Forging the Future of AI Together:

UAE-US Advanced Technology Cooperation

> "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."
>
> **Ambassador Yousef Al Otaiba**

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.

[signature]

Yousef Al Otaiba

UAE Ambassador to the US

Table of Contents

___

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.

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

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 UAE build the airlock for NASA's lunar gateway mission.

> "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 AI

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 AI 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 AI government."**
>
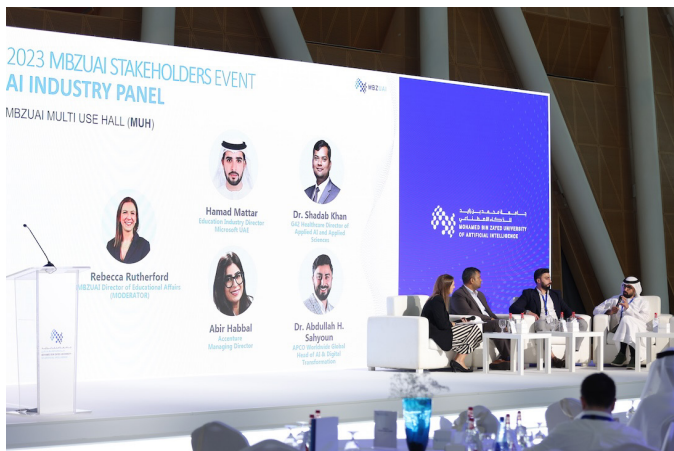> **UAE Minister of State for Artificial Intelligence, HE Omar Al Olama**

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, AI 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 recently signed a MoU to promote collaborative pursuits 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, forms a strategic 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 AI-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 AI Task Force that will provide a platform for UAE leadership to engage with industry about their vision for AI. This task force will also convene industry to discuss international best practices, advocate for policies that underpin the responsible regulation of AI, and explore the transformative potential of AI in all sectors, including education, healthcare, and energy.

Key US Partners

Cooperation in Action

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

GlobalFoundries has helped re-energize US semiconductor manufacturing with significant 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.

Cerebras Systems –
The World's Fastest AI Supercomputer

G42 and Cerebras Systems team up to build the world's fastest supercomputer for AI training. 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 AI supercomputers. The first and second clusters are currently operational and produce 8 exaFLOPs of AI 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.

Cooperation in Action

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 UAE's Hope Mars Probe successfully began orbiting the Red Planet, providing the most detailed look ever of the Martian atmosphere.
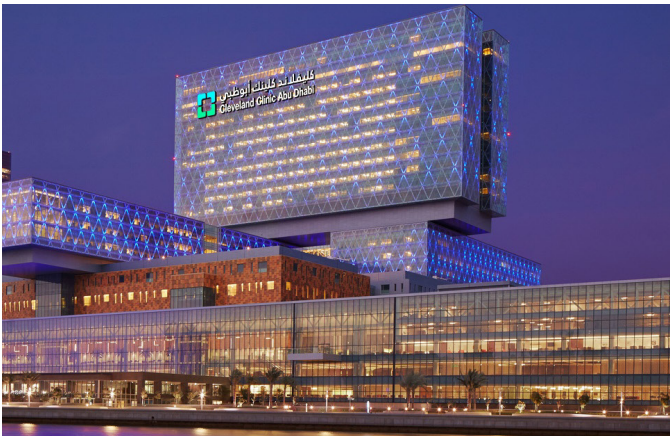
G42 and NVIDIA –
Joint R&D to Accelerate Next Generation AI

Nvidia's collaboration with Abu Dhabi dates back to 2017 and continues to enhance the AI capabilities of the UAE's datacenters and sustainable technology adoption. The UAE continues to harness US 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.

Cooperation in Action

___

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.

G42 and Microsoft –
Sovereign Cloud to Provide Secure Workloads for International Markets

G42 and Microsoft are collaborating on the development of public sector and regulated industry focused national scale solutions.

Microsoft, in partnership with G42, is harnessing Core42's advanced cloud and AI infrastructure in the launch of the Microsoft Cloud for Sovereignty (MCfS). This distinct solution integrates 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.

These areas of UAE-US cooperation demonstrate how both nations are leveraging their strengths to drive innovation and address global challenges through the development of new technologies.

Cooperation in Action

—

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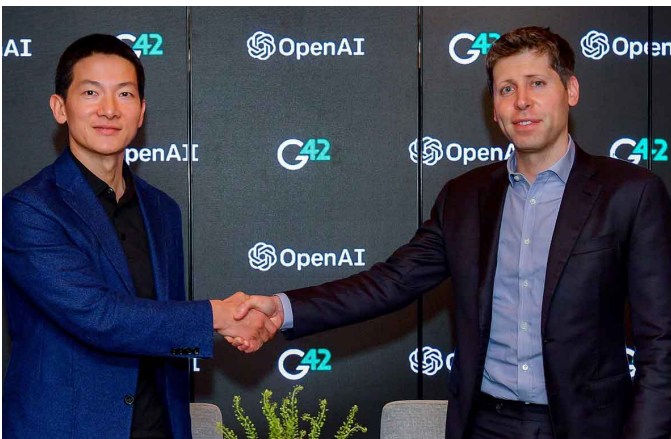### Quantum Computing to Support Dubai's Clean Energy Goals

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 first to adopt Microsoft's smart assistant program 'Copilot'. The collaboration will be critical to help deliver on the UAE's net zero climate commitments.

Cooperation in Action

___

G42 and OpenAI –
Delivering Cutting-Edge AI Solutions to the UAE and Regional Markets

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

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

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

Press Release: 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, OpenAI

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."

Naim Yazbeck, Microsoft UAE

edge/: Microsoft is doubling down its AI investment in the region

"If you look at the UAE vision, their vision is to be an AI-driven nation.. everything they are doing is building towards that perspective."

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 AI advances."

Senator Bill Nelson, NASA

Press Release: 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

Press Release: 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

AI House Davos 2024

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

HE Omar Al 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."