

Navigating the Future

The major role of GCC with a focus on UAE
in the tech-driven future



CONFIDENT-Copyright © 2023 VANGUARDS.
This document was prepared by VANGUARDS
team for the intended audience mentioned
here and may not be used for other purpose,
or disclosed to other parties without the written
permission of VANGUARDS

The Evolving Landscape of Technology!

In this visionary future, the convergence of technology, the metaverse, AI, robotics, and Industry 4.0 has ushered in a transformative era where the boundaries between the digital and physical worlds have blurred. People's daily lives are now intricately intertwined with these advancements. AI-driven personal assistants seamlessly orchestrate our schedules and optimize our tasks, while virtual reality has become a gateway to unparalleled immersive experiences, whether it's attending meetings, exploring distant locales, or even pursuing educational endeavors. Businesses harness the power of AI and automation to streamline operations, resulting in greater efficiency and the creation of novel, high-value roles. Robots collaborate alongside humans, augmenting our capabilities in industries from healthcare to manufacturing. This future is characterized by unprecedented connectivity, convenience, and innovation, empowering individuals to navigate and thrive in a dynamic, tech-infused world.



Preface

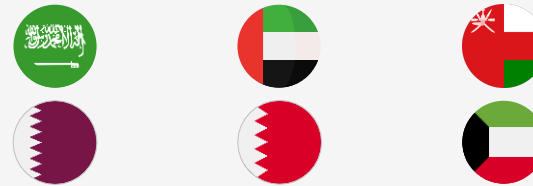
What is the role of GCC?

GCC (Gulf Cooperation Council) and Arab nations are positioned to play a vital role in the future global economy and innovation landscape due to their strategic location, abundant natural resources, and commitment to diversifying their economies. Investments in education and technology are fostering innovation, **making them hubs for startups and advancements in various fields.** Progressive social reforms are creating more inclusive and dynamic societies, while their growing economic and technological influence is bolstering their role in global diplomacy and geopolitics, shaping a more interconnected world.

This report aims to underscore the pivotal role and the abundant business opportunities presented by GCC (Gulf Cooperation Council) and Arab nations in the global economy and innovation landscape.

But where is GCC? ▶

The GCC region comprises **six** countries: The Kingdom of Saudi Arabia (KSA), The United Arab Emirates (UAE), The Sultanate of Oman, The State of Qatar, The Kingdom of Bahrain, and The State of Kuwait.



72%

of the region's population lives in Saudi Arabia and United Arab Emirates.

74%

of the GCC population in the productive age (15-64 years old).

1.4%

of the World's GDP

On the whole, The first industry in the GCC region is oil and gas; above 60% of the world's oil and over 45% of the world's gas reserves in these countries.

The United Arab Emirates has been ranked **1st** in Ease of Doing Business index in GCC and MENA region.

On average, rank of GCC countries in this Index has improved 12 places.

Foreign Direct Investment (FDI) has been at the heart of the GCC countries' economic vision to grow their economies.

The UAE was ranked **1st** in the MENA region as it accounted for 32.4% of the total FDI inflows to the region.

Contents

Journey guide: Unveiling chapters

The methodology of this report primarily revolves around desk research as the cornerstone, where we meticulously synthesized diverse aspects to enhance the overall value of our findings.

Our central focus was on comprehensively **understanding the state of technology and business opportunities within the Gulf Cooperation Council (GCC), with a primary emphasis on the United Arab Emirates (UAE)**. Through extensive analysis of existing literature, market reports, industry trends, and government policies, we aimed to create a holistic view of the current landscape. This approach allowed us to not only consolidate the wealth of information but also extract actionable insights and identify key strategic opportunities that can empower businesses and stakeholders in the dynamic GCC region, particularly the thriving hub of innovation and commerce in the UAE.

Here is the table of contents where you can find more details about the topics:

The Evolving Landscape of Technology	2
Preface	3
Contents	4
Executive Summary	5
Emerging GCC Tech Trends and Regional Initiatives	6
GCC Technology State	7
GCC Macro Tech Trends	8
Countries' Initiatives and Digital Strategies	10
UAE, A Tech Hub With Diverse Potentials	11
UAE Introduction	12
UAE's Digital State	13
Doing Business Index	14
Startup Ecosystem Index	15
Innovation Index	16
Conclusion	17
Let's Make Waves of Impact	18
How We Can Help	19
Survey	20

Executive Summary

1 In the digital age, GCC nations acknowledge **technology's role in driving economic diversification, entrepreneurship, and global competitiveness.** The GCC E-Performance Index 2022 underscores their commitment to technological integration, signaling substantial progress in various sectors; furthermore, governments focus on **digital innovation** fuels economic growth and productivity.

2 The UAE's economic strategy centers on the **digital economy,** aiming to enhance economic security through technology adoption and double the digital economy's contribution to GDP within a decade. Launched in April 2022, the 'UAE Digital Economy Strategy' involves over 30 initiatives, positioning the **UAE as a global hub for digital activities** and a leading center for crypto-assets and metaverse industry.

3 The UAE offers an advantageous business environment, **ranking 16th globally in the last World Bank's Ease of Doing Business Report.** While it excels in infrastructure and professional services, challenges persist in areas like borrowing costs, access to credit, and legal and financial system efficiency.

4 Dubai's startup ecosystem is thriving, attracting entrepreneurs from the MENA region, and it has secured 96% of UAE funds since 2017. Despite challenges like a high cost of living and outdated regulations, government initiatives can help create a supportive environment. **The UAE should aspire to become a global startup hub beyond MENA.**

5 The Global Innovation Index (GII) assesses the innovation capabilities of nations; **The United Arab Emirates ranks 31st among 132 economies,** performing below expectations relative to its GDP. In 2022, the UAE excels in innovation inputs, but it faces challenges in innovation outputs. This disparity suggests room for enhancing the transformation of investments into tangible innovative results.

6 The UAE and GCC nations are resolutely charting a course toward a more promising future, embracing opportunities, addressing challenges, and leveraging the energy of a rapidly changing world to initiate significant advancements. **Today marks a pivotal moment in their transformative journey.**

This report aims to be a beacon of insight, delving deep into the intricate fusion of technology and business landscapes. It is meticulously crafted to not just illuminate opportunities and mitigate risks but to inspire a transformative journey.

In this fast-paced world where tech innovation reshapes markets, we offer a strategic compass, guiding you through uncharted territory. Together, we explore the symbiotic dance of tech and business, paving a path where **today's decisions are the architects of a future** marked by market impact and enduring success.



Mahgol Sabet
CEO of Vanguard



Emerging GCC Tech Trends and Regional Initiatives

GCC Technology State

Elevating into digital excellence

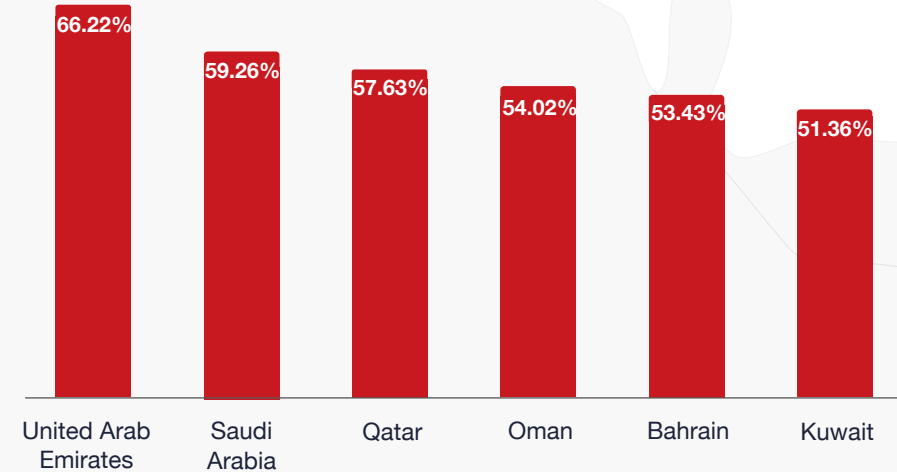
In an era marked by rapid digitization and innovation, **technology** is the driving force behind economic diversification, fostering entrepreneurship, and enhancing competitiveness on a global scale. GCC nations recognize that embracing technology not only accelerates progress in sectors like energy, finance, and healthcare but also paves the way for smart cities, sustainable infrastructure, and improved public services.

One of the indicators that evaluates GCC member countries on several different parameters, indicative of growth and highlights the increasing investment by the GCC countries for integration of the latest technological solutions across various sectors, including healthcare, technology, food services, aviation, and education, is **E-performance index***.

* The GCC E-Performance Index evaluates member countries' performance based on their rankings in five key global indices:

1. The Global Talent Competitiveness Index (GTCI) 2021 by INSEAD.
2. The Network Readiness Index (NRI) 2021 by Portulans Institute.
3. The Government AI Readiness Index 2021 (GAR) by Oxford Insights.
4. The Global Innovation Index (GII) 2022 by the World Intellectual Property Organization (WIPO).
5. The UN E-Government Development Index (EGDI) 2022 by the United Nations.

GCC E-Performance Index 2022



The latest GCC E-Performance Index 2022 reveals that all countries from the Gulf Cooperation Council (GCC) region have performed exceptionally well on five major global indicators, displaying significant progress in digital transformation.

What are the key trends shaping GCC's technology industry?

GCC Macro Tech Trends (1/2)

Key macro trends fostering innovation

Recognizing the importance of macro trends in each region is crucial because these trends have a profound impact on shaping the future of that specific area.



5G

The deployment of 5G networks is one of the most significant technology trends in GCC. The GCC countries are investing heavily in 5G infrastructure, with the UAE and Saudi Arabia leading the way. By the end of 2025, the UAE's telecom regulator aims to provide 5G network coverage to all areas of the country. In addition to the UAE and Saudi Arabia, other GCC countries such as Qatar and Bahrain are also investing in 5G technology.

In aggregate, the GCC is forecast to have 62 million 5G mobile subscriptions by the end of 2026, accounting for nearly three-quarters of all mobile subscriptions in the Gulf region at that time.

Service providers are using 5G network performance as a key to differentiation in a highly competitive market.



Artificial Intelligence (AI)

GCC governments are increasingly incorporating emerging tech into their core products and services, leveraging new capabilities unlocked by artificial intelligence (AI) and the Internet of Things (IoT).

More use of AI in business functions could unlock untapped value of at least \$150 billion to GCC economies. Around 62% of GCC businesses are already using AI in at least one area of their operations. The UAE launched the UAE National Strategy for Artificial Intelligence in 2017, which aims to position the country as a global leader in AI research and development by 2031. Qatar also launched its National Artificial Intelligence Strategy in 2021, which aims to develop and deploy AI technologies across various sectors.



Blockchain

Blockchain technology is gaining momentum in the GCC region and governments are exploring the use of blockchain to reduce fraud, increase transparency, and streamline processes.

The UAE has launched the Emirates Blockchain Strategy in 2021, which aims to implement blockchain technology in various government sectors, including health, education, and transport. In the finance sector, the UAE-based digital bank, Mashreq, has implemented blockchain technology to streamline its Know Your Customer (KYC) process.

Blockchain technologies are swiftly influencing businesses in the GCC region, ushering in new business models, enhancing operational effectiveness, and elevating efficiency throughout the entire economic landscape.



Cloud Computing

Cloud computing is not only an essential component of the GCC's digital infrastructure but also a key enabler of the region's economic growth. Cloud-based solutions are helping businesses in the GCC to achieve this goal by enabling them to innovate faster, reduce costs, and scale their operations and organizations are increasingly adopting a multi-cloud strategy, allowing them to leverage cloud computing applications.

the cloud will be a critical enabler of the new platforms, services, and infrastructure that governments and enterprises seek to activate.

The total public cloud spending in the GCC will more than double in the coming years, from \$956 million in 2020 to \$2.5 billion by 2024.

GCC Macro Tech Trends (2/2)

Key macro trends fostering innovation

Recognizing the importance of macro trends in each region is crucial because these trends have a profound impact on shaping the future of that specific area.



Metaverse

Metaverse expected to add \$15 billion annually to GCC economies by 2030.

Saudi Arabia and the UAE to account for almost three quarters of the projected economic gain, study shows. The metaverse offers a realm of opportunities that reach far beyond advanced gaming and online real estate transactions. It's set to revolutionize how we conduct work, transactions, planning, design, construction, shopping, leisure activities, travel, and even daily living. In the metaverse, individuals, portrayed through avatars or three-dimensional representations, can interact, and it is poised to reshape workplaces and industries by implementing novel methods to streamline operations.



Automation

Automation is a growing trend in the GCC region, with businesses increasingly adopting digital solutions to streamline their operations and improve efficiency. Automation technology involves using digital tools to manage meetings, documents, and communications, reducing the reliance on paper-based processes.

While automation is offering many benefits for businesses in the GCC, there are also some challenges that need to be addressed. One of the biggest challenges is **the need for upskilling and reskilling of the workforce.**

In conclusion, automation is a growing trend in the GCC, driven by a focus on digital transformation and innovation.



Cybersecurity

GCC governments have taken measures to enhance cybersecurity capabilities. According to the ITU Global Cybersecurity Index 2020 (GCI), Saudi Arabia and the United Arab Emirates ranked among the top 5 globally. Both Saudi Arabia and UAE have been notably active in their activation of online protection efforts in conjunction with global partners.

The Middle East cybersecurity market is expected to grow from \$16.1 billion in 2020 to \$28.7 billion by 2025.

In response to insider threats, one of the Middle East's top techniques, such as UEM (Unified Endpoint Management), DLP (data loss prevention) solutions, IAM (Identity and Access Management), and EDR (Endpoint detection and response), are being deployed by organizations.



Digital Government Services

As global economies become increasingly data-driven, GCC governments have embarked on longer-term investments in the governance and infrastructure required to support a robust data strategy. Also, Gaining traction in the GCC since 2016, blockchain interest originated in the UAE, Saudi Arabia, and Bahrain, particularly in the government, education, and financial services sectors. we expect GCC governments will continue pursuing robust digital transformation strategies: **keeping citizen-centered design at the heart of their e-services, exploring more agile development methodologies,** and upskilling their workforces for the digital age.

Countries' Initiatives and Digital Strategies

Orchestrating innovation for a harmonious future

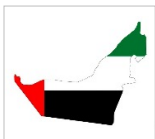
Governments' attention to digital and technology matters is paramount in the contemporary world, as embracing digital innovation fosters economic growth by spurring entrepreneurship, creating jobs, and enhancing productivity.

Therefore, a proactive and strategic approach to digital and technology policies is not just a matter of convenience but a fundamental requirement for a nation's success and resilience in the 21st century.



Saudi Arabia: Their vision is to maximize their investment capabilities by participating in large international companies and emerging technologies from around the world. This will ensure that they become **market makers** in selected sectors, as well as a leader in competitively managing assets, funding and investment.

As a part of Saudi Vision 2030, it is mentioned they will focus on innovation in advanced technologies and entrepreneurship and the private sector and small and medium-sized enterprises (SMEs) are among the most important agents of economic growth; they create jobs, support innovation and boost exports.



United Arab Emirates: the UAE 2031' vision – it represents a national plan through which the UAE will continue its development path for the next 10 years. The plan seeks to enhance the position of the UAE as a global partner and an attractive and influential economic hub, aims to highlight the successful economic model of the UAE and the opportunities it provides to all global partners.



Qatar: Qatar's digital strategy receives comprehensive support from the government and the private sector, reflecting the country's commitment to advancing the technology sector and achieving sustainable development that benefits its youth and society at large; Qatar is gearing up for a promising future, striving to achieve innovation, and prosperity by developing digital technology and improving communication infrastructure.



Kuwait: Kuwait's emerging tech scene presents a wealth of opportunities for companies looking to sell technology solutions in different industries, with a supportive regulatory environment, Kuwait is poised to become a leading hub for tech startups and established companies in the region and has spent billions of dollars to date on projects that will help it achieve the goals of New Kuwait 2035, a seven-pillar program with focus on IoT.



Bahrain: Digital transformation is a pillar of Bahrain's Economic Vision 2030, an ambitious national development plan focused on the principles of sustainability, competitiveness and fairness. Today, Bahrain's well-established Information and Communications Technology (ICT) infrastructure is among the most recognized in the region.



Oman: Oman's Vision 2040 focuses on boosting ICT, enhancing e-government services, and fostering tech partnerships. Key areas of interest include cybersecurity, smart cities, and SME support. The government aims to become a tech hub and collaborate with global tech organizations. The Oman Technology Fund has invested in local companies that developed online auctions, marketplaces, and teaching platforms, among others.

A large, illuminated crescent moon sculpture covered in intricate Arabic calligraphy, set against a dark cityscape at night. The sculpture is the focal point, glowing with a warm, golden light. The background shows a modern building with a curved facade on the left and other city lights in the distance. A large, semi-transparent number '2' is overlaid on the left side of the image.

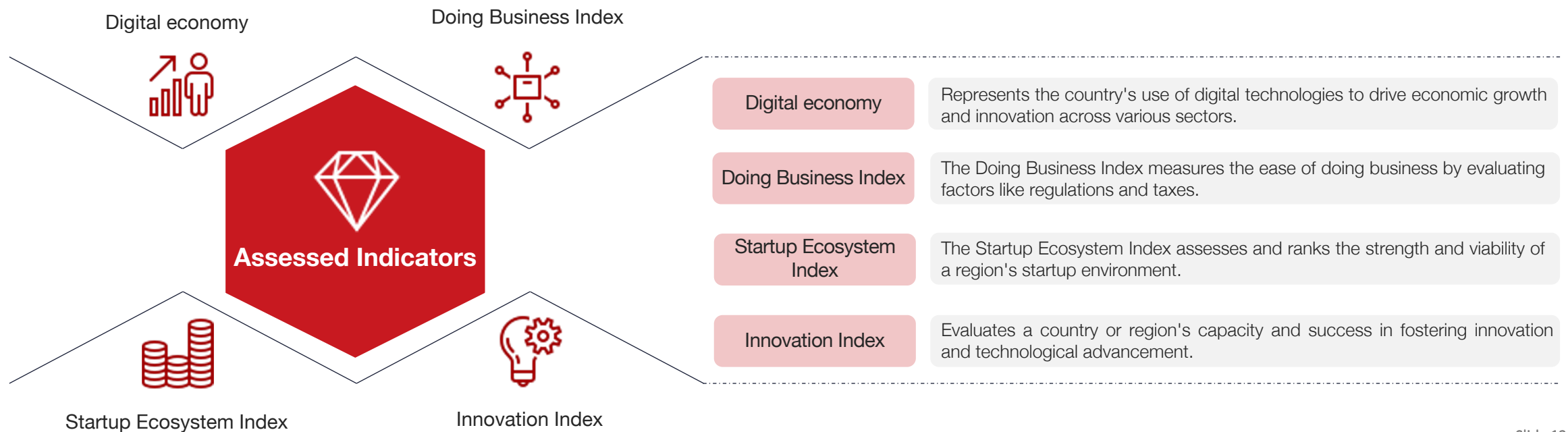
2 UAE, A Tech Hub With Diverse Potentials

UAE Introduction

Business vitality status

The United Arab Emirates (UAE) stands as a shining beacon of potential and excellence in both the business and technology sectors. With its visionary leadership and strategic geographical location, the UAE has leveraged its abundant resources and forward-thinking policies to create a thriving business ecosystem. The nation has become a global hub for commerce, finance, and trade, attracting multinational corporations and startups alike.

Dubai and the UAE have consistently been ahead of the curve in the MENA and GCC region for establishing startups, building scaleups and attracting venture capital.



UAE's Digital State

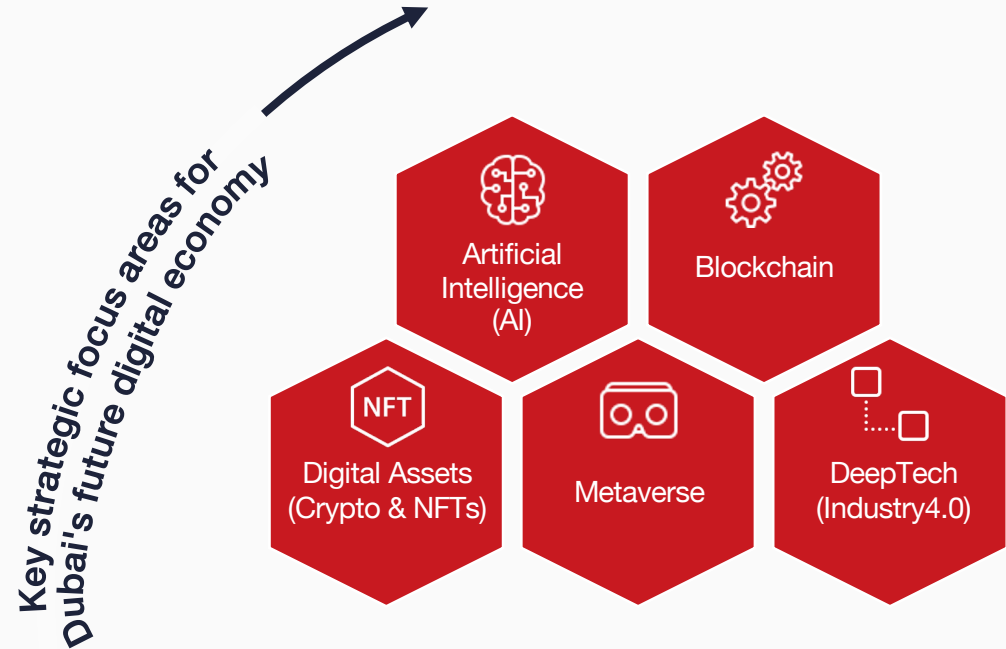
Stay vigilant and monitor evolving trends

The UAE's digital economy

The UAE's national economic strategy is firmly rooted in the digital economy, emphasizing not only foreign direct investment opportunities but also the enhancement of economic security through technology adoption, and actively implementing digital economy principles as part of the UAE strategy for the Fourth Industrial Revolution, with a primary aim of fortifying economic stability through digital and blockchain technologies, especially in finance and services.

UAE Digital Economy Strategy

Launched in April 2022, the 'UAE Digital Economy Strategy' sets ambitious numerical targets. Over the course of a decade, it aims to double the digital economy's contribution to the UAE's GDP, increasing it from 9.7% (as of April 2022) to a notable **19.4%**. Beyond the numbers, this strategy also positions the UAE as a global and regional hub for digital economy activities. It comprises over 30 initiatives and programs, targeting six key sectors and fostering innovation in five emerging growth areas.



Dubai aims to become a world hub for Cryptocurrency and Digital Assets.

In 2022, the UAE launched the Virtual Assets Regulatory Authority (VARA) which rolled out new legislation aimed at making Dubai the global center for crypto-assets and related industries such as the metaverse.

Dubai launched the Dubai Metaverse Strategy in 2022 with the ambition of Dubai becoming one of the top 10 metaverse economies and hubs in the world.

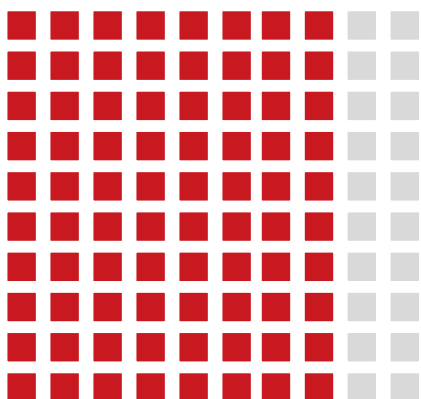
The strategy aims to attract more than 1,000 blockchain and metaverse companies to Dubai to develop Web3 technology and its applications for Dubai.

Doing Business Index

Business Prosperity Compass

The UAE presents a favorable business environment. Excellent infrastructural facilities coupled with professional expertise and personalized services give the UAE an edge over other countries. The UAE was ranked **16th** globally (between 190 economics), as per the World Bank's Ease of Doing Business Report 2020.

Doing Business Score (2020): **80.9**



Overall good performance indicates that the country is taking steps to create a more favorable business environment that can foster a more competitive and dynamic business landscape.

As challenges, it indicates several interconnected issues related to the cost of borrowing money, the ability to access credit, and the efficiency of legal and financial systems.

Ranking on doing business topics



1	Getting electricity	Procedures, time and cost to get connected to the electrical grid, and the reliability of the electricity supply and the transparency of tariffs
3	Dealing with construction permit	Procedures, time and cost to complete all formalities to build a warehouse and the quality control and safety mechanisms in the construction permitting system
9	Enforcing contracts	Time and cost to resolve a commercial dispute and the quality of judicial processes
10	Registering property	Procedures, time and cost to transfer a property and the quality of the land administration system
13	Protecting minority investors	Minority shareholders' rights in related-party transactions and in corporate governance
17	Starting a business	Procedures, time, cost and paid-in minimum capital to start a limited liability company
30	Paying taxes	Payments, time, total tax and contribution rate for a firm to comply with all tax regulations as well as post-filing processes
48	Getting credit	Movable collateral laws and credit information systems
80	Resolving insolvency	Time, cost, outcome and recovery rate for a commercial insolvency and the strength of the legal framework for insolvency
92	Trading across borders	Time and cost to export the product of comparative advantage and import auto parts



Startup Ecosystem Index

Where ideas and aspirations find rhythm

The UAE is becoming a powerful regional entrepreneurship hub, with its main startup ecosystem in Dubai leading the way. Boasting a high concentration of technological innovation, Dubai is also a hub for innovation in the Arab world, and a popular relocation destination for ambitious Arab entrepreneurs across the MENA region.

Startups based in Dubai have attracted about **96%** of all funds raised in the UAE since 2017. This indicates the dominance and strength of Dubai's startup economy.

Abu Dhabi is lagging behind, but is closing the gap by investing in multiple accelerators and incubators. Other emirates, such as Sharjah and Ras al Khaimah, have the potential to create their own successful ecosystems.

28th

The Startup Ecosystem Rank of United Arab Emirates in The World

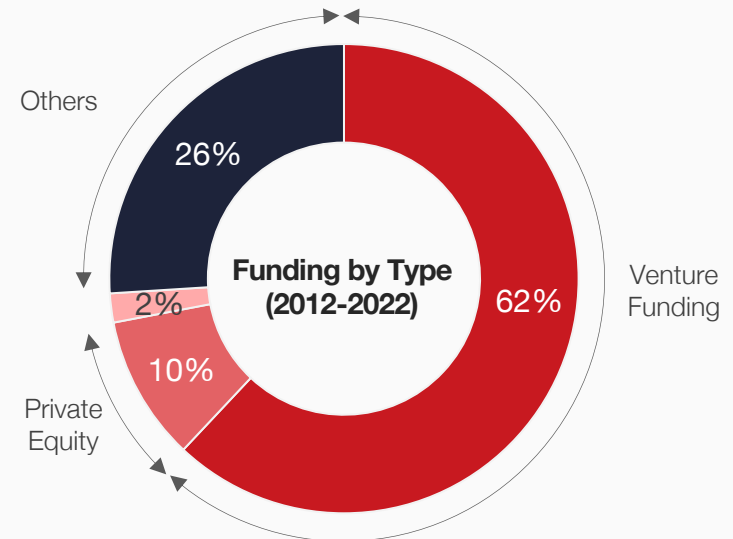
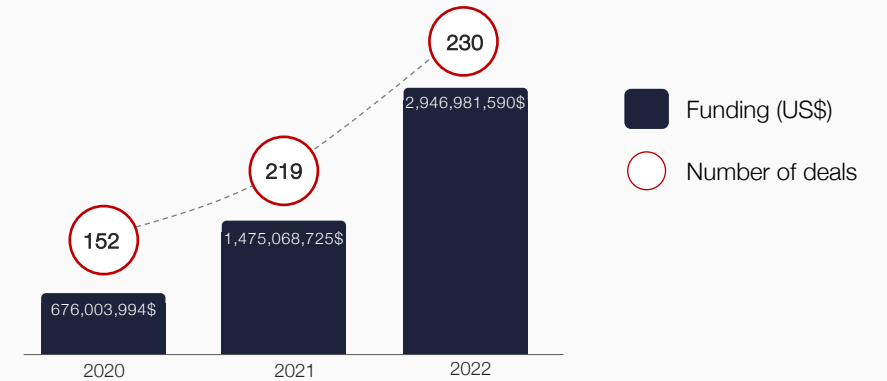
2nd

The Startup Ecosystem Rank of United Arab Emirates in The Middle East

Foodtech

Top industry in global rank

United Arab Emirates Funding and number of deals



Innovation Index

The compass that leads us to uncharted horizons of possibility

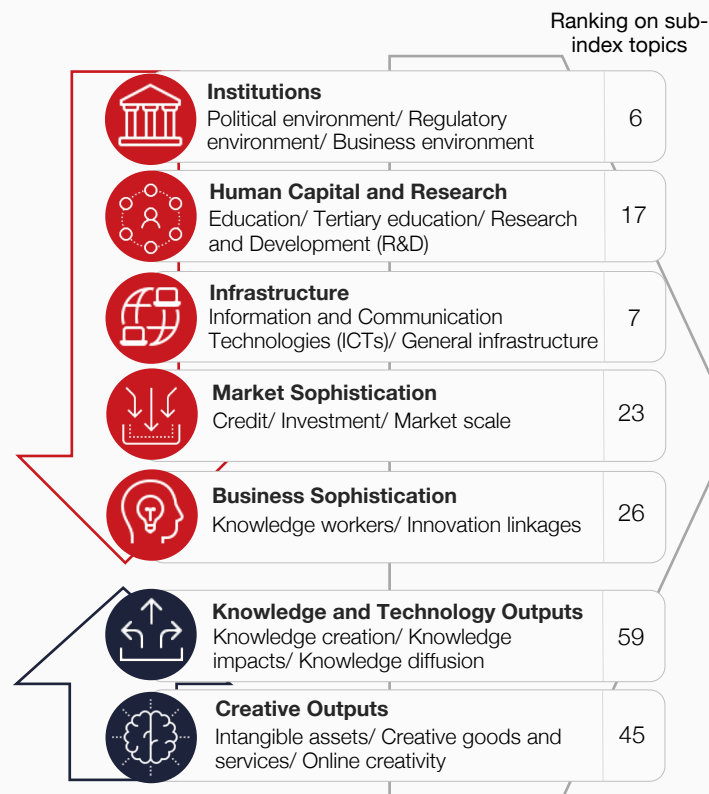
The Global Innovation Index (GII) ranks world economies according to their innovation capabilities.

Relative to GDP, the United Arab Emirates' performance is below expectations for its level of development.

31st The United Arab Emirates ranks among the 132 economies

What is the significance of the Global Innovation Index, and why is it considered important?

- It allows governments, policymakers, and business leaders to gauge where their country stands in terms of innovation relative to other nations. This assessment is crucial for understanding a country's strengths and weaknesses in innovation.
- The GI is a valuable tool for businesses and investors looking to identify opportunities in innovation-intensive industries and regions. It helps them understand where innovation is thriving.
- The index examines a wide range of factors that contribute to innovation. These factors include the quality of research institutions, the availability of venture capital, and the ease of doing business, among others.



The United Arab Emirates performs best in Institutions and its weakest performance is in Knowledge and technology outputs.

The United Arab Emirates produces less innovation outputs relative to its level of innovation investments.

The United Arab Emirates performs better in innovation inputs than innovation outputs in 2022.

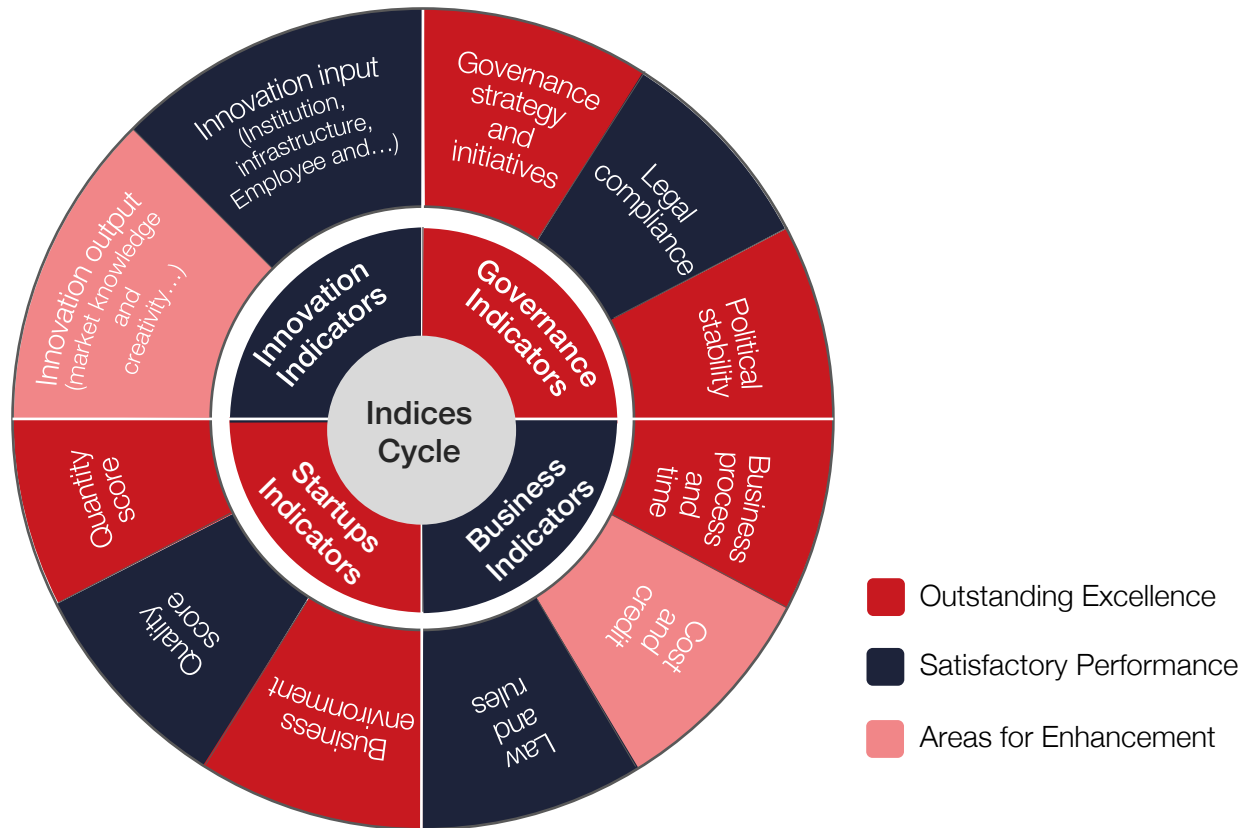
This year the United Arab Emirates ranks 18th in innovation inputs and as for innovation outputs, the United Arab Emirates ranks 52nd.

When innovation outputs are less favorable than inputs in the Global Innovation Index, it suggests that there may be bottlenecks or inefficiencies in the innovation ecosystem that require targeted interventions and improvements to better translate investments and resources into tangible innovative outcomes.

Conclusion

Resonation of boundless potentials

In summary, our discussion of various indices demonstrates that the UAE exhibits strong performance in both business development and emerging sectors, positioning itself for continued growth and advancement in the future.



Let's Make Waves of Impact!

The UAE and GCC countries are diligently forging a path towards a brighter future, seizing opportunities, tackling challenges, and harnessing the momentum of an accelerated world to drive meaningful improvements; and today marks the momentous inception of transformation.



How We Can Help!

Vanguards is more than just a consulting firm; we are your trusted one-stop-shop partner. Our mission is clear: to propel your business forward by offering a comprehensive suite of services. We don't just stop at advice; we roll up our sleeves to work side by side with you to drive meaningful, positive impacts on your business. Our passion lies in helping you grow, expand, and create lasting value in the market. Your success is our success, and together, we're not just consultants; we're catalysts for growth and innovation.

Survey

Shape tomorrow: Share your thoughts!

To gain a comprehensive and informed market overview, we have crafted a survey that seeks your valuable insights on international opportunities and challenges. Your perspective is instrumental in helping us understand the global landscape better. By participating in this survey, you not only contribute to a more accurate market analysis but also ensure that your unique viewpoint is considered in shaping strategies for success in an increasingly interconnected world.

Persian Survey



[Persian survey link](#)

English Survey



[English survey link](#)



Email Address: vanguards.co

Contact Number: +971555424038