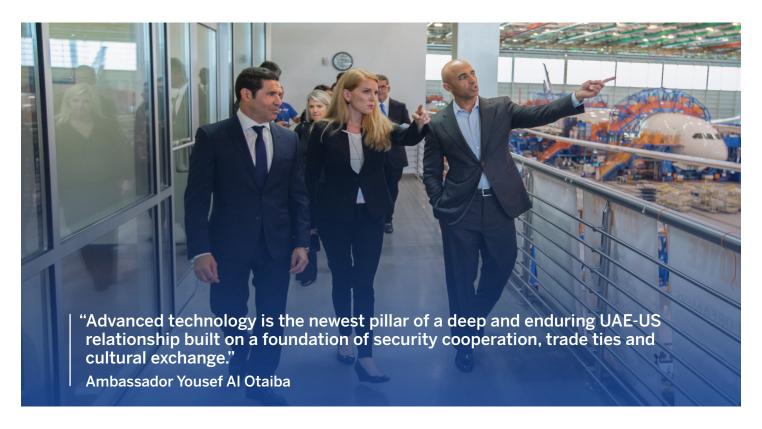
Forging the Future of Al Together:

UAE-US Advanced Technology Cooperation







Moving from oil to data, from sand to space, from commodities to "compute" – the UAE is rapidly remaking its economy and racing into the future.

The UAE is transforming itself into a global hub and forerunner for next generation technologies like artificial intelligence, life sciences and the space economy. It is a remarkable shift enabled by visionary leadership, available clean energy, ample investment capital, a whole-of-government commitment, and a hub and home to some of the world's best tech talent.

And the United States is the UAE's most important partner in this transformation.

Advanced technology is the newest pillar of a deep and enduring UAE-US relationship built on a foundation of security cooperation, trade ties and cultural exchange.

Accelerating this shift, UAE institutions and companies like G42, Mubadala, NYU Abu Dhabi and the Mohammed Bin Rashid Space Center are joining with American counterparts like Microsoft, IBM, the Cleveland Clinic and NASA to launch new businesses, initiatives and even missions to space.

In the UAE, we are embracing change and welcoming the future of technology. And we are doing it together with the US.

Learn more about our progress and ambition.

Yousef Al Otaiba

UAE Ambassador to the US

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Creating an Advanced Technology Forerunner

The UAE is an advanced technology powerhouse.

The Emirates is rapidly transforming its economy into a global hub for the critical technologies of the future like artificial intelligence (AI), microelectronics, aeronautics, life sciences and space.

No partner has been more important in the UAE's progress than the United States. UAE-US business and research partnerships have accelerated and enabled this quantum shift. Close government-to-government cooperation is creating a new policy and oversight framework to expand commercial and research initiatives while protecting valuable intellectual property and national interests.



United States Secretary of Commerce Gina Raimondo and UAE Minister of State for Foreign Trade, Thani Ahmed Al Zeyoudi discussed strengthening bilateral ties with focus on clean energy, sustainable industrial development and advanced technology.

The UAE-US technology partnership is delivering enormous benefits to both countries. UAE

investments in US startups and established companies are fueling growth and job creation. American partners have helped the UAE to create one of the world's top AI platforms and launch the world's first university focused solely on AI. Close bilateral space cooperation helped send a UAE probe to Mars and will have the <u>UAE build the airlock for NASA's</u> lunar gateway mission.



Emirati astronauts and engineers visit a mockup of HALO, the first built module of the Gateway Lunar Space Station.



"Today, we're talking about a space sector that has an indirect impact to the economy. In five years, we want to see a space sector that has both an indirect impact on the economy, society, and also a direct impact on the economy."

UAE Minister of State for Public Education and Advanced Technology, HE Sarah Al Amiri

The World's First Minister of Al

Appointing the world's first Minister of Artificial Intelligence in 2017 was a landmark step in the UAE's evolution towards a technologically driven future. His Excellency Omar Sultan Al Olama shapes policies and sets strategies in Al to enhance competitiveness, foster growth and improve wellbeing. In 2020, the Minister's role expanded to include the Digital Economy and Remote Work Applications.

The Office of the Minister of State for Artificial Intelligence, Digital Economy and Remote Work Applications supports AI research and startups under the UAE Strategy for Artificial Intelligence 2031. The UAE has also invested in different government-led research institutions such as the Artificial Intelligence and Advanced Technology Council to energize investment in AI. These institutions are facilitating the adoption of AI across government in healthcare, space exploration, public services and national security.

The UAE government is one of the first in the world to develop an AI Training Program for government employees. Facilitated by the University of Oxford, the specialized training empowers officials with the skills and tools required to better understand and navigate evolving AI technologies. The UAE is working with the US government to replicate the AI Training module within US agencies.



"We went from a traditional government to an electronic government, [then] from a mobile government to a smart government, and today to an Al government."

UAE Minister of State for Artificial Intelligence, HE Omar Al Olama

A Whole-of-Government Effort

With a national data, cloud and AI strategy, the UAE is accelerating its transformation to a diversified knowledge-based economy. Moving from oil and gas to data and "compute," the UAE's shift is propelling the country beyond its legacy energy foundations and solidifying its status as a global force in advanced technologies.

In March 2024, the UAE's Artificial Intelligence and Advanced Technology Council launched MGX, a technology investment company with Mubadala and G42 as founding partners. MGX will advance and deploy leading-edge technologies to improve the lives of current and future generations.

The UAE's ambitious transition is underpinned by a whole-of-government approach that includes deep collaboration with the private sector. The UAE's strategy includes:



The Mohamed bin Zayed University of Artificial Intelligence is the world's first AI-focused graduate school.

- Investing in Education and Research: Universities and research institutions in the UAE, such as the Mohamed bin Zayed University of Artificial Intelligence, Khalifa University, NYU Abu Dhabi and the Masdar Institute, are at the forefront of research in areas like renewable energy, Al and robotics. The Mohammed Bin Rashid Initiative for Global Prosperity and the Dubai Future Foundation both facilitate grants and funding opportunities for tech startups and research projects.
- Attracting International Talent and Companies: New UAE initiatives are attracting skilled professionals and leading tech companies from around the world. Long-term visas are available for entrepreneurs and high-skilled workers. Fast-tracked business registration and access to venture capital are drawing startups and facilitating companies' regional expansion plans.
- Establishing Regulatory Frameworks and Digital Infrastructure: The UAE has created regulatory frameworks that support the growth of high-tech industries, including cybersecurity laws and regulations for digital transactions. The country also boasts advanced digital infrastructure, crucial for data centers and cloud computing.

A Whole-of-Government Effort

"The world will need a unified policy to rein in future advances in AI, I think, for a bunch of reasons, the UAE would be set up to be a leader in the discussions about that. The UAE could serve as the world's regulatory sandbox to test artificial intelligence technologies and later spearhead global rules limiting their use."

OpenAI CEO, Sam Altman

- Enhancing Intellectual Property Rights: The UAE is a member of the Madrid Protocol, integrating into a global trademark system spanning 125 countries. The UAE launched the Gulf region's first collective management organization for copyright licensing in 2022, demonstrating a commitment to protecting innovation and creators' rights.
- Collaborating with International Partners: The UAE actively seeks international partnerships and collaborations with tech companies, universities and research institutions worldwide. These collaborations facilitate knowledge exchange, innovation and the development of high-tech solutions.
- Powering Compute with Clean Energy: With a net-zero 2050 commitment, some of the world's largest solar arrays and an expanding civilian nuclear energy program, the UAE is relying on low-carbon, renewable energy sources to power its digital infrastructure.



Cleveland Clinic Abu Dhabi and MBZUAI <u>recently signed a MoU to promote collaborative pursuits</u> including the development of joint research projects and clinical attachments.

The UAE-US Technology Partnership

From Nvidia, AMD and Microsoft to OpenAI and IBM, the UAE is forging deep partnerships with America's leading technology companies. Emirati investment is fueling the growth of US-based companies like GlobalFoundries and Cerebras Systems. Joint research collaborations include the Cleveland Clinic, NYU Abu Dhabi, Harvard Medical School and other institutions in both countries.



Mohamed bin Zayed University of Artificial Intelligence, the first research university dedicated entirely to AI, <u>forms a strategic</u> collaboration with IBM.

Both governments are working to create a common policy and regulatory framework that protects IP and data, facilitates commercial partnerships, secures national interests and advances research. Regulators in both countries have consistently cleared UAE-US investments and commercial partnerships in areas such as semiconductors, advanced computing, space, clean energy, genomics and AI.

Close UAE-US cooperation was demonstrated in G42's decision to transition its cloud computing requirements in 2022 to Microsoft Azure's Al-enhanced platform. More deals with Nvidia, Cerebras, Qualcomm, AMD and other US technology partners soon followed. All these partnerships follow US export licensing requirements through a G42-created Regulated Technology Environment.

The US-UAE Business Council, through its Digital Domain Working Group, has set up an Al Task Force that will provide a platform for UAE leadership to engage with industry about their vision for Al. This task force will also convene industry to discuss international best practices, advocate for policies that underpin the responsible regulation of Al, and explore the transformative potential of Al in all sectors, including education, healthcare, and energy.

Key US Partners





























Microsoft and G42 – Expanded Partnership to Accelerate Al Innovation in UAE and Beyond



Microsoft's significant investment in Abu Dhabi's G42 will advance G42's strategy of delivering generative Al and next-generation infrastructure and services for a range of customers across finance, healthcare, energy, government and education. G42 and Microsoft will also collaborate to ensure the benefits of secure AI technologies and cloud capabilities are responsibly shared with growing economies globally. The combined expertise of both organizations has accelerated the UAE's digital transformation. G42 was one of the first partners to commit to implementing the Microsoft Cloud for Sovereignty offering for UAE-based organizations. This integrated Microsoft's public cloud services with Core42's Sovereign Control Platforms, tailored for the UAE and select international markets, ensuring secure, compliant, and local data management.

Cerebras Systems – The World's Fastest Al Supercomputer



G42 and Cerebras Systems <u>team up to build the world's fastest</u> <u>supercomputer for AI training</u>. Condor Galaxy will address challenges in health care, energy and climate action.

G42 along with California-based Cerebras Systems have developed Condor Galaxy, a cloud-based network of several interconnected Al supercomputers. The first and second clusters are currently operational and produce 8 exaFLOPs of Al compute (at FP16) deployed across critical sectors like healthcare, energy, financial services and public services. Recently announced Condor Galaxy 3 will bring the Condor Galaxy network to a total of 16 exaFLOPs.

MBRSC and NASA - Reaching New Frontiers



Through cooperation with NASA, US research institutions and the wider aeronautics industry, the UAE and the Mohammed Bin Rashid Space Centre has developed a space program that has achieved notable accomplishments in a relatively short timeframe. In 2021, the <u>UAE's Hope Mars Probesuccessfully began orbiting the Red Planet</u>, providing the most detailed look ever of the Martian atmosphere.

G42 and NVIDIA –Joint R&D to Accelerate Next Generation AI



Nvidia's collaboration with Abu Dhabi dates back to 2017 and continues to enhance the Al capabilities of the UAE's datacenters and sustainable technology adoption. The <u>UAE continues to harness US</u> technology to enhance work efficiency, performance, creativity and productivity throughout the UAE. G42 will deploy these systems in full compliance with US government licensing requirements.

M42 and The Cleveland Clinic – Advancing Medical Breakthroughs from Ohio to Abu Dhabi



M42 combines G42 Healthcare's unique medical and data-centric technologies with Mubadala Health's world-class patient services and state-of-the-art facilities to provide the highest level of personalized, precise, and preventative care.

Cleveland Clinic Abu Dhabi, part of the M42 network, was ranked the top smart hospital in the Gulf region by Newsweek's 'World's Best Smart Hospitals' 2024 list. Caregivers conduct research studies and clinical trials to develop new healthcare options for a wide variety of medical conditions.

Mubadala and GlobalFoundries -Largest Private Investment in New York State History



GlobalFoundries has helped re-energize US semiconductor manufacturing with <u>significant</u> investment from the UAE's Mubadala Development Company. Now the third largest chip maker in the world, GF's facilities in upstate New York and Vermont are key suppliers to US companies in key sectors such as aerospace, defense, telecommunications, and automotive.

JAIS – Creating an Arabic Large Language Model



G42, with the support of The Mohamed bin Zayed University of Artificial Intelligence and Cerebras Systems created JAIS LLM, the most accurate and widely-used open-source quality Arabic Large Language Model. It was trained on the Condor Galaxy Cluster and offers more than 400 million Arabic speakers the opportunity to harness the potential of generative AI. JAIS will facilitate innovation, cultural preservation and international collaboration.

Microsoft – Quantum Computing to Support Dubai's Clean Energy Goals



DEWA adopted Microsoft HoloLens technology to enhance electricity and water services in Dubai

The Dubai Electricity and Water Authority (DEWA) and Microsoft are collaborating on new digital solutions, including quantum computing, AI, and blockchain, to help identify leakages, conserve energy and make the system more reliable. Recently, DEWA became one of the world's <u>first to adopt Microsoft's smart assistant program</u> 'Copilot'. The collaboration will be critical to help deliver on the UAE's net zero climate commitments.

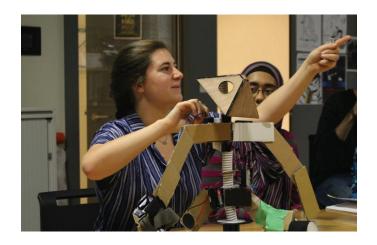
G42 and OpenAl –Delivering Cutting-Edge Al Solutions to the UAE and Regional Markets



G42 and OpenAl will <u>deliver cutting-edge Al solutions</u> to both the UAE and regional markets. The partnership will utilize OpenAl's generative Al models in G42's fields of expertise, including energy, financial services, and healthcare.

The partnership focuses on leveraging OpenAl's generative Al models in domains where G42 has deep expertise including financial services, energy, health care and public services. OpenAl will work with G42 to accelerate the solution development process, ensuring organizations can best leverage the power of generative Al in their respective use cases.

NYU Abu Dhabi — Robotics Research to Take on the Climate Challenge



The NYUAD's Center for AI and Robotics was launched in 2023. Its research areas include the processing and fusion of data from sensors to perceive the surroundings of the robot and intention of moving objects, path planning and navigation. A major application of the Center's research is in the fight against climate change.

Notable Statements

Brad Smith, Microsoft

Press Release

"Microsoft's investment in G42 will enhance the UAE's position as a leading AI hub and provide digital infrastructure and services to help underserved nations innovate and grow. We will combine world-class technology with world-leading standards for safe, trusted, and responsible AI, in close coordination with the governments of both the UAE and the United States."

HH Sheikh Tahnoun bin Zayed Al Nahyan, UAE Artificial Intelligence and Advanced Technology Council

<u>Press Release</u>: Abu Dhabi Launches Comprehensive Global Investment Strategy on Artificial Intelligence

"In MGX, we are establishing a UAE national champion focused on AI and advanced technologies that will shape a future where technology enables a more prosperous, sustainable and interconnected world."

Sam Altman, OpenAl

World Governments Summit: A Conversation with the Founder of ChatGPT

"The world will need a unified policy to rein in future advances in AI, I think, for a bunch of reasons, the UAE would be set up to be a leader in the discussions about that. The UAE could serve as the world's regulatory sandbox to test artificial intelligence technologies and later spearhead global rules limiting their use."

Congressman Mike Gallagher, US House of Representatives

Press Release

"The UAE is a critical and powerful ally, one that will become even more important for regional and global stability as Al advances."

Senator Bill Nelson, NASA

<u>Press Release</u>: A Celebration of UAE-US Collaboration in Space

"[t]he partnership between the United States and the United Arab Emirates is strong and growing stronger. Together, we are taking giant leaps in science and technology that will further the Artemis campaign, and the future of human space exploration."

Chirag Parikh, US National Space Council

<u>Press Release</u>: A Celebration of UAE-US Collaboration in Space

"The growing US-UAE partnership goes beyond human spaceflight and the Gateway airlock, to Earth observation, climate resiliency, and the exploration of Mars and the Asteroid Belt, among many other areas... The US is also proud that our partnership with the Emirates extends into the safe and responsible use of space via the Artemis Accords. There are infinite possibilities for US-UAE cooperation in space, and we're very proud to call our Emirati partners friends and collaborators along the way."

Peng Xiao, G42

Al House Davos 2024

"At G42 we made our bet. We believe that the most advanced Al players in the world are centralized around Silicon Valley."

HE Omar AI Olama, UAE Artificial Intelligence Office TIME100 AI

"[O]ur policymaking and our government is very agile and can move very quickly, we want to ensure that anyone who wants to deploy AI in a way where we can do it in a regulatory environment, the UAE comes first in mind."