight with data-driven early warning systems.³⁶⁸ One example is the FCA’s development of AI models to monitor investment scams online and clone websites: by automating web-scraping and using AI to triage suspicious sites, the FCA can more rapidly shut down fraud schemes targeting consumers.

Similarly, the Bank of England has experimented with AI for stress testing and monitoring systemic risks (for example, using AI to sift through big data like firms’ regulatory reports and flag anomalies in capital or liquidity positions). The UK is also advancing algorithmic auditing mechanisms.³⁶⁹ Under the FCA’s Principles for Businesses and upcoming guidelines, financial firms deploying AI—such as algorithmic trading strategies or ‘robo-advisors’—are expected to conduct rigorous testing for biases or errors in those models, and to document their algorithms’ design and impact. Such UK efforts in AI-enhanced risk management offer a template for Abraham Accords countries.

Collaborative Regulatory Sandboxing

A key avenue for UK–Middle East cooperation is regulatory sandboxing—a field where the UK’s Financial Conduct Authority (FCA) is a world leader. The first in the world, the FCA’s sandbox model has supported over 160 firms testing AI-driven fintech innovations. This is a model that could be exported to Abraham Accords economies to nurture their AI start-ups.³⁷⁰ For instance, the UK might invite Middle Eastern AI companies into its own sandboxes or help local regulators set up ‘safe spaces’ for AI trials.

The UAE is already familiar with this approach: Modelled on UK best practices, Abu Dhabi Global Market (ADGM) launched the region’s first fintech sandbox in 2016 and partnered with the UK’s FCA-led Global Financial Innovation Network to run cross-border testing with 29 regulators in 2019.³⁷¹ Bahrain’s central bank created its own sandbox for fintech start-ups in 2017.³⁷² Building on this shared experience, the UK could initiate an AI sandbox ‘exchange program’ whereby Emirati, Israeli, and Bahraini AI firms can pilot new algorithms under UK guidance, and vice versa.

The UK should open its ‘AI Airlock’ and other regulatory sandboxes to participation from Middle Eastern tech companies and start-ups. For example, if an Emirati healthcare AI company or an Israeli medical device start-up joins the UK’s sandbox pilot, they can develop products under UK regulatory guidance and share insights with both UK and home regulators. This provides mutual learning: UK authorities gain understanding of novel AI applications being tested in the Middle East, while Middle Eastern firms experience a gold-standard regulatory process.

Concretely, the MHRA could invite a cohort of Abraham Accord companies into the next AI Airlock cycle, and the Financial Conduct Authority could do the same for fintech AI sandboxes. Early successes—say, a Bahraini fintech AI passing UK sandbox evaluation—would demonstrate the value of cross-border sandboxes, building momentum for more joint pilots.

Beyond sandboxing, the UK can co-develop pilot projects and testbeds with regional partners to apply AI under supervised conditions. For example, Britain and the UAE might launch a joint AI reg-tech pilot, applying machine learning to financial compliance in ADGM—an area already being explored via an MoU

³⁶⁸ Rusu, J. (2023). ‘Flipping the Coin in Financial Services’, 5 October, 2023, Retrieved from: <https://www.fca.org.uk/news/speeches/ai-flipping-coin-financial-services>.

³⁶⁹ Arnold, M. (2024). “Banks’ use of AI could be included in stress tests, says Bank of England deputy governor”, *Financial Times*, October 31, 2024, retrieved from: <https://www.ft.com/content/d4d212a8-c63a-4b00-9f4c-e06ed59f9279>

³⁷⁰ Zaraba, M.K. (2023). “Regulatory Sandboxes: Fostering Innovation,” *Infomineo*, 26 October 2023, retrieved from: <https://infomineo.com/technology-telecommunication/regulatory-sandboxes-fostering-innovation/>.

³⁷¹ Abu Dhabi Global Market. “Abu Dhabi Global Market Invites FinTech Firms to Join Cross-Border Testing.” *ADGM FSRA*, 31 Jan 2019, retrieved from: <https://www.adgm.com/media/announcements/abu-dhabi-global-market-invites-fintech-firms-to-join-cross-border-testing>

³⁷² Peyton, A. (2017). “Bahrain’s central bank creates sandbox for fintech start-ups,” *FinTech Futures*, 14 June 2017, retrieved from: <https://www.fintechfutures.com/2017/06/bahrains-central-bank-creates-sandbox-for-fintech-start-ups/>;

between ADGM and the Mohamed bin Zayed University of AI.³⁷³ Likewise, UK health authorities and Israeli counterparts could expand their recent digital health collaboration (a UK–Israel ‘Health-Tech Gateway’ and pilot in England’s northeast) into an AI-driven medical diagnostics testbed.³⁷⁴

Saudi Arabia’s SDAIA could invite UK experts to help run a GenAI policy sandbox, building on SDAIA’s new guidelines for generative AI.³⁷⁵ Each pilot—be it in smart cities, autonomous transport, or AI for climate—would serve as a proof of concept for responsible AI deployment. By lending its regulatory expertise and sandbox know-how, the UK can ensure these projects operate with proper oversight while giving regional innovators freedom to experiment within agreed-on guardrails.

A joint FinTech AI Sandbox—linking the UK’s FCA, Israel’s financial regulator, and the UAE and Bahrain’s central banks—could test AI tools like trading or lending algorithms under shared rules. Each sandbox would produce common standards, with the UK contributing methodological expertise to align with global norms. This approach could accelerate AI adoption in sensitive sectors while offering regulatory clarity. It could eventually lead to mutual recognition of AI certifications across participating countries—a product approved in the joint sandbox could be fast-tracked for deployment and commercialisation in all participating jurisdictions. The diplomatic groundwork has already been laid; in November 2023, the UK and UAE signed an MoU in Dubai to strengthen fintech cooperation, focusing on open banking, digital payments, and innovation—with an emphasis on sandbox coordination and shared standards.³⁷⁶

The concept of AI regulatory sandboxes spanning multiple jurisdictions is still emerging, but there are instructive precedents the Abraham Accords can emulate. EU regulators are piloting cross-border AI sandboxes ahead of the AI Act, with Spain launching one in 2022 convening its data and medicines agencies to test models against future EU regulations.³⁷⁷ The draft EU AI Act mandates each member state to create a sandbox, supported by an EU board to foster collaboration. This multi-agency model demonstrates coordinated AI oversight. The UK should monitor the EU’s approach closely—learning from its successes and setbacks—to refine its own cross-jurisdictional sandboxing strategy.

The UK’s FCA pioneered a ‘global sandbox’ for FinTech via the Global Financial Innovation Network (GFIN), featuring a global coalition of over 60 global regulators from Asia, MENA and the Americas. GFIN enabled firms to test services across multiple countries under a unified framework—for instance, payments start-ups ran pilots in the UK, UAE, and Singapore simultaneously. Abu Dhabi’s FSRA and Bahrain’s central bank were founding members, demonstrating regional appetite for cross-border experimentation. Beyond GFIN, other multinational initiatives illustrate sandbox cooperation: Singapore’s Monetary Authority convened a consortium of banks and tech firms to develop AI governance tools (the FEAT principles) which have been shared internationally.³⁷⁸

A similar model could be effective for AI collaboration. One could envision a ‘GFIN for AI’ where regulatory bodies from the UK, Israel, the UAE, and others open a joint sandbox call for AI solutions in areas of common interest (e.g. AI for financial crime prevention or smart mobility). Companies accepted into this program would get feedback from all jurisdictions and potentially fast-track approval in each. Something similar has already been proposed in GFIN’s 2025 AI report, published in collaboration with the Dubai Financial Services Authority (DFSA).³⁷⁹ The report was a result of FCA–DFSA roundtables, held in July and October 2024, and examined AI use-cases like Robo-advisors and personalised finance, and emphasised the need for international collaboration and knowledge-sharing. Such initiatives showcase

³⁷³ White & Case LLP (2024). “AI Watch Global Regulatory Tracker – UAE”, 18 October 2024, retrieved from: <https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-uae#:~:text=In%202023%2C%20the%20ADGM%20and,13>.

³⁷⁴ Gov.uk (2023). “2030 Roadmap for UK–Israel Bilateral Relations,” 21 March 2023, retrieved from: <https://www.gov.uk/government/publications/2030-roadmap-for-uk-israel-bilateral-relations/2030-roadmap-for-uk-israel-bilateral-relations>.

³⁷⁵ White & Case (2024). “AI Watch: Global Regulatory Tracker – Saudi Arabia,” 20 June 2024, retrieved from: <https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-saudi-arabia>.

³⁷⁶ Merani, M. (2023). “UAE and UK sign agreement to boost fintech”, *Arabian Gulf Business Insight*, November 3, 2023, retrieved from: <https://www.agbi.com/analysis/finance/2023/11/uae-and-uk-sign-agreement-to-boost-fintech/>.

³⁷⁷ OECD (2023). “Regulatory Sandboxes in Artificial Intelligence: Design Elements and Implementation Challenges,” *OECD Publishing*, 356, July 2023, retrieved from: https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/07/regulatory-sandboxes-in-artificial-intelligence_a44aae4f/8f80a0e6-en.pdf.

³⁷⁸ Ibid.

³⁷⁹ GFIN (2025). *The GFIN AI Report 2025*, Global Financial Innovation Network, March 2025, retrieved from: https://www.thegfin.com/uploads/publications/pdf/1737980082_The%20GFIN%20Ai%20Report%202025.pdf.

how the UK leverages its regulatory leadership to shape global discourse on AI in finance—including with partners in the Middle East.

Advancing Digital Currencies and Payments Innovation

Central Bank Digital Currencies (CBDCs) and digital payment systems are another frontier where the UK's leadership in fintech regulation can be leveraged for Middle East cooperation. The Bank of England, in coordination with HM Treasury, is actively exploring a 'digital pound'—a retail CBDC that would serve as a digital equivalent of cash.³⁸⁰ The UK has set up expert forums to inform the design of this digital pound. In June 2023, the Bank of England helped complete Project Rosalind with the BIS Innovation Hub, which prototyped an API platform for retail CBDC, demonstrating how third-party fintech apps could integrate with a central bank digital currency. These efforts underscore the UK's commitment to supporting innovation in digital money while carefully evaluating risks to financial stability and privacy.³⁸¹

Middle Eastern financial authorities are likewise moving fast on digital currencies, opening a prime area for collaboration. The UAE has unveiled a Digital Dirham initiative as part of a broader CBDC strategy, aiming to roll out a domestic digital currency and even participate in cross-border pilots. Saudi Arabia's central bank (SAMA) has taken part in Project Aber (a bilateral CBDC pilot with the UAE) and, more recently, joined Project mBridge—a BIS-led multi-CBDC experiment involving China, Hong Kong, Thailand and the UAE. In mid-2024, the BIS announced mBridge had reached a minimum viable product stage, with Saudi Arabia becoming a full participant alongside the UAE. This makes mBridge one of the most advanced cross-border CBDC projects, exploring how multiple digital currencies can be used for international settlements beyond the US dollar.³⁸²

As nearly 135 countries (representing 98% of global GDP) now explore CBDCs, the need for interoperability and common standards is clear. UK regulators can play a facilitative role here: the Bank of England and UK finance ministry have experience in international working groups on CBDC interoperability (e.g. within the G7 and G20). By sharing the UK's lessons from the digital pound project—on technical architecture, wallet design, cybersecurity, and privacy safeguards—the UK can help Abraham Accords countries design their CBDCs in a way that is compatible with global systems.

For instance, if the Bank of England ensures the digital pound can interface with other currencies via standardised APIs, this knowledge could be transferred to, say, the Central Bank of UAE, increasing the chances that a future digital dirham and digital pound could interoperate seamlessly for remittances or trade finance. Furthermore, the UK's robust fintech sector and regulatory clarity around digital payments make it an ideal partner for pilot initiatives. Regulatory sandboxes for digital payments in the UK have already hosted blockchain and payments start-ups, some of which focus on the Middle East corridor. The new UK Digital Securities Sandbox (coming into effect in 2024) will allow testing of tokenized assets and payment innovations under regulatory oversight.³⁸³

Abraham Accords financial hubs can link into these experiments. For example, Bahrain (which has been a regional leader in open banking and even open to crypto-asset firms) could collaborate with the UK to test cross-border CBDC transfers under real-world conditions, perhaps by connecting the UK sandbox with Bahrain's regulatory sandbox in a controlled trial. Such a scenario could leverage multi-CBDC platforms like mBridge or others under development, using the UK's participation to ensure strong governance. The strategic benefit is mutual: the Middle East can modernise its payment infrastructure and reduce frictions in cross-border commerce, while the UK expands the international reach of its digital currency standards, reinforcing the global interoperability of any future digital pound.

³⁸⁰ Bank of England. (2025). "Progress update: The digital pound and the payments landscape," 14 January 2025, retrieved from: <https://www.bankofengland.co.uk/report/2025/digital-pound-progress-update>.

³⁸¹ Bank for International Settlements and Bank of England. (2023). "Project Rosalind develops a prototype application programming interface layer for retail CBDC systems and explores ecosystem innovation," 16 June 2023, retrieved from: <https://www.bis.org/press/p230616.htm>

³⁸² Jones, M. (2024). "Saudi Arabia joins BIS- and China-led central bank digital currency project," Reuters, 5 June 2024, retrieved from: <https://www.reuters.com/technology/saudi-arabia-joins-bis-led-central-bank-digital-currency-trial-2024-06-05/>.

³⁸³ Voisin, M., Hay, R., Le Vesconte, S., & Sanford, S. (2023). "UK Digital Securities Sandbox set to take effect," Linklaters, 22 December 2023, retrieved from: <https://www.linklaters.com/en-us/insights/blogs/fintechlinks/2023/december/uk-digital-securities-sandbox-set-to-take-effect>.

As Gulf states and Israel advance their digital currency projects, the UK can also convene technical workshops and shared sandbox trials in partnership with bodies like the BIS Innovation Hub. A UK-supported pilot could explore using multiple CBDCs (e.g. a digital pound, digital dirham, and digital shekel) for instantaneous cross-border payments between London, Dubai and Tel Aviv, under real regulatory scrutiny. This not only helps the region test interoperability in a safe environment but also informs the Bank of England's understanding of cross-currency functionality for its digital pound. Such collaboration ensures that when these CBDCs launch, they are not siloed national projects but parts of an interconnected payment network.

AI-Powered Anti-Money Laundering and Financial Crime Prevention

One area where UK leadership is especially evident is the use of AI to combat financial crime and money laundering. The UK has been globally proactive in deploying machine learning, data analytics, and shared intelligence to strengthen anti-money laundering (AML) oversight. For example, the FCA has developed advanced tools like web-scraping bots and social media analytics to detect unlicensed financial schemes and scams in real time. Within its own operations, the FCA uses AI-driven techniques to enhance risk indicators for supervisors.³⁸⁴

In one initiative, the FCA built an in-house synthetic data generator for sanctions screening: by simulating data on sanctioned individuals, it can test banks' detection systems more rigorously and proactively. Importantly, the UK does not keep these innovations to itself—the FCA's Digital Sandbox has made over 300 public and synthetic datasets (and more than 1,000 APIs) available to fintech innovators. This includes synthetic transaction datasets based on real-world money laundering cases, which start-ups and financial institutions can use to train AI models for detecting illicit activity. By providing realistic data in a safe environment, the UK is spurring private-sector innovation in AML AI tools.

The UK's collaborative approach in AML is also global in scope. British regulators regularly convene international 'TechSprint' hackathons focused on financial crime. In 2019, the FCA hosted a week-long Global AML and Financial Crime TechSprint that gathered over 140 participants from multiple countries (with a satellite hub in Washington, D.C.) to develop solutions using privacy-preserving AI techniques. This event focused on how privacy-enhancing technologies (PETs) and data analytics could let banks jointly identify suspicious transactions across borders without violating data privacy laws—a cutting-edge approach to tackling money laundering.³⁸⁵

The Middle East stands to gain directly from the UK's experience in AI-powered AML. The UAE, for instance, has collaborated closely with the UK to improve its AML regime. In 2023, it was disclosed that the UK provided advice to UAE authorities on strengthening anti-money laundering control—support that helped pave the way for the UAE's expected removal from the FATF 'grey list' of high-risk jurisdictions.³⁸⁶ This highlights how UK regulatory expertise can uplift standards in Abraham Accords countries.

Going forward, UK and Middle Eastern regulators could launch joint AI initiatives—akin to the FCA's TechSprints—to develop AI tools for detecting illicit finance flows between Europe and the Gulf. With London as a major financial centre and Dubai, Manama, and Tel Aviv growing as fintech hubs, a UK-Middle East AML alliance built on AI and data-sharing could significantly raise the bar for financial integrity across the region. The UK's global leadership in this arena, from shaping international AML tech standards to running cross-border pilot programs, provides a strong foundation for such cooperation.

Building on the UK's success with public-private partnerships like the Joint Money Laundering Intelligence Taskforce, the UK could also help Abraham Accord nations set up a regional AML intelligence-sharing platform augmented by AI. This could involve training regional financial investigators in the use of AI tools that the UK has developed (for example, tools for network analysis of transaction data to uncover money laundering rings). By fostering a trusted network among compliance

³⁸⁴ Rusu, J. (2023). 'Flipping the Coin in Financial Services', 5 October, 2023, Retrieved from: <https://www.fca.org.uk/news/speeches/ai-flipping-coin-financial-services>.

³⁸⁵ Financial Conduct Authority (2019). "2019 Global AML and Financial Crime TechSprint", 29 July 2019, retrieved from: <https://www.fca.org.uk/events/techsprints/2019-global-aml-and-financial-crime-techsprint>.

³⁸⁶ Merani, M. (2023). "UAE and UK sign agreement to boost fintech", *Arabian Gulf Business Insight*, November 3, 2023, retrieved from: <https://www.agbi.com/analysis/finance/2023/11/uae-and-uk-sign-agreement-to-boost-fintech/>.

units of banks in the UK, Israel, UAE, Bahrain, etc., suspicious patterns can be identified more quickly across borders. Given the global nature of illicit finance, this UK-supported regional effort would greatly enhance collective defences.

Abraham Accords AI Governance Forum

Building on initial roundtables, the UK should formalise an ‘Abraham Accords AI Governance Forum’. This could be a multilateral platform, ideally launched jointly by the UK and a regional co-chair (perhaps the UAE, given its enthusiasm for multilateral tech diplomacy). The Forum could meet annually, rotating among member capitals, to set common AI standards and share regulatory experiences. Its mandate could include developing a Regional AI Governance Charter—outlining shared principles on AI ethics, transparency, and security that all member states pledge to uphold.

The UK can serve as the secretariat or lead technical advisor, providing drafts and research input. Importantly, this Forum creates a safe space for Israel and Arab states to collaborate under UK facilitation for the sake of regional security, even if full diplomatic normalisation between them is ongoing.

Over 2–3 years, the Forum can issue guidelines (for example, a guideline on responsible government use of AI, or a model procurement rule for AI systems) that each country then voluntarily adopts domestically, ensuring interoperability across the region. By year 2, the forum might aim for each member to publish an AI ethics or risk management policy that references the same core standards (transparency, human oversight, etc.), demonstrating regulatory convergence. Compliance with these benchmarks can be reviewed in annual forum reports.

Leadership of the forum would likely be shared between the UK and a regional partner to ensure joint ownership—as modelled by the UAE–UK Business Council, which is co-chaired by a British Lord and a UAE Minister. A similar structure could see the UK’s Science Secretary co-lead with the UAE’s Minister of AI or Israel’s chief science officer. The forum should follow a multi-stakeholder format, blending regulators, industry leaders, academics, and ethicists, much like the Bletchley Park Summit. Delegations might include national AI offices (e.g. SDAIA, UAE Office of AI, Israel Innovation Authority), with sub-groups of tech firms and experts.

The forum should be anchored in existing diplomatic frameworks. The Abraham Accords already spawned the Negev Forum process—a multilateral platform for regional working groups on issues like security, health, and energy. An AI Governance Forum could operate as a specialised working group under that umbrella, or as a parallel initiative under the Abraham Accords Declaration’s economic cooperation pillar. It might also draw on structures like the UK–Israel 2030 Roadmap, which explicitly calls for building on the ‘historic Negev Summit’ to advance regional cooperation in civilian spheres. Practically, this means the forum could report into foreign ministry dialogues or trade partnership meetings that the signatory countries (and the UK as a supporter) already hold.

Regulatory Framework Alignment Projects

The UK can spearhead projects to align specific regulatory frameworks that underpin AI governance. One idea is a ‘Data Governance Alignment Project’—bringing together data protection authorities of the UK, Israel, the UAE, etc., to reconcile differences in privacy laws and enable cross-border data flows for AI under common safeguards. Another is creating a Standardised AI Risk Assessment toolkit that all parties use to evaluate new AI systems (adapting UK’s Algorithmic Transparency Standard and Israel’s sectoral checklists into a unified checklist). By the end of this phase, the goal is that an AI developer in any Abraham Accord country can navigate a predictable and similar regulatory process whether they are deploying an AI model in Riyadh, Tel Aviv, or Dubai, thanks to UK-guided standardisation.

Crucial to this is enlisting the UK’s legal and ethical AI bodies to help craft regional guidelines. The ICO and the Alan Turing Institute have deep experience in translating ethics into practice—for example, they jointly published detailed guidance on *explaining AI decisions* to ensure accountability.³⁸⁷ These bodies

³⁸⁷ Information Commissioner’s Office (ICO), “Explaining Decisions Made with Artificial Intelligence”, retrieved from: <https://ico.org.uk/for-organisations/uk-gdpr-guidance-and-resources/artificial-intelligence/explaining-decisions-made-with-artificial-intelligence/>.

(along with the Centre for Data Ethics and Innovation) could be engaged to assist Abraham Accords regulators in developing AI ethics codes and oversight processes.

Further, UKRI, which funds collaborative R&D, can support exchange programs for researchers and co-fund applied projects—indeed UKRI has launched calls to develop international partnerships in responsible AI.³⁸⁸ By extending grants to Middle Eastern institutions, UKRI can drive joint innovation—such as UK–Morocco research on AI auditing or a UK–Bahrain consortium on fintech regulation.

The ICO’s pragmatic approach—advising on AI within existing data protection laws—and the Turing Institute’s research on algorithmic bias and transparency would greatly benefit nascent AI governance frameworks in the Middle East. In fact, the UK government has already worked with the Turing Institute to issue public-sector AI ethics guidelines domestically; similar collaboration could be extended via workshops or secondments to Gulf and Israeli agencies.³⁸⁹ By sharing tools like algorithmic impact assessments, audit methodologies, and standards for fairness, UK experts would help ensure that the region’s AI regulations uphold global best practices.

Along with roundtables and secondments, such exchanges would not only harmonise regulatory standards, but sharpen regulatory tools in a region beset by regulatory incapacity. UK regulators are already deploying AI to enhance their supervisory toolkit; The FCA uses machine learning to analyse large datasets of transactions and spot outliers or patterns that may indicate fraud or market manipulation—augmenting traditional oversight with data-driven early warning systems.³⁹⁰ One example is the FCA’s development of AI models to monitor investment scams online and clone websites: by automating web-scraping and using AI to triage suspicious sites, the FCA can more rapidly shut down fraud schemes targeting consumers.

Similarly, the Bank of England has experimented with AI for stress testing and monitoring systemic risks (for example, using AI to sift through big data like firms’ regulatory reports and flag anomalies in capital or liquidity positions). The UK is also advancing algorithmic auditing mechanisms.³⁹¹ Under the FCA’s Principles for Businesses and upcoming guidelines, financial firms deploying AI—such as algorithmic trading strategies or ‘robo-advisors’—are expected to conduct rigorous testing for biases or errors in those models, and to document their algorithms’ design and impact. Such UK efforts in AI-enhanced risk management offer a template for Abraham Accords countries.

On the industry side, one idea is to establish a UK–Middle East AI Business Council to institutionalise private-sector input. A dedicated AI council would bring together leading companies and investors from the UK and Abraham Accord states to share insights on regulatory hurdles, interoperability issues, and market needs with policymakers. For instance, UK-based firms like Arm or DeepMind could sit alongside Gulf tech giants like G42 or STC, and Israeli AI start-ups, to advise on standards that make it easier to roll out AI solutions across all their markets. This would give the private sector a clear voice in the regulatory cooperation process, ensuring that rules developed are realistic and innovation-friendly.

The UK as De facto AI Standards-Setter in the Middle East

In the long run, the UK should position itself as the *de facto* standard-setter for AI regulation across the Middle East. This means that UK-established norms—whether formal (like British Standards Institution specifications for AI) or informal (best practice guidelines from the AISI)—become the reference point that Middle Eastern regulators look to when crafting their own AI rules.

Already, English law and UK standards influence financial regulation worldwide; a similar phenomenon can be cultivated in AI. The UK can encourage this by offering its certification and testing services to the region. For example, AISI in partnership with a UAE university could certify AI systems for safety, and that certification would be recognised regionally. Over time, as local governments draft AI legislation, which is inevitable as the technology matures, they could explicitly incorporate UK-led standards (much

³⁸⁸ UK Research and Innovation. “Responsible AI UK: International Partnerships,” retrieved from: <https://www.ukri.org/opportunity/responsible-ai-uk-international-partnerships/>.

³⁸⁹ Local Government Association. “National AI Strategy and Local Government,” retrieved from: <https://www.local.gov.uk/our-support/cyber-digital-and-technology/cyber-digital-and-technology-policy-team/national-ai>.

³⁹⁰ Rusu, J. (2023). ‘Flipping the Coin in Financial Services’, 5 October, 2023. Retrieved from: <https://www.fca.org.uk/news/speeches/ai-flipping-coin-financial-services>.

³⁹¹ Arnold, M. (2024) “Banks’ use of AI could be included in stress tests, says Bank of England deputy governor”, *Financial Times*, October 31, 2024, retrieved from: <https://www.ft.com/content/d4d212a8-c63a-4b00-9f4c-e06ed59f9279>.

as many adopted EU GDPR-like data laws). The result: a cohesive regulatory environment anchored by UK frameworks, easing compliance for companies and cementing Britain's role as a standards hub.

The ultimate vision is to leverage AI governance cooperation as a foundation for broader economic and political integration between the UK and Abraham Accords countries. By solving complex regulatory issues together, the UK and Middle Eastern partners build deep trust and a habit of collaboration. This could facilitate comprehensive digital economy agreements—for instance, a UK-Gulf Cooperation Council digital trade deal that includes provisions influenced by the Abraham Accords AI Forum's work.

It could also feed into an expanded Abraham Accords economic bloc that involves the UK as a close partner or observer. Joint AI innovation projects might evolve into co-investment in tech start-ups, academic exchanges, and alignment in other emerging tech domains (like biotechnology or cybersecurity). Essentially, AI governance becomes a stitching thread that ties the UK into the economic fabric of a changing Middle East. This long-term integration not only yields trade and investment benefits but also contributes to regional stability by binding former adversaries in common endeavours. The UK's consistent leadership and good faith in AI regulation will have demonstrated the benefits of a Western-aligned yet locally attuned partnership, offering a compelling alternative to rival influences.

Strategic Advantages of UK AI Regulatory Engagement

Embracing this roadmap yields significant strategic gains for the UK and its Middle East partners, while countering Chinese influence.

Enhanced UK Influence and Economic Opportunities

By leading on AI governance in the Middle East, the UK could substantially boost its diplomatic stature and soft power in the region. London would become the go-to source for regulatory expertise, giving the UK a voice in shaping how transformative technologies are used in a pivotal part of the world. This influence could also translate into economic advantages: UK tech firms would find it easier to export AI solutions that already meet the region's UK-aligned standards.

Moreover, UK involvement in setting the rules often means preferential access—British companies could pilot projects in Middle Eastern markets under the joint sandboxes, securing first-mover benefits. In turn, the UK would attract investment from Gulf sovereign funds into its AI sector, building on existing UAE and Saudi investments in UK tech. In essence, a virtuous cycle could be created where UK leadership in rule-making leads to commercial wins, and commercial presence reinforces the credibility of UK standards.

Strengthening Israel–Saudi Collaboration

One of the most profound outcomes of UK mediation in AI governance could be the indirect facilitation of Israeli–Saudi ties. By working through UK-led forums and sandboxes, Israeli and Saudi experts can collaborate on neutral technical grounds—for example, co-authoring an AI ethics checklist or jointly testing an agri-tech AI application in a UK-sponsored pilot. This practical cooperation builds relationships and reduces mistrust.

Should political normalisation progress, the groundwork laid via UK-sponsored interactions will enable a faster ramp-up of direct Israel–Saudi projects. The UK can essentially act as a trusted intermediary, ensuring both sides adhere to common standards and mitigating any fears of tech dominance. Over time, as both nations realise the mutual gains of harmonised AI regulations (e.g. easier trade in AI products, shared talent pools, etc.), it would create a positive incentive toward sustained peace and partnership between them—a diplomatic dividend originating from an AI focus.

Providing an Alternative to China's Influence

A coordinated UK–Abraham Accords approach to AI would offer a compelling alternative to Chinese models of tech governance, thereby reducing China's growing influence in the Middle East. In recent years, China has actively exported AI technology and digital infrastructure to the region as part of its Digital Silk Road, often accompanied by its own standards on data and surveillance.

Middle Eastern countries have welcomed Chinese investments, but many also seek to avoid over-reliance on any single power, staying ‘on the fence’ to reap competitive advantages from both East and West. The UK can leverage this by offering a Western-aligned, values-driven framework that emphasises transparency and privacy—in contrast to China’s state-centric, black-box approach. The appetite for such balance is visible: UAE officials, for instance, insist they are not aligning exclusively with China on AI and have shown commitment to partnerships with Western firms.³⁹²

By helping set regional rules, the UK and like-minded partners can ensure that Chinese tech products in the region must meet stringent standards to compete, diluting any influence gained through turnkey solutions that come without ethical safeguards. Furthermore, a strong UK-led regulatory presence means Middle Eastern nations can achieve their AI ambitions without compromising on issues like data sovereignty, undercutting the appeal of China’s ‘no-questions-asked’ offerings.

Geopolitically, this approach would align these countries closer to the Western camp on tech governance, reinforcing a global order where democratic values in AI hold sway. For the UK, successfully anchoring AI governance in the Middle East to the Western model would be a signature achievement, bolstering its claim to global leadership in the post-Brexit era.

Security and Stability

Lastly, UK leadership in AI governance would contribute to international security and regional stability. With common standards, the risk of AI being misused—whether for cyber-attacks, oppressive surveillance, or autonomous weapons—is better managed through collective oversight. The UK’s security cooperation with Gulf states and Israel can be augmented by AI-specific agreements (for example, sharing information on AI-related cyber threats or establishing norms against lethal autonomous weapons deployment in the region).

A well-regulated AI environment also fosters social stability by addressing issues like algorithmic bias that could inflame ethnic or sectarian tensions in Middle Eastern states if left unchecked. By embedding ethical considerations into AI systems used in critical areas UK-led governance helps prevent tech-driven inequalities or social unrest. This proactive approach would strengthen the resilience of Abraham Accord countries, which would in turn secure UK interests in a stable and prosperous Middle East.

Conclusion

Through its flexible, sectoral approach to AI governance, the UK has positioned itself as a global leader in AI safety while remaining a pro-innovation partner for emerging AI economies. The alignment between the UK’s regulatory philosophy and the ‘soft law’ governance frameworks of Abraham Accords countries creates fertile ground for deeper AI regulatory cooperation.

A structured UK-led approach to AI governance in the region can generate substantial strategic benefits. By expanding regulatory initiatives such as the AI Airlock sandbox and fostering joint sector-specific sandboxes, the UK can drive harmonization of AI oversight across the region, ensuring that AI systems deployed in finance, healthcare, and smart cities meet high ethical and technical standards. The establishment of a UK-Abraham Accords AI Governance Forum would provide a structured, multilateral mechanism to develop common AI principles, while regulatory secondments and training programs would strengthen institutional capacity across partner nations.

At a diplomatic level, these initiatives can serve as a conduit for Israel-Saudi engagement, allowing regulators, businesses, and policymakers from both nations to collaborate under a neutral, technical framework led by the UK. This pragmatic, apolitical engagement could gradually build trust, paving the way for deeper economic and technological cooperation between the two nations, even in the absence of full diplomatic normalisation.

Simultaneously, expanding UK-led AI governance initiatives in the Middle East would strengthen Western-aligned AI standards in the region, directly countering China’s Digital Silk Road strategy. By

³⁹² Allen, G.C., Adamson, G., Heim, L. et al. (2025). “The United Arab Emirates’ AI Ambitions,” *Center for Strategic and International Studies (CSIS)*, 24 January 2024, retrieved from: <https://www.csis.org/analysis/united-arab-emirates-ai-ambitions>.

embedding UK regulatory expertise into regional AI governance, the UK can ensure that Middle Eastern AI ecosystems remain transparent, accountable, and aligned with international norms—providing a compelling alternative to Chinese AI models, which often come with opaque regulatory frameworks and state surveillance concerns.

Beyond immediate geopolitical advantages, fostering AI governance cooperation with Abraham Accords countries supports long-term UK-Middle East integration, reinforcing the UK's role as a preferred regulatory and economic partner in the region. This engagement could lead to broader digital economy agreements, deeper trade ties, and enhanced research collaborations. As AI continues to shape the global economy, the UK's proactive leadership in AI regulation will not only cement its status as a trusted international AI governance leader but also advance regional stability, economic prosperity, and UK strategic interests in the Middle East.

AI governance is not merely a regulatory issue—it is a diplomatic tool, an economic strategy, and a mechanism for geopolitical influence. The UK is uniquely positioned to leverage its expertise to shape the AI regulatory landscape in the Abraham Accords region, reinforcing its partnerships, deepening multilateral cooperation, and ensuring that AI development remains aligned with ethical and transparent governance frameworks.

Conclusion

By Hadas Lorber

Artificial intelligence has emerged as the defining general-purpose technology of the 21st century—one already reshaping global power structures, economic trajectories, and national security frameworks. It is not only transforming industries but also redrawing the architecture of international diplomacy. This paper has argued that AI is not merely a domain of scientific progress or commercial competition; it is a tool of modern statecraft. It is the frontier on which future global influence, prosperity, and national security will be won or lost. The United Kingdom must meet this pivotal moment with strategic clarity and resolve.

Britain enters this new era from a position of real strength. As one of the world's top three AI powers, with world-leading research institutions, agile regulators, and cutting-edge firms such as DeepMind and Arm, the UK has both the credibility and capacity to lead. Its pioneering work in AI governance—through the Bletchley Summit, the AI Safety Institute, and the 2023 White Paper—has positioned it as a standard-setter and trusted broker on the global stage. But influence in AI is not an abstract concept—it must be deployed to shape real outcomes, with real partners, and in real strategic theatres.

Nowhere is this more urgent than in the Middle East. The Abraham Accords unleashed a historic wave of regional cooperation, dissolving decades of estrangement between Israel and its Arab neighbours, aligning the UK's closest regional partners around shared ambitions. While the terrorist attacks of 7 October 2023 and the ensuing Israel-Hamas war disrupted this progress, they did not erase opportunities. Through principled, innovation-led diplomacy, the UK can help reignite the momentum lost, building bridges around mutual goals in clean energy, healthcare, education, and AI governance.

The regional appetite for investing in and developing AI is immense. Saudi Arabia and the UAE are investing billions to harness AI for economic diversification and state modernisation. Bahrain and Morocco are positioning themselves as digital frontrunners. Israel, with its unmatched start-up dynamism and global R&D presence, remains a powerhouse of technological ingenuity. Across these countries, AI is seen not just as a technological opportunity, but as a vehicle for modernisation, economic leadership, and geopolitical relevance. This convergence helped spark the Abraham Accords; it can now serve as the foundation for their next chapter.

However, for these relationships to mature and endure, they must be grounded in shared progress that delivers tangible benefits to people across the region. The UK is uniquely positioned to help turn this promise into practice. It can anchor regional health cooperation through NHS-led AI diagnostics, training fellowships, and genomics partnerships. It can drive trilateral energy innovation through digital twin infrastructure and decarbonisation initiatives. It can strengthen educational ties through STEM exchanges, shared ed-tech, and cross-border academic programs. And it can lead in governance—shaping interoperable, ethical AI frameworks that ensure trust, safety, and democratic values guide seamless innovation across borders.

This is not merely a foreign policy choice. It is a strategic imperative. China's export of opaque, centralised, and surveillance-driven AI systems poses real risks to both British interests and the liberal international order. The UK must offer an alternative: transparent, human-centred, and trusted technologies. Through sustained engagement with its Abraham Accords partners, Britain can build a new model of AI diplomacy—one that delivers regional prosperity, upholds democratic norms, and anchors long-term stability.

Policy Recommendations

For the UK government to realise the potential of MENA-AI diplomacy, the following action items should be considered:

1. Institutionalising UK AI Diplomacy in MENA through bilateral or multilateral AI MOUs

This would align regulatory frameworks and set the terms for technology transfer and joint initiatives adhering to UK standards. The UK could also consider appointing an AI special envoy for the MENA region to identify, coordinate, and initiate AI collaborations on both G2G and B2B levels, making it the first country to appoint an AI special envoy for a specific region.

2. Prioritising the development and scaling of AI infrastructure, including data centres, cross-continent fibre optic cables, and critical minerals

Realising the UK's AI ambitions hinges on its ability to develop supporting infrastructure swiftly and in a sustainable way. To develop and scale AI technologies effectively, securing access to critical minerals and diversifying supply chains away from China are essential. Additionally, strategically expanding data centre capacities and ensuring robust, secure fibre optic networks across regions, particularly between the UK, the MENA region, and other key markets, will facilitate rapid data processing and cross-border collaboration.

3. Facilitating UK-MENA AI investment and commercial partnerships

Strong UK-MENA AI partnerships depend on both public and private sector collaboration. To support this, the UK government should encourage AI start-ups and tech firms to expand into MENA markets by offering trade missions, tax incentives, and co-investment opportunities with regional sovereign wealth funds. Establishing a UK-MENA AI Business Council would help connect British AI companies with Gulf-based investors, strengthening the UK's role in key sectors like fintech, healthcare AI, and smart cities. Greater UK involvement in the MENA region's AI infrastructure projects—such as Saudi Arabia's Neom—would not only boost British commercial influence but also provide a strategic counterweight to Chinese tech expansion in the region.

4. Strengthening AI-driven cybersecurity partnerships to support practical initiatives, following from the collaborative framework

Increased digitalisation of energy, healthcare, and education systems will both enhance existing infrastructures and expose new vulnerabilities. In a region increasingly affected by China, Russia, and Iran, a regional cybersecurity pact leveraging AI could safeguard both current and emerging systems while creating new opportunities for collaboration in AI-powered cyber defence. Establishing a strong cybersecurity relationship is also crucial for laying the groundwork for future Israeli-Saudi diplomatic ties within the Abraham Accords framework.

5. Taking proactive measures to shape AI governance and standardisation in MENA, such as joint ethics and innovation committees, and transparency and data protection mechanisms

Ensuring British AI governance standards prevail in the region is a crucial step towards countering Chinese influence, and this is best achieved alongside the productive collaboration opportunities outlined in energy and materials, healthcare, and education.

6. Leveraging AI in existing and prospective trade partnerships

Bilateral AI cooperation across energy and minerals, healthcare, education, and regulation can enhance current trade agreements and act as vehicles for future ones. On top of the list is a comprehensive UK-GCC free trade agreement (FTA). Achieving consensus among all six Gulf states remains a challenge due to divergent economic priorities, regulatory frameworks, and geopolitical considerations. However, bilateral agreements focused on AI and digital trade can serve as a pragmatic first step toward a broader trade framework, as well as a model for other GCC countries to follow. Such agreements could help bridge economic divides within the GCC and accelerate negotiations for a full FTA with the UK.

7. Investing in a skilled AI workforce by establishing joint R&D and talent exchange programs

To strengthen its regional influence, the UK must seamlessly integrate into MENA's AI ecosystem by leveraging one of its key assets—its world-leading academic institutions. By forming strategic partnerships with top universities, research centres, and innovation hubs in the region, the UK can

drive collaborative AI development and establish itself as a pivotal player in MENA's digital transformation. Exchange programmes for researchers, engineers, and policymakers will not only foster knowledge transfer but also solidify long-term diplomatic and economic ties. Furthermore, offering AI-focused scholarships and specialised training programmes tailored to MENA's market needs will help cultivate a new generation of AI talent with strong UK connections, ensuring the UK's continued influence in the region's rapidly evolving tech landscape.

Summary of potential UK-led initiatives

Energy and Minerals

1. Forge critical minerals partnerships

The UK should expand its minerals diplomacy beyond Saudi Arabia to include bilateral agreements with the UAE, Bahrain, Morocco, and Israel.

These partnerships should focus on secure access to vital minerals such as tantalum, phosphate, aluminium, and rare earth elements—resources critical to AI infrastructure and clean energy technologies.

Bahrain's downstream metal processing capabilities, Morocco's phosphate dominance, and Israel's seawater extraction technology all offer complementary strengths.

2. Launch joint R&D platforms

To unlock domestic and regional potential, the UK should spearhead collaborative R&D initiatives in mineral processing and AI-enhanced exploration.

A UK–MENA applied research hub could integrate UK geoscience and AI expertise with Israeli, Emirati, and Saudi innovation in mineral recovery and sustainability, accelerating value-added processing and refining capacity.

3. Establish a UK–MENA critical minerals investment fund

A dedicated investment vehicle, jointly capitalised with GCC partners such as Saudi Arabia, would support exploration, extraction, and refining projects.

This fund could also back AI start-ups innovating in minerals mapping, processing, and logistics—laying the financial foundation for a secure, diversified supply chain.

4. Scale sustainable AI infrastructure

The UK should co-invest in regional AI infrastructure, including green data centres and renewable-powered computer hubs, particularly in Saudi Arabia and the UAE.

This aligns with Britain's own AI action plan, data centre expansion, and the establishment of AI Growth Zones.

A UK-backed 'Data Centre Optimisation Accelerator' would drive regional innovation in energy-efficient cooling, energy management, and modular systems, while supporting the safe scaling of AI.

5. Revive and support the TEAS cable initiative

Britain should diplomatically support the revival of the Trans Europe Asia System (TEAS), a proposed fibre-optic cable linking France to India via Israel and the Gulf.

This would boost digital interconnectivity between AA signatories, reduce reliance on Chinese telecom infrastructure, and serve as a foundation for deeper UK–MENA AI and energy cooperation.

6. Enhance cybersecurity of energy infrastructure

The UK should propose a UK–AA AI Cyber Task Force focused on protecting critical energy systems.

This would combine UK regulatory expertise with Israeli cybersecurity innovation to develop AI-powered intrusion detection tailored to the region's power grids, oil refineries, and nuclear facilities.

Wider multilateral engagement with Bahrain, the UAE, and Morocco would enhance civilian infrastructure resilience.

7. Lead a UK–AA smart grid consortium

To facilitate clean energy integration, the UK should coordinate a public-private smart grid consortium with its AA partners.

This body would deploy scalable, AI-powered grid solutions—such as predictive maintenance, decentralised management, and energy balancing—leveraging UK smart grid leadership and enabling renewable deployment in Gulf states.

8. Support green hydrogen and grid integration initiatives

Britain should facilitate partnerships between Israeli hydrogen innovators and Gulf and North African markets, particularly in NEOM and Morocco.

AI-powered logistics and analytics would optimise green hydrogen production, storage, and export infrastructure, positioning Morocco as a key hydrogen supplier to Europe while supporting Gulf energy diversification.

9. Drive renewable energy technology transfer

The UK should serve as a mediator and enabler of trilateral cooperation between Israel, Morocco, and Gulf states to close the region's clean energy technology gap.

This includes facilitating AI-led solar forecasting and grid integration at major projects like Morocco's Noor Ouarzazate Solar Park, and supporting GCC deployment of AI-optimised solar and wind systems.

Education

1. Train Gulf AI talent in the UK

Expand training programmes for Gulf-based AI professionals within UK institutions to promote best practices in AI safety and governance, with a particular emphasis on mitigating AI hallucinations.

Prioritise short courses, executive education, and certificate programmes on frontier model evaluation, using UK academic expertise from institutions such as Oxford, Imperial, UCL, and the Alan Turing Institute.

Focus technical training on the identification and correction of AI hallucinations, particularly in high-stakes sectors like law, finance, and healthcare—leveraging the UK's AI Safety Institute and Oxford's research leadership.

2. Establish UK–GCC AI training centres in the Gulf

Set up joint AI training centres across the GCC—particularly in the UAE, Saudi Arabia, and Bahrain—delivering British-accredited instruction in AI governance, model reliability, and responsible innovation.

These centres should provide hybrid education models combining in-person workshops, British-led online modules, and sector-specific bootcamps.

Content should cover hallucination mitigation, disinformation detection, data bias, and safe deployment of LLMs, countering the risks of unreliable or politically biased models such as China's DeepSeek R-1.

3. Institutionalise AI education diplomacy

Launch a UK–GCC AI Education Initiative modelled on successful academic diplomacy frameworks to facilitate long-term exchanges, shared curricula, and reciprocal fellowships.

Create AI-focused fellowships for Gulf scholars in the UK and for British researchers in institutions such as MBZUAI and KAUST.

Establish a UK–GCC AI Safety Task Force to coordinate academic, government, and industry collaboration on responsible AI development—especially focused on hallucination risk, data integrity, and regulatory innovation.

4. Support women in AI across the Gulf

Expand gender-inclusive AI education programmes, leveraging partnerships with regional organisations like Women in AI UAE and UK leaders such as the Alan Turing Institute.

Develop scholarships and mentorships for women in data science and AI governance to address algorithmic gender bias and build more equitable systems.

Promote the ethical case and commercial value of gender diversity in AI teams, drawing lessons from case studies such as Amazon's biased recruitment tool.

5. Leverage Gulf infrastructure to advance UK tech development

Enable UK AI researchers and start-ups to access low-cost GCC-based cloud computing and data centre infrastructure through trusted partnerships with Microsoft Azure, AWS, and Oracle.

Formalise secure compute-sharing agreements with GCC partners to reduce UK start-up costs, enhance development capacity, and advance environmentally efficient AI scaling.

Encourage reciprocal exchange: Gulf engineers gain UK-led education in AI risk management, while British developers gain access to Gulf-based infrastructure.

6. Secure sustainable funding and delivery mechanisms

Mobilise funding from UK government departments (e.g. DSIT), GCC sovereign wealth funds (e.g. Saudi PIF, UAE's G42), and private tech sector sponsors (e.g. Microsoft, DeepMind, OpenAI).

Embed UK education initiatives in existing frameworks for AI cooperation with Abraham Accords signatories to ensure geopolitical alignment and policy coherence.

Promote strategic visibility of these programmes as an alternative to Chinese digital infrastructure diplomacy, thereby expanding the UK's influence across the AI governance agenda in the Middle East.

Healthcare

1. Establish UK-led AI healthcare roundtables across Abraham Accords states

Convene regular forums with policymakers, clinicians, and tech leaders from the UK, Israel, UAE, Bahrain, Morocco, and Saudi Arabia to identify shared healthcare priorities and fast-track pilot projects.

Modelled on the UAE-UK Business Council's 2024 forum, these roundtables can focus on AI diagnostics, genomics, and drug discovery.

Hosted by institutions like the British Council and NHS AI Lab to ensure continuity, standards alignment, and regional trust-building.

2. Launch UK-Gulf-Israel fellowship and training exchanges

Develop joint fellowships for Middle Eastern clinicians and data scientists to train in NHS AI Labs and for UK professionals to gain experience in Gulf hospitals.

Encourage co-developed MSc programs in Health Data Science between UK universities and institutions in Bahrain, Morocco, or the UAE.

Embed AI training modules into UK health tech deployments across the region to build local capacity and trust in AI tools.

3. Fund joint AI research consortia on regional health challenges

Through UKRI, Wellcome, and Gulf sovereign wealth funds, issue grants to UK-Accords consortia working on projects like AI for diabetes care, rare diseases, or hospital optimisation.

Modelled on UK-Brazil and UK-Israel scientific partnerships, these grants promote co-development, peer review, and mutual accountability.

Showcase outcomes through annual symposia or digital platforms to highlight proof-of-concept results and accelerate scaling.

4. Align AI health regulations through UK-Gulf-Israel policy collaboration

Establish a regulatory exchange between NHS AI Lab, MHRA, Israel's Ministry of Health, and Gulf AI regulators to harmonise safety and ethics standards.

Share UK's NHSX "AI Regulation Helpdesk" model to assist start-ups navigating regional approval pathways.

Encourage mutual recognition of validated AI tools to avoid redundant testing and fast-track beneficial technologies.

5. Build digital twin hospital partnerships for AI-driven operations

Support pilot projects linking NHS hospitals with Gulf counterparts (e.g. Bahrain's King Hamad Hospital) to co-develop virtual hospital replicas for operational modelling.

Use UK-led AI to optimise patient flows, emergency preparedness, and predictive maintenance in smart hospitals.

Share outcomes and data through secure platforms to create a continuous learning loop between UK and Gulf institutions.

6. Expand telemedicine collaboration and joint remote care platforms

Connect NHS institutions with Gulf hospitals to co-develop AI-enabled telehealth platforms for virtual triage, remote monitoring, and specialist consultations.

Learn from Seha Virtual Hospital (SVH) in Saudi Arabia and Moorfields' Dubai branch to scale UK-approved telemedicine tools with local adaptation.

Encourage shared telehealth standards, clinician training, and interoperability between platforms to ensure consistency and safety.

7. Create UK-Israel-Gulf medical AI training centres

Develop regional training hubs in Abu Dhabi and Tel Aviv co-managed by the NHS, Sheba Medical Center, and Gulf institutions to upskill health workers in AI diagnostics and ethics.

Offer British-accredited programs, designed with Royal Colleges and Health Education England, ensuring global recognition and quality.

Implement public-private funding with UK leadership, Gulf infrastructure, and private sector sponsorship from companies like Babylon or Proximie.

8. Launch trilateral digital health innovation accelerators

Establish innovation hubs in London, Abu Dhabi, and Tel Aviv—co-led by Innovate UK and NHS AI Lab—to support joint start-ups addressing regional health challenges.

Provide seed funding, regulatory guidance, and joint pilot testing across NHS, Israeli HMOs, and Gulf hospitals.

Promote co-investment from VCs and Gulf SWFs, using the UK-UAE Life Sciences Agreement as a model for de-risked innovation capital.

9. Develop a UK-led regional AI disease surveillance network

With UKHSA leadership, design a multilateral AI surveillance platform for tracking outbreaks and chronic diseases across Abraham Accords states.

Integrate real-time data from airlines, wearables, and genomic labs into predictive AI models for early warning and response coordination.

Pool funding from UK public health grants, Gulf health ministries, and philanthropic partners like Wellcome and the Gates Foundation.

10. Lead AI-driven genomics partnerships targeting regional genetic diseases

Create a UK-Israel-Gulf Genomics AI Taskforce to align data standards, share tools, and co-develop diagnostic and treatment approaches for inherited diseases.

Involve Genomics England, UK Biobank, and the Wellcome Sanger Institute to provide world-class research infrastructure and ethical oversight.

Establish a public-private genomic innovation fund co-financed by Gulf SWFs and UK institutions to support start-ups and regional genome centres.

11. Promote ethical governance and data protection standards in health AI

Export the UK's NHS Code of Conduct, bias auditing practices, and consent frameworks to Abraham Accords countries through training and co-drafting of regional guidelines.

Support creation of Gulf-based ‘AI Sandboxes’ modelled on UK experience for testing AI tools under regulator supervision.

Facilitate federated learning and de-identified data sharing for collaborative research, ensuring compliance with both GDPR and local laws.

12. Counter Chinese influence with transparent, democratic AI health models

Offer UK-developed, NHS-tested AI solutions as ethical alternatives to Chinese black-box systems, embedding co-training and patient safety protocols.

Tie UK deployments to AI governance reform, helping Gulf states converge on shared standards with Israel and the UK.

Use joint projects—such as Proximie-assisted surgeries or co-trained staff—as quiet diplomacy tools to normalise interaction between Gulf and Israeli professionals.

Regulation

1. Convene UK-led AI regulatory roundtables

Launch regular UK-hosted forums with regulators from Abraham Accords countries (and Saudi Arabia) to build trust and align on AI policy.

Focus discussions on common regulatory concerns (e.g., liability, ethics, cross-border data sharing) and form working groups to draft shared principles.

Leverage the UK’s convening power from Bletchley Park to maintain neutral, depoliticised spaces for regional dialogue.

2. Expand cross-border regulatory sandboxes

Open the UK’s AI Airlock and fintech sandboxes to Abraham Accords start-ups for joint testing under UK supervision.

Support reciprocal sandbox initiatives (e.g., in Abu Dhabi or Tel Aviv), co-developing ‘safe spaces’ for piloting AI tools across sectors.

Create a multinational sandbox exchange or ‘GFIN for AI’ to trial fintech, health-tech, and smart city AI solutions under harmonised protocols.

3. Launch a UK-Abraham Accords AI governance forum

Establish a multilateral platform co-chaired by the UK and a regional partner (e.g., UAE) to coordinate AI regulation and share best practices.

Draft and promote a Regional AI Governance Charter with common principles on ethics, safety, transparency, and accountability.

Align with the Negev Forum or other Abraham Accords frameworks to ensure diplomatic legitimacy and policy continuity.

4. Facilitate regulatory secondments and knowledge exchanges

Send UK experts to advise Abraham Accords regulators on drafting policies and establishing oversight mechanisms.

Host Gulf and Israeli officials in the UK’s AI regulatory bodies (e.g., ICO, MHRA, AISI) to learn from British best practices.

Fund secondments through FCDO technical cooperation funds, creating networks of reformers across the region.

5. Promote data governance alignment projects

Launch a working group to align data protection laws for cross-border AI collaboration (e.g., joint research, federated learning).

Develop shared AI risk assessment toolkits by adapting UK and Israeli frameworks into standardised regional checklists.

Position UK bodies like the ICO, Alan Turing Institute, and Centre for Data Ethics as technical advisors.

6. Institutionalise private-sector input via a UK-Middle East AI business council

Convene leading firms from the UK, Gulf, and Israel (e.g., DeepMind, Arm, G42, STC) to advise on regulatory interoperability and market access.

Use the council to share industry perspectives on sandboxing, procurement rules, and certification processes.

Ensure private-sector feedback informs the Governance Forum's guidelines and standard-setting efforts.

7. Support joint pilots and testbeds for responsible AI

Partner with Middle Eastern regulators to co-develop supervised pilot projects (e.g., AI diagnostics in UK-Israel hospitals, reg-tech pilots in ADGM).

Use these testbeds to trial policy innovations (e.g., explainability standards, bias audits) in real-world deployments.

Showcase successful pilots in regional forums to build political momentum for common standards.

8. Establish UK-certified AI safety standards for regional use, embedding UK governance models into Middle Eastern legislation

Encourage Abraham Accords countries to adopt UK-generated standards and certifications (e.g., AISI benchmarks, MHRA medical AI protocols).

Build trust in AI systems through UK-vetted validation processes, helping MENA regulators avoid 'black-box' deployments.

Assist Abraham Accords states in codifying UK-style flexible regulation—sectoral, principles-based, and innovation-friendly.

Position the UK as a long-term legal reference point, as it has been in financial services or privacy law.

Use regulatory cooperation to unlock deeper economic integration: e.g., UK-GCC digital trade agreements with aligned AI provisions.

9. Leverage AI governance for UK-Israel-Saudi cooperation

Facilitate quiet cooperation between Israeli and Saudi regulators through UK-led technical forums and joint sandboxes.

Co-author shared AI ethics checklists or co-test applications in neutral settings to build relationships and institutional trust.

Use technical collaboration as a foundation for gradual political rapprochement.

Bibliography

- ¹ Stern, Lord N. and Romani, M. (2025). "What is AI's role in the climate transition and how can it drive growth?", *World Economic Forum*, 16 January 2025, retrieved from: <https://www.weforum.org/stories/2025/01/artificial-intelligence-climate-transition-drive-growth/#:~:text=1%20Power%20sector%3A%20AI%20enhances%20renewable%20energy%20efficiency%2C,adoption%20could%20reduce%20emissions%20by%20~0.6%20GtCO2e%20annually>.
- "About: The AI Security Institute (AISI)". (n.d.), retrieved from: <https://www.aisi.gov.uk/about>.
- "State of AI in Saudi Arabia", *GAIN Summit*, 8, 42, retrieved from: <https://globalaisummit.org/Documents/StateofAIinSaudiArabia.pdf>.
- "The UAE's Fourth Industrial Revolution (4IR) Strategy", 7 November 2023, retrieved from: <https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/government-services-and-digital-transformation/the-uae-strategy-for-the-fourth-industrial-revolution>.
- 7News Morocco (2024). "Moroccan Healthcare Advances with AKDITAL and Dassault's 'Digital Twin' Technology," 12 November 2024., retrieved from: <https://en.7news.ma/moroccan-healthcare-advances-with-akdital-and-dassaults-digital-twin-technology/>.
- Aaamari, O. (2022). "Morocco-Israel Tech Cooperation to Include AI, Energy, Innovation", *Morocco World News*, 27 May 2022, retrieved from: <https://www.moroccoworldnews.com/2022/05/45532/morocco-israel-tech-cooperation-to-include-ai-energy-innovation/>.
- Abu Dhabi Global Market. "Abu Dhabi Global Market Invites FinTech Firms to Join Cross-Border Testing," *ADGM FSRA*, 31 Jan 2019, retrieved from: <https://www.adgm.com/media/announcements/abu-dhabi-global-market-invites-fintech-firms-to-join-cross-border-testing>.
- Abuljadayel, F. (2022). "\$214m King's College Hospital to Launch in Jeddah by the End of 2023," *Arab News*, 21 March 2022, retrieved from: <https://www.arabnews.com/node/2046871/business-economy>.
- ADNOC (2021). "ADNOC, bp and Masdar agree to expand UAE-UK new energy partnership", 17 September 2021, retrieved from: <https://www.adnoc.ae/en/news-and-media/press-releases/2021/adnoc-bp-and-masdar-agree-to-expand-uae-uk-new-energy-partnership>.
- AI Innovation Israel (2023). "Israel Establishes National Expert Forum to Guide AI Policy and Regulation," 23 September 2023, retrieved from: https://aiisrael.org.il/press_release/israel-establishes-national-expert-forum-to-guide-ai-policy-and-regulation/.
- AI Week (2025). "AI Week 2025", retrieved from: <https://ai-week.com/>.
- Akzente GIZ (2025). "Morocco's energy transition", retrieved from: <https://akzente.giz.de/en/stimmen/moroccos-energy-transition>.
- Alba Smelter (2024). "A Partnership Rooted in Sustainability: Alba Renews Alumina Supply Contract with Alcoa", 15 October 2024, retrieved from: <https://www.albasmelter.com/en/article/alba-renews-alumina-supply-contract-with-alcoa>.
- Alba Smelter (2025). Retrieved from: <https://www.albasmelter.com/en/>.
- Alexander, D. (2024). "Free Trade Agreement with the Gulf Cooperation Council (GCC): Update on Continuous Negotiations", *House of Commons, Statement UIN HCWS333*, 18 December 2024, retrieved from: <https://questions-statements.parliament.uk/written-statements/detail/2024-12-18/hcws333>.
- Alitech (2024). "Saudi Aramco Signs MoUs to Collaborate on Advanced AI and Supercomputing Solutions 2024", 12 September 2024, retrieved from: <https://alitech.io/blog/saudi-aramco-signs-mous-to-collaborate-advanced-ai/>.
- Alkousaa, R. (2024). "Germany, Morocco agree alliance to support green hydrogen production and exports", *Reuters*, 28 June 2024, retrieved from: https://www.reuters.com/sustainability/climate-energy/germany-morocco-agree-alliance-support-green-hydrogen-production-exports-2024-06-28/?utm_source=chatgpt.com.
- Allen, G.C. (2025). "DeepSeek, Huawei, Export Controls, and the Future of the U.S.-China AI Race", *Center for Strategic and International Studies*, 7 March 2025, retrieved from: <https://www.csis.org/analysis/deepseek-huawei-export-controls-and-future-us-china-ai-race>.
- Allen, G.C., Adamson, G., Heim, L. et al. (2025). "The United Arab Emirates' AI Ambitions," *Center for Strategic and International Studies (CSIS)*, 24 January 2024, retrieved from: <https://www.csis.org/analysis/united-arab-emirates-ai-ambitions>.
- Alowais, S.A., Alghamdi, S.S., Alsuhbany, N. et al. (2023). "Revolutionizing Healthcare: The Role of Artificial Intelligence in Clinical Practice," *BMC Medical Education* 23, retrieved from: <https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04698-z#Abs1>.
- Alsaedi, A.R. et al. (2024). "Perceived Worries in the Adoption of Artificial Intelligence Among Healthcare Professionals in Saudi Arabia: A Cross-Sectional Survey Study," *Nursing Reports*, 28 November 2024, retrieved from: <https://www.mdpi.com/2039-4403/14/4/271>.
- AlSairafi, N. and AlMoosa, Z. (2023). "Artificial Intelligence in Health Care: Enhancing Efficiency in the Kingdom of Bahrain," *Bahrain Medical Bulletin* 45 (3), September 2023, retrieved from: https://bahrainmedicalbulletin.com/Sep_2023/BMB-22-362.pdf.
- Al-Zubi, I. (2025). "Energy and AI: the power couple that could usher in a net-zero world", *World Economic Forum*, 29 January 2025, retrieved from: <https://www.weforum.org/stories/2025/01/energy-ai-net-zero/7>.
- Amazon Web Services (2025). "Clean Energy Accelerator", retrieved from: <https://aws.amazon.com/energy-utilities/clean-energy-accelerator/>.
- APA News (2025). "Morocco emerges as a leading force in green hydrogen production", 13 March 2025, retrieved from: <https://apanews.net/morocco-emerges-as-a-leading-force-in-green-hydrogen-production/>.
- Arab News (2022). "Bahrain to Be First to Connect with Saudi Arabia's Seha Virtual Hospital," 24 June 2022, retrieved from: <https://www.arabnews.com/node/2110306/saudi-arabia>.

- Arabian Business (2022). "Bahrain energy firm signs deal for AI oil drilling technology", 9 December 2022, retrieved from: https://www.arabianbusiness.com/industries/energy/bahrain-energy-firm-signs-deal-for-ai-oil-drilling-technology?utm_source=chatgpt.com.
- Aramco (2024). "Aramco plans \$100m funding for KAUST to support cutting-edge R&D", 12 August 2024, retrieved from: [https://www.aramco.com/en/news-media/news/2024/aramco-plans-\\$100m-funding-for-kaust-to-support-cutting-edge-r-and-d](https://www.aramco.com/en/news-media/news/2024/aramco-plans-$100m-funding-for-kaust-to-support-cutting-edge-r-and-d).
- Arnold, M. (2024) "Banks' use of AI could be included in stress tests, says Bank of England deputy governor", *Financial Times*, October 31, 2024, retrieved from: <https://www.ft.com/content/d4d212a8-c63a-4b00-9f4c-e06ed59f9279>.
- Bahrain News Agency (2020). "Bahrain and Israel sign cooperation agreements", 1 December 2020, retrieved from: <https://www.bna.bh/en/BahrainandIsraelsigncooperationagreements.aspx?action=article&id=587990>.
- Bahrain News Agency (2023)/ "HRH the Crown Prince and Prime Minister Inaugurates the King Hamad American Mission Hospital," 26 January 2023, retrieved from: <https://www.bna.bh/en/HRHtheCrownPrinceandPrimeMinisterinauguratestheKingHamadAmericanMissionHospital.aspx?cms=q8FmFJgiscL2fwIzON1%2BDgdhHHmPF5M91MUg1BoDun0%3D>.
- Bahrain Steel (2025). "About Us", retrieved from: https://www.bahrainsteel.com.bh/?utm_source=chatgpt.com#!/aboutus.
- Baig, A., and Khan, S. (2025). "An Overview of Bahrain's Personal Data Protection Law (PDPL)," *Securiti*, 19 January 2025, retrieved from: <https://securiti.ai/overview-of-bahrain-personal-data-protection-law-pdpl/>.
- Bajwa, J., Munir, U., Nori, A. and Williams, B. (2021). "Artificial Intelligence in Healthcare: Transforming the Practice of Medicine," *Future Healthcare Journal*, 8(2), July 2021, retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8285156/>.
- Baker Botts (2024). "Trust, But Verify: Avoiding the Perils of AI Hallucinations in Court", 9 December 2024, retrieved from: <https://www.bakerbotts.com/thought-leadership/publications/2024/december/trust-but-verify-avoiding-the-perils-of-ai-hallucinations-in-court>.
- Banerji, A. (2022). "Health Silk Route: China and the Middle East," *Modern Diplomacy*, 15 May 2022, retrieved from: <https://www.economist.com/technology-quarterly/2024/03/27/can-artificial-intelligence-make-health-care-more-efficient>.
- Bank for International Settlements and Bank of England. (2023). "Project Rosalind develops a prototype application programming interface layer for retail CBDC systems and explores ecosystem innovation," 16 June 2023, retrieved from: <https://www.bis.org/press/p230616.htm>.
- Bank of England. (2025). "Progress update: The digital pound and the payments landscape," 14 January 2025, retrieved from: <https://www.bankofengland.co.uk/report/2025/digital-pound-progress-update>.
- Bareket, E. and Cohen, Adv. A. (2025). "Israel: Digital Health Laws and Regulations 2024," *International Comparative Legal Guides*, 4 March 2025, retrieved from: <https://iclg.com/practice-areas/digital-health-laws-and-regulations/israel>.
- Barrett, A., Timponi, R. and Macri, S. (2022). "ENEC's second nuclear reactor train accelerates UAE national decarbonization and gas self-sufficiency goals", *S&P Global*, 19 April 2022, retrieved from: https://www.spglobal.com/commodity-insights/en/research-analytics/successful-commercial-operation-for-enecs-second-nuclear?utm_source=chatgpt.com.
- Barrington, L. and Williams, D. (2020). "UAE, Israel Health Ministers Agree to Enhance Cooperation on Health," *Reuters*, 24 August 2020, retrieved from: <https://www.reuters.com/article/world/uae-israel-health-ministers-agree-to-enhance-cooperation-on-health-idUSKBN25K1E/>.
- BBC News (2019). "Saudi Arabia oil attacks: Weapons debris 'proves Iran behind them'", 18 September 2019, retrieved from: <https://www.bbc.co.uk/news/world-middle-east-49746645>.
- Ben Gurion University of the Negev (2025). Retrieved from: <https://www.bgu.ac.il/en/>.
- Benito, A. (2024). "Saudi Arabia launches \$100 Billion AI initiative to lead in global tech", *CIO*, 11 November 2024, retrieved from: <https://www.cio.com/article/3602900/saudi-arabia-launches-100-billion-ai-initiative-to-lead-in-global-tech.html>.
- Benito, A. (2024). "The UAE emerges as a global leader in AI, driving innovation and future technology", *CIO*, 26 November 2024, retrieved from: <https://www.cio.com/article/3612893/the-uae-emerges-as-a-global-leader-in-ai-driving-innovation-and-future-technology-2.html>; U.AE (2023).
- Bensalem, S. (2024). "Morocco's energy diversification", retrieved from: <https://www.ebsco.com/research-starters/power-and-energy/moroccos-energy-diversification#:~:text=As%20of%202021%2C%20the%20country%20imported%20over%2091%25,energy%20sources%20such%20as%20solar%2C%20wind%2C%20and%20hydropower>.
- Bin Al Khalifa, A. (2024). "How the Gulf's nations are adapting to global supply chain challenges", *World Economic Forum*, 2 December 2024, retrieved from: <https://www.weforum.org/stories/2024/12/gulf-countries-supply-chain-resilience/>.
- Bizzari, S., Nair, P., Hana, S. et al. (2023). "Spectrum of Genetic Disorders and Gene Variants in the United Arab Emirates National Population: Insights from the CTGA Database," *Frontiers in Genetics*, 4 May 2023, retrieved from: <https://www.frontiersin.org/journals/genetics/articles/10.3389/fgene.2023.1177204/full>.
- Bolstad, P. (2021). "Energy Independence Doesn't Mean What It Used To", *Foreign Policy*, 26 July 2021, retrieved from: <https://foreignpolicy.com/2021/07/26/energy-independence-climate-change-us-national-security/>.
- Bonislowski, A. (2024). "WHO International Pathogen Surveillance Network Launches With \$4M in Donor Funding," *GenomeWeb*, 23 May 2024, retrieved from: <https://www.genomeweb.com/research-funding/who-international-pathogen-surveillance-network-launches-4m-donor-funding>.
- Bose, S. (2024). "AI Strengthening Healthcare in the UAE," *Syenza News*, 10 January 2024, retrieved from: <https://news.syenza.com/ai-strengthening-healthcare-in-the-uae/>.
- BP (2022). "BP Statistical Review of World Energy", retrieved from: <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2022-full-report.pdf>.
- Calderon, J.L. (2022). "How Critical Minerals Became So Critical", *Milken Institute Review*, 31 October 2022, retrieved from: <https://www.milkenreview.org/articles/how-critical-minerals-became-so-critical>.

- Capmad (2024). "Mining Resources: Critical and Strategic Metals in Morocco", 12 July 2024, retrieved from: <https://www.capmad.com/mining-en/mining-resources-critical-and-strategic-metals-in-morocco/>.
- Catapult Energy Systems (2021). "AI in Energy", 22 June 2021, retrieved from: <https://es.catapult.org.uk/report/ai-in-energy/>.
- CEIC (2014). "Bahrain BH: Fossil Fuel Energy Consumption: % of Total", retrieved from: https://www.ceicdata.com/en/bahrain/environmental-energy-production-and-consumption/bh-fossil-fuel-energy-consumption--of-total?utm_source=chatgpt.com.
- Center for AI and Digital Policy (2021). "Artificial Intelligence and Democratic Values: 2021 AI and Democratic Values Index". *OECD.AI*, February 2022, retrieved from: <https://wp.oecd.ai/app/uploads/2022/02/Center-for-AI-and-Digital-Policy.pdf>.
- Chaimaa, I., Idaomar, D., Hannaoui, M. et al. (2024). "Applications of Artificial Intelligence in Morocco's Healthcare Sector: A Springboard to Medical Excellence," *Journal of Computer and Communications*, 12(9), retrieved from: <https://www.scirp.org/journal/paperinformation?paperid=135983>.
- Cheriyian, G. (2024). "How Digital Innovation Is Reshaping Healthcare in the Middle East," *World Economic Forum*, 8 October 2024, retrieved from: <https://www.weforum.org/stories/2024/10/digital-innovation-reshaping-healthcare-middle-east/>.
- Children's Hospital of Philadelphia (2021). "In Celebration of the Abraham Accords, CHOP Hosts Pediatric Experts from the United Arab Emirates (UAE) and Israel," 14 September 2021, retrieved from: <https://www.chop.edu/news/celebration-abraham-accords-chop-hosts-pediatric-experts-united-arab-emirates-uae-and-israel>.
- Children's Hospital of Philadelphia (2022). "SEHA Hospitals in Collaboration with CHOP and Schneider Host First Conference," 1 November 2022, retrieved from: <https://www.chop.edu/news/seha-hospitals-collaboration-chop-schneider-host-first-conference>.
- Chipman, A. (2023). "PureHealth Acquires the UK's Largest Private Healthcare Group for \$1.2b," *Digital Health*, 1 September 2023, retrieved from: <https://www.digitalhealth.net/2023/09/purehealth-acquires-the-uks-largest-private-healthcare-group-for-1-2b/>.
- CL. "2022 Corporate Responsibility (ESG) Report", retrieved from: <https://icl-group-sustainability.com/reports/icl-a-glance/>.
- Cliffe, J. (2020). "Iran and Saudi Arabia are locked in a Cold War-style stand-off but the situation is even more volatile", *The New Statesman*, 8 January, retrieved from: <https://www.newstatesman.com/world/2020/01/iran-and-saudi-arabia-are-locked-cold-war-style-stand-situation-even-more-volatile>.
- Climatescope 2024 | Saudi Arabia. (2024), retrieved from: <https://www.global-climatescope.org/markets/saudi-arabia>.
- Cochrane, P. (2023). "Israeli-backed internet cable aims to link country to Saudi Arabia and Gulf States", *Middle East Eye*, 3 April 2023, retrieved from: <https://www.middleeasteye.net/news/israel-saudi-arabia-gulf-states-internet-cable-link>.
- Cointime (2025). "DeepSeek has started operations at Saudi Aramco Digital Data Center", 10 February, retrieved from: <https://www.cointime.ai/flash-news/deepseek-has-started-operations-at-saudi-aramco-digital-data-center-17104>.
- Cookson, C. (2025). "Protein Project Uses AI to Boost Disease Treatment," *Financial Times*, 5 March 2025, retrieved from: <https://www.ft.com/content/cc2ec1ae-f514-427b-94af-b865a28df7c3>.
- Copper Digital (2025). "How Artificial Intelligence Can Save Millions of Lives and Trillions of Dirham," retrieved from: <https://copperdigital.com/blog/how-artificial-intelligence-can-save-millions-of-lives-and-trillions-of-dirham/>.
- Dang, S. and McCartney G. (2025). "AI leading to faster, cheaper oil production, executives say", *Reuters*, 13 March 2025, retrieved from: <https://www.reuters.com/business/energy/ceraweek-ai-leading-faster-cheaper-oil-production-executives-say-2025-03-13/>.
- Daniels, O.J. (2022). "The 'AI RMA': The Revolution Has Not Arrived (Yet)", *The Andrew W. Marshall Papers*, pp.14-18, retrieved from: https://www.andrewmarshallfoundation.org/wp-content/uploads/2022/11/AIRMA_FINAL.pdf.
- Dartnell-Steinberg, C. (2019). "Saudi Arabian Sovereignty Contributes to NHS-Associated Babylon Health's \$550M Raise," *MobiHealthNews*, 5 August 2019, retrieved from: <https://www.mobihealthnews.com/news/emea/saudi-arabian-sovereignty-contributes-nhs-associated-babylon-healths-550m-raise>.
- Dastin, J. (2018). "Insight – Amazon scraps secret AI recruiting tool that showed bias against women", *Reuters*, 11 October 2018, retrieved from: <https://www.reuters.com/article/world/insight-amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK0AG/>.
- Data Guidance (2024). "Morocco – Data Protection Overview", retrieved from: <https://www.dataguidance.com/jurisdictions/morocco>.
- Data Guidance (2024). "Saudi Arabia – Data Protection Overview," retrieved from: <https://www.dataguidance.com/jurisdictions/saudi-arabia>.
- Davies, R.S. et al. (2025). "Artificial intelligence and machine learning to enhance critical mineral deposit discovery", *Geosystems and Geoenvironment*, 4(2), May 2025, retrieved from: <https://www.sciencedirect.com/science/article/pii/S2772883825000111>.
- Dempsey, H. and Cornish, C. (2024). "How Gulf states are putting their money into mining", *Financial Times*, 1 April 2024, retrieved from: <https://www.ft.com/content/59298650-540a-43cd-86f8-a6c6db0aa906>.
- Department for Energy Security and Net Zero. (2025, March 27). *Industrial energy price statistics*. GOV.UK. retrieved from: <https://www.gov.uk/government/collections/industrial-energy-prices>.
- Department for International Trade, "UK-Israel Free Trade Agreement: The UK Strategic Approach", 18 July 2022, retrieved from: <https://assets.publishing.service.gov.uk/media/62d5786ce90e071e798d118a/uk-israel-free-trade-agreement-the-uk-strategic-approach.pdf>.
- Department of Health – Abu Dhabi (2022). "Department of Health – Abu Dhabi and the Israel Innovation Authority Announce Collaboration on Key Healthcare Innovations," 26 January 2022, retrieved from: <https://www.doh.gov.ae/en/news/DoH-and-the-Israel-Innovation-Authority-announce-collaboration-on-key-healthcareinnovations>.
- Derrick, M. (2024). "About Aramco, Carbon Clean & Samsung E&A's CycloneCC Tech", *Energy Digital*, 7 December 2024, retrieved from: <https://energydigital.com/technology-and-ai/aramco-carbon-clean-and-samsung-e-a-join-to-capture-carbon>.
- Derrick, M. (2024). "Aramco Drives Energy Innovation and Injects US\$100m into R&D", *Energy Digital*, 14 August 2024, retrieved from: <https://energydigital.com/articles/aramco-drives-energy-innovation-and-injects-us-100m-into-r-d>.

- Derrick, M. (2025). "How Morocco's Green Tech is Powering Africa's Sustainability", *Sustainability Magazine*, 27 January 2025, retrieved from: https://sustainabilitymag.com/sustainability/q-a-with-ahmed-chebak-director-of-the-green-tech-institute?utm_source=chatgpt.com.
- Derrick, M. (2025). "The Impact of Aramco's Move to Invest in Lithium Production", *Energy Digital*, 20 January 2025, retrieved from: <https://energydigital.com/oil-and-gas/aramco-investment-in-lithium-production>.
- DMCC (2024). "The Future of Trade: Critical Minerals Edition", retrieved from: <https://2509857.fs1.hubspotusercontent-na1.net/hubfs/2509857/FOT/Future%20of%20Trade/FOT%20Critical%20Minerals%20Edition%202025/The%20Future%20of%20Trade%20-%20Special%20Critical%20Minerals%20Edition%202025.pdf?hsCtaAttrib=186150004265>.
- Dubai Electricity & Water Authority (2022). "DEWA implements its Smart Grid Strategy 2021-2035", 19 April 2022, retrieved from: <https://www.dewa.gov.ae/en/about-us/media-publications/latest-news/2022/04/dewa-implements-its-smart-grid-strategy-2021-2035>.
- Duffy, C. (2025). "Trump announces a \$500 billion AI infrastructure investment in the US", *CNN Business*, 21 January 2025, retrieved from: <https://edition.cnn.com/2025/01/21/tech/openai-oracle-softbank-trump-ai-investment/index.html>.
- Economy Middle East (2025). "LEAP 2025: Saudi Arabia solidifies status as global AI hub with \$14.9 billion investment", 10 February 2025, retrieved from: <https://economymiddleeast.com/news/leap-2025-saudi-arabia-solidifies-status-as-global-ai-hub-with-14-9-billion-investment/>.
- El Treki, R. "Central Bank of Bahrain (CBB) launch regulatory sandbox for fintech firms," *Al Tamimi & Co Insights*, February 2018, retrieved from: <https://www.tamimi.com/law-update-articles/central-bank-bahrain-cbb-launch-regulatory-sandbox-fintech-firms-2/>.
- El Yaakoubi, A. and Zhu, J. (2022). "Saudi Arabia to host China-Arab summit during Xi visit, sources say", *Reuters*, 30 November 2022, retrieved from: <https://www.reuters.com/world/middle-east/saudi-arabia-host-china-arab-summit-during-xi-visit-sources-say-2022-11-30/>.
- Eljechtmi, A. (2024). "Moroccan solar plans hampered by dispute over technology", *Reuters*, 27 February 2024, retrieved from: <https://www.reuters.com/world/africa/moroccan-solar-plans-hampered-by-dispute-over-technology-2024-02-27/>.
- Embassy of the United Arab Emirates (2022). "The UAE and Israel: Two Years of Progress," 17 October 2022, retrieved from: <https://www.uae-embassy.org/sites/default/files/2022-10/Accords%20UAE-ISR%20Partnerships%2010.17.22%5B43%5D.pdf>.
- Embassy of the United Arab Emirates Washington DC (2025). "UAE Energy Diversification", retrieved from: https://www.uae-embassy.org/discover-uae/climate-and-energy/uae-energy-diversification?utm_source=chatgpt.com.
- Energy Central (2025). "AI 'can help in energy transition towards renewable sources'", 19 February 2025, retrieved from: <https://energycentral.com/news/ai-%E2%80%98can-help-energy-transition-towards-renewable-sources%E2%80%999>.
- EnergyNow.com (2024). "UK Increases Windfall Tax on North Sea Oil Producers", 30 October 2024, retrieved from: <https://energynow.com/2024/10/uk-increases-windfall-tax-on-north-sea-oil-producers/#:~:text=LONDON%2C%20Oct%2030%20%28Reuters%29%20%E2%80%93%20The%20British%20government,year%2C%20finance%20minister%20Rachel%20Reeves%20announced%20on%20Wednesday>.
- EnergyTrend (2024). "Israel Emerges as Pivotal Player in Energy Storage System Sector, Fueling Future Market Growth", 11 March 2024, retrieved from: <https://www.energytrend.com/research/20240311-45415.html>.
- Esteva, A., Kuprel, B. Novoa, R.A. et al. (2017). "Dermatologist-Level Classification of Skin Cancer with Deep Neural Networks." *Nature* 542, retrieved from: <https://www.nature.com/articles/nature21056>.
- European Commission (2022). "Questions and Answers on REPower EU: Joint European action for more affordable, secure and sustainable energy", 8 March 2022, retrieved from: https://ec.europa.eu/commission/presscorner/detail/en/qanda_22_1512.
- European Union (2024). "Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act)," *Official Journal of the European Union*, 1689, 13 June 2024, retrieved from: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202401689.
- Fast Company Middle East (2024). "Abu Dhabi unveils AI investment firm, aims \$100bn AUM", 12 March 2024, retrieved from <https://fastcompany.me.com/news/abu-dhabi-unveils-ai-investment-firm-aims-100-billion-aum/>.
- Fattorini, L. et al. (2024). "The Global Vibrancy Tool", *Institute for Human Centred AI, Stanford University*, September 2024, p.19.
- Financial Conduct Authority (2019). "2019 Global AML and Financial Crime TechSprint", 29 July 2019, retrieved from: <https://www.fca.org.uk/events/techsprints/2019-global-aml-and-financial-crime-techsprint>.
- Financial Conduct Authority (2024). "Regulatory Sandbox", 9 May 2024, retrieved from: <https://www.fca.org.uk/firms/innovation/regulatory-sandbox>.
- Flannery, A. (2024). "Data Collaboration at the Heart of UAE-UK Partnership to Improve Cancer Care," *Intelligent Health Tech*, 12 September 2024, retrieved from: <https://www.intelligenthealth.tech/2024/09/12/data-collaboration-at-the-heart-of-uae-uk-partnership-to-improve-cancer-care/>.
- Foreign, Commonwealth & Development Office and Department for Science, Innovation and Technology (2025). "UK Science and Innovation Network Summary: United Arab Emirates (UAE)," 12 February 2025, retrieved from: <https://www.gov.uk/government/publications/uk-science-innovation-network-summary-united-arab-emirates/uk-science-and-innovation-network-summary-united-arab-emirates-uae>.
- Foreign, Commonwealth, & Development Office (2024). "UK and Qatar launch project to boost artificial intelligence collaboration", retrieved from: <https://www.gov.uk/government/news/uk-and-qatar-launch-project-to-boost-artificial-intelligence-collaboration>.
- Fox News, "'GOOD NEGOTIATIONS': Saudi crown prince says 'every day' is a day closer to peace with Israel", [Online Video], retrieved from: https://www.youtube.com/watch?v=Y_u8ghPr3HE.
- Freedman, L. (2013). *Strategy: a history*. Oxford: Oxford University Press, p.xii.
- Freeman, D. (2024, October 7). *We're number one... in unaffordable electricity*. Institute of Economic Affairs, retrieved from: <https://iea.org.uk/were-number-one-in-unaffordable->

[electricity/#:~:text=International%20Industrial%20Electricity%20Prices&text=UK%20industrial%20electricity%20prices%20at,h igher%20than%20the%20IEA%20median.](#)

FreOpp (2024). "World Index of Healthcare Innovation," retrieved from: <https://freopp.org/world-index-of-healthcare-innovation/>.

G42 (2022). "G42 Healthcare and Mubadala Health Join Forces," 6 October 2022, retrieved from: <https://www.g42.ai/resources/news/g42-healthcare-and-mubadala-health-join-forces>.

G42 (2022). "G42 Healthcare, Israel's Sheba Medical Centre to Team Up on Joint Research," 25 November 2022, retrieved from: <https://www.g42.ai/resources/news/g42-healthcare-israels-sheba-medical-centre-team-joint-research>.

GBO Correspondent (2020). "The beginning of AI revolution in UAE healthcare", *Global Business Outlook*, 8 October 2020, retrieved from: <https://globalbusinessoutlook.com/featured/the-beginning-of-ai-revolution-in-uae-healthcare/>; Huma Blog (2022). "Huma and Tamer bring digital 'hospital at home' platform to the Kingdom of Saudi Arabia," 16 May 2022, retrieved from: <https://www.huma.com/blog-post/huma-and-tamer-bring-digital-hospital-at-home-platform-to-the-kingdom-of-saudi-arabia>.

Gcore (2024). "AI Regulations in the Middle East in 2024," 2 December 2024, retrieved from: <https://gcore.com/blog/ai-regulations-2024-middle-east>.

GenAI Factory. (n.d.). KAUST, retrieved from: <https://www.kaust.edu.sa/en/research/generative-ai/gen-ai-factory>.

GenCell Energy (2025). Retrieved from: <https://www.gencellenergy.com/>.

Genomics England, "Ethics," retrieved from: <https://www.genomicsengland.co.uk/initiatives/newborns/ethics>.

GFIN (2025). *The GFIN AI Report 2025*, Global Financial Innovation Network, March 2025, retrieved from: https://www.thegfin.com/uploads/publications/pdf/1737980082_The%20GFIN%20AI%20Report%202025.pdf.

Ghert-Zand, R. (2023). "Sheba Pandemic Research Institute and Partners Developing Pan-Coronavirus Vaccine," *The Times of Israel*, 6 July 2023, retrieved from: <https://www.timesofisrael.com/sheba-pandemic-research-institute-and-partners-developing-pan-coronavirus-vaccine/>.

Github. "Hallucination Leaderboard", retrieved from: <https://github.com/vectara/hallucination-leaderboard>.

Global Digital Health Partnership (2020). "Creating an International Approach Together: A GDHP White Paper on Ethics and Governance of AI in Health," December 2020, retrieved from: https://transform.england.nhs.uk/media/documents/GDHP_Creating_an_international_approach_together.pdf.

Globe Newswire (2025). "UAE Data Center Portfolio Report 2025: Around \$1.5 Billion in New Investments is Expected to Flow into Upcoming Data Centers in UAE by 2027", 14 March 2025, retrieved from: <https://www.globenewswire.com/news-release/2025/03/14/3042835/0/en/UAE-Data-Center-Portfolio-Report-2025-Around-1-5-Billion-in-New-Investments-is-Expected-to-Flow-into-Upcoming-Data-Centers-in-UAE-by-2027.html#:~:text=The%20existing%20data%20center%20capacity%20in%20UAE%20is,into%20upcoming%20data%20centers%20in%20UAE%20by%202027>.

Goldman Sachs (2025). "AI to drive 165% increase in data center power demand by 2030", 4 February 2025, retrieved from: <https://www.goldmansachs.com/insights/articles/ai-to-drive-165-increase-in-data-center-power-demand-by-2030>.

Gosden, E. (2025). "Harbour Energy posts loss as windfall tax wipes out profits", *The Times*, 6 March 2025, retrieved from: https://www.thetimes.com/article/48fa0d45-5c1d-454a-be92-2cf8d22f95bb?_gl=1*1m3sut7*_gcl_au*NDYzNTE3NzkoLjE3NDE3OTYzNTI.*_ga*NTg4NTQ1NDUxLjE3NDE3OTYzNTI.*_ga_X7E6ERDZVV*MTc0MTc5NjM1MS4xLjEuMTc0MTc5NjcxOC4wLjAuMA.

Gov.uk (2014). "Factsheet on Smart Grid Development in the UK", 20 June 2014, retrieved from: <https://www.gov.uk/government/publications/factsheet-on-smart-grid-development-in-the-uk>.

Gov.uk (2021). "UAE and UK Launch Sovereign Investment Partnership with Initial £1 Billion in Life Sciences," 24 March 2021, retrieved from: <https://www.gov.uk/government/news/uae-and-uk-launch-sovereign-investment-partnership-with-initial-1-billion-in-life-sciences>.

Gov.uk (2021). "UK-United Arab Emirates Memorandum of Cooperation on Industrial and Advanced Technologies Collaboration," 25 May 2023, retrieved from: <https://www.gov.uk/government/news/uk-united-arab-emirates-memorandum-of-cooperation-on-industrial-and-advanced-technologies-collaboration>.

Gov.uk (2023). "£15 million funding boost to strengthen supply of critical minerals", 27 February 2023, retrieved from: <https://www.gov.uk/government/news/15-million-funding-boost-to-strengthen-supply-of-critical-minerals>.

Gov.uk (2023). "2030 Roadmap for UK-Israel Bilateral Relations," 21 March 2023, retrieved from: <https://www.gov.uk/government/publications/2030-roadmap-for-uk-israel-bilateral-relations/2030-roadmap-for-uk-israel-bilateral-relations>.

Gov.uk (2023). "AI Regulation: A Pro-Innovation Approach," 3 August 2023, retrieved from: <https://www.gov.uk/government/publications/ai-regulation-a-pro-innovation-approach/white-paper>.

Gov.uk (2023). "New £100 Million Fund to Capitalise on AI's Game-Changing Potential in Life Sciences and Healthcare," 29 October 2023, retrieved from: <https://www.gov.uk/government/news/new-100-million-fund-to-capitalise-on-ais-game-changing-potential-in-life-sciences-and-healthcare>.

Gov.uk (2023). "Prime Minister launches new AI Safety Institute," 2 November 2023, retrieved from: <https://www.gov.uk/government/news/prime-minister-launches-new-ai-safety-institute>.

Gov.uk (2023). "Resilience for the Future: The UK's Critical Minerals Strategy", 13 March 2023, retrieved from: <https://www.gov.uk/government/publications/uk-critical-mineral-strategy/resilience-for-the-future-the-uks-critical-minerals-strategy>.

Gov.uk (2023). "UK and Saudi Arabia pledge to deliver closer cooperation on critical minerals", 11 January 2023, retrieved from: <https://www.gov.uk/government/news/uk-and-saudi-arabia-pledge-to-deliver-closer-co-operation-on-critical-minerals>.

Gov.uk (2023). "UK and United Arab Emirates agree to boost energy security and unlock investment", 13 January 2023, retrieved from: https://www.gov.uk/government/news/uk-and-united-arab-emirates-agree-to-boost-energy-security-and-unlock-investment?utm_source=chatgpt.com.

- Gov.uk (2023). "UK Unites with Global Partners to Accelerate Development Using AI," 2 November 2023, retrieved from: <https://www.gov.uk/government/news/uk-unites-with-global-partners-to-accelerate-development-using-ai>.
- Gov.uk (2023). "United Kingdom and Kingdom of Saudi Arabia Strategic Partnership Council: Economic and Social Pillar Joint Statement," 7 June 2023, retrieved from: <https://www.gov.uk/government/publications/united-kingdom-and-kingdom-of-saudi-arabia-strategic-partnership-council-economic-and-social-pillar-joint-statement/united-kingdom-and-kingdom-of-saudi-arabia-strategic-partnership-council-economic-and-social-pillar-joint-statement-7-june-2023>.
- Gov.uk (2024). "UK Science & Innovation Network: Country Summary – Israel," 26 March 2024, retrieved from: <https://www.gov.uk/government/publications/uk-science-innovation-network-country-snapshot-israel/uk-science-innovation-network-country-summary-israel>.
- Gov.uk (2024). "AI Airlock: The Regulatory Sandbox for AIaMD", 4 December 2024, retrieved from: <https://www.gov.uk/government/collections/ai-airlock-the-regulatory-sandbox-for-aiamd>.
- Gov.uk (2024). "G7 Ministerial Declaration: Deployment of AI and Innovation," 15 March 2024, retrieved from: <https://www.gov.uk/government/publications/g7-ministerial-declaration-deployment-of-ai-and-innovation/g7-ministerial-declaration>.
- Gov.uk (2024). "The Kingdom of Saudi Arabia and United Kingdom Strategic Partnership Council" Economic and Social Pillar Joint Statement", 15 May 2024, retrieved from: <https://www.gov.uk/government/publications/united-kingdom-and-kingdom-of-saudi-arabia-strategic-partnership-council-economic-and-social-pillar-joint-statement--2/the-kingdom-of-saudi-arabia-and-united-kingdom-strategic-partnership-council-economic-and-social-pillar-joint-statement.html>.
- Gov.uk (2024). "Trade Update: UK–Gulf Cooperation Council FTA negotiations", 19 February 2024, retrieved from: <https://www.gov.uk/government/news/trade-update-uk-gulf-cooperation-council-fta-negotiations>.
- Gov.uk (2024). "UK approves use of export finance to secure critical minerals", 31 October 2024, retrieved from: <https://www.gov.uk/government/news/uk-approves-use-of-export-finance-to-secure-critical-minerals>.
- Gov.uk (2025). "Prime Minister sets out blueprint to turbocharge AI", 13 January 2025, retrieved from: <https://www.gov.uk/government/news/prime-minister-sets-out-blueprint-to-turbocharge-ai>.
- Gov.uk (2025). "The Bletchley Declaration by Countries Attending the AI Safety Summit, 1–2 November 2023," 13 February 2025, retrieved from: <https://www.gov.uk/government/publications/ai-safety-summit-2023-the-bletchley-declaration/the-bletchley-declaration-by-countries-attending-the-ai-safety-summit-1-2-november-2023>.
- Gov.uk, Department of Health and Social Care (2024). "Independent Investigation Ordered into State of NHS," 11 July 2024, retrieved from: <https://www.gov.uk/government/news/independent-investigation-ordered-into-state-of-nhs>.
- Gov.uk, Department of Health and Social Care, Department for Science, Innovation and Technology (2025). "World-Leading AI Trial to Tackle Breast Cancer Launched," 13 February 2025, retrieved from: <https://www.gov.uk/government/news/world-leading-ai-trial-to-tackle-breast-cancer-launched>.
- Government of Bahrain, "Artificial Intelligence", retrieved from: https://www.bahrain.bh/wps/portal/en!ut/p/zo/fY69DoIwFEZfpQtzL_6gKzFGdCLGAbqYotZ6obZQLsbHt_EBHL_knJOPC95w4eUb_rSQMXrq0W1Hc8_MWqvoBoCpuKjyK025d18ccrht-4el_kArYT5MouVDBk_kQbzo_303PQHZhiUZPwwboVodXBhotknSsX2CZzgKziUs_g5lEI2TZDSjMKKaUyESPIBhMjDFnUNrNfNKityyGLqTGzMDbtF-wHg9I/.
- Gritten, D. (2024). "Saudi Arabia interested in Israel normalisation deal after war", *BBC News*, 9 January 2024, retrieved from: <https://www.bbc.co.uk/news/world-middle-east-67922238>.
- Gulf Center for Disease Prevention and Control (. "GCDC Prevention Signs a Cooperation Agreement with the United Kingdom Health Security Agency to Promote Public Health." *Gulf Center for Disease Prevention and Control*, December 4, 2023, retrieved from: <https://gulfcdc.org/en/News/GCDC-Prevention-signs-a-cooperation-agreement-with-the-United-Kingdom-Health-Security-Agency-to-promote-public-health>.
- Hampton Partners. (2024). Why the UK has become a global leader in AI. Hampton Partners, retrieved from: <https://www.hamptonpartners.com/news/newsdetail/why-the-uk-has-become-a-global-leader-in-ai/>.
- Harmon, R. (2024). "8 ports in the MENA region make Lloyd's List's One Hundred Ports 2024," *Logistics Middle East*, 28 August 2024, retrieved from: <https://www.logisticsmiddleeast.com/ports-free-zones/8-ports-in-the-mena-region-make-lloyds-lists-one-hundred-ports-2024>.
- Harris, T. (2024). "'Selective' UAE courting US, not China on AI: minister", *Al Monitor*, 11 June 2024, retrieved from: <https://www.al-monitor.com/originals/2024/06/selective-uae-courting-us-not-china-ai-minister>.
- Harshan, A. (2024). "Saudi Vision 2030: Kingdom mining industry's journey to become 'Regional Powerhouse'", *Global Business Outlook*, 29 January 2024, retrieved from: <https://globalbusinessoutlook.com/economy/saudi-vision-kingdom-mining-industrys-journey-become-regional-powerhouse/>.
- Haytayan, L. and Yahyaoui, A. (2024). "Life Beyond Oil: Saudi Arabia's Mining Ambitions", *Natural Resource Governance Institute*, 16 October 2024, retrieved from: <https://resourcegovernance.org/articles/life-beyond-oil-saudi-arabia-mining-ambitions#:~:text=As%20part%20of%20its%20goal,to%20%24.75%20billion%20by%202035>.
- Healthcare World (2024). "Healthcare and AI in the Kingdom of Saudi Arabia," 18 December 2024, retrieved from: <https://healthcareworld.com/healthcare-and-ai-in-the-kingdom-of-saudi-arabia/>.
- Hern, A. (2017). "Google DeepMind 1.6m Patient Record Deal 'Inappropriate' – Data Guardian," *The Guardian*, 16 May 2017, retrieved from: <https://www.theguardian.com/technology/2017/may/16/google-deepmind-16m-patient-record-deal-inappropriate-data-guardian-royal-free>.
- HM Government (2021). "Net Zero Strategy: Build Back Greener", October 2021, retrieved from: <https://assets.publishing.service.gov.uk/media/6194dfa4d3bf7f0555071b1b/net-zero-strategy-beis.pdf>.
- HM Treasury and Monetary Authority of Singapore (2022). "Memorandum of Understanding on the UK-Singapore FinTech Bridge," HM Treasury, 25 November 2022, retrieved from: https://assets.publishing.service.gov.uk/media/6380bb8fe90e0723443452f8/Memorandum_of_Understanding_on_the_UK-Singapore_FinTech_Bridge_FINAL_AGREED_TEXT_PDF.pdf.

Hundley, R.O. (1999). "Past Revolutions, Future Transformations: what can the history of revolutions in military affairs tell us about transforming the U.S. military?", *Defense Advanced Research Project Agency by RAND's National Defense Research Institute*, p.xiii.

i24 News (2022). "Israel, Morocco Sign Historic Tech and Science Agreement," 26 May 2022, retrieved from: <https://www.i24news.tv/en/news/israel/technology-science/1653581157-israel-morocco-sign-historic-tech-and-science-agreement>.

IA Maroc (2024). "Case Study: AI for Renewable Energy Management in Morocco", retrieved from: https://www.intelligenceartificiellemaroc.com/en/blog/case-study-ai-for-renewable-energy-management-in-morocco?utm_source=chatgpt.com.

IBM (2023). "What are AI hallucinations?", 1 September 2023, retrieved from: <https://www.ibm.com/think/topics/ai-hallucinations>.

ICL Group (2025). Retrieved from: <https://www.icl-group.com/innovation/>.

Idaomar, C., Idaomar, D., Hannaoui, M. et al. (2024). "Applications of Artificial Intelligence in Morocco's Healthcare Sector: A Springboard to Medical Excellence," *Journal of Computer and Communications*, 12(9), September 2024, retrieved from: <https://www.scirp.org/journal/paperinformation?paperid=135983>.

IEEE Power & Energy Society (2025). "Conferences & Meetings", retrieved from: <https://ieee-pes.org/conferences-meetings/>.

Inc.Arabia (2024). "Meet Yasmin Al Enazi: Trailblazer and AI Ambassador", 28 June 2024, retrieved from: <https://en.incarabia.com/women-in-ai-and-robotics-666014.html>.

Information Commissioner's Office (ICO), "Explaining Decisions Made with Artificial Intelligence", retrieved from: <https://ico.org.uk/for-organisations/uk-gdpr-guidance-and-resources/artificial-intelligence/explaining-decisions-made-with-artificial-intelligence/>.

Innovate UK Business Connect (2025). "Global Business Innovation Programme", retrieved from: <https://iuk-business-connect.org.uk/programme/global-business-innovation/>.

Intelligence Artificielle Maroc. "AI in Moroccan Healthcare: Innovations and Challenges," 10 January 2024, retrieved from: <https://www.intelligenceartificiellemaroc.com/en/blog/ai-in-moroccan-healthcare-innovations-and-challenges/>.

International Energy Agency (2025). "Electricity 2025", February 2025, retrieved from: <https://www.iea.org/reports/electricity-2025>.

International Energy Agency (2025). "The global energy crisis", retrieved from: <https://www.iea.org/reports/world-energy-outlook-2022/the-global-energy-crisis>.

International School Bar-Ilan University (2022). "Israel-Morocco Research Cooperation Agreement Signed at Bar-Ilan University", 16 November 2022, retrieved from: <https://biuinternational.com/news/israel-morocco-research-cooperation-agreement-signed-at-bar-ilan-university/>.

Israel Innovation Authority (2025). "Israel Innovation Authority Announces Investment of NIS 75 Million to Establish Groundbreaking Research and Development Lab for Bio-Devices and Bio-Chips," 13 January 2025, retrieved from: https://innovationisrael.org.il/en/press_release/nis-75-million-for-new-groundbreaking-bio-devices-and-bio-chips-lab/.

Israel Ministry of Economy and Industry (2025). "Israel Economic Missions to the USA", 5 March 2025, retrieved from: <https://itrade.gov.il/usa/ai-powered-smart-grids-israel-is-the-powerhouse-of-the-cell/>.

Israel Ministry of Economy and Industry (2025). "Israel Trade and Economic Mission to Ghana", retrieved from: <https://itrade.gov.il/ghana/2025/03/13/smart-grids-and-ai-how-israel-is-powering-the-future-of-electricity/>.

Israel Ministry of Economy and Industry (2025). "Israel's Economic and Trade Mission to the WTO and Switzerland", retrieved from: <https://itrade.gov.il/switzerland/smart-grids-and-ai-how-israel-is-powering-the-future-of-electricity/>.

Israel Ministry of Economy and Industry (2025). "Israelische Wirtschafts- und Handelsmission in Deutschland", retrieved from: <https://itrade.gov.il/germany/2025/03/03/smart-grids-and-ai-how-israel-is-powering-the-future-of-electricity/>.

Israeli Smart Energy Association (2025). Retrieved from: <https://www.isea.org.il/>.

ITP Media Group (2023). "UAE Ministry of Health launches Centre of Excellence for AI in healthcare", 23 October 2023, retrieved from: <https://www.itp.net/industry/uae-ministry-of-health-launches-centre-of-excellence-for-ai-in-healthcare#:~:text=UAE%20Ministry%20of%20Health's%20Centre%20of%20Excellence%20for%20AI&text=The%20first%20is%20licensing%20medical,apply%20for%20medical%20facility%20licenses>.

Jack, S. (2022). "How can the government solve the energy crisis?", *BBC News*, 5 January 2022, retrieved from: <https://www.bbc.co.uk/news/business-59883892>.

Jacobs, J. (2025). "Trump announces up to \$500 billion in private sector AI infrastructure investment", *CBS News*, 22 January 2025, retrieved from: <https://www.cbsnews.com/news/trump-announces-private-sector-ai-infrastructure-investment/>.

Jobs.ac.uk (2025). "PhD Studentship: Improving Reliability in Vision-Language Models: Reducing Hallucination in Multimodal AI Systems", 29 January 2025, retrieved from: <https://www.jobs.ac.uk/job/DLQ396/phd-studentship-improving-reliability-in-vision-language-models-reducing-hallucination-in-multimodal-ai-systems>.

Jones, M. (2024). "Saudi Arabia joins BIS- and China-led central bank digital currency project," Reuters, 5 June 2024, retrieved from: <https://www.reuters.com/technology/saudi-arabia-joins-bis-led-central-bank-digital-currency-trial-2024-06-05/>.

Josephs, J. (2023). "Can Morocco solve Europe's energy crisis?", *BBC News*, 4 May 2023, retrieved from: <https://www.bbc.co.uk/news/business-65415529>.

King Faisal Specialist Hospital & Research Centre (2024). "KFSHRC Performs the World's First Fully Robotic Heart Transplant", 9 December 2024, retrieved from: <https://www.kfshrc.edu.sa/en/news/2024/09/kfshrc-performs-the-worlds-first-fully-robotic-heart-transplant>.

King Salman Energy Park (2025). Retrieved from: <https://www.spark.sa/>.

Kingdom of Morocco Ministry of Foreign Affairs (2023). "The governments of Morocco and the United Kingdom signed, on May 09, 2023 in Rabat, a Strategic Framework for Cooperation on climate action, clean energy and green growth", 9 May 2023, retrieved from: <https://diplomatie.ma/en/morocco-and-uk-sign-strategic-framework-cooperation-climate-action-clean-energy-and-green-growth>.

- Kingdom of Morocco Ministry of Foreign Affairs African Cooperation and Moroccan Expatriates (2023). "The governments of Morocco and the United Kingdom signed, on May 09, 2023 I Rabat, a Strategic Framework for Cooperation on climate action, clean energy and green growth.", 9 May 2023, retrieved from: <https://diplomatie.ma/en/morocco-and-uk-sign-strategic-framework-cooperation-climate-action-clean-energy-and-green-growth>.
- Klein Leichman, A. (2023). "Israeli Medical Innovation Hub Opens in Bahraini Hospital," *ISRAEL21c*, 1 February 2023, retrieved from: <https://www.israel21c.org/israeli-medical-innovation-hub-opens-in-bahraini-hospital/>.
- Krieger, C. (2025). "Israeli MedTech Startups Showcase AI Innovations During UK Visit," *Jewish News*, 6 March 2025, retrieved from: <https://www.jewishnews.co.uk/israeli-medtech-startups-showcase-ai-innovations-during-uk-visit/>.
- Kumar, R.S. et al. (2023). "Impact of artificial intelligence techniques in distributed smart grid monitoring system", *Smart Energy and Electric Power Systems*, retrieved from: <https://www.sciencedirect.com/science/article/abs/pii/S0978032391664600005X#:~:text=This%20chapter%20proposes%20a%20comparative%20analysis%20of%20various,storage%20system%2C%20renewable%20energy%20integration%2C%20and%20energy%20security.>
- Kurlantzick, J. (2020). "Assessing China's Digital Silk Road Initiative", *Council on Foreign Relations*, retrieved from: <https://www.cfr.org/china-digital-silk-road/>.
- Labour Party (2024). "Change: Labour Party Manifesto 2024", retrieved from: <https://labour.org.uk/wp-content/uploads/2024/06/Labour-Party-manifesto-2024.pdf>.
- Lammy, D. (2025). "The FCDO means business: Foreign Secretary's British Chambers of Commerce speech", *British Chambers of Commerce Driving International Trade Conference*, 20 March 2025, retrieved from: <https://www.gov.uk/government/speeches/the-fcdo-means-business-foreign-secretarys-british-chamber-of-commerce-speech-march-2025>.
- Lea, R. (2024). "Why Bahrain wants to be the UK's gateway to the Gulf", *The Times*, 22 November 2024, retrieved from: https://www.thetimes.com/business-money/economics/article/why-bahrain-wants-to-be-the-uks-gateway-to-the-gulf-bw5f88xbw?utm_source=chatgpt.com®ion=global.
- Lifebit (2025). "Lifebit and Psifas Partner to Advance Genomic Research in Israel," 23 January 2025, retrieved from: <https://www.lifebit.ai/blog/lifebit-psifas-partner-advance-genomic-research-israel/>.
- Local Government Association. "National AI Strategy and Local Government," retrieved from: <https://www.local.gov.uk/our-support/cyber-digital-and-technology/cyber-digital-and-technology-policy-team/national-ai>.
- London Daily News (2025). "UK Partners with Asia to Boost AI and Biohealth Research," *London Daily News*, 6 March 2025, retrieved from: <https://www.londondailynews/uk-partners-with-asia-to-boost-ai-and-biohealth-research/>.
- MacIntyre, C.R., Chen, X., Kunasekaran M. et al. (2023). "Artificial Intelligence in Public Health: Current Trends and Future Possibilities," *Journal of Education and Health Promotion*, 12, retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC10052500/>.
- Mamchii, O. (2024). "5 Major Natural Resources of UAE", *Best Diplomats*, 6 September 2024, retrieved from: <https://bestdiplomats.org/natural-resources-of-uae/#:~:text=Though%20less%20so%20than%20oil%20and%20gas%2C%20minerals,essential%20minerals%2C%20such%20as%20limestone%2C%20copper%2C%20and%20gypsum.>
- Mansour, T. and Bick, M. (2024). "How can physicians adopt AI-based applications in the United Arab Emirates to improve patient outcomes?", *Digit Health*, 27 September 2024, retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC11440542/>.
- Manuel, O. and Inskip, S. (2024). "Bill Gates is going nuclear: How his latest project could power U.S. homes and AI", *NPR*, 14 June 2024, retrieved from: <https://www.npr.org/2024/06/14/nx-s1-5002007/bill-gates-nuclear-power-artificial-intelligence>.
- Markets and Market (2024). "Artificial Intelligence (AI) Market", May 2024, retrieved from: <https://www.marketsandmarkets.com/Market-Reports/artificial-intelligence-market-74851580.html>.
- Marques, P.C. and Oliveira, P. (2024). "Artificial Intelligence Technologies Applied to Smart Grids and Management", July 2024, retrieved from: https://www.researchgate.net/publication/383142309_Artificial_Intelligence_Technologies_Applied_to_Smart_Grids_and_Management.
- Masdar (2021). "UAE announces Net Zero by 2050 strategic initiative", 18 October 2021, retrieved from: <https://masdar.ae/en/news/newsroom/uae-announces-net-zero-by-2050-strategic-initiative>.
- Masdar (2024). "Masdar and Bapco Energies to develop up to 2GW of wind projects in the Kingdom of Bahrain", 1 May 2024, retrieved from: <https://masdar.ae/en/news/newsroom/masdar-and-bapco-energies-to-develop-up-to-2gw-of-wind-projects>.
- Masons, P. (2023). "DIFC Sets Out AI Requirements in Updated Data Protection Regulations," *Out-Law News*, 29 September 2023, retrieved from: <https://www.pinsentmasons.com/out-law/news/difc-sets-out-ai-requirements-in-updated-data-protection-regulations>.
- May, T. (2016). "Prime Minister's Speech to the Gulf Co-operation Council 2016", *Gulf Co-operation Council, Manama*, Statement UIN HCWS333, retrieved from: <https://www.gov.uk/government/speeches/prime-ministers-speech-to-the-gulf-co-operation-council-2016>.
- McArthur, R. (2020). "Trial of Medical Robots Proving Successful in Bahrain," *Healthcare IT News*, 28 May 2020, retrieved from: <https://www.healthcareitnews.com/news/emea/trial-medical-robots-proving-successful-bahrain>.
- McArthur, R. (2020). "UAE and UK partnership unveils scalable solution for COVID-19 detection," *Mobihealth News*, 10 June 2020, retrieved from: <https://www.mobihealthnews.com/news/emea/uae-and-uk-partnership-unveils-scalable-solution-covid-19-detection#:~:text=Abu%20Dhabi%E2%80%99s%20Group%204,2%20,%E2%80%9D>.
- McCartney, G. (2025). "NextEra Energy expects 55% jump in global power demand over the next 20 years, CEO says", *Reuters*, 10 March 2025, retrieved from: https://www.reuters.com/business/energy/ceraweek-nextera-energy-expects-55-jump-global-power-demand-over-next-20-years-2025-03-10/?utm_source=chatgpt.com.
- McKinsey & Company (2025). "Transforming Healthcare with AI," 10 March 2020, retrieved from: <https://www.mckinsey.com/industries/healthcare/our-insights/transforming-healthcare-with-ai>.

- McKinsey Electronics (2024). "The Future of Data Center Cooling: AI Innovations and Advanced HVAC Motor Technologies", 20 December 2024, retrieved from: <https://www.mckinsey-electronics.com/post/the-future-of-data-center-cooling-ai-innovations-and-advanced-hvac-motor-technologies>.
- Merani, M. (2023). "UAE and UK sign agreement to boost fintech", *Arabian Gulf Business Insight*, 3 November 2023, retrieved from: <https://www.agbi.com/analysis/finance/2023/11/uae-and-uk-sign-agreement-to-boost-fintech/>.
- Middle East Council on Global Affairs (2024). "The Belt and Road Initiative Ten Years On: China and the Middle East in a changing Geopolitical Landscape", April 2024, retrieved from: <https://mecouncil.org/wp-content/uploads/2024/10/The-Belt-and-Road-Initiative-Ten-Years-On-Report.pdf>.
- Milmo, D. and Stacey, K. (2023). "Five takeaways from the UK's AI safety summit at Bletchley Park", *The Guardian*, 2 November 2023, retrieved from: <https://www.theguardian.com/technology/2023/nov/02/five-takeaways-uk-ai-safety-summit-bletchley-park-rishi-sunak>.
- Minerals Meridian. "UAE's mining sector to contribute 5% to non-oil GDP by 2030", retrieved from: <https://mineralsmeridian.com/2023/10/15/uaes-mining-sector-to-contribute-5-to-non-oil-gdp-by-2030/>.
- Mohamed bin Zayed University of Artificial Intelligence (2025). "AI Research", retrieved from: <https://mbzuai.ac.ae/research/>.
- Moorfields Eye Hospital NHS Foundation Trust (2025). "Google DeepMind: A medical research partnership revolutionising the way professionals carry out eye tests, leading to earlier detection of common eye diseases", retrieved from: <https://www.moorfields.nhs.uk/research/google-deepmind>
- Mordor Intelligence (2024). "UK Fintech Market Size & Share Analysis – Growth Trends & Forecasts (2025–2030)", retrieved from: <https://www.mordorintelligence.com/industry-reports/united-kingdom-fintech-market#:~:text=UK%20Fintech%20Market%20Analysis,19%20pandemic%20accelerated%20this%20growth>.
- Mordor Intelligence (2025). "Israel solar energy market size & share analysis – growth trends & forecasts", retrieved from: <https://www.mordorintelligence.com/industry-reports/israel-solar-energy-market#:~:text=In%202021%2C%20the%20renewable%20energy,renewable%20energy%20generation%20in%202021>.
- Morgan, O. (2024). "The Abraham Accords and a Sustainable Middle East", *The Sycamore Institute*, 29 January 2024, retrieved from: <https://www.sycamoreinstitute.org/post/the-abraham-accords-and-a-sustainable-middle-east>.
- Morocco World News (2023). "Abraham Accords Have Deepened Strategic Alliance Between Morocco, Israel," February 2023, retrieved from: <https://www.moroccoworldnews.com/2023/02/36281/abraham-accords-have-deepened-strategic-alliance-between-morocco-israel/>.
- Nakhle, Dr C. (2017). "The UAE balances oil riches with green energy drive", 11 July 2017, retrieved from: https://www.crystolenergy.com/uae-balances-oil-riches-green-energy-drive/?utm_source=chatgpt.com.
- Nakkach, T. (2024). "AI regulation and policy landscape in the Middle East," *Centre for Assuring Autonomy, University of York*, 15 March 2024, retrieved from: <https://www.york.ac.uk/assuring-autonomy/news/blog/ai-regulation-middle-east/>.
- Nareva (2024). "Tarfaya wind farm", retrieved from: <https://www.nareva.ma/en/project/wind-farm-tarfaya>.
- National Academy of Medicine (2022). "Artificial Intelligence in Health Care: The Hope, the Hype, the Promise, the Peril", Washington, DC: The National Academies Press.
- National Cyber Security Centre (2023). "NCSC warns of enduring and significant threat to UK's critical infrastructure", 14 November 2023, retrieved from: <https://www.ncsc.gov.uk/pdfs/news/ncsc-warns-enduring-significant-threat-to-uks-critical-infrastructure.pdf>.
- National Energy Action (2025). "Timeline of the energy crisis", retrieved from: <https://www.nea.org.uk/energy-crisis/energy-crisis-timeline/>.
- Nedopil, C. (2025). "China Belt and Road Initiative (BRI) Investment Report 2024", *February 2025*, retrieved from: https://greenfdc.org/wp-content/uploads/2025/02/Nedopil-2025_China-Belt-and-Road-Initiative-BRI-Investment-Report-2024-1.pdf.
- Nellis, S. (2025). "AI chip startup Groq secures \$1.5 billion commitment from Saudi Arabia", *Reuters*, 10 February 2025, retrieved from: <https://www.reuters.com/technology/artificial-intelligence/ai-chip-startup-groq-secures-15-billion-commitment-saudi-arabia-2025-02-10/>.
- NEOM (2025). Retrieved from: www.neom.com.
- NHS England (2024). "The Innovation Ecosystem Programme – How the UK Can Lead the Way Globally in Health Gains and Life Sciences Powered Growth," 25 November 2024, retrieved from: <https://www.england.nhs.uk/long-read/the-innovation-ecosystem-programme/>.
- NHS England (2025), "The AI Ethics Initiative Embedding ethical approaches to AI in health and care" retrieved from: <https://transform.england.nhs.uk/ai-lab/ai-lab-programmes/ethics/>.
- NHS England. "The AI and Digital Regulations Service," retrieved from: <https://transform.england.nhs.uk/ai-lab/ai-lab-programmes/regulating-the-ai-ecosystem/the-ai-and-digital-regulations-service/>.
- Noviati, N.D., Maulina, S.D. and Smith, S. (2024). "Smart Grids: Integrating AI for Efficient Renewable Energy Utilization", *International Transactions on Artificial Intelligence*, 3(1), retrieved from: https://www.researchgate.net/publication/385870185_Smart_Grids_Integrating_AI_for_Efficient_Renewable_Energy_Utilization.
- Novogroder-Shoshan, Y., and Tavory, T. (2025). "Medical Data Privacy: Practical Implications of Israel's Privacy Law Amendment for Life Science Companies," *Arnon, Tadmor-Levy*, 27 February 2025, retrieved from: <https://arnontl.com/news/medical-data-privacy-practical-implications-israels-privacy-law-amendment-life-science-companies/>.
- OECD (2023). "Regulatory Sandboxes in Artificial Intelligence: Design Elements and Implementation Challenges," *OECD Publishing*, 356, July 2023, retrieved from: https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/07/regulatory-sandboxes-in-artificial-intelligence_a44aaef/8f80a0e6-en.pdf.
- Organization of the Petroleum Exporting Countries (2025). "Saudi Arabia: Facts and Figures", retrieved from: <https://www.opec.org/saudi-arabia.html>.

- Peel, M. and Murgia, M. (2024). "Google DeepMind Duo Share Nobel Chemistry Prize with US Biochemist," *Financial Times*, 9 October 2024, retrieved from: <https://www.ft.com/content/ba14c3a1-ac8e-42b9-a5ba-9d73cc1fff4c>.
- Pennington, D. (2019). "Google and DeepMind bring machine learning and better efficiency to wind farms", *Techspot*, 27 February 2019, retrieved from: <https://www.techspot.com/news/78953-google-deepmind-bring-machine-learning-better-efficiency-wind.html#:~:text=According%20to%20Google%2C%20early%20tests%20of%20this%20machine,farms%20to%20within%20a%2010%25%20margin%20of%20error.>
- Peyton, A. (2017). "Bahrain's central bank creates sandbox for fintech start-ups," *FinTech Futures*, 14 June 2017, retrieved from: <https://www.fintechfutures.com/2017/06/bahrains-central-bank-creates-sandbox-for-fintech-start-ups/>.
- Philea Europe Association (2019). "Wellcome Trust Launches New £75 Million Five-Year Programme on Data for Science and Health," *Philea*, 1 February 2022, retrieved from: <https://philea.eu/wellcome-trust-launches-new-75-million-five-year-programme-on-data-for-science-and-health/>.
- Pistilli, M. (2025). "Top 10 Potash Countries by Production", *Investing News Network*, 26 February 2025, retrieved from: <https://investingnews.com/daily/resource-investing/agriculture-investing/potash-investing/top-potash-countries-by-production/>.
- Proximie (2024). "UK-Based Proximie Aims to Foster Strategic Partnerships in Saudi Arabia," August 2024, retrieved from: <https://www.proximie.com/press/uk-based-proximie-aims-to-foster-strategic-partnerships-in-saudi-arabia>.
- PureHealth (2023). "PureHealth Partners with Dell Technologies to Utilise Generative AI to Further Enhance Healthcare Services in Abu Dhabi," 3 November 2023, retrieved from: <https://purehealth.ae/purehealth-partners-with-dell-technologies-to-utilise-generative-ai-to-further-enhance-healthcare-services-in-abu-dhabi/>.
- PwC (2024). "81% of UK business expect to raise prices in the next two years in response to high energy costs – PwC research", 5 February 2024, retrieved from: <https://www.pwc.co.uk/press-room/press-releases/research-commentary/2024/81-of-uk-businesses-expect-to-raise-prices-in-the-next-two-years.html>.
- PwC (2025). "Five GCC economic themes to watch in 2025", 8 January 2025, retrieved from: <https://www.pwc.com/m1/en/blog/five-economic-themes-to-watch-2025-gcc.html>.
- Ravia, H. (2018). "Challenges to AI Medical Research under Israeli Law," *Pearl Cohen*, 3 August 2023, retrieved from: <https://www.pearlcohen.com/challenges-to-ai-medical-research-under-israeli-law/>.
- Renewable UK (2025). "Growing cyber security threats in the energy sector and how businesses stay resilient", 5 March 2025, retrieved from: <https://www.renewableuk.com/news-and-resources/guest-blog/growing-cyber-security-threats-in-the-energy-sector-and-how-businesses-stay-resilient/>.
- ReportLinker (2025). "Bahrain Metal Products Industry Outlook 2024-2028", retrieved from: <https://www.reportlinker.com/clp/country/665901/726415>.
- Reuters (2023). "Bahrain to use Israeli tech to achieve net zero goals", *Arabian Gulf Business Insight*, 8 September 2023, retrieved from: <https://www.agbi.com/article/bahrain-to-use-israeli-tech-to-achieve-net-zero-goals/>.
- Reuters (2023). "Britain Publishes Bletchley Declaration on AI Safety," 1 November 2023, retrieved from: <https://www.reuters.com/technology/britain-publishes-bletchley-declaration-ai-safety-2023-11-01/>.
- Reuters (2024). "UAE's ADNOC to deploy autonomous AI in the energy sector for the first time", 4 November 2024, retrieved from: https://www.reuters.com/business/energy/uaes-adnoc-deploy-autonomous-ai-energy-sector-first-time-2024-11-04/?utm_source=chatgpt.com.
- Rogers, R. (2025). "Hands On with DeepSeek's R1 Chatbot", *Wired*, 27 January 2025, retrieved from: <https://www.wired.com/story/deepseek-chatbot-hands-on-vs-chatgpt/>.
- Rolfe, A. (2025). "The rise of neobanks and changing banking trends in the UK", *Payments Cards and Mobile*, 10 February 2025, retrieved from: <https://www.paymentscardsandmobile.com/the-rise-of-neobanks-and-changing-banking-trends-in-the-uk/#:~:text=According%20to%20the%20latest%20research,solutions%20over%20traditional%20banking%20institutions.>
- Rowley, S. "New Dubai data centre built on Microsoft Azure", retrieved from: <https://dcnmagazine.com/data-centres/new-dubai-data-centre-built-on-microsoft-azure/>.
- Rusu, J. (2023). 'Flipping the Coin in Financial Services', 5 October, 2023, Retrieved from: <https://www.fca.org.uk/news/speeches/ai-flipping-coin-financial-services>.
- São Paulo Research Foundation (FAPESP) (2024). "Bilateral Collaborations with the UK on AI in Health Will Be Supported," 4 August 2024, retrieved from: <https://fapesp.br/16666/bilateral-collaborations-with-the-uk-on-ai-in-health-will-be-supported>.
- Saudi & Middle East Green Initiatives (2025). "SGI: steering Saudi Arabia towards a green future", retrieved from: <https://www.sgi.gov.sa/about-sgi>.
- Saudi Arabia Ministry of Commerce (2024). "The Kingdom of Saudi Arabia and United Kingdom Strategic Partnership Council: Economic and Social Pillar Joint Statement," 14 May 2024, retrieved from: <https://mc.gov.sa/en/mediacenter/News/Pages/14-05-24-01.aspx>.
- Saudi Arabia Ministry of Finance (2024). "Kingdom of Saudi Arabia: Green Financing Framework", March 2024, retrieved from: <https://ndmc.gov.sa/investorsrelations/Documents/Green-Financing-Framework-KSA-16April2024.pdf>.
- Saudi Arabia Public Investment Fund (2025). Retrieved from: https://www.pif.gov.sa/en/?gad_source=1&gbraid=0AAAAABozKaR1HCh5gzc3-i9a0UjuLQOY&gclid=CjoKCQjwytS-BhCKARISAMGjyzom5QjVvrNWFw3TIsTb4j2XJRu04I6Cm66ydyJpE4BxpWKvQHnNEkaAnhKEALw_wcB.
- Saudi Arabia Vision 2030 (2025). "Health Sector Transformation Program," retrieved from: <https://www.vision2030.gov.sa/en/explore/programs/health-sector-transformation-program>.
- Saudi Arabia Vision 2030 (2025). "Overview", retrieved from: https://www.vision2030.gov.sa/en/overview?utm_source=chatgpt.com.
- Saudi Arabia Vision 2030. "The Saudi Genome Program," retrieved from: <https://www.vision2030.gov.sa/en/explore/projects/the-saudi-genome-program>; G42. "Emirati Genome Program Adds Sample Collection Centers," retrieved from: <https://www.g42.ai/resources/news/emirati-genome-program-adds-sample-collection-centers>.

- Saudi Data and AI Authority. *National Strategy for Data and AI*, retrieved from: <https://sdaia.gov.sa/en/SDAIA/SdaiaStrategies/Pages/NationalStrategyForDataAndAI.aspx>.
- Saudi Data and Artificial Intelligence Authority (SDAIA) (2023). "AI Principles," September 2023, retrieved from: <https://sdaia.gov.sa/en/SDAIA/about/Documents/ai-principles.pdf>.
- Scheer, S. (2025). "Israel asks public to put solar panels on roofs to produce electricity", *Reuters*, 4 February 2025, retrieved from: [https://www.reuters.com/sustainability/climate-energy/israel-asks-public-put-solar-panels-roofs-produce-electricity-2025-02-04/#:~:text=Israel%20asks%20public%20to%20put%20solar%20panels%20on%20roofs%20to%20produce%20electricity,-By%20Steven%20Scheer&text=JERUSALEM%2C%20Feb%204%20\(Reuters\),as%20a%20key%20natural%20resource.](https://www.reuters.com/sustainability/climate-energy/israel-asks-public-put-solar-panels-roofs-produce-electricity-2025-02-04/#:~:text=Israel%20asks%20public%20to%20put%20solar%20panels%20on%20roofs%20to%20produce%20electricity,-By%20Steven%20Scheer&text=JERUSALEM%2C%20Feb%204%20(Reuters),as%20a%20key%20natural%20resource.)
- SDAIA and Vision 2030. (n.d.), retrieved from: <https://sdaia.gov.sa/en/SDAIA/SdaiaStrategies/Pages/sdaiaAnd2030Vision.aspx>.
- Seef Properties (2025). Retrieved from: <https://www.seef.com.bh/>.
- Shankar, S.V. (2024). "Why AI safety is important and how the UAE is committing to it", *Wired Middle East*, 1 August 2024, retrieved from: <https://wired.me/technology/ai-safety-how-the-uae-commits-to-it/>.
- Sharma, A. (2025). "India-Israel critical minerals partnership on cards for AI/ML-driven exploration", *CNBC TV18*, 18 February 2025, retrieved from: <https://www.cnbctv18.com/business/india-israel-critical-minerals-partnership-on-cards-for-ai-ml-driven-exploration-19560798.htm>.
- Sheeran, D., and Spigelman, G. (2021). "AWS Joins Pharma and Biotech Leaders in Launching AION Labs to Transform Therapeutics," 13 October 2021, retrieved from: <https://aws.amazon.com/blogs/industries/aws-joins-pharma-and-biotech-leaders-in-launching-aion-labs-to-transform-therapeutics/>.
- Shemer, S. (2020). "Israeli Medtech Startup MedAware, Harvard Show AI Reduces Prescription Errors," *NoCamels*, 20 January 2020, retrieved from: <https://nocamels.com/2020/01/medtech-medaware-israel-startup-harvard-patient-safety/>.
- Siegel-Itzkovich, J. (2023). "Israel's Sheba Medical Center Has Active Role in Bahrain's New Hospital," *The Jerusalem Post*, 19 January 2023, retrieved from: <https://www.jpost.com/health-and-wellness/article-729985>.
- Silva Paulo, M., Loney, T. and Lapão, L. (2019). "How Do We Strengthen the Health Workforce in a Rapidly Developing High-Income Country? A Case Study of Abu Dhabi's Health System in the United Arab Emirates," *Human Resources for Health*, 17, retrieved from: <https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-019-0345-9>.
- Sim, L.C. and Young, K.E. (2024). "Solar Power in the Gulf: Leaders and Laggards in Regulatory Support for Solar Power Deployment", *Middle East Institute*, December 2024, retrieved from: <https://mei.edu/sites/default/files/2024-12/Solar%20Power%20in%20the%20Gulf%20-%20Leaders%20and%20Laggards%20in%20Regulatory%20Support%20for%20Solar%20Power%20Deployment.pdf>.
- Smart Energy (2020). "The true cost of cyberattacks", 27 January 2020, retrieved from: <https://www.smart-energy.com/features-analysis/the-true-cost-of-cyberattacks/>.
- Smout, A. (2021). "UK to Track COVID-19 Variants with Genomic Sequencing across World," *Reuters*, 7 July 2021, retrieved from: <https://www.reuters.com/business/healthcare-pharmaceuticals/uk-track-covid-19-variants-with-genomic-sequencing-across-world-2021-07-07/>.
- Smyth, C. (2025). "Artificial Intelligence Scans to Be Used in NHS Hospitals to Spot Illness," *The Times*, 13 2025, retrieved from: <https://www.thetimes.com/uk/politics/article/artificial-intelligence-scans-nhs-hospitals-illness-jq6lc676c>.
- Solaiman, B. (2024). "Regulating AI-Based Medical Devices in Saudi Arabia: New Legal Paradigms in an Evolving Global Legal Order," *Asian Bioethics Review*, 16(3), 21 June 2024, retrieved from: <https://link.springer.com/article/10.1007/s41649-024-00285-6>.
- Spencer, T. and Singh, S. (2024). "What the data centre and AI boom could mean for the energy sector", *International Energy Agency*, 18 October 2024, retrieved from: <https://www.iea.org/commentaries/what-the-data-centre-and-ai-boom-could-mean-for-the-energy-sector>.
- Spiro, J. (2024). "The Dangoor Health-Tech Academy Launched to Connect UK Healthcare with UK-Israel Tech Companies," *CTech*, 4 November 2024, retrieved from: <https://www.calcalistech.com/ctechnews/article/hkbtpeibye>.
- Spiro, J. (2025). "Sheba Medical Center Unveils Three New AI Centers for Hospital Care," *CTech*, 6 March 2025, retrieved from: <https://www.calcalistech.com/ctechnews/article/r1snomdjl>.
- SRMG Think (2024). "Strengthening MENA Supply Chains for Clean Energy", retrieved from: https://www.srmgthink.com/sites/default/files/2024-12/Strengthening%20MENA%E2%80%99s%20Supply%20Chains%20for%20Clean%20Energy_Final_10%20Dec%20%281%29.pdf.
- Stanway, D. and Gardner T. (2023). "Nuclear sector must overcome decades of stagnation to meet COP28 goal", *Reuters*, 7 December 2023, retrieved from: <https://www.reuters.com/sustainability/climate-energy/nuclear-sector-must-overcome-decades-stagnation-meet-cop28-tripling-goal-2023-12-07/>.
- Starmer, K. (2025). "Government response: AI Opportunities Action Plan: Government Response", *Department for Science, Innovation and Technology*, 13 January 2025, retrieved from: <https://www.gov.uk/government/publications/ai-opportunities-action-plan-government-response/ai-opportunities-action-plan-government-response#foreword-by-the-prime-minister>.
- Startup Nation Central (2023). "Global Health Challenges Meet Israeli Health Tech Solutions," 20 July 2023, retrieved from: <https://startupnationcentral.org/hub/blog/global-health-challenges-meet-israeli-health-tech-solutions/>.
- Start-Up Nation Central (2023). "Start-Up Nation Central Announces CatAI Is Winner of Hospital2Hospital Clinical Capacity Tech Challenge with U.S.-Based Baptist Health South Florida, Sheba ARC Innovation, and TriVentures," 19 September 2023, retrieved from: <https://startupnationcentral.org/hub/news/start-up-nation-central-announces-catai-is-winner-of-hospital2hospital-clinical-capacity-tech-challenge-with-u-s-based-baptist-health-south-florida-sheba-arc-innovation-and-triventures/>.
- Start-Up Nation Central (2023). "The First-Ever Hospital2Hospital Tech Challenge: Start-Up Nation Central Joins Forces with U.S.-Based Baptist Health South Florida and ARC Innovation at Sheba Medical Center to Launch Tech Challenge," 25 June 2023, retrieved from: <https://startupnationcentral.org/hub/news/the-first-ever-hospital2hospital-tech-challenge-start-up-nation-central-joins-forces-with-u-s-based-baptist-health-south-florida-and-arc-innovation-at-sheba-medical-center-to-launch-tech-challenge/>.

- State.gov (2020). "Abraham Accords: Declaration of Peace, Cooperation, and Constructive Diplomatic and Friendly Relations," 15 September 2020, retrieved from: <https://www.state.gov/wp-content/uploads/2020/09/Bahrain-Israel-Agreement-signed-FINAL-15-Sept-2020-508.pdf>.
- Stewart, A. "Abu Dhabi's Omics' Research to Bridge Arab Genetics Gap," *WIRED Middle East*, 19 May 2024, retrieved from: <https://wired.me/science/health/abu-dhabi-omics-arab-genetics-research-gap/>.
- Street, P. M. O. 1. D. (2023, November 2). World leaders, top AI companies set out plan for safety testing of frontier as first global AI Safety Summit concludes. *GOV.UK*, retrieved from: <https://www.gov.uk/government/news/world-leaders-top-ai-companies-set-out-plan-for-safety-testing-of-frontier-as-first-global-ai-safety-summit-concludes>.
- Sunak, R. (2023). "Prime Minister's Speech on AI", 26 October 2023, *The Royal Society, London*, retrieved from: <https://www.gov.uk/government/speeches/prime-ministers-speech-on-ai-26-october-2023>.
- Takla, R. and Hadchity, M. (2025). "Saudi Virtual Hospital at Forefront of AI Integration, Deputy Minister Says," *Arab News*, 10 February 2025, retrieved from: <https://www.arabnews.com/node/2589699/business-economy>.
- Taplin, S. (2024). "AI Hallucinations: How Can Businesses Mitigate Their Impact?", *Forbes*, 15 August 2024, retrieved from: <https://www.forbes.com/councils/forbestechcouncil/2024/08/15/ai-hallucinations-how-can-businesses-mitigate-their-impact/>.
- Tatweer Petroleum (2025). "Oil & Gas 4.0 and Artificial Intelligence", retrieved from: <https://tatweerpipeline.com/oil-gas-4-0-and-ai/>.
- Taylor, P. (2024). "Healthcare AI from Cera Could Save NHS and UK £1bn a Year," *Pharmaphorum*, 3 May 2024, retrieved from: <https://pharmaphorum.com/news/healthcare-ai-cera-could-save-nhs-and-uk-ps1bn-year>.
- Taylor, S. (2023). "The UK Is a Fintech Regulatory Superpower", *Andreessen Horowitz*, 21 September 2023, retrieved from: <https://a16z.com/global-payments-uk/>.
- Technion Israel Institute of Technology (2025). Retrieved from: <https://www.technion.ac.il/en/>.
- The Alan Turing Institute (2025). "Public Policy", retrieved from: <https://www.turing.ac.uk/research/research-programmes/public-policy/public-policy-themes/women-data-science-and-ai>.
- The American Presidency Project (2024). "Remarks by National Security Advisor Jake Sullivan on Artificial Intelligence and National Security at the National Defense University", 24 October 2024, retrieved from: <https://www.presidency.ucsb.edu/documents/remarks-national-security-advisor-jake-sullivan-artificial-intelligence-and-national>.
- The Daily Herald (2025). "British Council's £1.7M to Foster AI Development Skills in Schools," *The Daily Herald*, 20 March 2025, retrieved from: <https://www.thedailyherald.sx/regional/british-council-s-1-7m-pounds-sterling-to-foster-ai-development-skills-in-schools>.
- The Economist (2024). "Can Artificial Intelligence Make Health Care More Efficient?", 27 March 2024., retrieved from: <https://www.economist.com/technology-quarterly/2024/03/27/can-artificial-intelligence-make-health-care-more-efficient>.
- The Global Economy (2021). "Bahrain: Oil revenue", retrieved from: https://www.theglobaleconomy.com/Bahrain/oil_revenue/?utm_source=chatgpt.com.
- The Times of Israel (2021). "Israel, Jordan sign huge UAE-brokered deal to swap solar energy and water", 21 November 2021, retrieved from: <https://www.timesofisrael.com/israel-jordan-sign-uae-brokered-deal-to-swap-solar-energy-and-water/>.
- Thornton, N., Hardie, T., Horton, T. et al. (2024). "Priorities for an AI in Health Care Strategy," 26 June 2024, retrieved from: <https://www.health.org.uk/reports-and-analysis/briefings/priorities-for-an-ai-in-health-care-strategy>.
- Tran, B. (2025). "AI-Powered Smart Grids: How They Are Revolutionizing Energy Distribution", *PatentPC*, 4 March 2025, retrieved from: https://patentpc.com/blog/ai-powered-smart-grids-how-they-are-revolutionizing-energy-distribution-latest-stats?utm_source=chatgpt.com.
- UAE (2023). "UAE Centennial 2071", 14 June 2023, retrieved from: <https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/innovation-and-future-shaping/uae-centennial-2071>.
- UAE (2025). "The UAE's Net Zero 2050 Strategy", retrieved from: https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/environment-and-energy/the-uae-net-zero-2050-strategy?utm_source=chatgpt.com.
- UAE (2025). "UAE Strategy for Artificial Intelligence", retrieved from: https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/government-services-and-digital-transformation/uae-strategy-for-artificial-intelligence?utm_source=chatgpt.com.
- U.S. Department of State (2020). "Military-Civil Fusion and the People's Republic of China", retrieved from: <https://www.state.gov/wp-content/uploads/2020/05/What-is-MCF-One-Pager.pdf>.
- U.S. Department of Commerce International Trade Administration (2025). "Morocco Country Commercial Guide", retrieved from: [https://www.trade.gov/country-commercial-guides/morocco-energy#:~:text=Per%20the%20ministry%20of%20energy,%2C%20solar%20\(7.82%20percent\).](https://www.trade.gov/country-commercial-guides/morocco-energy#:~:text=Per%20the%20ministry%20of%20energy,%2C%20solar%20(7.82%20percent).)
- U.S. Department of Commerce International Trade Administration (2025). "Israel Country Commercial Guide", retrieved from: <https://www.trade.gov/country-commercial-guides/israel-energy#:~:text=A%20Government%20of%20Israel%20decision,will%20provide%20the%20remaining%2010%25>.
- U.S. Energy Information Administration (2023). "Saudi Arabia – 2023 primary energy data", retrieved from: https://www.eia.gov/international/overview/country/sau?utm_source=chatgpt.com.
- UAE Government. "National Program for Artificial Intelligence", *UAE National Strategy for Artificial Intelligence 2031*, p.7.
- UAE National Program for Artificial Intelligence (2018). "UAE National Strategy for Artificial Intelligence 2031", retrieved from: <https://ai.gov.ae/wp-content/uploads/2021/07/UAE-National-Strategy-for-Artificial-Intelligence-2031.pdf>.
- UK Department of Health (2011). "Risk Prediction Tools," March 2011, retrieved from: https://assets.publishing.service.gov.uk/media/5a7c22c8e5274a25a9140abo/dh_129779.pdf.
- UK Government (2023). "Integrated Review Refresh 2023: Responding to a more contested and volatile world", *UK Government Publications*, 13 March 2023, retrieved from:

https://assets.publishing.service.gov.uk/media/641d72f45155a2000c6ad5d5/11857435_NS_IR_Refresh_2023_Supply_AllPages_Revision_7_WEB_PDF.pdf.

UK Government, (2024). "UK Science & Innovation Network: Country Summary – Israel," 26 March 2024, retrieved from: <https://www.gov.uk/government/publications/uk-science-innovation-network-country-snapshot-israel/uk-science-innovation-network-country-summary-israel>.

UK Parliament Post (2020). "Artificial Intelligence in Healthcare, June 2020," *PostNote*, 637, December 2020, retrieved from: <https://researchbriefings.files.parliament.uk/documents/POST-PN-0637/POST-PN-0637.pdf>.

UK Research and Innovation. "Responsible AI UK: International Partnerships," retrieved from: <https://www.ukri.org/opportunity/responsible-ai-uk-international-partnerships/>.

UK-Israel Tech Hub (2025). "Health-Tech," *UK-Israel Tech Hub*, retrieved from: <https://ukisraelhub.com/health-tech/>.

Ukoba, K., Olatunji, K. and Madyira, D.M. (2024). "Optimizing renewable energy systems through artificial intelligence: Review and future prospects", 22 May 2024, retrieved from: <https://journals.sagepub.com/doi/10.1177/0958305X241256293>.

University Mohamed VI Polytechnic (2021). "UM6P launches the Data Center and Africa's Most Powerful SuperCalculator for scientific research and innovation", 19 February 2021, retrieved from: <https://www.um6p.ma/en/node/713>.

University of Bahrain. (2025, February 18). M.Sc. in Artificial Intelligence Systems - College of Engineering, College of Engineering, retrieved from: https://engineering.uob.edu.bh/graduate/m-sc-in-ai_systems/.

University of Oxford (2024). "Major research into 'hallucinating' generative models advances reliability of artificial intelligence", 20 June 2024, retrieved from: <https://www.ox.ac.uk/news/2024-06-20-major-research-hallucinating-generative-models-advances-reliability-artificial>.

Vassileva, A. (2024). "Saudi Arabia, Bahrain explore 2GW solar project", *Renewables Now*, 30 August 2024, retrieved from: https://renewablesnow.com/news/saudi-arabia-bahrain-explore-2-gw-solar-project-report-867449/?utm_source=chatgpt.com.

Vectara (2025). "DeepSeek-R1 hallucinates more than DeepSeek-V3", 30 January 2025, retrieved from: <https://www.vectara.com/blog/deepseek-r1-hallucinates-more-than-deepseek-v3>.

Vella, H. (2024). "Saudi Arabia Launches \$100B Initiative to Develop AI Ecosystem", *AI Business*, 20 November 2024, retrieved from <https://aibusiness.com/responsible-ai/saudi-arabia-launches-100b-initiative-to-develop-ai-ecosystem#close-modal>.

Voisin, M., Hay, R., Le Vesconte, S., & Sanford, S. (2023). "UK Digital Securities Sandbox set to take effect," *Linklaters*, 22 December 2023, retrieved from: <https://www.linklaters.com/en-us/insights/blogs/fintechlinks/2023/december/uk-digital-securities-sandbox-set-to-take-effect>.

Wahab, S. (2015). "Seven KSA supercomputers in Top 500 list", *Arab News*, retrieved from: <https://www.arabnews.com/node/809551/amp>.

Walther, C.C. (2025). "The AI-Fueled Nuclear Renaissance. Are We Losing Our Biggest Bet?", *Forbes*, 17 March 2025, retrieved from: <https://www.forbes.com/sites/corneliawalther/2025/03/17/the-ai-fueled-nuclear-renaissance-are-we-losing-our-biggest-bet/>.

Wellcome (2021). "First Recipients of Research Grants to Support Genomic Studies in Africa Announced," 27 January 2021, retrieved from: <https://wellcome.org/press-release/first-recipients-research-grants-support-genomic-studies-africa-announced>.

Wellcome Trust (2023). "Unlocking the Potential of AI in Drug Discovery", retrieved from: https://cms.wellcome.org/sites/default/files/2023-06/unlocking-the-potential-of-ai-in-drug-discovery_report.pdf.

White & Case (2024). "AI Watch: Global Regulatory Tracker – Saudi Arabia," 20 June 2024, retrieved from: <https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-saudi-arabia>.

White & Case LLP (2024). "AI Watch Global Regulatory Tracker – Israel," 4 November 2024, retrieved from: <https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-israel>.

White & Case LLP (2024). "AI Watch Global Regulatory Tracker – UAE", 18 October 2024, retrieved from: <https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-uae#:~:text=In%202023%2C%20the%20ADGM%20and,13>.

White, A. "A Gulf Apart: Analyzing AI in Saudi Arabia and the UAE", *Gulf International Forum*, retrieved from: <https://gulfif.org/a-gulf-apart-analyzing-ai-in-saudi-arabia-and-the-uae/>.

White, E. (2024). "China's ties with Saudi Arabia buoyed by green tech", *Financial Times*, 4 December 2024, retrieved from: https://www.ft.com/content/fobabafc-57e6-434f-9d94-013c312dc0f9?utm_source=chatgpt.com.

Williams, D. (2022). "Digital Medicine Connects Hospitals in Gulf and Israel," *The Circuit*, 20 November 2022, retrieved from: <https://circuit.news/2022/11/20/digital-medicine-connects-hospitals-in-bahrain-uae-and-israel>.

Wilton Park (2024). "AI in Africa: Advancing Responsible and Equitable Artificial Intelligence for Health," 4 December 2024, retrieved from: <https://www.wiltonpark.org.uk/app/uploads/2025/01/WP3458-AI-in-Africa-report.pdf>.

Winter-Levy, S. (2024). "The Emerging Age of AI Diplomacy", *Foreign Affairs*, 28 October 2024, retrieved from: <https://www.foreignaffairs.com/united-states/emerging-age-ai-diplomacy>.

Wodecki, B. (2022). "AI Drug Discovery Startup Exscientia Secures \$70M Gates Foundation Deal to Research COVID Therapeutics," *AI Business*, 28 January 2022, retrieved from: <https://aibusiness.com/verticals/ai-drug-discovery-startup-exscientia-secures-70m-gates-foundation-deal-to-research-covid-therapeutics>.

World Bank Group (2017). "Morocco: Noor Quarzazate Concentrated Solar Power Complex", March 2017, retrieved from: https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2022-02/MoroccoNoorQuarzazateSolar_WBG_AfDB_EIB.pdf.

Wrobel, S. (2024). "Amid Ongoing War, Israel and the UK Launch Fund for Joint Tech Research Projects," *The Times of Israel*, 3 March 2024, retrieved from: <https://www.timesofisrael.com/amid-ongoing-war-israel-and-the-uk-launch-fund-for-joint-tech-research-projects/>.

Wrobel, S. (2025). "Israeli AI cybersecurity startup valued at \$1.1 billion after major funding round", *The Times of Israel*, 17 February 2025, retrieved from: <https://www.timesofisrael.com/israeli-ai-cybersecurity-startup-valued-at-1-1-billion-after-major-funding-round/>.

Xlinks (2025). "What is the Morocco – UK Power Project?", retrieved from: <https://xlinks.co/morocco-uk-power-project/>.

Zaraba, M.K. (2023). "Regulatory Sandboxes: Fostering Innovation," *Infomineo*, 26 October 2023, retrieved from: <https://infomineo.com/technology-telecommunication/regulatory-sandboxes-fostering-innovation/>.

Zawya (2023). "UAE's minerals sector set to hit \$10bln by 2025, say experts", 17 March 2023, retrieved from: <https://www.zawya.com/en/markets/commodities/uaes-minerals-sector-set-to-hit-10bln-by-2025-say-experts-suxqk3uc>.

Zawya (2024). "Saudi Arabia to Integrate AI Across the Healthcare Sector by 2030," 10 June 2024, retrieved from: <https://www.zawya.com/en/business/healthcare/saudi-arabia-to-integrate-ai-across-the-healthcare-sector-by-2030-hqu6q6zl>.

This page is left intentionally blank.



Copyright © Cambridge Middle East and North Africa Forum Ltd, 2025.

Copyright © Abraham Accords (UK) Ltd, 2025.

This report or any portion thereof may not be reproduced or used in any manner whatsoever without the publisher's express written consent except for the use of brief quotations in a review.