

EXPLORE

DRIVING FORCE



With the UAE describing its youth as the “engine” in its drive towards a knowledge economy, the country can also draw similarities and inspiration from Ireland

When David Sheehan took to the stage at NYU Abu Dhabi Institute recently he had two things on his mind: the importance of science and technology to the economy of the UAE, and how Ireland could act as a role model to the country's quest to build a knowledge economy.

The interim dean at the College of Arts and Sciences, Khalifa University of Science and Technology, saw striking similarities between the two countries, not least a young workforce, an emphasis on the importance of education and a need to diversify the economy.

“In the 1980s Ireland depended on agriculture mainly just as the UAE depends on oil and gas,” Professor Sheehan told *Flashes*. “But both countries have too small populations to rely on their domestic market and must therefore engage with the world economy. The UAE is very open to trading with

the wider world and it is here that the opportunities for knowledge-based businesses will present themselves.”

Nobody can accuse the UAE of failing to see or to act on these opportunities. In 2015 it adopted the Emirates Science, Technology and Innovation Higher Policy, which included 100 national initiatives in the educational, health, energy, transportation, space and water sectors, all of which were designed to stimulate the country's knowledge economy.

The objectives of the UAE's Vision 2021 are also focused on building a competitive economy that promotes investments in knowledge, supports creativity and innovation, and embraces advanced technologies – the ultimate goal being to improve people's wellbeing and to empower a generation of entrepreneurs. >

Indeed, the UAE has consistently promoted and encouraged a spirit of entrepreneurialism, providing start-ups with a relatively favourable regulatory framework, low taxes and strong government support. It also presents start-ups with the best access to capital thanks to its status as the region's financial centre.

A visible manifestation of this vision can be found at the Office of the Future in Dubai – the world's first fully functioning 3D printed office. The headquarters of Dubai Future Foundation, it is not only an incubator for emerging technologies but a hub for Dubai's focus on innovation and knowledge.

Situated at the foot of Emirates Towers, Dubai, much of the office's immediate surroundings are also dedicated to innovation. Close by is the Museum of the Future, which is beginning to take shape and is due to open next year. It will act as an incubator for futuristic innovations and design and, like the Office of the Future, is part of Dubai Future Foundation.

Inside Emirates Towers, is Area 2071, a physical manifestation of the UAE Centennial Plan: a plan that aims to make the UAE the world's leading nation by 2071. It hopes to achieve this by not only asking disruptive questions but also by evolving global systems capable of answering the toughest challenges facing humanity. How might we feed the next billion people? How can artificial intelligence be used to help eradicate cancer? What if every child has access to quality education? Only through the commitment to a knowledge economy can we attempt to answer these questions.

Below: David Sheehan, interim dean at the College of Arts and Sciences, Khalifa University of Science and Technology



*With young people
accounting for*

65%

*of the population in the region,
it is understandable that the
focus should be on them
and their role in building
knowledge economies*



Below: Fuelling the UAE's knowledge economy will be the country's predominantly young, energetic and passionate population

Right: Much of academia believes human intelligence is best encouraged and developed, not via a focus on technology itself, but on critical thinking



When Dubai Future Foundation was first launched in April 2016, His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, said: "The future is not built on possibilities and numbers but on clarity of vision, planning, action and implementation."

To this end the foundation's roadmap – Dubai Future Agenda – not only supports individuals, organisations and different industry sectors, it includes initiatives to enhance the leadership of Dubai and the wider UAE.

Central to all of this is the country's youth and the ability to attract and retain international talent because without a fully engaged population the creation of a sustainable knowledge economy will not be possible.

Again Sheehan sees similarities with Ireland. "The government is investing heavily in education at every level and this will bear fruit in the future," said Sheehan. "Ireland also invested heavily in modernising its universities and building a research culture in the 1980s and 1990s. I also notice changes in the visa regulations, which will facilitate attraction of knowledge talent into the country. Ireland did a similar thing to allow workers into the country when we did not have the skill-set internally. The amazing level of tolerance to foreigners one finds in the UAE can be leveraged to give the country a competitive advantage. This is not the case in competitor countries."

Fuelling the UAE's knowledge economy will be the country's predominantly young, energetic and passionate population. Veracious consumers of all things digital, they have little loyalty or attachment to legacy systems and have wholeheartedly embraced the digital age.

But are they ready? Is the education they've received adequate for the modern age? Over a third of the skills considered important in today's workforce are predicted to change by 2020, according to the World Economic Forum. In a world where artificial intelligence, robotics, big data, machine learning, natural-language recognition and biometrics are ubiquitous, how should education evolve to ensure the world's future employment needs are met?

It is a deeply contested topic. For many policymakers a natural response has been to increase the focus on science, technology, engineering and mathematics – the so-called STEM subjects. However, what is often less appreciated is the role liberal arts will play.

Much of academia believes human intelligence is best encouraged and developed, not via a focus on technology itself, but on critical thinking. Indeed, according to the World Economic Forum, creativity will become one of the top three skills workers will require in the future, with 'learning agility' – the ability to learn, adapt and apply in quick cycles – of paramount importance.



"As an educationalist I think education is key to every aspect of the knowledge economy," added Sheehan. "The situation is undoubtedly improving but much work needs to be done on primary and high school education. We notice, for example, that students from the northern emirates are more prepared for university than those from wealthier emirates, so there is good practice already that just needs to be built upon. I might also point out that the international schools system produces students capable of studying in western universities so again, there is good practice there also."

The role of education in a knowledge economy will no doubt form part of the Mohammed bin Rashid Al Maktoum Knowledge Foundation's (MBRF) Knowledge Summit 2018, which is to take place on 5 and 6 December. This year's theme is 'Youth and the Future of the Knowledge Economy'.

"The Knowledge Summit embarks on its fifth edition with a new message to the world – a message that focuses on the youth and their indispensable role in shaping the future of our Arab region and the world," says Jamal bin Huwairib, CEO of MBRF. "The youth are the engine driving the advancement of societies and the catalyst ensuring their sustainability and future-readiness."

With young people accounting for 65% of the population in the region, it is understandable that the focus should be on them and their role in building knowledge economies.

The UAE government's strategy is on track. In May last year a joint study by INSEAD Business School, Google and the Centre for Economic Growth ranked the UAE in the top 20 of 118 countries globally for enabling, developing and retaining talent. It provided affirmation that the country's investments in talent, technology and a knowledge economy were paying dividends. 