

Innovation in the UAE: From First Foundations to “Beyond Oil”

Mona AbouHana, PwC Middle East Partner



Abstract

The UAE’s evolution from first foundations to the country that it is today as well as the vision it holds for the future is masterfully shaped by the Government’s commitment to the innovation agenda coupled with the passion and active participation of the private sector in the UAE. This article looks into the innovation drivers, major milestones, accomplishments of this relatively young yet highly achieving country and provides insights others can gain from. The article also highlights considerations for all countries in the Middle East region to reflect on in terms of 1) acting fast to keep up with the pace required for innovation, 2) being flexible, adapting to change and learning from failure, 3) being open for the wisdom of the crowds as well as partnerships and collaborations, and finally 4) getting on and following through the implementation of the innovation agenda.

In the last half century, the United Arab Emirates has evolved from a small sparsely populated nation reliant on agriculture and fishing, to a modern trading economy. The vast oil wealth first exploited in the 1960s and 1970s has funded government investments in new industries, designed to reduce the nation’s dependence on fossil fuels, as well as huge construction, ICT, transport and infrastructure projects. For example, the Jabal Ali Port is now one of the top ten ports in the world, and there has been significant expansion in the Abu Dhabi and Dubai airports. Dubai International now serves more international travellers than any other in the world. Thanks to all this investment, the UAE now ranks in the top five countries in the Global Competitiveness Index, in relation to Infrastructure Indicators.

The relative political stability of the Emirates, combined with a high quality of life, low tax regime, and support for business and small enterprise, has attracted foreign investment, and both regional and international talent. This, in turn, has helped turn the Emirates – and especially Dubai and Abu Dhabi - into a leading trade and tourism hub for the whole region.

With the foundations in place, the government began to actively exploit the UAE’s strategic geographical position at the crossroads of East and West, and invest seriously in innovation and technology. An early example was Dubai’s Department of Economic Development’s decision to set up a dedicated unit to nurture fast-growing SMEs (Small and Medium-Sized Enterprises) and entrepreneurial ventures at all stages of their development.

Since Dubai SME opened in 2002, more than 500 businesses have been through its incubator and benefited from its support. Similarly, the Ruwad Establishment of Sharjah and Khalifa Fund of Abu Dhabi, supports SMEs with marketing, finance, management, and training, and facilitating access to funding.

Creating the Right Environment: A Comprehensive Range of Government Support

Since the turn of the century, the UAE government has pursued a threefold strategy to encourage innovation: establishing Free Zones, setting up financial centres, and supporting education.

Free Zones were first introduced in the 1990s, with the aim of encouraging innovation by facilitating clusters of forward-thinking businesses and start-ups. It’s a common, and successful, model used by governments across the world to kick-start innovation on a top-down basis, where it hasn’t evolved organically. These clusters help attract flagship multinational tenants with a track record of innovation, and that in turn brings in new talent, encourages the spread of new technology, and builds invaluable business networks with smaller firms. It also makes it easier to provide specific government support in one defined area, whether that’s funding, technology, or professional services.

In the UAE Free Zones, companies are offered a tax-free environment for 50 years, and the Emirates was the first country in the region to extend this to firms under foreign ownership.

Innovation in the UAE: From First Foundations to “Beyond Oil”

Mona AbouHana, PwC Middle East Partner

One of the longest-established Free Zones is Dubai Internet City (DIC), which opened in 2000. Incentives like 100% repatriation of capital and 50 years’ rent-free space secured Microsoft as a flagship tenant. HP, IBM, Oracle, 3M, SAP, and Google soon followed. The ‘cluster effect’ here has been very powerful, and DIC now hosts many of the most promising and dynamic tech start-ups in the whole region. A new Free Zone called the Dubai Silicon Oasis Authority was established in 2005 to host promising innovative tech SMEs. The Dubai Technology Entrepreneurship Center was opened as part of this in 2015, and is now giving space and support to more than 500 tech start-ups. The success of the UAE Free Zones has been recognized internationally; the country now ranks at number one 1st on the ‘State of Cluster Development’ indicator of the Global Innovation Index.

Another effective government intervention was the creation of financial centres like the Dubai International Financial Center (DIFC) and the Abu Dhabi Global Market (ADGM). The DIFC is not subject to the Sharia law, and hosts many of world’s biggest Private Equity and asset management companies. Abraaj Capital, in particular, has spearheaded the development of the PE and venture capital industry in the region, coordinating both start-up and scale-up funding for entrepreneurs.

The final element to the government’s innovation strategy has been support for education. There’s been substantial investment in universities and research centres, including Masdar Institute of Science and Technology, which is carrying out

leading-edge research in clean technology, advanced energy and sustainability and a new campus for NYU in Abu Dhabi, which opened in 2010.

The Crucial Role of the Private Sector

As the UAE, and in particular Dubai, began to be recognised as a supportive environment for innovation, more and more tech start-ups were drawn to set up business there. Momentum built with the emergence of incubators, accelerators, and tech support hubs, the Impact Hub being one of the first. This opened in 2005, and was soon followed by the Cribb, In5 Flat6labs and Astrolabs. One of the biggest milestones of recent years was the US\$ 75 million acquisition of UAE-based Maktoob.com by Yahoo in 2009. That gave the region’s young entrepreneurs new confidence in the opportunities technology could offer and encouraged many to start up their own ventures. Souq.com - acquired by Amazon for more than US\$ 600 million - has also been an inspiration, as has Uber’s regional competitor, Careem, which is valued at more than US\$1 billion. Maktoob’s founders have also gone on to set up the Jabbar Internet Group, and invest actively in the next generation of tech start-ups. This virtuous circle is what the UAE government wanted to encourage, and where the private sector has played such a crucial role. Looking more widely, companies like Emaar Properties, the largest property developer in the UAE, have invested significant funds in Dubai, and helped give it its modern, forward-looking character.

Emaar’s iconic Burj Khalifa, over 800 meters high, is a symbol of innovation for the city, and a masterpiece of modern engineering.

Financing Innovation – VCs, Angels, & Government Funds

For innovative organisations and individuals, it is always a challenge to find the money to back new ideas, whether it is a government, a business, a small start-up, or an entrepreneur. For example, entrepreneurs can struggle because their ideas generate intangible assets like IP, which cannot be used as collateral for loans. Likewise their projects usually present the sort of risk that mainstream lenders are unwilling to accept or which attracts extremely high rates. The same held true in the UAE: in the past, commercial bank lending to SMEs was typically no more than 4% of the total loan book, and within that, an even smaller fraction went to entrepreneurs or start-ups. The only alternative was venture capital (VC) or business angels, but before 2009, venture capital was virtually non-existent in the UAE, and this was a major impediment to the development of a genuinely innovative economy.

There is no innovation without funding, and VCs and angel investors remain the most active investors in high-risk and promising new ideas. The first start-ups in the UAE were hampered by the small number of such investors, though one or two individuals were notable exceptions. But as the pioneers started to show real success, a VC community began to evolve, driven in part by the exponential increase in internet penetration in the region. In the last decade the VC sector has grown so rapidly that it is now the largest in the Arab world, with the likes of Wamda Capital, MEVP, Beco Capital, and STC ventures as well as Angel investor networks like Womena and Envestors, being actively engaged.

Very recently, an innovative financing government intervention was launched: the Mohammed Bin

Innovation in the UAE: From First Foundations to “Beyond Oil”

Mona AbouHana, PwC Middle East Partner

Rashid Innovation Fund was specifically established to provide government support to bridge the funding gap. This provides around US\$ 540 million in government-backed guarantees to commercial lending for innovative start-ups and projects. Many governments have used similar mechanisms in the past, especially for big high-risk infrastructure programmes; in the UAE, by contrast, and through the Innovation Fund, credit guarantees are being used to stimulate debt lending to innovative projects and small start-ups, the latter usually being asset-light with little collateral themselves. The Innovation Fund scheme is open to Emirati and non-Emirati start-ups, and any other company operating in a Free Zone or elsewhere in the UAE, with the aim of attracting international innovators to establish their business in the UAE.

In summary, the UAE boasts a powerful combination of physical infrastructure, a supportive tax and stable financial regime, a pool of international and regional talent, substantial private capital available for investment in new ideas and government interventions to support the ecosystem. But there was still one area where more progress needed to be made: regulatory reform.

A Commitment to Regulatory Reform

Regulatory reform has been a key agenda in recent years. The overall aim has been to make it easier for innovators to commercialize their ideas and bring them to market, and encourage entrepreneurs to set up their ventures in the Emirates.

For example, the minimum capital requirement for setting up a limited liability company was abolished in 2009, and the

registration process simplified.

Many business filings and permit applications can now be done online, and there is a new customs system designed to streamline the required documentation and make it easier for small companies and start-ups. Among other modernisations, the outdated bankruptcy law was reformed in 2016 and a new entry visa system to attract much needed talent for innovation, was approved in 2017. Measures like these have helped the UAE rise to 26th in the World Bank index for ‘Ease of doing business’ in relation to starting a business, which is substantially ahead of the rest of the Middle East and North Africa.

Increasing the Momentum: Vision 2021 and the National Innovation Strategy

The UAE was particularly affected by the financial crisis of 2008, largely because its economic growth had been fuelled by a property boom, especially in Dubai. The government took a proactive approach to tackling the fall-out from the crisis, announcing a new Vision 2021, which aims to make transformational change in the UAE by the 50th anniversary of its founding. Innovation and entrepreneurship underpin the Vision, and have become all the more important since the steep decline in the oil price. They are no longer a ‘nice-to-have’ but absolutely central to the UAE’s vision of a prosperous, resilient, stable future. Hence the 2014 announcement of a new National Innovation Strategy, which included a commitment that each government ministry would allocate 1% of their spending to investment in innovation.

This commitment was strengthened the following year by the appointment of Chief Innovation Officers for each

government department, and by the establishment of the Mohammed Bin Rashid Center for Government Innovation, with the aim of raising the competitiveness of government services.

The National Innovation Strategy takes Vision 2021 from policy to action, with the specific aim of getting the UAE into the top ten of the Global Innovation Index by 2021. It’s about creating a culture of innovation at every level of society – individuals, companies, and the public sector – and hundreds of initiatives have already been announced across the seven main sectors of education, health, transportation, water, renewable energy, technology, and space. Of which, the UAE Space Agency and its space strategy, covering both R&D and skills development in preparation for a planned mission to Mars in 2020.

The Science, Technology and Innovation Policy, also announced in 2015, includes plans for changes in legislation, investment, technology, education, and finance, and is backed by an investment of around \$80 billion which will see a threefold increase in scientific research by 2021.

This will take place in parallel with the development of the world’s first ‘Museum of the Future’, set to open in 2018. The Museum will explore how technology is shaping the world, as well as providing educational programmes and an incubator for futuristic innovation, design, and new ideas. Part of the Museum will be built using 3D printing, and it already boasts the only fully operational 3D-printed offices anywhere in the world.

The Museum is based in the same area of Dubai as the Dubai Future Foundation, which launched Dubai Future Accelerators in 2016. This is an intensive 12-week programme, bringing together government departments and

Innovation in the UAE: From First Foundations to “Beyond Oil”

Mona AbouHana, PwC Middle East Partner

major corporations with dynamic entrepreneurs to develop breakthrough solutions to strategically important challenges.

Participants so far include the Hyperloop One project, which promises to totally disrupt the transportation industry, as well as enterprises involved in BlockChain technologies. Another 2016 innovative government intervention was the new US\$ 270 million Future Endowment Fund, supporting 20 separate innovation initiatives across sectors like energy, transport, and infrastructure.

Looking ‘Beyond Oil’: Challenges & Opportunities for a Post-Oil Economy

The UAE continues to work hard to achieve the right conditions for a genuinely innovative culture and economy. Much has already been achieved: the government has provided direct and indirect funding for innovation, developed and upgraded its legal and regulatory frameworks, enhanced the educational system, and – crucially - became one of the first clients of innovations by buying these new products and services itself. Great opportunities still lie ahead while some significant challenges remain to be addressed.

When it comes to funding, there are opportunities to expand the government’s involvement in equity funding mechanisms. As already discussed, venture capital is growing in the UAE, but is still ten times smaller than in the US, as a percentage of GDP. Likewise, much of the recent increase in activity was concentrated on two high-profile deals (souq.com and Careem).

The government could stimulate more VC activity by investing its own money in such funds, or by matching VC investments in specific start-ups, as a way of building confidence.

And finally, there’s the possibility of guaranteeing some element of a venture capitalist’s investment, to reduce risk and limit their potential losses.

The UAE has already made progress in modernising its legal and regulatory frameworks, but there is scope to push this further. This would include giving greater protection to IP and property rights, and making it easier to enforce legal contracts. This is a needed reform with patent filing reaching a modest 520 of total filing in 2015, but expected to be on the rise in the years to come, following the ecosystem enablers mentioned before. Similarly, the new bankruptcy legislation should help with addressing old challenges such as insolvency resolution process, but more could be done in this area to give investors and entrepreneurs greater confidence in the system, which would give more start-ups the assurance to base their holding companies in the UAE itself, rather than offshore. There is also a need to improve financial regulation. Greater clarity on how IP is treated for balance sheet purposes, for example, would encourage more banks, insurance companies, and pension funds to invest in high-risk asset classes like start-ups. The UAE is already making progress in the area of crowdfunding, by establishing a regulatory framework for innovative platforms such as Beehive, a local peer to peer lending platform.

As the country prepares to welcome its next generation of innovators and entrepreneurs, the government has the opportunity to further enhance the educational system to align to the innovation aspirations of the country.

A key step would be to provide greater focus across educational levels on STEAM (Science,

Technology, Engineering, Math and the recently added Arts). Doing so builds core technical competencies and matches them with creative and entrepreneurial attributes from as early as primary education, to build and maintain a pipeline of innovators. There is also an increasing need to foster the university-industry collaboration and even the tripartite university-industry-public sector collaborative model in an attempt to innovatively solve national challenges.

There is perhaps no better way to support innovation than to buy it. Having the government as a customer not only generates vital revenue for a start-up, but gives them a platform to approach other organisations, both buyers of services and providers of debt and equity funding. There are two ways for a government to do this. One is to allocate a minimum percentage of government procurement spending to start-ups through what is known as ‘Public Procurement of Innovation’, or PPI. Under this sort of scheme, procurement terms and conditions are adapted to make it easier for small companies to bid and win contracts. The second route is what we would refer to ‘Indirect Incentivisation of Procurement’, or IIP. In other words, when the government buys from those large corporations that can demonstrate that they themselves buy from start-ups and SMEs. As well as generating business opportunities for start-ups, this also helps build useful networks and contacts between SMEs and major corporations.

Conclusions: ‘Innovation’ Becomes ‘the Future’

The UAE government has achieved a huge amount in a relatively short time, and believes the nation’s future prosperity will be determined by its ability to fully embrace and exploit innovation.

Innovation in the UAE: From First Foundations to “Beyond Oil”

Mona AbouHana, PwC Middle East Partner

Indeed, the government has made the conscious decision to marry its vision of the future with innovation. For example, the highest policymaking ministry in the UAE has been renamed the Ministry of Cabinet Affairs and the Future, with an explicit remit of supporting the country and Government in progressing on its innovation agenda and preparing for the future.

There are insights other Middle Eastern countries can gain from what the UAE has already achieved and others that the UAE and all governments in the region should consider as they develop their innovation strategies. Here are four key recommendations, drawn from the extensive experience of working with governments and businesses throughout the region:

Act fast: The pace of change is accelerating, driven by the engine of new technology. Governments need to be more agile than ever before to make the most of the new opportunities this brings.

Be flexible: As change quickens, governments must be able to adapt. That includes being able to identify where innovation is working and where it isn't. In the new business landscape there is no such thing as 'failure', as long as lessons are learned and the organization is able to move on quickly with the benefit of those insights.

Be open: From partnerships with corporations to the wisdom of the crowd, the most successful innovation is all about collaboration. Gathering diverse viewpoints, listening to all stakeholders, and working

effectively together. Get on and do it: It is always easier to announce initiatives than it is to follow them through. But in innovation, as in everything else, implementation is key. Innovation is as much about practical execution as it is about great ideas.

Author Information

Mona AbouHana is a Consulting Partner in PwC Middle East based in Dubai, focusing on strategy, innovation and entrepreneurship in the Government and Public sector.

**This article first appeared in Global Policy in September 2017.
doi:10.1111/1758-5899.1248.**

© 2017 PwC. All rights reserved.

PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details. This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, PricewaterhouseCoopers (Dubai Branch), its members, employees and agents do not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

