

## THE GREAT ARAB MINDS INITIATIVE

The largest-of-its-kind movement to empower the Arab world's greatest minds

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## A B C THE GREAT ARAB MINDS INITIATIVE

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, launched the Great Arab Minds initiative, the Arab world's most significant intellectual movement, on 4th January 2022, and allocated an AED100 million budget to fund it.

The initiative is designed to search for exceptional talents among Arab scientists, thinkers, and innovators across key fields to identify, support, and acknowledge leading thinkers in the region, amplifying their impact on the region.

Over five years, the Great Arab Minds initiative will identify the 1,000 most influential Arab minds across six categories: Natural Sciences (Physics, Mathematics, Chemistry), Economics, Medicine, Literature and Arts, Engineering and Technology, and Architecture and Design.

The initiative will also collaborate with governments, universities, and research institutions in the Arab world to support, empower, and honor these great minds and invest in them to ensure a brighter future for the region.

Each year, the Great Arab Minds list will be announced at an award ceremony at the Museum of the Future in Dubai to honor those who made it to the list. The Great Arab Minds Award will be granted to one awardee from each of the six award categories. Each winner will receive AED 1 million to fund their research and projects in the Arab World, further amplifying their impact on the region.

Great Arab Minds will also have the opportunity to enroll in the Great Arab Minds Program, which provides them with access to resources that enable them to continue their work in collaboration with prestigious companies and institutions worldwide.

"Reigniting the civilizational drive begins with identifying the true masterminds behind it...

A nation, which values its scientists, intellectuals and brilliant minds and empowers the builders of its civilization, is on the right path towards achieving greatness, leadership and excellence in the future"

His Highness

#### Sheikh Mohammed bin **Rashid Al Maktoum**



#### STRATEGIC PRIORITIES

- Leading the scientific and research renaissance by involving the Arab world's greatest minds and universities in the largest movement to revive the Arab "golden age."
- Honoring Great Arab Minds, celebrating their achievements, and funding their research and projects.
- Boosting Arab scientific contributions, from research publications to patents and innovations across various disciplines.

- Establishing a network that brings together the brightest Arab scientists, thinkers, and talents to accelerate the Arab world's scientific and intellectual progress.
- Providing a conducive environment for Great Arab Minds and all the necessary facilities required to enable them to serve their countries and make exceptional accomplishments.
- Presenting Great Arab Minds as role models to be emulated in terms of their dedication, forward-thinking, and developmental efforts.
- Offering a wide range of unique opportunities in collaboration with top international companies and institutions in the Arab world to ensure that Great Arab Minds have the capacity to achieve their goals.

### **VISION**

To embrace and celebrate the achievements of Arab scholars, innovators, and thinkers with the aim of becoming the lighthouse of knowledge in the world.

#### **MISSION**

To reignite and activate an intellectually stimulating ecosystem that drives and equips great Arab minds to shape the future of the region.



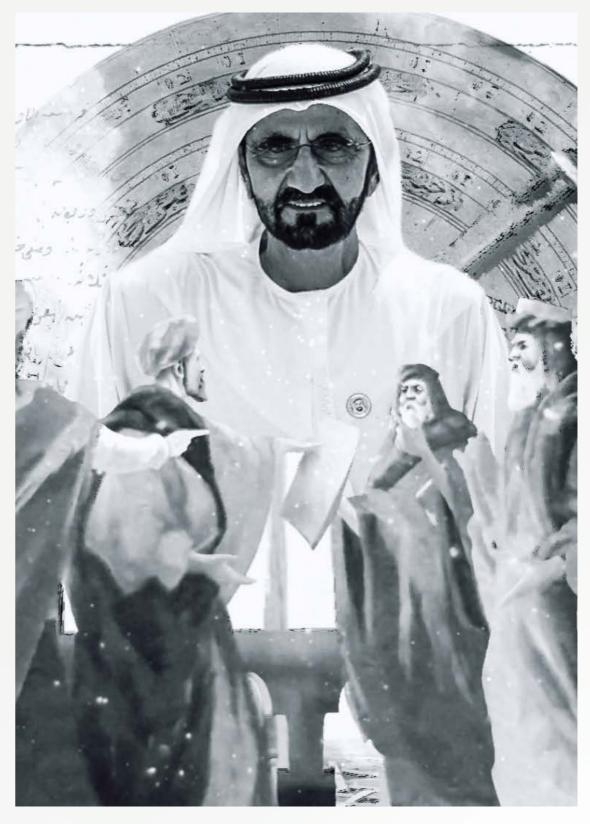
#### INTRODUCTION

## REIGNITING THE ARAB CIVILIZATION DRIVE

The Great Arab Minds initiative is a quest to rekindle the passion of great minds and pioneers in scientific and cultural fields to promote knowledge-based development. It draws inspiration from Arab history to re-establish a sustainable modern-day model of the Arab world's "Golden Age," which was the height of the region's cultural, economic, and scientific advancement. Moreover, the initiative seeks to honor and celebrate the accomplishments of Arab scholars, innovators, and thinkers with the aim of becoming a beacon of knowledge in the world.

The initiative serves as a knowledge and intellectual powerhouse that embodies the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum to support 'brain regain' in the Arab world. By recognizing empowering great minds, the initiative aims to keep those talents in the region, and they will become role models for future Arab generations that contributed to the development of civilization and human knowledge.

- Two-thirds of the stars' names in astronomy have Arabic origins.
- The field of Algebra originated in the Arab region.
- Algorithms were first written in Arabic.
- The science of optics has its roots in the Arab world.
- The fields of medicine, philosophy, pharmacy, astronomy, among others flourished due to the contributions of great Arab minds.



"Human beings – their ideas, innovations, dreams, and connections – are the capital of the future. In this sense, the "brain regain" is not so much an achievement in itself as it is a leading indicator of development, because where great minds go today, great things will happen tomorrow"

His Highness Sheikh Mohammed bin Rashid Al Maktoum

## FACTS & FIGURES

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The Arab world's largest intellectual movement.

1 MILLION

AED will be given to each recipient of the Great Arab Minds Award.

+1000

scientists, thinkers and researchers will be listed as Great Arab Minds.

6 WINNERS

of the Great Arab Minds Award each year.



## MAIN OBJECTIVES

#### 01

Empowering a cluster of Arab scientists and thinkers to serve as role models for future Arab generations.

#### 02

Facilitating the recognition of Arab thought leaders, scholars, scientists, and geniuses in Natural Sciences, Engineering and Technology, Medicine, Architecture and Design, Economics, and Literature and arts.

#### 03

Establishing a platform for innovation to transform ideas into real-life breakthroughs and solutions.

#### 04

Encouraging Arabs to publish scientific research and work on innovations and inventions in various fields.

#### 05

Building a network of Arab thinkers, scientists, and exceptional talents to work as one team to drive the Arab world's intellectual renaissance.

#### 06

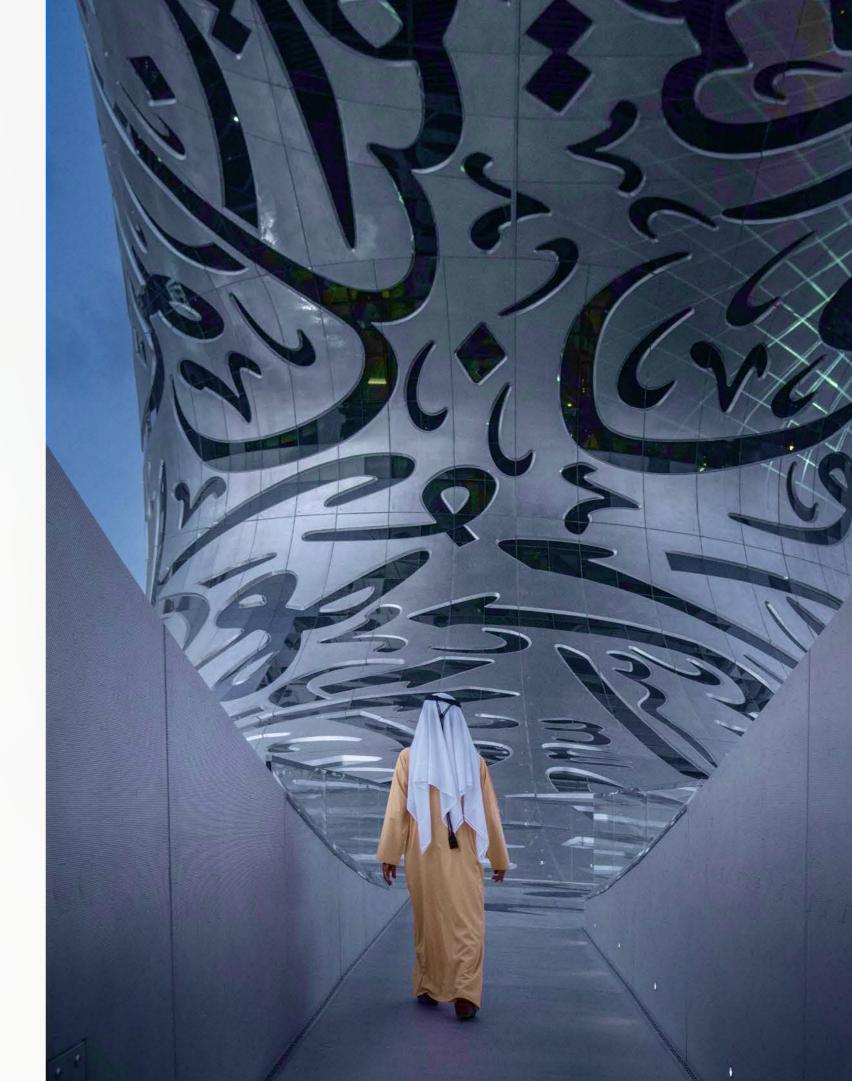
Countering the effects and costs of the brain drain across the Arab world by creating promising opportunities to attract and retain Arab talent.

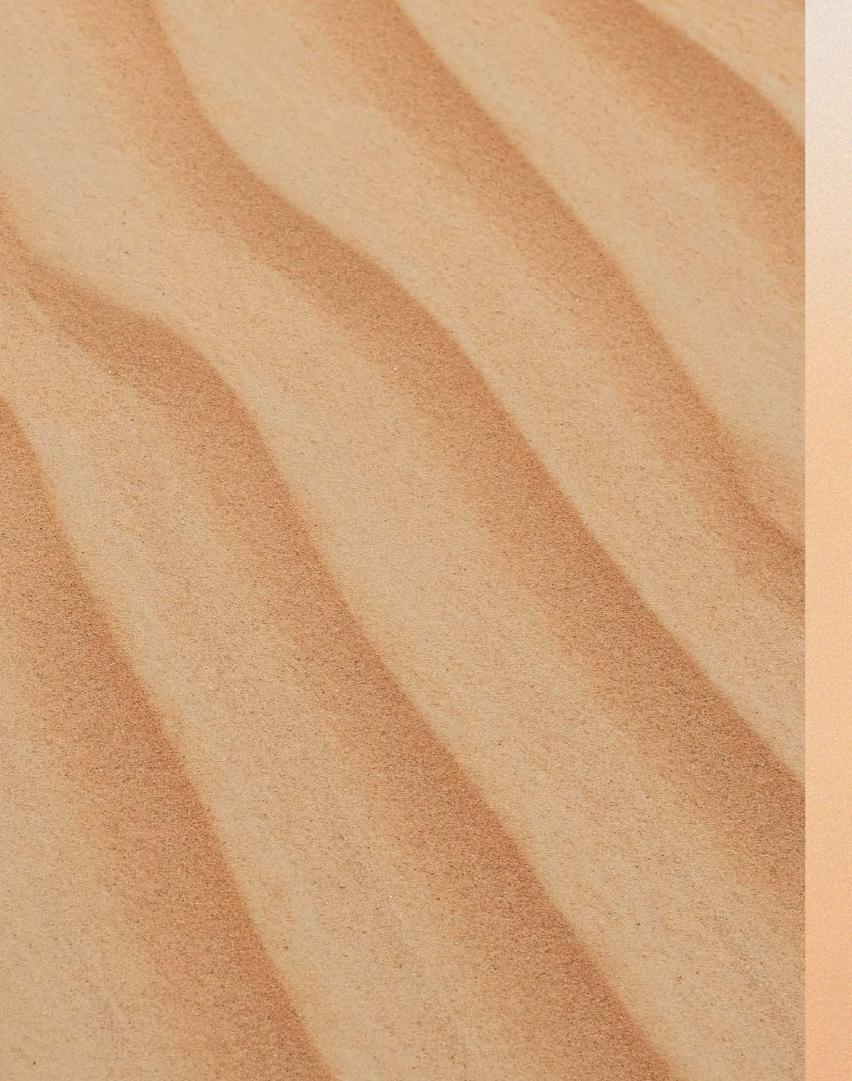
#### 07

Promoting and accelerating the growth of the knowledge-based economy in the Arab world.

#### 08

Maximizing the impact of the Great Arab Minds, their scientific contributions, and their projects on Arab societies.



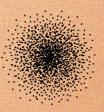


# REVERSING THE BRAIN DRAIN

The Great Arab Minds initiative serves as a strategic step towards supporting the intellectual movement in the Arab world and reversing the trend of brain drain that has been plaguing the region.

Every year, the Arab world experiences losses amounting to billions of dollars, in addition to missed development opportunities, due to the migration of Arab scientists, specialists, intellectuals, doctors, and engineers.

Experts and analysts estimate these losses at approximately USD 2 trillion per year. This "brain drain" has also resulted in a decline in technological and scientific progress and a decrease in the number of patents issued in the Arab world when compared to the global average.



## THE BRAIN Written by: His Highness Sheikh Mohammed bin Rashid Al Maktoum

His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President, Prime Minister of the UAE, and Ruler of Dubai, published an article titled "Brain Regain", highlighting the importance of recognizing, empowering, and investing in scientists and thinkers.

In 1968, while studying at the Mons Officer Cadet School in the United Kingdom, I needed to visit a hospital. There I met a doctor who, to my surprise, spoke fluent Arabic. I learned that he was new to the UK, so I asked if he intended to stay long or return home. He replied with an Arabic saying that translates as: "My home is where I can eat."

That doctor's words stayed with me for many years, because they underscored the contradiction between our idealized view of "home" and the harsh realities of life that push talented people to leave their homes.

The doctor was a classic case of the "brain drain" phenomenon that has afflicted developing countries for decades. These countries spend scarce resources educating doctors, engineers, and scientists, in the hope that they will become engines of prosperity. Then we watch with dismay as they migrate to the West, taking with them the promise of their talent.

It is, of course, everyone's right to choose a better life, wherever in the world they wish. We understand why they go. Talent is drawn - like a magnet – to opportunity.

For the countries left behind, however, it feels like an endless vicious cycle: they need talent to create opportunity; but without opportunity, talent gravitates to the bright lights of the West.

Indeed, the United Nations and the OECD report that migration for work has risen by one-third since 2000.

One in nine university graduates from Africa now lives and works in the West. Many will not return: skilled workers are six times more likely to stay away.

But now something remarkable is happening. In some countries, the brain drain has reversed its flow

The causes are fascinating, and there is reason to be optimistic that the vicious cycle can be broken, transforming the balance of hope and opportunity between developing and developed economies.

A new study by LinkedIn, the world's largest online professional network and recruitment platform, has measured the net international movement of talent among its members. Topping the list as a destination for talent is my own country, the United Arab Emirates,

with a net talent gain of 1.3% of the workforce in 2013. Other net "talent magnets" include Saudi Arabia, Nigeria, South Africa, India, and Brazil.

Most interesting, fewer than one-third of net talent importers are developed countries. In fact, the top talent exporters in this study are Spain, the UK, France, the United States, Italy, and Ireland. Rich countries that until recently had been tempting away our brightest minds are now sending us their own.

Of course, this is only one study, and many poor countries still suffer from a chronic talent exodus. OECD data show that many countries in Africa and Latin America have migration rates for graduates above 50%. We do know that brain drain is often a function of safety and security as much as economic opportunity. Part of the tragedy playing out in Middle Eastern countries beset by conflict and instability is that if only their most talented sons and daughters could apply their skills at home, they would become part of the solution: agents of peace through development. This makes it all the more important to examine how some developing countries succeeded in reversing the outward

The basic ingredient is opportunity. Talent flows naturally to countries that create an environment for economic growth; that make life easy for enterprise; that attract and welcome investment; and that nurture a culture of achievement. Skills are attracted to challenge and possibility.

Opportunity on this scale is becoming a scarce commodity in many parts of the West. But this is not the case in the developing world – at least among countries with the appetite and determination to deploy strong governance and continually raise their competitiveness.

Second, quality of life matters greatly. A generation ago, many talented individuals would

consider working outside the West a "hardship posting". Today, standards of living in the UAE, for example, are among the highest in the world. We have shown that the business of reversing brain drain is also the business of creating a better life for citizens and residents. Building happiness is, after all, the primary business of good government everywhere.

Ours is a story of great hope for the Middle East in particular, where generations of conflict and despair have driven high levels of outward migration. I have always argued that, besides good governance, the best solutions to the divisions and strife of the Arab world lie in grassroots development and economic opportunity. Now, we have shown that it is possible to reverse the forces that had driven away our most talented young people. Another source of hope is that this turnaround can happen remarkably quickly. Research shows that small countries suffer disproportionately from brain drain. But we have shown that even for a small country like the UAE, and even in a region divided by conflict, it is worth building an island of opportunity.

But let me be clear: reversing brain drain is about more than plugging a leak. It means turning a vicious cycle into a virtuous one. By attracting the best talent from around the world, we can create a vibrant and diverse society that fuels innovation and prosperity - which in turn attracts still more talent.

To make this work, we must believe in people. Human beings - their ideas, innovations, dreams, and connections - are the capital of the future. In this sense, the "brain regain" is not so much an achievement in itself as it is a leading indicator of development, because where great minds go today, great things will happen tomorrow.

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## DEFINITION

A Great Mind or Genius {noun}

#### **Synonyms**

Genius, Big thinker, Intellect, Mastermind

#### **Definition**

A 'great mind' or 'genius' is an individual who serves humanity by harnessing his or her talents to propel scientific discovery, thus driving human development and improving life everywhere while serving as a role model.

The meaning of a genius according to the Collins English Dictionary: A genius is a highly talented, creative, or intelligent person.

The comprehensive meaning of the term genius:

A person who exhibits unique intellectual capacity, creative ability to produce original ideas and ground-breaking discoveries in any of the different disciplines of knowledge and sciences.

A genius is also an action-oriented person; thus, he/she is driven by the determination to keep identifying new methods, innovating, and creating tangible solutions for the collective challenges that hinder human development.

Geniuses possess the power to inspire others, serving as role models through their contributions to humanity and their communities.



## CATEGORIES

#### **NATURAL SCIENCES**



The Great Arab Minds Natural Sciences Award is given an individual who make significant contributions to advancing knowledge in any of the branches of natural sciences. This includes physics, chemistry, mathematics, and relevant sub-branches within these fields. The award recognizes breakthroughs and paradigm shifts that lead to new solutions and redefine our understanding of the field.

#### **CHEMISTRY**

This category encompasses theoretical or practical research in all areas of chemistry, including organic, inorganic, analytical, physical, and biochemistry. Its findings may aid in addressing challenges related to healthcare, energy consumption, and environmental pollution.

#### **MATHEMATICS**

This category includes outstanding mathematical achievements in pure and applied mathematics, providing or paving the way for potential solutions and/or discoveries within the mathematical space or other disciplines, such as Biology, Chemistry, and Physics.

#### **PHYSICS**

This category involves creating fundamental theoretical or practical knowledge related to matter and energy, along with any relevant branches of physics. This knowledge helps us comprehend the natural world and its mechanics better. It also aids us in developing the overall frameworks of discoveries and technology in various other fields, enabling us to perceive and reshape the world in newer and more innovative ways.

#### **MEDICINE**



The Great Arab Minds Medicine Award is presented to an individual who make significant contributions to the field of medicine. This includes discovering new knowledge or further developing existing technical knowledge in areas such as diagnosis, treatment, disease prevention, and medical research. Through their efforts, these individuals pave the way for new solutions and paradigm shifts that enhance, promote, and maintain physical and mental health and wellness.

#### LITERATURE AND ARTS



The Great Arab Minds Literature and Arts Award is awarded to an individual who create literary or artistic works that have a cultural, social, and intellectual impact and provoke meaningful thought. These works play a crucial role in inspiring society, encouraging intellectual curiosity and critical thinking, and moving people towards higher levels of consciousness.

#### **ECONOMICS**



The Great Arab Minds Economics Award is awarded to an individual who has made significant contributions to macro and microeconomic solutions, strategies or policies that have positively impacted societies. This award recognizes those who have helped improve wealth, promote equality, develop markets, and solve economic challenges. The category also highlights exceptional contributions to the development and application of theories, models and research in the field of economics. The economy is a crucial aspect of human lives, affecting them in many ways, including their health, quality of life and even their choices regarding work, entertainment, consumption, saving and other behaviors.



#### **ENGINEERING & TECHNOLOGY**



The Great Arab Minds Engineering and Technology Award is awarded to an individual who contribute to making breakthroughs or innovations or further developing knowledge in any of the branches of engineering and technology, paving the way for new solutions and paradigm shifts that redefine our knowledge of the field.

This includes the innovation, construction, and maintenance of structures, machines, materials, devices, and processes across fields such as civil, electrical, chemical, biomedical, and informatics engineering, environmental/industrial biotechnology, information technology, data science, robotics, artificial intelligence, cybersecurity, programming, informatics, and computer networks.

#### **ARCHITECTURE & DESIGN**



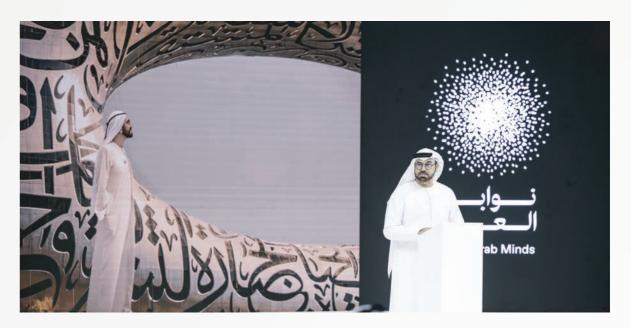
The Great Arab Minds Architecture and Design Award is awarded to an individual who contribute to making breakthroughs or further developing technical knowledge in architecture and design branches, paving the way for new solutions and paradigm shifts that redefine our knowledge of the field. These include building structures and systems, natural ventilation, interior design, materials design, and urban design.





## GREAT ARAB MINDS AWARD

The Great Arab Minds will receive a package of privileges, including:



For the winners of the Great Arab Minds Award:

#### **Benefits**

01

Financial support for their projects and research to maximize its impact on the Arab world.

02

Access to Arab governments, research centers, and major international companies to work on development projects.

03

AED 1 million to finance their research and projects, as well as all other privileges provided to Great Arab Minds awardees.

## NOMINATION & SELECTION PROCESS

#### 01

Nominations can be made by filling out and submitting the nomination form available on the Great Arab Minds website.

#### 02

Cross-checking and the validity check of all submitted information and documents are carried out.

KPMG Lower Gulf Limited was commissioned to oversee the nomination and evaluation stage of Great Arab Minds in cooperation with sector-based specialist thought leaders.

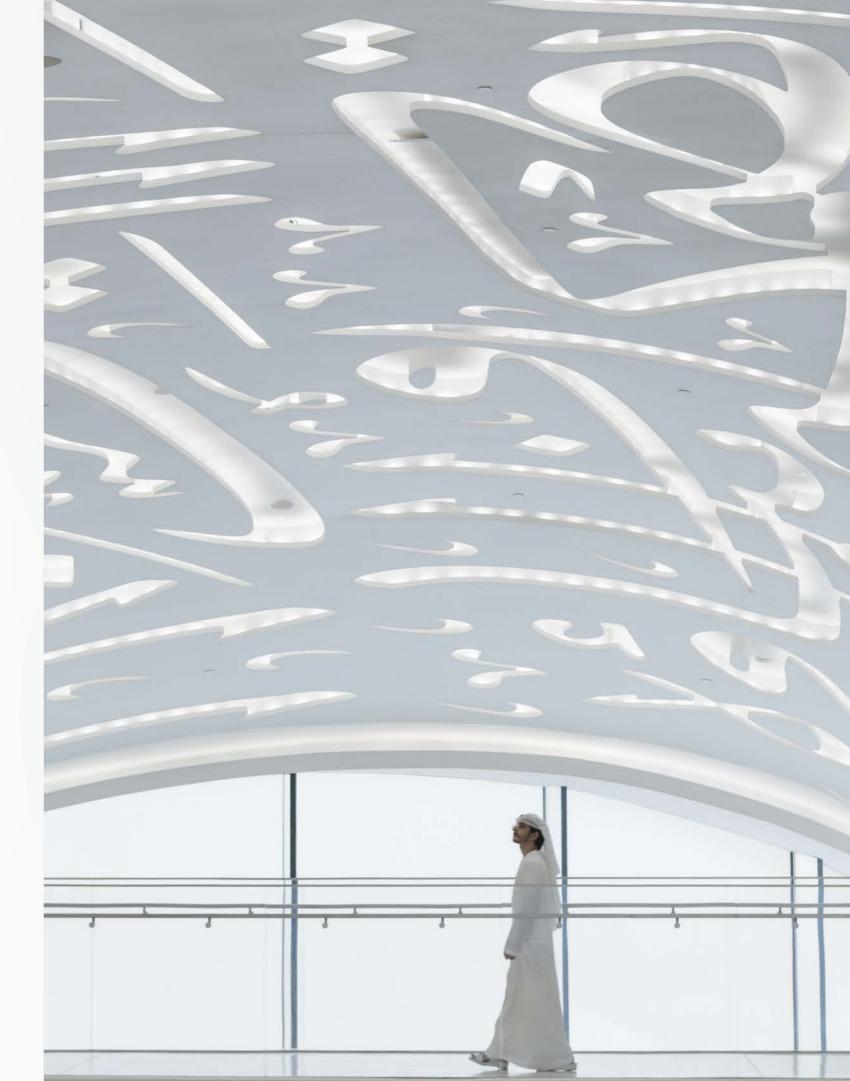
Nominations will be reviewed annually to select a group of winners across each of the initiative's categories.

Additionally, one winner from each category will be selected to receive the Great Arab Minds Award.

#### 03

Nominees are scored against a set of evaluation criteria by a specialist committee supervised by KPMG Lower Gulf Limited. The criteria include:

- · Academic recognition of the work.
- The work's magnitude and impact on the Arab world
- The originality of the idea/work.
- Implementation benefits and potential.
- Nominee's excellence and contributions in their field.



## JOIN THE MOVEMENT

The Great Arab Minds initiative is an inclusive platform that invites all eligible segments to be part of the Arab world's largest-of-its-kind movement to drive development in the Arab world. Reigniting the civilizational drive is a collective responsibility of government and private entities, schools and universities, families, media outlets, and all community segments.

Segments eligible to participate in the Great Arab Minds initiative include but are not limited to:

#### Universities

- · Universities play a vital role in fostering generations of intellectuals and scientists, serving as a critical driver of the Great Arab Minds initiative.
- Universities can actively spread awareness of the Great Arab Minds and how candidates can apply.
- · Universities can host the Great Arab Minds Award for the winners to lecture in their respective fields.
- · Great Arab Minds winners can co-develop graduation projects/thesis and research papers with local university professors.

#### Schools

- · Schools can play an active role in spreading awareness of the Great Arab Minds and encouraging students to make scientific achievements.
- · Schools are essential in inspiring youth by presenting Arab role models in crucial fields through case studies on Great Arab Minds award for the winners.
- · Schools can organize contests across science, literature, and other fields and give winners a chance at the Museum of the Future to learn more about the Great Arab Minds initiative.

· Schools can nominate students for specific internship programs fit for school students, defined by the Great Arab Minds for the Fellowship Program phase, in support of research and development projects.

#### Governments

The engagement of Arab governments in the Great Arab Minds initiative will be a significant factor in spreading awareness of its importance and its programs in their countries.

- The Great Arab Minds initiative leverages expertise from around the region. Therefore, governments can be an excellent source to loop in experts and professionals to support their programs.
- · Governments can help shed light on the importance of the Great Arab Minds initiative through publications, national events, and online platforms.

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#### **Public and Private Sector Institutions**

Institutions can join the Great Arab Minds initiative as partners or sponsors of the initiative's research projects.

Joint efforts can be made to support the initiative's programs by:

- Contracting/outsourcing Great Arab Minds winners as consultants and researchers to leverage their expertise in developing solutions and advancing the entity's work
- Conducting part of the initiative's research at their headquarters/offices to meet special equipment requirements.
- Institutions can host Great Arab Minds awardees to develop employee training programs (either at their headquarters or at the Museum of the Future)

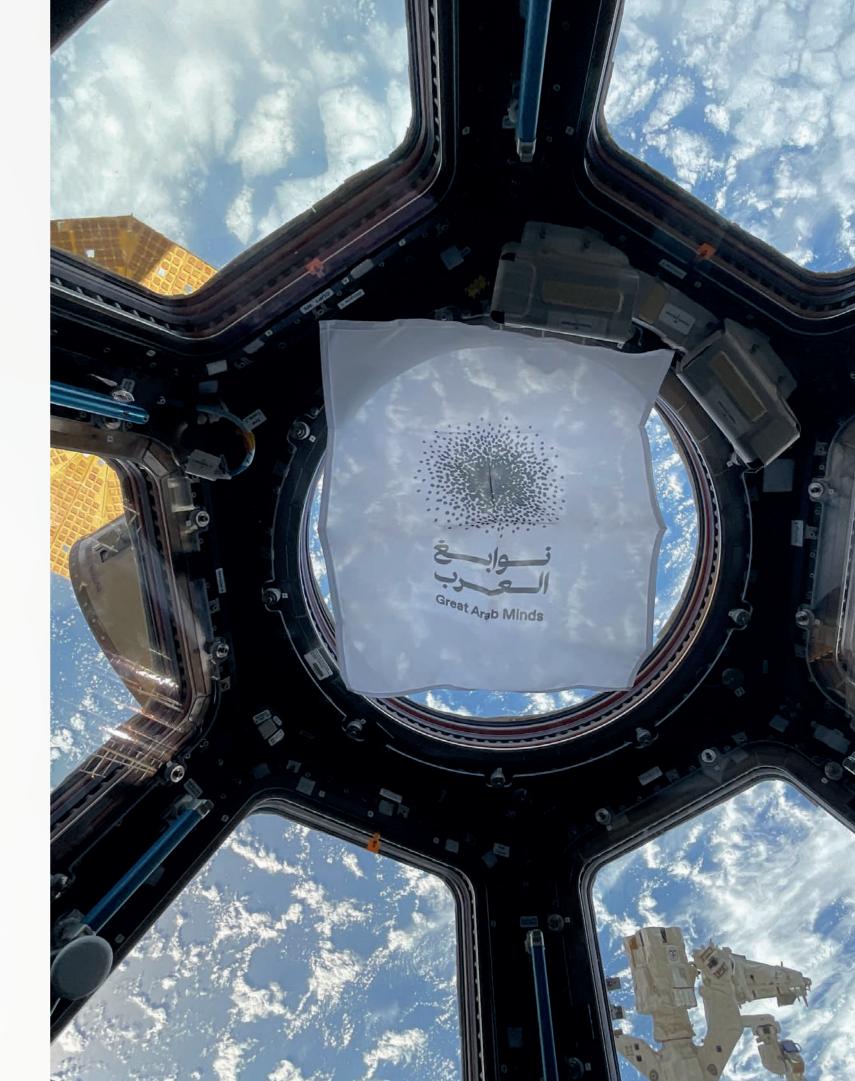
#### Media Outlets

Media outlets can help drive the Great Arab Minds movement by conveying the initiative's message to their audiences in the Arab region.

- International media outlets can also be leveraged to spread awareness globally, thereby reaching Arab expats and global audiences.
- Minds events in real time on television.
- Media professionals can attend press conferences create and publish Great Arab Minds-related content, including news columns and articles.
- Media outlets may interview Great Arab Minds winners or host them on talk shows.

· Media outlets can stream Great Arab

- Select media outlets can be given
   exclusive insights into the Great Arab
   Minds research projects to develop
   documentaries on the projects and their
   progress, as well as on winners, their
   stories, and lifetime achievements.
- Media partners can develop Great Arab Minds-related updates annually to shed light on Great Arab Minds success stories, the awardees, and the projects that fall under the initiative.





## **FUNDING**

Great Arab Minds will have access to various unique opportunities, enabling them to realize their ambitions through partnerships with leading international companies and UAE-based institutions. This includes but is not limited to:

#### 01Capital

Funding for research and development, and projects.

#### **04 Training**

Providing guidance and training in their field of specialization.

#### **02 Support**

Support through a system of accelerators and incubators, as well as access to tools and platforms to enable participants' success in the program.

#### **05 Partnerships**

A communication gateway to government and private entities in the Arab world, providing the chance to establish partnerships.

#### 03 Incubate

The chance to carry out experiments, trials, and research in collaboration with universities and scientific institutions.

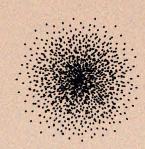
#### **06 Offices**

Administrative offices for program fellows at the Museum of the Future in Dubai.

# GREAT ARAB MINDS COMMITTEE

The Great Arab Minds initiative is overseen by a committee of leaders tasked with establishing an integrated ecosystem to support brilliant Arab minds and actualize the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum, who believes in the role that creative Arab minds play in shaping the future of the Arab people and driving development across their communities to achieve greater prosperity, stability, and sustainable growth.





The committee leading the Great Arab Minds initiative is chaired by His Excellency Mohammed bin Abdullah Al Gergawi, UAE Minister of Cabinet Affairs, Great Arab Minds Higher Committee Chairman, and secretary-general of the Mohammed bin Rashid Al Maktoum Global Initiatives (MBRGI), and His Excellency Saeed Al Nazari as a Secretary General of the Great Arab Minds initiative.

#### **GREAT ARAB MINDS**



His Excellency Mohammad Abdullah Al Gergawi Higher Committee Chairman

Minister of Cabinet Affairs, Great Arab Minds Higher Committee Chairman Secretary General of the Mohammed Bin Rashid Al Maktoum Global Initiatives (MBRGI).





His Excellency Saeed Al Nazari Secretary General of Great Arab Minds

Heading Transformational Projects and Creative Affairs at The Executive Office of His Highness Sheikh Mohammed bin Rashid Al Maktoum.

#### **Natural Sciences Specialists Committee**



**Professor** Sehamuddin Galadari

Senior Vice Provost of Research and Managing Director of the Research Institute at New York University in Abu Dhabi.



Noureddine Melikechi

Dean of the Kennedy College of Sciences and Professor of Physics at the University of Massachusetts Lowell.



Latifa Elouadrhiri

Laboratory Directed Research (LDRD) Staff Scientist at the Thomas Jefferson National Accelerator Facility.



Emeritus Professor of Chemistry at American Cairo



**Nader Masmoudi** 

Professor of Mathematics in the Courant Institute of Mathematical Sciences at New York University in Abu

#### **Engineering and Technology Specialists Committee**



**Her Excellency** Sarah Al Amiri

Minister of Education.



Doctor **Arif Al-Hammadi** 

Senior Advisor, Khalifa University



**Mohamed Qasem** 

Dean of the Dubai Future Academy.



Professor Ismael Al Hinti

President of Al Hussain Technical University.



**Adel Darwish** 

Director, Regional Office of the International Telecommunications Union (ITU) for the Arab States.

#### **Medicine Specialists Committee**



Doctor **Amer Ahmad Sharif** 

President of Mohammed Bin Rashid University of Medicine and Health Sciences (MBRU) and Chief Executive Officer of Dubai Health.



Professor Elias Zerhouni

Professor Emeritus in





Radiology and Biomedical Engineering at Johns Hopkins

Doctor Alawi Alsheikh-Ali



Deputy Chief Executive Officer and Chief Academic Officer of Dubai Health and the Provost of Mohammed Bin Rashid University of Medicine and Health Sciences (MBRU).



Doctor **Amin Arnaout** 

Physician-scientist in the Department of Medicine at Massachusetts General Hospital in Boston, and Professor of Medicine at Harvard Medical School.



Professor **Huda Akil** 

Gardner C. Quarton Distinguished Professor of Neurosciences in the Department of Psychiatry at the University of Michigan Medical School

#### **Architecture and Design Specialists Committee**



**Professor Hashim Sarkis** 

Dean of the School of Architecture and Planning at the Massachusetts Institute of Technology (MIT) in the United



**Adrian Lahoud** 

Dean of the School of Architecture at the Royal



Professor Ali Malkawi

Professor of Architectural Technology, Director of the Doctor of Design Studies Program, and Founding Center for Green Buildings and Cities.



Salma Damluji

#### Professor

#### Professor of Architecture in the Islamic World at the American University of

#### **Economics Specialists Committee**



His Excellency Abdulla bin Touq

Minister of Economy of the United Arab Emirates.



His Excellency Essa Kazim

Governor of Dubai International Financial Center (DIFC) and Chairman of Borse Dubai.



Ferid Belhaj

Senior Fellow Policy Center for the New South.



Doctor Jihad Azour

Director, Middle East and Central Asia Department, International Monetary Fund (IMF).

Rabah Arezki

Chief Economist for the Middle East and North Africa (MENA) region at the World Bank and a senior fellow at Harvard University's John F. Kennedy



Doctor Mohamed Madi

Dean, College of Business and Economics, UAE

#### **Literature and Arts Specialists Committee**



**His Excellency Mohammed Al Murr** 

Chairman of the Mohammed bin Rashid Al Maktoum Library Foundation.



**Ahmed Zayed** 

Director of the Bibliotheca Alexandrina.



Rima Mismar

Executive Director of Arab Fund for Arts and Culture.

#### **Evaluation Committee**



Her Excellency Huda Al Hashimi

Deputy Minister of Cabinet Affairs for Strategic Affairs, United Arab Emirates.



**Abdulsalam Haykal** 

President and Founder of Majarra Company.



Chucrallah Haddad

Partner and Head of Consulting at KPMG Lower Gulf.



Ali Matar

Head of LinkedIn Middle East and North Africa and Emerging Markets in Africa and Europe.

#### **2023 Award Recipients**

His Highness Sheikh Mohammed bin Rashid Al Maktoum announced the winners of the Great Arab Minds Award in its first edition .



Winner of The Great Arab Minds in the Medicine Category

Dr. Hani Najm

Chair of Pediatric and Congenital Heart Surgery, Cleveland Clinic, Ohio

Dr. Hani Najm has been awarded the Great Arab Minds Award in Medicine in recognition of his outstanding contributions and pioneering innovations in the field of heart surgery for children and adults. Having performed more than 10,000 heart operations on patients with complex heart conditions with outstanding outcomes. A key highlight of his work is the development of a gradually self-expanding heart "valve" for children, sparing them the need for repeated surgery for valve replacement. Dr. Najm is also recognized for developing a novel surgical technique, termed the "ventricular switch," to repair one of the most complex congenital heart conditions in children. Dr. Najm was the lead heart surgeon in a large team that performed a rare and complex life-saving surgery to remove a heart tumor in a 26-week-old fetus.



Winner of the Great Arab Minds Award in the Engineering and technology Category

**Professor Fadel Adib** 

Associate Professor at Massachusetts Institute of Technology (MIT)

The Great Arab Minds Award in Engineering and Technology for the year 2023 is presented to Professor Fadel Adib in recognition of his exceptional contributions to the fields of wireless technology and wireless sensing. His pioneering research and inventions have significantly expanded the possibilities of wireless sensing technology, leading to advancements in various areas, including through-wall vision and sensing, enabling the detection of objects and vibrations behind walls, under rubble, and numerous other applications. In addition to his accomplishments in engineering and technology, Professor Fadel Adib has made substantial contributions to the field of ocean exploration, advancing deep-sea exploration by developing battery-free devices that harness energy from ocean waves.



Winner of the Great Arab Minds Award in the Economics Category

Dr. Mohamed El-Erian

President of Queens College, Cambridge University

Dr. Mohamed El-Erian has been awarded the 2023 Great Arab Minds Award in Economics for his exceptional contributions to the field of economics and his perceptive analysis of changes in economic and financial systems. His research, books, and publications have provided in-depth analysis of the global economy's state, trends, and challenges, besides his significant role in developing theories and analytical tools that led to more accurate economic forecasts. Dr. El-Erian has six published books focused on economics and global markets, and his works and theories have been adopted as key analytical tools. His publications cover a range of topics, including the new normal for economics post the global financial crisis and COVID-19.



Winner of the Great Arab Minds Award in the Natural Science Category

**Professor Niveen Khashab** 

Associate Dean of Physical Sciences and Engineering Division and Professor of Chemistry at KAUST - Kingdom of Saudi Arabia

Professor Niveen Khashab has been awarded the 2023 Great Arab Minds Award in Natural Science for her outstanding contributions to the development, synthesis, and application of nanomaterials in healthcare, pharmaceutical, industrial, and environmental sectors. With over 275 scientific research papers and publications in organic chemistry and nanotechnology, Professor Niveen's work focuses on understanding molecular interactions and self-assembly to prepare and comprehend nano-assemblies. Her significant work in the smart encapsulation of drugs, proteins, and genetic materials greatly contributes to the burgeoning fields of personalized medicine and anti-aging. Professor Niveen's research is centered on designing nanoparticles with variable porosity, which aids in the advancement of personalized healthcare by ensuring treatments are specifically tailored to individual patient needs.



Winner of the Great Arab Minds Award in the Architecture and Design Category

Architect Lina Ghotmeh

An Architecture, and Founder of Lina Ghotmeh - Architecture, Paris

Lina Ghotmeh has been awarded the 2023 Great Arab Minds Award in Architecture and Design, in recognition of her outstanding contributions to Architecture globally. Her research and work emphasize the intimate relationship between architecture and nature. She conducts in-depth analyses of environments and meticulously selects materials that are not only suitable for each specific setting but also capable of withstanding challenging conditions. Her unique approach ensures that all her projects are evolved and practical outcomes of her research on coexisting with nature and the surrounding environment. This approach reveals the essence of the raw materials used in their construction. Ghotmeh has overseen more than 65 global architectural projects, including renowned museums, exhibitions, and cultural designs. Among her notable works is a building near the industrial port of Beirut. Designed using innovative techniques and local materials that resonate with the building's surrounding environment, it survived the 2020 Beirut explosion, standing as a testament to resilience and the profound impact architecture can have in reflecting human values and excellence.



Winner of the Great Arab Minds Award in the Literature and Arts Category

Professor Waciny Laredj

Novelist and Arabic Literature Professor at the University of Algeria and Sorbonne University

Professor Waciny Laredj has been awarded the 2023 Great Arab Minds Award in Literature and Arts, in recognition of his remarkable contributions to Arabic literature. Notably, his innovative approach in novel writing has introduced new forms of linguistic expression, broadening the horizons of Arab narrative and imaginative storytelling. Moreover, his literary portfolio aligns with a modern school of thought, characterized by its relentless pursuit of evolving expressive methods, leaving an indelible mark on both Algerian and Arabic literature. Author of over 30 novels, Professor Laredj's works resonate deeply with the cultural and social nuances of Arab communities, linking them to universal human values and diverse global cultures. His works, translated into over 20 languages, have been extensively studied by numerous universities worldwide and adapted into various theatrical and film productions. In addition to his literary achievements, Professor Laredj holds esteemed positions as Chair Professor at both the Central University of Algiers and Sorbonne University in Paris.

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#### **2024 Award Recipients**

His Highness Sheikh Mohammed bin Rashid Al Maktoum announced the winners of the Great Arab Minds Award in its second edition.



Winner of The Award for Great Arab Minds in the Medicine Category

Doctor Yasmine Belkaid

#### **President of Institut Pasteur**

The Great Arab Minds Award in Medicine for 2024 is awarded to Professor Yasmine Belkaid in recognition of her exceptional contributions to immunology. Professor Yasmine Belkaid's studies have significantly advanced the understanding of the relationship between microbes and the immune system, particularly highlighting the vital role of skin-resident microbes in enhancing immune defenses. Her research demonstrated how specific skin microbes act as a frontline defense, improving immune readiness against infections. Her work also focuses on understanding the mechanisms behind chronic diseases associated with microbiome imbalances and has contributed to the development of effective preventive and therapeutic strategies. Professor Yasmine Belkaid has published more than 220 scientific papers on infection, immunity, microbiota, and nutrition.



Winner of the Great Arab Minds Award in the Engineering and technology Category

**Professor Oussama Khatib** 

#### Professor of Computer Science and Director of the Robotics Laboratory University

The Great Arab Minds Award in Engineering and Technology for 2024 is awarded to Professo pioneering contributions to robotics and human-robot interaction. His groundbreaking reservable to perate effectively in diverse environments, including healthcare, industrial automation, ar Among his remarkable achievements is the creation of the OceanOne robot, a revolution deep-sea exploration, combining haptic feedback, stereo vision, and bimanual manipulation with unmatched precision. With over 327 research studies, Professor Khatib's work bridge with practical applications, transforming the robotics landscape globally.



#### Winner of the Great Arab Minds Award in the Economics Category Professor Yacine Ait-Sahalia

#### **Professor of Finance and Economics at Princeton University**

The Great Arab Minds Award in Economics for 2024 is awarded to Professor Yacine Aït-Sacontributions to financial econometrics, data measurement, and financial analysis. His work of high-frequency financial data and continuous-time processes, enabling deeper understant Professor Aït-Sahalia developed high-frequency econometric methods to analyze financial forecast market trends, and evaluate risk. His techniques for addressing microstructure noise dynamics have provided essential tools for asset pricing and financial decision-making. Studies and two books, Professor Aït-Sahalia's research introduced innovative methods for enhancing economic planning and decision-making frameworks.



#### Winner of the Great Arab Minds Award in the Natural Science Category

#### **Professor Omar Yaghi**

#### Professor of Chemistry at the University of California, Berkeley

The Great Arab Minds Award in Natural Sciences for 2024 is awarded to Professor Omar Yaghi in recognition of his groundbreaking contributions to chemistry. Yaghi's pioneering work advanced reticular chemistry, a revolutionary field focused on linking molecular building blocks into open frameworks through strong bonds. His research has led to the development of advanced materials, including Metal-Organic Frameworks (MOFs) and Covalent Organic Frameworks (COFs). These innovative materials have diverse applications, addressing critical global challenges such as carbon capture, clean energy production, water harvesting, and catalysis. With over 300 research papers and more than 250,000 citations, Professor Yaghi's work has profoundly transformed material science, offering sustainable solutions for a better future.

Winner of the Great Arab Minds Award in the Architecture and Design Category



### **Great Arab Minds Trophy**

The Great Arab Minds Award is designed to reflect the essence, resilience, and determination of the Arab individual in making exceptional contributions to human civilization, no matter how challenging the circumstances. This is why metal was used in designing the base of the award. The sides of the award are engraved with letters from the Ugaritic alphabet, an ancient cuneiform script that represents the first alphabet in history, discovered at the archaeological site of Ras Shamra in Syria.

The award is adorned with the identity of the Great Arab Minds logo, which won the award for Best Logo and Identity in the Public Sector across the Arab world. The logo embodies the idea of minds coming together, represented in the form of a magnetic field, reflecting the influence of role models and the importance of researchers and scientists collaborating to achieve scientific advancement in the Arab world. From another perspective, the logo symbolizes the release and surge of energies to drive scientific progress in our Arab world.

The Great Arab Minds Award is valued at one million dirhams for each category, making it the most significant award honoring scientists and thinkers across the Arab world.









### Great Arab Minds Ceremony

Under the patronage of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE, Ruler of Dubai, and Founder of the Great Arab Minds Award, the annual Great Arab Minds Ceremony is held at the Museum of the Future in Dubai. The event celebrates and honors outstanding Arab minds across fields such as science, culture, arts, economics, architecture, and medicine, in the presence of prominent leaders, scientists, thought leaders, media figures, and representatives from global universities

Awards are presented to the winners in the presence of their families, with each laureate delivering a speech reflecting their journey and achievements, in an atmosphere that honors the richness of Arab civilization.

This ceremony stands as one of the most significant intellectual and scientific gatherings in the Arab world, spotlighting the role of Arab innovators in shaping the future of humanity.









### Great Arab Minds Gala Dinner

As part of the annual Great Arab Minds Award celebrations, an exceptional gala is held in honor of the award winners, their families, members of the Great Arab Minds committee, and esteemed guests. This thoughtfully crafted event offers a refined experience, celebrating the achievements of the laureates and the cultural and intellectual prominence of the Arab world across science, culture, and various aspects of civilization.

Every aspect of the evening is carefully curated to reflect the richness of Arab heritage. The dinner menu draws inspiration from historical manuscripts and texts dating back hundreds of years, featuring authentic Arab recipes that played a significant role in sharing Arab culture globally. The artistic performances, including musical pieces and compositions, also highlight the depth of Arab culture and its influence on the global arts scene, featuring renowned musicians and talents from the Arab world.

Even the presentation style, seating etiquette, and table-setting methods are inspired by the works of Abu al-Hasan Ali Ibn Nafi' al-Mawsili, known as Ziryab, and his contributions to the art of refined taste and etiquette.

Every element of this gala serves as a reminder that we are the descendants of a great civilization, and today, we continue to revive and shape our Arab heritage for a brighter future.









## RTNERS

inds initiative, under the umbrella of the Mohammed bin Rashid Al Maktoum (MBRGI), signed strategic partnerships with several international companies, inkedIn, Meta, and Majarra, in order to enhance the journey of searching for among Arab scientists, thinkers, and innovators across key fields.

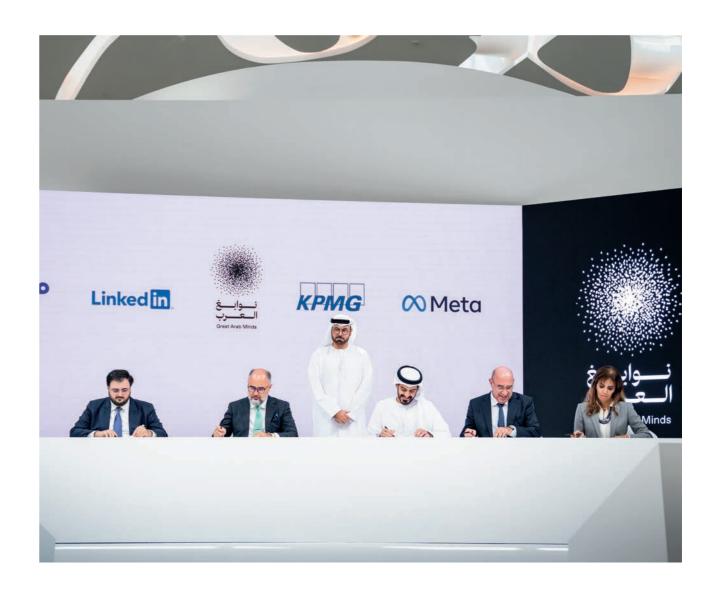


igital creativity and social nd provides digital training atest tools and products to nication between Arab , and sponsors **Majarra** develops scientific Arabic content and ensures high quality, innovation, and creativity to support the initiative to change the Arab scientific content on the Internet radically.



s access to talents in providing an interactive niuses to exchange mation and share

**KPMG** is responsible for supervising the nomination, evaluation, and application phases according to the best global practices.



## FREQUENTLY ASKED QUESTIONS

#### FAQS ABOUT AWARDS AND WINNERS

#### What is the Great Arab Minds?

The Great Arab Minds is an initiative launched by H.H. Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, to identify and acknowledge the most brilliant Arab minds for their lifelong achievements and work, in the specified fields.

#### What is the purpose of the Great Arab Minds?

Reviving the scientific and intellectual golden age of the Arab world by recognizing and honoring thought leaders in the Arab world, enabling them to play a pivotal role in driving development, and serving as inspiring role models for future generations.

#### Why does the initiative focus on Arab candidates?

The Great Arab Minds initiative is specifically designed to highlight the potential of Arabs and/or individuals who originate from Arabic backgrounds. This initiative is focused on creating opportunities for Arabs and establishing a knowledge hub within the region. The ultimate goal is to collectively counter the fallout of the brain drain seen across the Arab world.

## Which Arab nationalities are accepted for nomination for the Great Arab Minds Award?

All nominees originating from the formal and suspended members of the League of Arab States (22 countries), regardless of where they are based.

#### What type of individual is regarded as a Great Arab Mind?

An individual who contributes to making discoveries and/or further developing technical knowledge that help cause paradigm shifts and/or provide new solutions that serve

humanity and advance their field of specialty.

#### What are the Great Arab Minds Award categories?

The Great Arab Minds Award categories are Natural Sciences, Engineering & Technology, Medicine, Architecture & Design, Economics, and Literature & Arts.

#### Who selects the Great Arab Minds Award winners?

The final lists of the Great Arab Minds and winners of the Great Arab Minds Award are selected through a specialist evaluation committee. KPMG Lower Gulf Limited, along with sector-based specialists, were commissioned to oversee the nomination and selection stage.

#### How many individuals will the Great Arab Minds list include?

Every year, six award categories will be announced, and six individuals will receive the Great Arab Minds award. The total value of the awards is AED 6 million.

#### Will awardee names be published?

Yes, awardee names will be published, and circulated annually across media, universities, research centres and governments in the Arab world.

#### How will the awardee names be announced?

Awardees will first be announced through a high-profile Award Ceremony that will take place in Dubai, UAE.

#### What are the benefits of winning the Great Arab Minds Award?

Becoming globally recognized, connecting with accomplished individuals, and securing funding for research and development projects in the Arab world.

#### What are the rewards offered to Great Arab Minds Recipients?

The Great Arab Minds Award recipents will receive a package of privileges, including:

- Financial support for their projects and research to maximize its impact on the Arab world.
- Access to Arab governments, research centers, and major international companies to work on development projects.
- Leverage all financial and administrative resources, to work on projects and research in the UAE.

Meanwhile, the winners of the Great Arab Minds Award will each receive AED 1 million to finance their research and projects, as well as all other privileges provided to Great Arab Minds awardees.

#### What is the Great Arab Minds Award?

The Great Arab Minds Award is an exclusive award presented to one person per category (across six categories) every year for beyond-exceptional contributions to society and their field of work.

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#### What qualifies a nominee to win the Great Arab Minds Award?

Candidates must meet the criteria and pass the evaluation process as described on the Great Arab Minds website. Great Arab Minds nominees who fall within the "Beyond Exceptional" category of the evaluation criteria will be considered.

There will be only one winner per category each year. If more than one nominee is recognized as "Beyond Exceptional" during the same year - they may be shortlisted to receive the award in the following year.

#### Can groups and organizations be nominated?

In the first edition, only individuals will be considered for the Great Arab Minds Award. However, additional programs will be developed in the future to honor institutions and universities.

#### Can individuals receive the award posthumously?

No, the Great Arab Minds initiative will not include posthumous awards.

#### Can Great Arab Minds Award results be reconsidered?

No, Great Arab Minds award results are final and will not be reconsidered.

#### Who are the sponsors of the Great Arab Minds initiative?

The Great Arab Minds Award is sponsored by H.H Sheikh Mohammed bin Rashid Al Maktoum, and is funded with an AED100 million budget.

#### FAQS ABOUT NOMINATIONS

#### Will nominee names be published?

Information about the nominations will not be disclosed, publicly or privately, by any member involved in the initiative. The announcement of final lists the Great Arab Minds will be made during the annual ceremony.

#### How are nominees nominated?

All nominations must be turned in as application forms submitted by entities or individuals through the Great Arab Minds website.

#### FAQS ON COPYRIGHTS

#### Can I use the images from Great Arab Minds online and in other publications?

Permission from the Great Arab Minds Committee is required to use their media content.

#### Can I use photos from the Great Arab Minds ceremonies?

Permission from the Great Arab Minds Committee is required to use their media content.

#### Can I use Great Arab Minds materials published in press releases?

It is only permitted to use materials related to Great Arab Minds that have been published in press releases by the initiative itself. These materials must contain a copyright notice and reference to the Great Arab Minds using the official website address.

#### Can I use the Great Arab Minds logo in public content?

The Great Arab Minds logo may only be used after obtaining permission from the Great Arab Minds Committee.

## How can I request permission to use content pertaining to the Great Arab Minds?

You will need to contact the Secretariat General of the Great Arab Minds Committee. For more information, please refer to the contact information on the initiative's website www.greatarabminds.ae



The Great Arab Minds movement starts by finding them. Join us in our search for them... You can nominate individuals through the online platform www.greatarabminds.ae