

# CONSTRUCTION MEGATRENDS

Analysing the trends that will shape the next decade of UAE construction

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# THE NEXT PHASE

## Construction companies in the region must become more agile in their approach to business development

**T**he Covid-19 pandemic is having a deep impact on the region's projects market and its legacy will shape the Middle East construction industry for years to come.

Hit by a slump in oil revenues and the closure of the international travel markets, government focus in 2020 shifted away from long-term investment projects to short-term economic support and healthcare provision.

One consequence is a steep hike in government deficits and national debt. And while stimulus spending and monetary easing will support some project activity, the inevitable legacy of the pandemic on the construction industry will be a prolonged extension of the tight fiscal controls that have restricted the region's projects market since 2016.

Private sector project developers face an even sharper shock. Lacking the financial reserves of national governments, the collapse of the travel and tourism sector and the slowdown in demand for property has starved the market of liquidity.

As a result, many private real estate developments are delayed until conditions improve. They also are being downscaled, or even cancelled.

The biggest challenge facing construction companies in the UAE in the coming years will be finding new business opportunities. And devising strategies to help them win work.

Public sector project sponsors will look for alternative procurement models and funding mechanisms to deliver key projects. This will see a rise in the use of public-private partnerships (PPP) on a wider range of projects, and will provide long-term opportunities for anyone able to bring a combination of finance and technical capability to the table.

Project owners and operators will demand higher levels of performance from their assets. This means maximising the capacity of the assets to deliver revenues, while reducing operation and maintenance costs. As a result, construction companies will see a rise in the development of smart buildings and infrastructure that offer real-time tracking of asset performance and greater flexibility of space.

The decarbonisation of projects, both in construction and operation, will be an increasingly significant factor in shaping the industry as the global drive to limit the effects of climate change focuses on hitting its 2050 targets. Projects will be required to minimise their carbon footprint and contractors and suppliers will be assessed by their contribution to these targets.

UAE construction is at a turning point. The drivers of projects in the past have changed, and many traditional industry practices are unsustainable. To succeed in the new era, construction companies must become more agile in their approach to how they do business and to business development. They must be open to working in new sectors and markets, at the same time as becoming leaner operationally, aggressively lowering their costs and boosting productivity levels.

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# DRIVERS OF OPPORTUNITY

The megatrends that will reshape construction and infrastructure in the UAE in the coming decade

**A**s a hub between Europe, Asia and Africa, with vast hydrocarbons and financial wealth, and an appetite for innovation, the UAE and the wider GCC region is well set to continue enjoying rapid economic expansion for the coming decade and more.

Pivotal to this growth has been the construction sector, delivering some of the most well-known projects not just in the region but globally.

But after 20 years of growth driven by huge capital spending, rising real estate demand and investment in infrastructure, the UAE's future development will be shaped by the need for greater energy efficiency, happier societies and lower carbon dioxide emissions.

As a consequence, the drivers of construction in the nation's next phase of development will be very different to what came before, and the government and businesses must adapt to meet the new opportunities. They must learn new skills, embrace new technologies, and adapt ways of working that foster collaboration and sustainability.

Construction is pivotal to the UAE's economy and has considerable interaction with various other sectors, firstly because all physical assets, from factories to airports to tourist landmarks, have to be 'constructed'. But also because the construction sector draws on services from a huge range of industries.

For a developing nation such as the UAE, construction has been a backbone.

However, even before the Covid-19 pandemic reared its head, the industry was facing challenges.

Problems including low margins, delayed payments and projects, latency in technology adoption and high amounts of waste in the form of time, costs and effort, have all prevented the industry from achieving its complete potential.

The health crisis introduced by Covid-19 has exacerbated

challenges, particularly around cashflow and payments. Most contractors are focused on cash preservation to stay afloat, constricting payments further down the supply chain. The collapse of Arabtec, the UAE's most prominent contractor, highlights the risks.

## Key enablers

The industry could benefit from turning this crisis into an opportunity to do things differently. There are important lessons to be learnt from the pandemic, and the focus now needs to be turned towards people-centric solutions.

The industry is now at a turning point. And the next phase of development or success will be shaped by a number of megatrends.

These trends will not thrive on their own. Regulations and government policies will play a key role in enabling construction companies to perform better, especially in areas such as sustainability targets and economic diversification policies. Incentivisation targets in these areas could prompt greater participation of the industry.

And for localisation and in-country value strategies to succeed, there needs to be a capable workforce and ample resources within the nation.

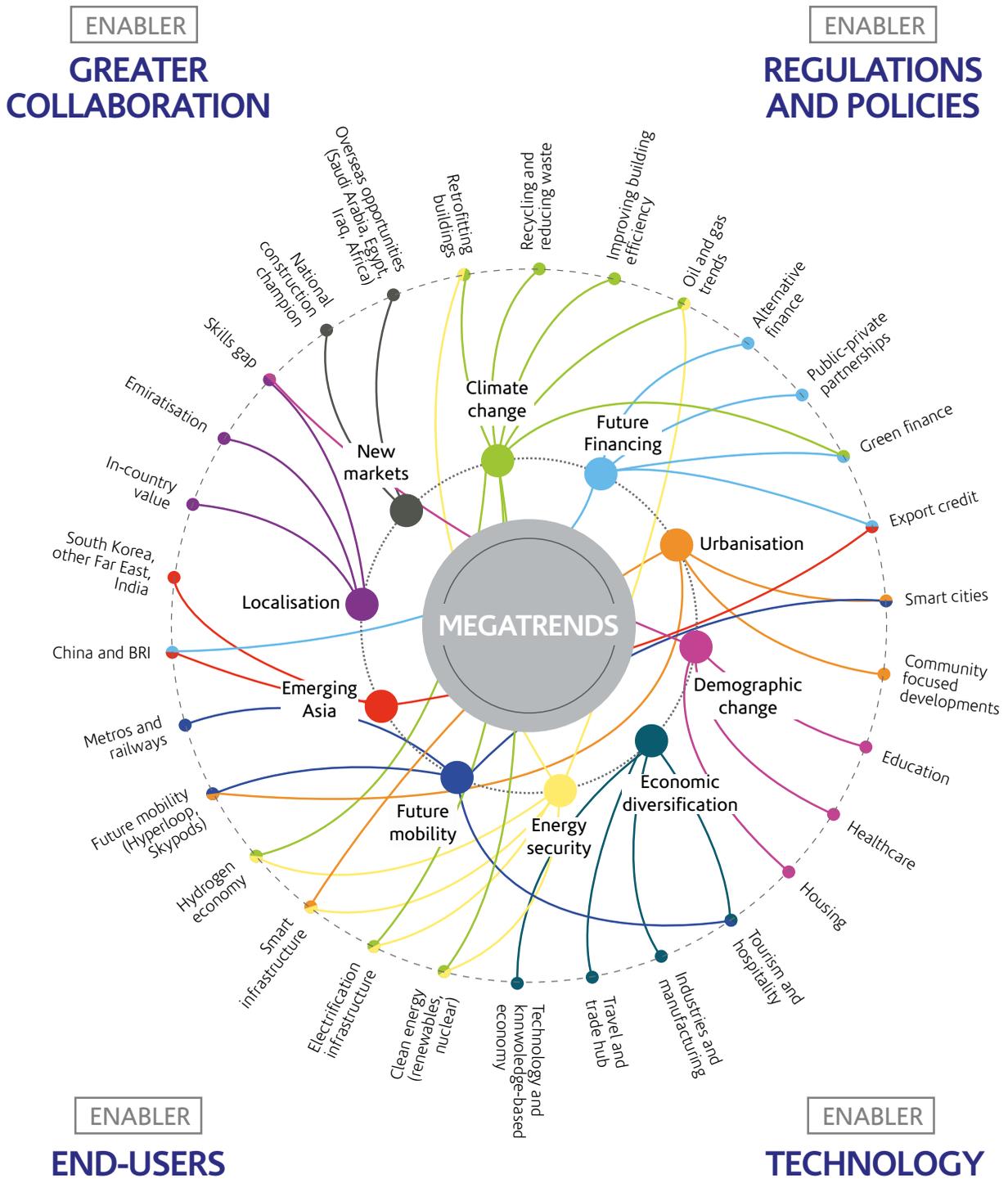
Increased collaboration on project delivery has an important role to play in ensuring the long-term survival of the overall industry. In the case of trends such as new markets, construction players could benefit from pooling their expertise and resources and jointly exporting this overseas. And for trends such as the decarbonisation of the economy to truly succeed, industry players need to work jointly to implement the highest environmental standards on their projects.

Perhaps the most significant factor in shaping the future of construction in the UAE will be played by digital transformation. Artificial intelligence, robotics, internet of things, virtual and augmented reality, and Big Data is changing traditional practices across a range of areas.

Construction is still one of the least digitised industries. But the remote working and social distancing measures introduced by Covid-19 have opened up a new approach to work for many companies. If these lessons are retained, there will be a number of wins: a chance to reinvent dated processes; greater productivity; and a whole new stream of employment opportunities.

**"... The next phase of development or success will be shaped by a number of megatrends"**

# Megatrends shaping the next phase of construction in the UAE



# A PRECARIOUS OUTLOOK

Past trends will be no indicator of future performance as Covid-19 and real estate oversupply bite down hard on the region's construction industry

**F**or two decades, the UAE has been the biggest construction market in the Middle East in terms of construction contract awards.

With more than \$443bn of awards on building and infrastructure projects, the UAE has accounted for nearly 41 per cent of the value of all construction contracts in the GCC since 2004. Saudi Arabia, the region's biggest economy, has been a distant second, with about \$291bn of awards, about 26.5 per cent of the market.

But past trends are not reliable indicators of future performance, and behind the headlines are indicators that suggest that the outlook for the UAE construction is precarious, with Dubai's real estate market being a particular concern.

Private investment in Dubai real estate sector has been the primary driver of UAE construction. Since 2004, Dubai has accounted for about nearly 57 per cent of all construction contracts in the UAE, with 81 per cent of those coming on real estate projects.

Dubai real estate projects have accounted for over 46 per cent of all construction contracts awarded in the UAE over the past 16 years, and 19 per cent of GCC awards.

## Dubai vs Abu Dhabi

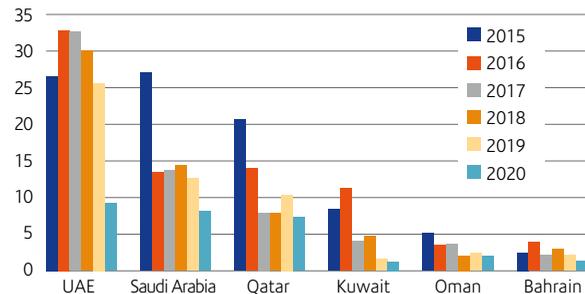
With about \$147bn of awards since 2004, the UAE's second biggest construction market is Abu Dhabi. Over the past 16 years, Dubai has seen about \$14.6bn of construction contracts awarded every year on average, compared to about \$8.7bn a year in Abu Dhabi.

Leadership, in terms of the annual value of construction awards, has switched between the two emirates however. While Dubai has maintained the highest level of awards overall, Abu Dhabi held the dominant position for three years from 2009-2011 following the 2008 global financial crisis.

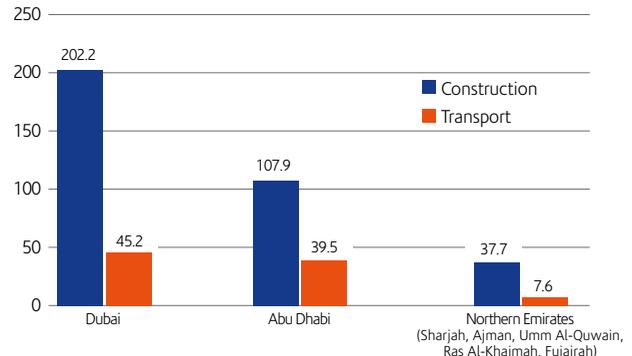
Dubai construction recovered in 2011 when political instability across the region drove Middle East money into Dubai property. And when oil prices collapsed in 2016 and government spending on projects shrunk across the region, Dubai bucked the trend on the back of Expo2020 investment on tourism and real estate projects.

Even before the impact of Covid-19 in 2020, howev-

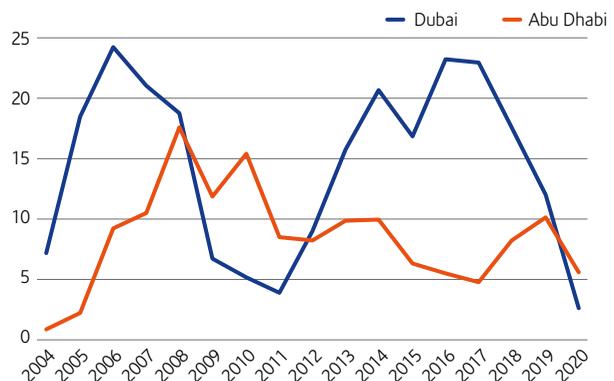
GCC C&T\* contract awards, 2015-2020 (\$bn)



UAE C&T contract awards, 2004-2020 (\$bn)

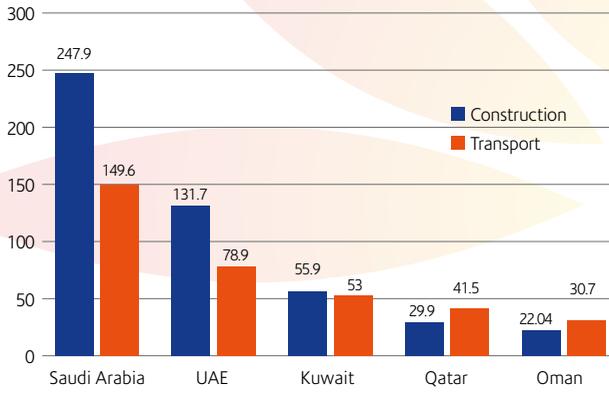


Abu Dhabi vs Dubai C&T contract awards, 2004-2020 (\$bn)



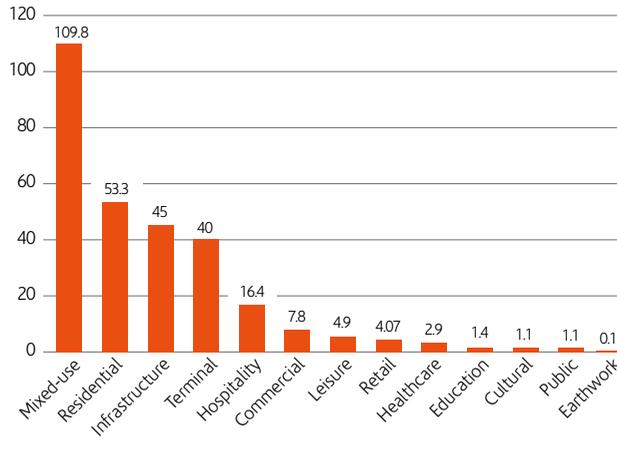
Source: MEED Projects, \*= construction and transport

### Planned C&T projects in the GCC by country (\$bn)



**“Construction in the UAE is shifting from privately developed real estate projects towards government-sponsored infrastructure and transport schemes”**

### Planned C&T projects in the UAE by subsector (\$bn)



er, the wheels already had started to come off Dubai’s property juggernaut. Growing oversupply of high-end residential and commercial property in the emirate saw investment yields start to fall in 2018 before the pandemic triggered a precipitous collapse in construction contract awards in 2020.

In the first nine months of 2020, a mere \$2.8bn of construction contracts were awarded in Dubai, leaving the emirate set for its worst year on record, and Abu Dhabi regaining poll position with \$5.7bn of awards.

### The way ahead

The UAE is likely to lose its status as the region’s biggest construction market in 2020. In the first nine months of 2020, Saudi Arabia’s \$8.1bn of construction contract awards is close to the UAE’s \$9.3bn, and with work accelerating on Vision 2030 gigaprojects such as the Red Sea Project, the kingdom is set to overhaul the UAE.

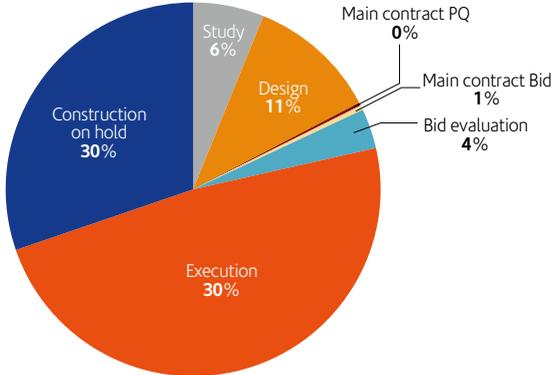
With \$559bn-worth of active construction and transport projects planned, Saudi Arabia also has the biggest pipeline of future construction opportunities. The UAE has about half of the pipeline value with about \$288bn of planned projects.

An additional concern for the UAE construction is that the \$125bn pipeline of future projects in the UAE is low compared to the \$145bn of projects in execution, suggesting a shrinking market. Set against this however, are the \$86bn of construction and transport projects that are on hold. Some of these projects could be quickly revived if market conditions improve.

Construction in the UAE is shifting from privately developed real estate projects towards government-sponsored infrastructure and transport schemes. About 45bn of infrastructure projects are planned in the UAE. Many are strategically important to the national vision.

With government finances under pressure, focus is falling on finding alternative financing mechanisms such as public private partnerships (PPP) to deliver these projects.

### Status of C&T projects in the UAE (\$m)



Source: MEED Projects

# MAPPING THE TRENDS

An increasing number of factors are influencing the UAE construction market

<b>Localisation</b>								Emirati proportion in work force: 0.61%	Increased private sector jobs restricted to nationals
<b>Emerging Asia</b>		 <p>1970s-1990s Emergence of Japanese and South Korean contractors; Influx of workers from Indian subcontinent</p>			 <p>2004: Samsung C&amp;T wins Burj Khalifa contract</p>	<p>2009: South Korean consortium wins Barakah contract</p>	 <p>2013: Launch of Belt and Road Initiative (BRI)</p>	<p>China and UAE set up \$10bn investment cooperation fund</p>	
<b>Future mobility</b>	 <p>DXB Airport commences services</p>		<p>Launch of Emirates Airlines</p>		 <p>2009: Launch of Dubai Metro</p>	<p>Al Maktoum International Airport starts services</p>		<p>Phase 1 of Etihad Rail completed; RTA announces plans for Hyperloop linking Dubai-Abu Dhabi</p>	<p>Works begins on Dubai Metro Route 2020 extension</p>
<b>Energy security</b>					<p>2008: UAE becomes net importer of natural gas</p>	<p>2012: First phase of MBR Solar Park commissioned</p>		 <p>Deregulation of energy prices</p>	
<b>Economic diversification</b>	<p>Dredging works begin on Dubai Creek</p>	 <p>Oil drives economic growth</p>	<p>Establishment of oil and gas associated manufacturing firms</p>		 <p>2009: Debt crisis debilitates Dubai</p>	<p>Ease of doing business rank 35</p>	<p>Oil prices begin to decline</p>		 <p>Brent crude touches \$35/b</p>
<b>Demographics</b>			<p>Influx of workers from India</p>		<p>Population ages 15-64: 72%</p>	<p>Population ages 15-64: 86%</p>			
<b>Urbanisation</b>		 187K		 1.5m	 2.5m	 7.1m			
<b>Finance</b>							 <p>Dubai introduces PPP law</p>		
<b>Climate change</b>				 <p>74.4 MTCO2e*</p>	 <p>119.9 MTCO2e</p>	<p>Abu Dhabi launches Estidama Pearl Rating System; Dubai launches Dubai Green Building Regulations and Specifications</p>	 <p>203 MTCO2e</p>	<p>Abu Dhabi launches EAD Strategy Plan 2016-</p>	
<b>NATIONAL MILESTONES</b>		<p>1971: Formation of the UAE</p>			<p>2005: Kyoto Protocol ratified</p>	<p>UAE Vision 2021 launched</p>		<p>UAE Green Agenda launched</p>	<p>National Youth Agenda launched</p>
	1960s	1970s	1980s	1990s	2000s	2010s	2014	2015	2016

 = Urban population  = Greenhouse gas emissions

Sources: Urbanisation data: UN World Urbanization Prospects 2018, Demographics: United Nations Statistics Division, National Climate Change Plan of the UAE 2017-2050, CIA World Factbook, Climate Action Tracker; Federal Competitiveness and Statistics Authority; Middle East Institute; *The World in 2050* by PwC  
\* MTCO2e = Metric tons of carbon dioxide equivalent

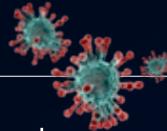


**2017:** Labour Law Article 14 prioritises Emiratis to fill available roles



**2018** Adnoc launches ICV programme; 3.8% localisation in UAE private sector

**2019** Adnoc signs framework agreements, with Abu Dhabi Ports, Aldar Properties to explore collaboration opportunities on ICV programme



**2020** Covid-19 highlights need for robust local supply chain

**2017** UAE-China sign agreements to deepen ties across 13 sectors; Bank of China to fund Chinese firms that set up base in KIZAD

**2018** UAE-China bolster trade relationship, including the CSP Abu Dhabi Terminal at Khalifa Port

**2019** UAE signs \$3.4bn worth of BRI-related deals in Beijing; China's CSCEC and South Korea's SK Engineering and Construction win Package A of Etihad Rail Phase 2

**2050** Economies of Emerging Seven (China, India, Brazil, Russia, Mexico, Indonesia and Turkey) forecast to be around 50% larger than that of current G7 (US, Japan, Germany, UK, France, Italy and Canada)

**2017** Fuel economy standard implemented; 14% journeys in Dubai made using public transport; RTA tests first autonomous taxi in Dubai;

**2020** 20% journeys in Dubai made using public transport Dubai and Abu Dhabi rank 24 and 32 respectively on the Top 50 Urban Mobility Readiness Index

**2021** Phase 2 of Etihad Rail completed

**2030** 30% journeys in Dubai made using public transport; 25% transport made autonomous under Dubai Autonomous Transportation Strategy



Noor Solar PV plant comes online

Barakah plant begins operations

Abu Dhabi power mix: 7% renewables



27% clean energy

MBR Solar Park achieves 5GW capacity

Dubai power mix: 25% clean energy



Clean energy mix: UAE: 50% Dubai: 75%

Non-oil GDP contribution reaches 70%

Ease of doing business rank 11 Oil and gas accounts for 30% of GDP construction 8.5%, manufacturing 8.5%, trade 11.6%

Ease of doing business rank 16

Heavy impact of Covid-19; Brent crude reaches \$19.3



UAE sends Hope Probe to Mars



Logistics contributes 8% to GDP

Population ages 15-64: 84%

 8.4m

 8.5m

 9.8m

 12.1m

State expenditure \$12.9bn

**2018** State expenditure \$15.4bn, 47% rise in infrastructure spending; Aldar Properties lists \$500m sukuk on ADX; Dubai Metro Route 2020 funding involves backing by French and Spanish export credit agencies

**2019** Abu Dhabi introduces PPP law Majid al-Futtaim lists world's first corporate Green Sukuk

**2020** Covid-19 induces pressure on fiscal budgets, affects infrastructure schemes

Abu Dhabi Climate Initiative announced

Culmination of National Climate Change Plan 2017-2050

First inhabitable human settlement on Mars

**2017** Launch of: UAE Centennial 2071; UAE Strategy for the Fourth Industrial Revolution; National Climate Change Plan 2050; UAE Energy Strategy; UAE commits to UN SDGs 2030; National Space Strategy

UAE celebrates Golden Jubilee

UAE turns 100

2017      2018      2019      2020      2021      2030      2040      2050      2071      2117

# THE NEED FOR ACTION

Climate change is seen as one of the biggest trends that will shape the coming decades for societies and industries across the world

**C**onstruction and infrastructure are hugely significant components in the drive to reduce carbon dioxide emissions (CO<sub>2</sub>) to limit the effects of climate change. In this fast-paced, rapidly urbanising world, the quality and quantity of built environments make a substantial difference. And in a world increasingly strapped for resources, sustainable built environments are integral.

Traditionally, the focus has remained on the volume of construction rather than the quality of the assets. For many construction players, this meant building the most units and structures in the shortest amount of time. Constrained budgets left little room for innovation and sustainability. As a result, cities have sprawled far and wide, and are now playing catch-up with green standards.

“In the UAE, along with manufacturing, construction has been a major contributor to [the country’s] total CO<sub>2</sub> emissions,” says Aisha al-Sarihi, a research associate at King Abdullah Petroleum Studies & Research Centre’s (KAPSARC’s) Climate and Environment Programme.

“Given their long life span, and without immediate consideration of their sustainability, construction and infrastructure assets could lock economies into carbon-intensive technologies and delay achieving climate goals aiming to reduce global warming to well below 2°C and, more ambitiously, 1.5°C.”

## Upfront carbon

A 2019 report by the World Green Building Council (WGBC), titled ‘Bringing Embodied Carbon Upfront’, highlights the fact that carbon emissions released before the built asset is used, referred to as ‘upfront carbon’, will be responsible for half of the entire carbon footprint of new construction between now and 2050, threatening to consume a large part of the remaining carbon budget.

“The buildings and construction sector accounts for nearly 35 per cent of global final energy use and about 40 per cent of global energy and process-related CO<sub>2</sub> emissions,” says Al-Sarihi. “Infrastructure, including energy, transport, building, and water, account for more than 60 per cent of global greenhouse gas [GHG] emissions.”

WGBC’s report notes that as the world’s population approaches 10 billion towards the middle of the century,

the global building stock is expected to double in size.

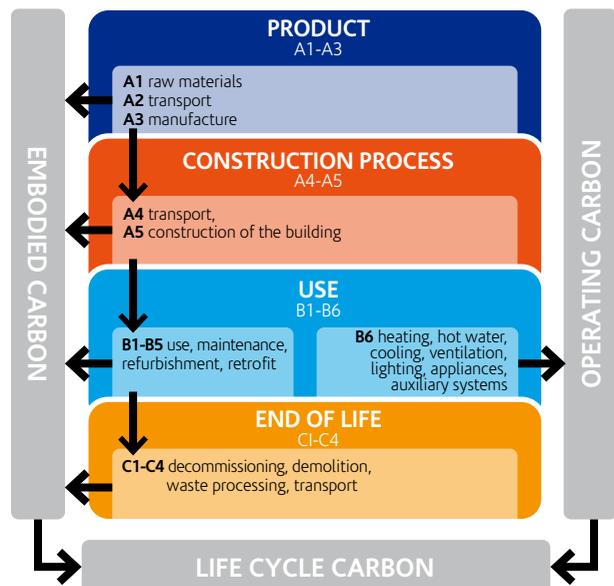
Against this backdrop, construction and infrastructure firms should play a big role in tackling climate change, says Al-Sarihi.

“[These] firms should start thinking about how they can align their plans and investment portfolios with the Paris Climate goals [by aligning with nationally determined contributions] and Sustainable Development Goals [SDGs] as well as biodiversity protection plans,” she says.

“Importantly, firms should tap into the opportunities associated with factoring sustainability in their business models through, for example, adopting circular economy models, including for waste and water,” she says. “This will help them to expand their businesses and reduce their carbon footprint, but also create jobs and add value to the national economy.”

Recent years have seen climate change climb higher on national agendas across the world as well as in the UAE. The nation’s Vision 2021 goal includes sustainable

## Life cycle analysis for construction



Source: Heriot-Watt University Dubai

## Current trends and future projections for the UAE in a climate change scenario



### TEMPERATURE

#### What is happening?

Temperature in the summer months rises to about **48°C** in coastal cities - even **50°C** in desert regions



### HUMIDITY

Average humidity is **50-60%** in coastal areas; **45%** in inland areas. Extreme humidity reaches as high as **90%**



### SEA LEVEL RISE

Average sea level rise over the past decades in the Arabian Gulf is **0.18-0.23cm** per year



### RAINFALL

Annual rainfall is around **100mm**



### EXTREME EVENTS

**3 super cyclones** have hit the Arabian Peninsula in the past 40 years (1977-2018)

#### What could happen?

**2-3°C** average increase during the summer months by 2060-2079

Humidity will increase about **10%** over the Arabian Gulf

Coastal areas will experience **increasing mean high tides**

More **intense rainfall**, particularly in Northern Emirates and Dubai

More **frequent and severe** extreme events could occur

Growing risk of high-impact storms

Source: Abu Dhabi Global Environmental Data Initiative (AGEDI)

environment and infrastructure on its roster, with key performance indicators in place to measure targets.

“The move towards net-zero buildings has really picked up in recent years,” says Saeed al-Abbar, managing director of Dubai-based consultancy AESG. “This is in stark contrast to a time where this seemed like a pipe dream. We have noticed this difference at AESG itself, where until three years ago we were largely working on energy or water efficiency projects. Today the focus has shifted towards net-zero carbon and net positive, and we are working on a number of projects both in and outside the region.”

However, the change is still limited to the market leaders, says Al-Abbar.

“The theory of change for any industry is that it starts with the market leaders, and then the rest of the market follows. I think that’s where we are right now,” he says.

### The other way round

It is equally important to think about the impact of climate change on the nation’s existing and planned construction and infrastructure.

Under the National Climate Change Adaptation Programme, the UAE’s Ministry of Climate Change & Environment (MOCCA) in 2019 conducted climate risk assessments and suggested adaptation measures in key sectors including healthcare, energy, infrastructure and environment. The study finds that climbing temper-

atures could lead to hotter days that put more pressure on utilities, a increase in weather events such as storms, cyclones and floods and, most critically, affect human and biodiversity health.

Since most of the population in the UAE and the infrastructure are located within a short distance from the sea, the damage to coastal and offshore infrastructure is significant cause of concern.

Al-Sarihi says the UAE government is well aware of the fact that climate change is real. A dedicated ministry as well as environmental organisations at a national level reflects the UAE’s commitment to addressing climate change and protecting the environment, she says.

However, she notes that current climate policies in the GCC as a whole do not pay enough attention to the construction sector.

“There is no drainage infrastructure that can absorb stormwater during rain seasons,” she says.

“Across the GCC, households and roads are still built in areas that potentially are routes for water flow [wadis]. GCC governments should put in place strict climate policies that encourage construction firms to factor climate risks into their planning and project investments.”

“Furthermore, in the GCC, the biggest demand for electricity comes from buildings, and residential users account for nearly 50 per cent [or more] of electricity demand,” says Al-Sarihi. “Cooling accounts for 60-80

## Trend 1: Climate change

per cent of household electricity consumption. Climate change is expected to contribute to rising temperatures in the region and hence maintain a continuous demand for cooling. GCC countries could tackle this issue by adopting appropriate policies that incentivise efficiency of buildings as well as the use of efficient equipment like AC systems.”

It is critical to invest in and design climate-resilient infrastructure as early as possible given its long service lifetime. The UAE has taken the first steps through initiatives such as the Plan Maritime 2030 in Abu Dhabi, which is geared towards marine and coastal developments, and the National Emergency Crisis and Disaster Management Authority's National Early Warning System for extreme events.

### Time for action

For players yet to begin thinking about the role of green practices in their business, Al-Abbar says that the days for small change is gone.

“Initiatives such as recycling paper on site, saving water by turning off taps and installing efficient lightbulbs – that was the discussion in the 90s,” he says. “This is not something that should be applauded today. Yes, every step counts. But now, we really need transformational change.”

**“The theory of change for any industry is that it starts with the market leaders, and then the rest of the market follows”**

Al-Abbar says the direction needs to come from clients in the form of the strategies and visions they wish to achieve. Subsequently, design firms need to be able to design to net zero and contractors need to follow the approach and gear their supply chain accordingly.

“The revolution towards net-zero buildings is a transformational shift, not an incremental one,” says Al-Abbar.

“There are a number of areas that need to be transformed and we are currently in the middle of the perfect storm to make it possible, to drive efficiency and productivity, innovate and invest in R&D and net zero. These all need to go in tandem.

“However, if this change doesn't happen over the next decade, we will see events of the last 10 years – cash-flow problems, bankruptcy, liquidation – worsen. Regulations will accelerate and companies that don't gear up will have to pay the consequences.”

## Efficient buildings

The 2020 UAE Green Building Market Brief by the Emirates Green Building Council (EGBC) highlights that the country has almost 64 million square metres (sqm) of built-up area adapted to local green building regulations or certification programmes.

Of this total, 55 per cent (35.3 million sqm) is certified under the Estidama Pearl Rating System in Abu Dhabi, 42 per cent (26.9 million sqm) under the Dubai Green Building Regulations & Specifications, and 0.2 per cent (239,200 sqm) under Barjeel in Ras al-Khaimah.

Retrofitting, which involves addition of components to existing buildings to improve performance and efficiency, has also witnessed a lot of progress over the years.

“The energy retrofit market is progressing well,” says Al-Abbar. “There is an opportunity now with the pandemic, economic changes and the recessions, and the way we utilise buildings is changing. There's going to be a need for retrofitting buildings not just from an energy perspective but based on the way we use spaces. There will certainly be opportunities for enhancing the value of buildings through retrofitting practices.”

Retrofit programme	Year of establishment	Number of retrofitted projects
Dubai Retrofit Programme	2013	Buildings: 1,241 ; Villas: 6,658
Sharjah SEWA Retrofits Programme	2018	Buildings: 18
RAK Building Retrofits Programme	2019	Villas: 16

Data source: Emirates Green Building Council 2020 UAE Green Building Market Brief

# BE EXPANDERS, NOT CONTRACTORS

With payment delays putting contractor finances under pressure, strategic debt offers an alternative route to growth



**C**ovid-19 has led to a paradox for global markets. While significant liquidity is available at historically low interest rates, poor economic conditions and an uncertain outlook do not see an equitable distribution of funds to various, and perhaps 'essential' industries.

This has resulted in untapped pools of liquidity that, in theory, construction companies, or their paymasters, could draw upon to help support contracting operations through the slowdown. But in reality, contractors and their suppliers will find it difficult to access these funds due to their vulnerability to payment delays or, in the case of smaller entities, lack of financial reserves.

In these circumstances, size matters. As does diversity of activities. Lenders and investors will be more comfortable providing finance to companies of scale that have multiple service lines, ideally non-cyclical (although the pandemic has made this concept relative), as opposed to firms dependent or proficient in only a single line or a very specific business line.

Financial reserves are another critical factor. Sponsors of regional contractors that have diversified without appropriate capital structure and cash buffers have no capacity to accept payment delays, making them very

susceptible to liquidity crunches and thereby become easier takeover targets

One route to achieving scale is through the acquisition of companies or business lines, perhaps through project specific takeovers. But to do this, companies require acquisition currency, either in the form of debt or equity. As most contractors are not big enough to be listed and marketable as equity investments, there needs to be a reliance on debt.

## Strategic debt

Most people will be aware of a phenomenon that seems to ensure that banks will almost trip over one another to lend money when you don't need it. But when you do need it, the banks disappear. Construction companies, more than anyone else, need to know and take advantage of this.

In order to minimise risk and safeguard margins, most contractors tend to follow the project-debt-only model, while avoiding raising debt at the parent company. In our view, this is very short-term and perhaps naïve logic. Lenders are generally happy to provide funded and unfunded lines to projects, but contractors might be missing a strategic trick.

Raising money in the form of a revolving credit facility (RCF), where commitment fees are paid until the right acquisition/project/specific use comes along, gives you access to financial dynamite.

Acquisition opportunities are likely to present themselves once the market is aware of a contractors' firepower and capital availability. It might even guide sponsors to run projects with contractors that have such access.

In such uncertain times for the contracting sector, this could be an essential differentiation factor (even from an equity valuation perspective) in the short to medium term.

## Real bonds

Although there has been progress made in taking out mini-perm project finance debt through bonds by project sponsors, the debt capital markets (DCM) route has not been considered seriously by contractors.

While the DCM, in the form of 3-5 year bonds or sukuk is not for every contractor, larger companies that have drawn down on RCF or have loans taken at the parent

**“Acquisition opportunities are likely to present themselves once the market is aware of a contractors’ fire-power and capital availability”**

company must look to diversify away from the bank market to the institutional funding capital markets.

While not easy, this can relieve cash flow pressure in adverse times, such as the ones we find ourselves in today. And while investors will price up these instruments, they may be the safest bet in the longer term. Costs of these instruments get cheaper with familiarity.

### Paint it Green

As financiers and investors, we assess credit in traditional ways. But as advisors, we always want our clients to differentiate themselves against similar credit comparables.

Investors increasingly are attracted to have some dispensation towards environmental, social and governance (ESG) criteria, which may pique interest, demand and eventually pricing.

While many people equate ESG to green projects, which not all contractors do, a wider ESG angle that includes governance, sustainability may also be relevant. Treasurers and chief financial officers should consider that, while the ESG criteria may not start at the parent organisation, they could emanate from any green projects that they may bid for, win and be executing.

It requires a step change in the way that contractors think about their processes in order to make them ESG compliant. But it is not ‘rocket science’ and help is available.

While the debt capital markets may not be available to all, it must be a core discussion in every board room of a large contractor, and definitely an aspiration for growing entities. Having a well-defined strategy for your capital structure and positioning it, timing it and executing it effectively is vital.

This approach may seem idealistic in the cycle, but are definite and strategic cues and should be kept in mind during the next up-cycle, lest the market (and the readers) forget (quickly).

### Private sector participation

In terms of infrastructure project procurement, the coming years will see governments in the region encouraging greater use of the private-sector to design, build, finance and deliver public projects and services.

Until now, public private partnerships (PPPs) have failed to gain much traction in the region outside of the power and utilities sector, where modular construction techniques, alongside sovereign offtake guarantees and long-term feedstock supply agreements remove much of the risk.

A lack of institutional capacity to package projects as PPPs, and the lack of a track record of bankable PPP projects has dissuaded investors outside the power and water sector. But the biggest factor has been a lack of political will to push ahead with PPPs. There has been no political or economic imperative to hand over state assets to private developers.

This is changing. As weak oil prices impact fiscal revenues across the region, including in the UAE, new forms of project finance are required. And PPPs are emerging as a preferred model.

### PPP in the UAE in 2020

In February, Abu Dhabi Investment Office (ADIO) revealed plans to procure infrastructure schemes worth \$2.72bn under the PPP model as part of the Ghadan 21 accelerator programme. Subsequently, in March, Abu Dhabi awarded a 12-year PPP contract to replace the emirate’s streetlights to Abu Dhabi-based Tatweer for Traffic Assets & Systems Operation & Management.

In April, the emirate’s Executive Council formed a committee that will oversee the development and operation of infrastructure, including PPP projects.

With the political will to use PPP models now in place, along with new institutional and legislative frameworks, Abu Dhabi is now expected to proceed with more PPPs in the future.

Dubai also is turning to PPP. In 2019, the emirate’s Department of Finance allocated \$272m-worth of PPP projects in order to attract private sector investments, raise government service quality and reduce the burden on the budget.

With government spending constrained by the impact of stimulus spending in response to the Covid-19 health crisis, along with weaker economic conditions, PPPs not only provide an opportunity for governments to use off-balance-sheet finance to fund capital projects, but perhaps even more important in the long term, they provide a platform to introduce private sector innovation into inefficient public sector bureaucracies.

#### ABOUT THE AUTHOR



**Aditya Kotibhaskar** is the senior director of investment banking at Mashreq Bank



## IMPROVING THE UAE'S CITIES

As more and more people move to the urban centres of the UAE, planners and designers must find new ways to make existing cities work

In 1975, the UAE's first general census revealed a population of 655,937. Of this, about 509,719 people were living in the country's towns and cities, according to the World Bank.

Over the subsequent four-and-a-half decades, the emergence of the UAE as a major oil producer and trade and travel hub, along with the steady expansion of the country's non-oil sector, has seen its population increase to an estimated 9.98 million in 2020, an expansion of 1,400 per cent since 1975, with more than 8.5 million people living in the country's urban centres.

The rush to accommodate this massive influx of people, along with an abundant supply of land and resources, led to a rapid expansion of the UAE's cities through fast-track, ambitious construction projects. As is often the case with rapid urbanisation, however, liveability and sustainability were not a high priority.

"We are seeing a maturing of cities in the GCC," says Hrvoje Cindric, Middle East urbanism leader at UK consultancy Arup. "Some of the highest urbanisation and growth rates globally have been witnessed in the GCC."

"When you start to think about the population composition, I feel this is a bit like the post-war situation in the north Atlantic. We had a huge amount of catching-up to do and there was an element of 'just get it built' because we need to accommodate people. It will be really interesting to see how the cities [in the region] are maturing, and to see how other things are starting to come onto the agenda of governments and developers and, in turn, of construction."

### Desert sprawl

But the high cost of infrastructure, along with the quality and concentration of services available in city centres, makes an endless spread of development unlikely.

"One of the things we always hear about is the sustainability of this urban sprawl model that we are currently employing," says Cindric. "In a place like Riyadh that has just grown to an enormous size, we are starting to see the model is no longer to keep sprawling endlessly into the desert. There is a focus on trying to come back in."

## Trend 3: Urbanisation



“In Abu Dhabi, we could endlessly sprawl through the desert because we have plenty of space to accommodate. But at some point the distances become uneconomical. I think we will see a contraction back into the existing cities and some of the greenfield developments are going to be decreasing and brownfield redevelopment ... will be more on the agenda.”

For developers and contractors, retrofitting is set to become an important trend in the coming decade, driven by the need for greater energy efficiency, reduced travelling and recycling of resources.

“It should not be about knocking a whole development down and starting afresh,” says Cindric. “It is about the kind of tactical improvements that we can achieve to provide better efficiencies in terms of energy usage, but also in terms of how we actually provide better spaces for people.”

### Desirable housing

Balancing the objectives of high-density development and quality of life is no easy task, however. If the UAE and the wider region is to continue to attract global talent, it must ensure its cities are desirable places to live in.

To achieve ‘liveability’, cities must look at urban planning from a more human perspective. Rather than thinking about development in terms of a single road, a metro line, a hospital or a tower block, people-centred design is a more holistic approach that prioritises the needs of the end-users. Key success factors in this include: mobility; safety; community; the environment; healthcare; recreation; and social infrastructure.

“For developers and contractors, retrofitting is set to become an important trend in the coming decade, driven by the need for greater energy efficiency”

Typically, a people-centric area will enable pedestrianism and cycling, with seamless links and facilities. There will be social spaces and community hubs. Underpinning it all will be modern, internet of things (IoT) enabled infrastructure.

Data has a central role to play in shaping the modern, people-centred urban development. Thinking holistically about communities has long been a vital component of urban planning, but new technologies such as Big Data, IoT and artificial intelligence (AI) are allowing many of the future visions of smart cities to become a reality.

### Predictive design

To better understand the needs of a community, digital data-driven software is enabling design practices to more rapidly analyse and predict how people behave and interact with the built environment. Sophisticated data analysis informs critical design decisions that in the past were based solely on the experience and instincts of the designer.

New technology enables greater energy efficiency, improved connectivity, increased flexibility of space and the reuse of physical waste in a circular economy, including the use of recycled materials on construction projects.

But an unexpected key factor in shaping the region’s future cities could be the ongoing coronavirus pandemic.

At the start of 2020, as Dubai raced to complete the construction of pavilions, facilities and transport infrastructure for the opening of Expo 2020, the Covid-19 pandemic forced people to adopt new ways of working and living that have fundamentally altered the way we think about technology, urban spaces, health and well-being, and the environment.

It might not be too much to say Covid-19 could turn out to be one of the most significant factors in shaping the future of urban development in the Middle East.



## CATERING TO NEW TRENDS

The UAE's population has evolved and the government must decide whether to prioritise social infrastructure spending amid the impact of Covid-19

One of the biggest trends that will shape the future of construction and infrastructure in the UAE and the Middle East is the changing composition of its demographic structure.

The UAE's population is relatively young. Data from the CIA World Factbook highlights that the majority of the population falls in the 25-54 age bracket (68 per cent), while nearly a quarter of the population is below the age of 25.

Having robust housing, healthcare and education systems are critical for any developing economy with a largely young population. The UAE has made considerable investments in these areas over the years, but may face setbacks, as Covid-19 and the instability of oil prices affects spending capabilities.

Governments across the world now face a dilemma on whether to increase infrastructure spending as a means to stimulate their economies or to hold back on committed infrastructure spending.

As of October 2020, the UAE's pipeline of social infrastructure projects at the pre-execution stage includes 157

schemes with a net contract value of \$31.8bn. Residential projects make up 93 per cent of the pipeline's value.

The UAE has 130 residential projects with a net value of \$29.5bn in the pre-execution phase. The largest of these projects is Dubai developer Emaar Properties' The Valley in Dubai, a \$6.6bn residential community, followed by its \$4.9bn Lusaily homes. Both projects are being designed, according to regional projects tracker MEED Projects.

Only 25 of the 130 residential projects, with a net value of \$4bn, are currently at the prequalification, bid evaluation or main contract procurement stages.

### Insufficient funds

The data indicates that while project owners have the appetite to build more residential schemes, real spending on contracts is being held back by funding constraints.

However, several residential projects are somewhat immune to these risks, with tendering activity under way for projects such as Eagle Hills' Ramhan Island development. Infrastructure works are being procured for the Abu Dhabi developer's project, which has a net value of about \$950m.

## Trend 4: Demographics

Bid evaluation is also ongoing for the Elan townhouses within Dubai-based Majid al-Futtaim's Tilal al-Ghaf masterplanned scheme in Dubai. Submissions for the main contract were made by local and international contractors prior to the temporary business closures and delays brought on by Covid-19, and an award is expected by the end of this year.

Project spending is likely to be revised downwards in Dubai's residential sector as the oversupplied residential real estate market threatens to further damage the profitability of the sector's largest developers.

Abu Dhabi is a particularly active market for residential schemes at the moment, with bid evaluation ongoing for schemes such as oil firm Adnoc Offshore's Das Island homes (\$668m), staff accommodation at Khalifa Industrial Zone Abu Dhabi (\$225m), phase 1 of the Saadiyat Lagoons district (\$200m) and Al-Wathba north and south (\$150m).

Clients such as Adnoc Offshore could provide opportunities for civil contractors struggling to find new work, but there is little doubt Covid-19's economic impact will exacerbate the challenges posed by oversupplied residential stock in the UAE.

Bishoy Azmy, CEO of local contractor ASGC, told MEED earlier this year that further demand reductions would "probably occur after a year or so", when markets start to recover from the immediate shock of the Covid-19 crisis and changing trends are noted in the end-user segment.

"We will observe how [that change] will impact the demand for the products that contractors build," he said.

### Progress unlikely

Other social infrastructure asset classes, such as schools, universities, hospitals and medical cities, appear likely to receive even lower spending in the months ahead.

The 27 education and healthcare projects in the UAE's pre-execution pipeline have a net value of \$2.3bn. The largest of these schemes is local client Manazel's Mohammed bin Zayed medical city, an under-design project with a net value of \$408m. Also in the pipeline is a \$200m medical city that Saudi German Hospitals Group is studying for development in Dubai.

In the education sector, the 10th phase of Musanada's Abu Dhabi Future Schools scheme is the largest pre-execution project, followed by Dubai Municipality's plan to expand the Zayed University campus at Dubai Academic City. Both schemes are valued at \$150m each.

The size of education and healthcare projects for which tendering activity is under way is even smaller. Of the eight projects currently at the prequalification, bid evaluation or main contract procurement stages, Musanada's medical rehabilitation centre in Abu Dhabi (\$135m) is

the largest. It is followed by the local Al-Shirawi Group's primary and secondary school in Al-Furjan, Dubai. Bid evaluation is ongoing for the \$82m scheme.

Spending on social infrastructure schemes may slow down in the near term as public and private sector entities seek to mitigate the financial impact of Covid-19. The UAE's population is also expected to shrink by 10 per cent, according to an estimate by Oxford Economics earlier this year.

At the same time, there is a case to be made for social infrastructure developments, especially housing, health-care and education, rather than commercial projects. In the post-Covid-19 world, the former will arguably be more critical to the functioning of societies.

Perhaps recent efforts by the government to offer long-term residency in the UAE could stimulate a demographic transition, and may lead to more retirees residing in the country, opening up new opportunities for social infrastructure schemes.

### Top residential, education and healthcare projects under execution in the UAE (\$m)

Project name	Client	Net value (\$m)
Jumeirah Village	Nakheel	6,237
The Villages	Dubai South	5,285
Al-Falah development	Aldar Properties	4,782
Damac Hills	Damac Properties	3,706
Tilal al-Ghaf	Majid al-Futtaim	2,919
District One: MBR City	Meydan/Sobha	2,232
Innovation hub and academic campus	Block 7 Investment	1,800
Al-Ghadeer phase 2	Aldar Properties	1,629
Madinat Jumeirah Living	Dubai Properties	1,377
Yas Acres	Aldar Properties	1,112

Source: MEED Projects

# COMMERCIAL DELIBERATIONS

A more nuanced and transparent approach to procurement can help clients and contractors negotiate better agreements in the long term

**T**he UAE has a well stated policy of transforming the economy beyond a reliance on hydrocarbons, similar to its Gulf counterparts.

Leaders in the UAE have the ambition of diversifying the economy so that the country is ready to celebrate when the last barrel of oil is sold.

To that end, federal and emirate level governments have been investing heavily in non-oil sectors such as tourism, hospitality, education and healthcare, introducing initiatives to bolster economic growth.

These included stimulus packages to deliver UAE Vision 2021, accelerator programmes such as Ghadan 21 in Abu Dhabi, and sector specific initiatives in Dubai (focusing on aviation and real estate). Alongside that, rules on foreign ownership of businesses were relaxed and a 10-year residency visa was introduced for expatriates.

And the results were beginning to show.

In Q4 2019, the Central Bank of the UAE (CBUAE) reported a growth of 4.4 per cent in the non-oil sector, a higher figure than expected. Clearly, these stimulus measures were helping the UAE to improve the business environment, particularly for foreign investors in non-oil sectors.

However, much of this growth momentum was dissipated when the Covid-19 pandemic forced the government to impose strict movement restrictions in the nation.

The lockdown disrupted supply chains vital for manufacturing, restricted export opportunities, and constrained domestic demand by knocking consumer-confidence and causing key segments such as retail and tourism to collapse.

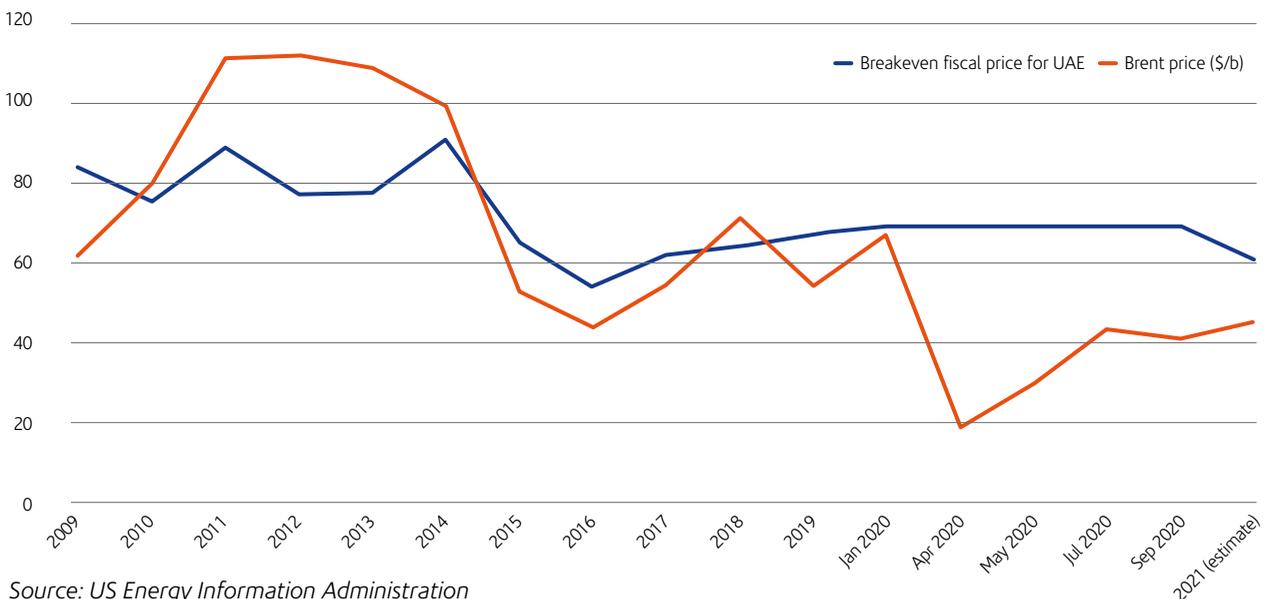
Consumer spending dropped further as employers took steps to manage the impact of Covid-19 by reducing salaries and cutting jobs. As a result, the non-oil sector has been impacted more than the energy sector so far in 2020. The CBUAE reports that in Q2 2020, the non-oil sector contracted by 9.3 per cent.

CBUAE's analysis is that as economic activity recovers through the rest of 2020, the non-oil sector will start to grow but at a slower pace compared to 2019

Dubai, the emirate with the most diverse economy, is likely to lead that growth. According to London-headquartered information provider IHS Markit, Dubai's non-oil private sectors, led by retail, wholesale and real estate expanded for the first time in five months in July.

In Abu Dhabi, growth is likely to be greatest in sectors

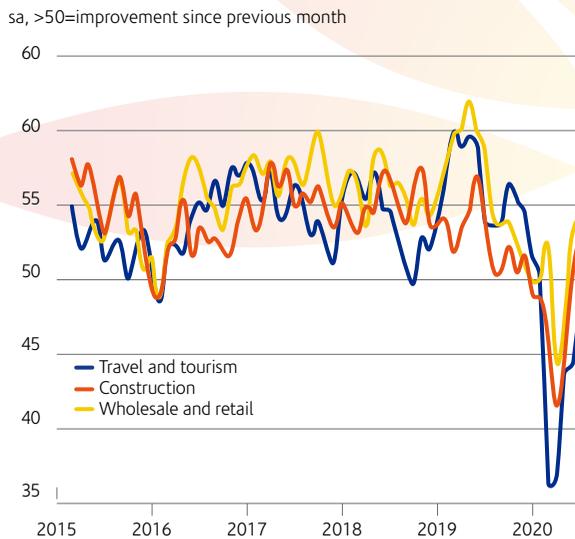
## UAE breakeven fiscal price vs Brent crude prices



Source: US Energy Information Administration

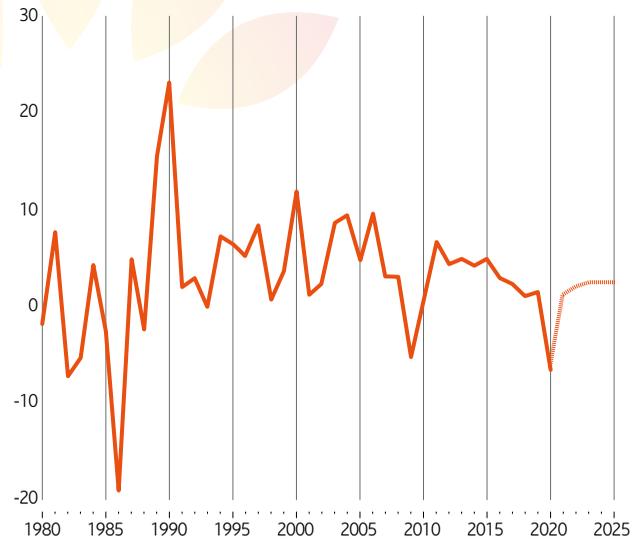
## Trend 5: Diversification

### Business activity in Dubai's selected non-oil private sectors in July 2020



Source: IHS Markit

### Mapping real GDP growth of the UAE (annual percent change)



Source: World Economic Outlook October 2020

where the government is actively investing. For instance:

- The digital sector will get an equity boost from a joint venture between Abu Dhabi Developmental Holding Company (ADQ), the government holding company, and the Abu Dhabi Investment Office (ADIO) where they will make investments in digital start-ups
- The health sector stands to benefit from the launch of Rafed, which aims to provide high-quality, cost-effective procurement and Union71, a new healthcare laboratory testing company. Mubadala's aerospace manufacturing company Strata is also looking to expand in this sector after its experiment with the production of masks at the height of the pandemic
- The food and agriculture sector will see investments stemming from the creation of a new national company that aims to be one of the largest in the Middle East and North Africa region
- The agri-tech industry is expected to be more active after ADIO invested over AED350m to attract four companies to Abu Dhabi in April to establish new research and development facilities
- The transport and logistics sector saw government investments in Dubai-based logistics firm Aramex and supply chain businesses related to shipping

Furthermore, the Abu Dhabi government is attracting private investment in specific industries (food, manufactur-

ing, medical supplies) where the government is targeting greater local production by offering tariff reductions on utilities. The aim is to cut operational costs and demonstrate the government is committed to diversifying the economic base.

Other support schemes, such as CBUAE's Targeted Economic Support Stimulus (TESS) to support small and medium sized enterprises (SMEs) and larger private businesses manage the impact of Covid-19 have helped existing businesses manage over the past few months by helping them to secure loans.

This scheme will continue and likely to be important for existing businesses as they recover from Covid-19 and aim for growth.

Support from the federal and local governments within the UAE will continue to be crucial as economic activity recovers in non-oil sectors, particularly for SMEs.

Covid-19 has certainly impacted the expected 2020 growth of the UAE's non-oil sectors. However, the government is taking steps to protect its long-term ambition so that when the final barrel is sold, celebrations will be due across a vibrant and diverse economy.

#### ABOUT THE AUTHOR



**Shargil Ahmed** is a director in Monitor Deloitte, Deloitte's strategy practice

# DEPENDABLE POWER

The UAE's ambitious energy security plans present new business opportunities for the nation's construction contractors

**T**he central aim of the UAE's energy ambitions is to diversify its power mix, with a greater dependence on clean energy sources. The UAE launched the Energy Strategy 2050 in 2017, aiming to increase the contribution of clean energy sources in the total capacity mix to 50 per cent (44 per cent renewable, 6 per cent nuclear) by 2050.

This long-term vision will require an overhaul in the UAE's key sectors, including construction.

From an environmental standpoint, the industry will have to make a shift towards the use of clean energy on sites and account for greater efficiency in its developments. At the same time, shifting gears in the energy space mean that new opportunities may be emerging for the industry.

Renewables are firmly established at the heart of the UAE's energy policy as the world seeks to reduce its dependence on fossil fuels to ensure long-term economic security and environmental sustainability.

Over the past five years, the UAE has emerged at the forefront of global renewable energy development by setting world-record-low tariffs for unsubsidised solar photovoltaic (PV) and independent water producer (IWP) projects.

It is also home to some of the largest single-site solar arrays and seawater reverse osmosis (SWRO) plants currently being developed in the world.

"Key original equipment manufacturer components of renewable energy projects are significantly greater in number, with PV panels being a great example of this, and also require less complicated on-site construction activity," says Richard Lappin, technical director – power generation at WSP in the Middle East.

"Overall construction times are shorter than those required for construction of conventional gas-fired or nuclear power plants, so the renewables construction market is likely to become more competitive, have shorter term projects, and necessitate less sophisticated construction team skills.

"Nevertheless, offsite planning, the need to accurately model plant layout and predict energy yields, and the limited scope for improvements once plant decisions have been taken means that a lot of time and effort in planning and modelling is required."

## Solar farms



Solar energy forms a critical part of the UAE's clean energy strategy. Dubai started building its solar farms back in 2012, when the first phase of the Mohammed bin Rashid Al Maktoum (MBR) Solar Park was launched; delivering 13MW that became operational in 2013. It is the largest single-site solar energy project in the world, aka concentrated, with a planned total production capacity of 5,000MW by 2030.

In April 2020, Dubai Electricity and Water Authority (Dewa) signed a PPA for the 900MW fifth phase of the same project.

In July, state-owned Emirates Water and Electricity Company (Ewec) has awarded the contract for the 2GW Al Dhafra plant to Abu Dhabi National Energy Company (Taqa), Masdar, French utility company EDF and China's JinkoPower. Upon its expected completion in mid-2022, it is slated to be the largest single-site solar energy project in the world.

UAE waste management company Bee'ah announced in July that it will construct a solar power facility with a capacity of 40MW at a landfill site in Sharjah.

Recently, Ras al-Khaimah Municipality launched a pre-qualification invite for distributed solar projects following successful completion of a pilot solar carport project.

Opportunities in this vertical are currently working in favour of Chinese contractors, who bring in both the expertise and the solar modules – an all-in-one package.

This makes the planning simpler for the client, instead of dealing with layers upon layers in the supply chain. Local contractors could expand their product offerings or take a joint-venture approach to capitalise on opportunities.

## Trend 6: Energy Security

### Alternative energy

The UAE is also adopting other sources such as hydro, nuclear and biogas.

Dubai is developing the GCC's first hydropower project in the Hatta area of the emirate. Hatta will also be the base for the UAE's first utility-scale wind power project.

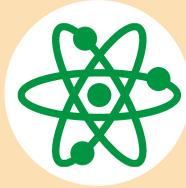
Meanwhile, the commissioning of the first reactor of the \$24.4bn Barakah nuclear power plant in 2020 has ushered in a new era for the UAE's energy goals.

In addition to low-to-zero carbon emission, the nuclear plant is envisaged to support a growing volume of intermittent renewable energy capacity, which is part of the overall plan to have clean energy account for half of the country's overall installed generation capacity by 2050.

Work is also underway on a number of waste-to-energy (WTE) schemes in the UAE, including two WTE plants in Abu Dhabi, one in Sharjah and the UAE's largest WTE plant to date, in Dubai's Warsan area.

France's Veolia has signed an agreement with the Dubai Municipality to develop a PPP biogas project at the Warsan sewage treatment plant.

Studies are also underway in the UAE on the possibilities of generating energy from sources such as tidal waves, ocean current and geothermal.



### Upgrading grids

The most significant challenge facing the region's energy industry will be to ensure electricity grid flexibility and stability as it seeks to integrate large volumes of variable renewable energy, mainly from supply from solar or winds power plants, with more steady supply from conventional thermal power plants.

"Decentralised grid systems will continue to be connected to large-scale grid structures," says WSP's Lappin. "But these will facilitate two-way transfer of electricity to enable small domestic and commercial renewable energy users to supply surplus energy to the grid, whilst maintaining security of supply (firm energy)."

Utilities and power transmission companies in the region are taking significant steps to implement smart electricity grids in support of their country's overarching sustainability objectives.

For instance, Dewa subsidiary InfraX is a build, operate, transfer initiative between Dewa and Huawei. Supported by an upgraded fibre optic backbone connecting Dewa's core businesses and assets including substations, the project is part of the Dubai 10x initiative.

It includes the provision of a platform for IoT, edge computing and centralised solutions that run on the upgraded fibre optic backbone.



### Electrification

As automotive technologies advance, electrification of transport – from passenger vehicles to public transport services – is a focus area for most urban economies.

Electric vehicles (EVs) are quickly becoming popular in line with improved mechanics, batteries and complementary regulations.

The necessary infrastructure needs to be in place in order to support this momentum.

One of the first considerations in building an electrified transportation system is charging infrastructure, including substations, power boxes and charging units.

Dewa has successfully installed more than 240 charging stations across Dubai, with plans to increase the total number of charging stations to 300 stations by the end of 2020. However, the current charging ownership and operating model does not incentivise private sector participation.

Private sector participation could encourage innovation and lead to a more rapid roll-out and better siting of charging points. There are likely to be multiple models employed if the regulatory framework allows.



## Green buildings



The drive towards sustainability and reduced market liquidity for new construction have led to increased demand for property upgrade projects such as retrofits in the UAE over the past five years, dominated largely by the public sector.

Retrofit, renovation and refurbishment projects are typically a component within the wider energy management programme that more clients are likely to adopt in the UAE as property upgrades become more financially viable than new builds.

As these upgrades become an industry of their own, the regional market has seen more civil, mechanical, electrical and plumbing (MEP) and fit-out contractors taking on retrofit projects in the region.

Another area of opportunity for construction players is rooftop solar projects. According to the International Renewable Energy Agency's REmap 2030 report on renewable energy prospects for the UAE, rooftop solar PV could provide approximately six per cent of the country's total power generation by 2030.

Abu Dhabi's Masdar was recently contracted by Yas Island developer Miral to undertake the emirate's largest rooftop solar PV project at Warner Bros theme park in Abu Dhabi.

## Vertical farming



The engineering requirements of the buildings housing these vertical farms could create a niche area of opportunities for the local contracting industry. MEP consultants and contractors, in particular, may find greater demand for their expertise in the sustainable life-cycling.

In markets such as the US and the UK, it is also common for buildings to be repurposed for vertical farming.

Structures are often designed and constructed from scratch to ensure compliance with the technical requirements of vertical farming, which necessitates a degree of light and temperature control to achieve desired results.

Both options require that buildings comprising vertical farms in the UAE are powered efficiently and do not feature the typical failings of poorly delivered MEP services, such as over-designed cooling systems or excessive heat gains.

While the agtech industry is at a relatively nascent stage in the Middle East, the UAE's efforts to raise food security through self-sufficiency will fuel greater investments in the sector.

Local MEP industry stakeholders should consider how they can capitalise on the new opportunities that vertical farming will present in the years to come.

## Water desalination



With the region transitioning to renewable energy supply, a major shift in water supply policy is required to move quickly away from thermal desalination production to reverse osmosis (RO) production to meet water requirements.

Failure to adjust water policy in parallel with the transition to renewables could result in significant curtailment of renewable generation, particularly in the winter time when electricity demand slows.

WSP's Lappin says: "The disaggregation of thermal desalination and electricity production – to ensure that existing assets can operate flexibly to cope with the renewables market penetration and baseload nuclear generation – will necessitate construction activity as disaggregation of desalination allows existing plants to convert to CCGT operation (by constructing a new steam turbine) and for SWRO plant construction to replace thermal desalination."

Abu Dhabi's Ewec plans to develop an independent water project (IWP) in the Ruwais region, which will exceed the capacity of the emirate's Taweelah IWP project by 50 per cent.

# BUILDING THE MISSING LINKS

From hyperloops to autonomous vehicles, new technology is transforming transport and the infrastructure must change to enable it

**A**s major cities around the world grapple with antiquated transport networks unable to cope with the increasing demands of a rapidly growing urban population, the UAE is in a strong position to rethink the traditional mobility model.

New transport technologies from electric and automated vehicles to sky pods and hyperloops offer the potential to transform the urban environment and contribute to a more sustainable, interconnected transport system.

It is clear electric vehicles (EVs) will play a key role in this transformation. Governments across the region have introduced incentives such as free charging, parking and exemption from tolls. Abu Dhabi aims to convert 20 per cent of government fleets to EVs in 2020, and Dubai aims for 10 per cent of new vehicles to be electric or hybrid by 2030. The number of EV charging stations in the UAE is rapidly rising, with facilities being introduced in malls, hotels and public car parks.

## Autonomous future

With the addition of artificial intelligence, machine learning and big data to EVs, the possibility of partially or fully self-driving vehicles emerges.

Autonomous vehicles (AVs) bring potential benefits including better traffic management capabilities, more efficiency and improved safety on the road. It is expected that AVs will require less space – they do not change lanes unnecessarily and can maintain constant speeds and distances – so roads and motorways can be narrower, freeing space for development or other modes of transport.

“Autonomous vehicles are the future of transport,”

says Ravi Suri, senior advisor to multinational consultancy KPMG’s advisory division in the UAE. “The UAE is leading the charge, ranking in the top 10 in KPMG’s Autonomous Vehicles Readiness Index.”

As part of Dubai’s Smart City strategy, Sheikh Mohammed bin Rashid al-Maktoum, vice-president and prime minister of the UAE and ruler of Dubai, announced that by 2030, 25 per cent of all transportation trips in Dubai will be smart and driverless.

However, doubt exists about the likely impact of electric and driverless cars on traffic congestion. “Autonomous vehicles still look at a very traditional private vehicle as the main mode of transport,” says Noor Hajir, head of transport planning, Middle East, at Canada’s WSP. “So it will have an impact of, say, 20 to 30 per cent. But any more than that is doubtful.”

Monica Menendez, director of the Research Centre for Interacting Urban Networks (CITIES) and associate professor of civil and urban engineering at New York University Abu Dhabi says that in order to improve mobility, we need to rethink private vehicle ownership.

“As we think about the future of transportation, we need to start moving away from the idea that everyone needs his or her own private car,” she says. “This shouldn’t come as a surprise if we understand that while the demand for mobility might continue to increase, the space allocated to roads will either remain the same, or increase at a much slower speed. As a result, population growth, especially around urban centres, might lead to disproportionate increases in traffic congestion and all the negative externalities associated with it.”

It is clear reducing the number of private vehicles alone

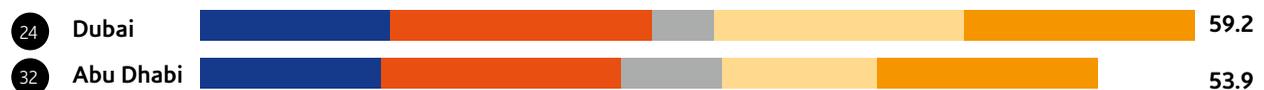
## URBAN MOBILITY READINESS INDEX

### Overall ranking of cities

Cities are ranked on a scale of 1 to 100, based on how well they meet five core criteria

■ System efficiency ■ Social impact ■ Innovation ■ Market attractiveness ■ Infrastructure

RANK



Source: Oliver Wyman Forum Analysis



**“... Questions remain about where responsibility lies for integration and who should pay for it”**

is not enough and integrated mass transit solutions are key to reducing road congestion, air pollution, and energy and oil consumption.

### Essential projects

Despite the economic slowdown seen in the region since 2015, the UAE is still spending on essential mass transit infrastructure. There are transport projects worth a total of \$34.3bn under execution in the UAE, with the biggest spend on Abu Dhabi’s Midfield Terminal complex and the Route 2020 extension of Dubai Metro’s Red Line.

There are also about \$85bn-worth of projects at various stages of pre-execution, according to regional projects tracker MEED Projects. This includes a range of pending packages for developments such as Al-Maktoum International airport and Etihad Rail.

The UAE’s efforts are showing results globally. Abu Dhabi and Dubai ranked within the top 50 cities on the Urban Mobility Readiness Index 2020, prepared by Oliver Wyman Forum and The Institute of Transportation Studies at the University of California in the US.

Analysed across 43 metrics, including regulation, infrastructure, social impact, and the ability to adapt future technologies, the index highlights some of the key strengths and challenges of Dubai and Abu Dhabi’s urban mobility strategies.

Further innovation is on the cards in Dubai and Sharjah, with plans to introduce sky pod transport systems with passenger and cargo units suspended from aerial rails. They are said to be power-efficient and will occupy a smaller land area than conventional means of transport.

“Sky pods are a cheaper option in terms of infrastructure required and will pose fewer right-of-way issues in areas that are already quite developed and have restricted space,” says Hajir.

New and improved public transport modes will become available, but there is a risk uptake will not be widespread unless they are properly linked and accessible to the pub-

lic. To avoid this, planners need to consider development from a whole-journey perspective.

“Current UAE guidelines focus on vehicular or mass transit-based models. They don’t stipulate the need to implement last-mile solutions in the design,” says Hajir.

Future mobility solutions will involve retrofitting existing transport infrastructure to enable micromobility devices such as bicycles and e-scooters as well as introducing more pedestrian walkways.

But questions remain about where responsibility lies for integration and who should pay for it. “You have to look at return on investment,” says Hajir. “The first step is always public, so there needs to be that push from the public sector, whether that is incentivisation or enforcement.”

Hajir explains that all stakeholders should be involved in improving linkage. “Developers can take the initiative,” she says. “Last-mile solutions benefit retailers, for example, by increasing footfall.”

Managing a seamless, flexible and integrated transport network is no small task. But with its growing investments in a widespread 5G network, the UAE is well-placed to introduce digital solutions.

Intelligent Transportation Systems (ITS) used in smart cities leverage technologies such as the Internet of Things and Big Data analytics to monitor and actively manage traffic. As well as route planning and integrated payment systems, ITS can improve efficiency and reduce pollution.

Government-backed initiatives through agencies such as the Mena Centre for Transport Excellence, a joint effort by Dubai’s Roads & Transport Authority and the Belgium-based International Association of Public Transport (UITP), have been established to promote advanced transport management solutions. These will lay down the foundation stones needed for the UAE to achieve its future mobility ambitions.

# EMERGING GIANTS

Asian contractors are increasing in strength in the UAE's construction sector as their governments bankroll long-term megaprojects

**T**he past two decades have seen Asian contractors, led by Chinese companies, dominating the Middle East's construction sector, and their involvement in the UAE shows no signs of slowing down.

During the first eight months of this year, Chinese contractors won almost \$6bn of major contracts – those valued at more than \$100m – across all sectors in the Middle East, according to regional projects tracker MEED Projects. That gave Chinese firms a 12 per cent share of the \$50bn total of major deals awarded during the period.

At present, Chinese contractors are involved in 48 under-execution projects, with a combined net value of \$11.2bn, in the UAE's construction and transport sectors.

Another \$5.7bn of projects in the UAE's construction and transport sectors have Chinese companies involved as bidders or at the prequalification stage. The largest of these pre-execution projects is the local Emaar Properties' Dubai Creek Tower, for which China State Construction Engineering Corporation (CSCEC) is among the bidders.

## Social focus

Large Asian contractors have historically grown through the delivery of national welfare agendas in housing, healthcare and education, which reflects their significance to the growing social infrastructure sector in the UAE and the wider Middle East. This know-how, coupled with the 'share-and-transfer' model that Asian contractors can offer in terms of skills and technology, has helped them secure an advantageous niche in the UAE's construction sector.

Funding support is another notable differentiator that has enabled Asian contractors to stand out in the local construction market. Given the government's focus on expanding in the Middle East, Chinese companies have been at the forefront of new investment opportunities that Beijing can bankroll.

The Bank of China said in December 2017 that it would provide financing to Chinese firms that establish operations at Khalifa Industrial Zone Abu Dhabi (Kizad).

Yu Tao, CSCEC's president and CEO in the Middle East, told local media in 2018 that CSCEC expected to receive support from its headquarters to expand in the region. "There are going to be more landmark projects participated in by Chinese enterprises, and we are going to get support

from our headquarters, both technically and financially, to boost our performance in the Middle East by increasing capacity and international scale," said Tao. "We can see that backboned by BRI [Belt and Road Initiative], which is a great opportunity for CSCEC to enhance its business activities."

## New opportunities

Other southeast Asian contractors are also finding new work opportunities in the region on the back of funding through export credit agencies (ECAs). This April, Japan Bank for International Cooperation (JBIC) signed a multibillion-yen loan to support the export of construction machinery to the UAE.

JBIC and Mitsubishi UFJ Financial Group, which is co-financing the export credit line agreement, will each provide \$33.1m to UAE-based Dar Alhai Trading, while Nippon Export & Investment Insurance will insure the private financial institution's portion of the loan.

In October 2016, the Barakah nuclear energy plant received \$2.5bn from South Korea's Export-Import Bank of Korea (Kexim) as one of the direct loans that would fund the overnight cost of the prime contract for construction and commissioning, interest during construction and the cost of initial nuclear fuel.

Korea Electric Power Corporation (Kepeco) is understood to have secured the deal to build Barakah's four nuclear reactors in December 2009, and another contract to operate the power plant in 2016.

"Support from ECAs, specifically for Korean and Japanese



## World's top 10 construction firms by revenue (\$bn)

China State Construction Engineering Corporation (CSCEC)	181
China Railway Group	112
China Railway Construction Corporation	110
China Communications Construction Company	74
Vinci	52
Power Construction Corporation of China	45
Metallurgical Corporation of China	43
ACS	43
Bouygues	42
China Energy Engineering Corporation	34

Source: GlobalData

companies, makes Asian engineering, procurement and construction contractors attractive for clients in the region, particularly from a public-private partnership perspective," says Shashank Rath, partner at India-based Synergy Consulting. There are other inherent cost-based advantages for Asian contractors, he explains. For one, lower labour costs mean contractors from Asian markets are likely to be less financially constrained and risk-averse in terms of aggressively pursuing new work.

"Moreover, contracts are agreed either in the local currency or in dollars, making it easier for Asian contractors to recoup money to their respective parent companies," says Rath. "Having a large number of contracts likely also allows them to better manage cashflows in the region compared with other contractors that may have fewer contracts."

These benefits, backed by political appetite to grow the Sino-Emirati relationship, have led to several investments being confirmed between both countries in recent years.

### Development initiative

The BRI, announced by President Xi Jinping during official visits to Kazakhstan and Indonesia in 2013, has been a significant tool to break the ice and further build relation-

ships between Chinese and Emirati stakeholders.

In December 2015, both countries signed an agreement to launch a \$10bn co-investment fund to seek investments in areas including conventional and renewable energy, infrastructure, technology and advanced manufacturing, with the governments of China and Abu Dhabi providing equal funding.

The \$1.6bn China-UAE Industrial Capacity Cooperation Demonstration Zone project was established at Kizad in July 2017 with Jiangsu Provincial Overseas Cooperation & Investment Company. As of July 2019, it had attracted investments from more than 20 Chinese companies, including Hanergy Thin Film Power Group, Jiangsu Fantai Mining Development, Xuzhou Jianghe Wood, Jiangsu Jinzi Environmental Technology and Guangzheng Group.

The UAE finds itself at the centre of Beijing's strategy to expand the Silk Road across the region.

As a result, Asian contractors – led by Chinese companies – will continue their upward trajectory in the UAE in the years to come.

## China in Abu Dhabi

Some of Abu Dhabi's largest ongoing transport schemes have significant involvement from Chinese construction companies. CSCEC is undertaking the mechanical works package for the \$2.9bn Midfield Terminal complex for Abu Dhabi Airports Company. China Harbour Engineering Company is involved as main and mechanical, electrical and plumbing contractor for the \$320m container terminal expansion project at Khalifa Port, appointed by Abu Dhabi Ports.

Additionally, Chinese contractors are part of the joint ventures (JVs) working on a combined \$3.3bn-worth of packages for the second phase of Etihad Rail. CSCEC and South Korea's SK Engineering & Construction are main contractors for the \$409m package A of stage 2 of the railway, while China Railway Construction Corporation (CRRC) and the local Ghantoot Group are main contractors for packages B and C, each of which are worth \$544m.

Power China and India's Larsen & Toubro are the main contracting JV for the \$509m F2 freight package of Etihad Rail's second stage, with CRRC and the local National Projects & Construction main contractors for the \$1.2bn package D – the largest of the five contracts for stage 2.

# GROWING IN-COUNTRY VALUE

Increasing local content in construction is a vital policy driver and will prompt increased use of local supply chains, as well as investment in skills and research

**W**hat don't we import? That was the question a supplier retorted with when asked about localisation in the UAE construction industry. "Even the sand we use comes from overseas."

The UAE's construction sector has primarily depended on importing building materials, equipment and work-force. The country has made multimillion-dollar investments in warehousing and transportation infrastructure, strategically connecting land, sea and air to allow for efficient transfer of goods to and from across the globe.

But then came the Covid-19 pandemic, shredding international trade, forcing countries to lock down borders, factories and populations. And while localisation began long before the health crisis, the jolt has compelled economies to ask: how can we be more self-reliant?

## Immediate impact

As China halted its economy in January, mandating factory closures to contain the outbreak, Sachin Kerur, US-based Reed Smith's head of Middle East and partner in the firm's energy and natural resources practice, says that for construction firms in the UAE heavily reliant on the Chinese supply chain, there was "a lot of scrambling around" to mitigate the impact.

"There's a greater narrative around shortening the supply chain [now]," he says. "What [companies] are saying is that we have to assume there will be further pandemic disruption in the future, so what do we need to do to be forward-thinking?"

The most challenging but rewarding scenario remains to develop local capabilities – a feat that the oil and gas sector has already made significant headway in.

"The construction sector can build on the strong experience [of the oil and gas industry] in terms of localising supply chains," says Constantin Frank-Fahle, managing partner at Germany's Germela Law.

"The Covid-19 crisis has certainly accelerated the process of localisation. There is a firm belief now to have critical parts of the supply chain in country. The general trend of in-country value schemes [ICV] spreading out from oil and gas into other industries has been going on for over a year."

ICV programmes have been getting attention from poli-

cymakers to support economic diversification, strengthen domestic supply chains, create jobs for Emiratis, and ultimately retain more value from investments within the country. In September, Abu Dhabi National Oil Company (Adnoc) signed two framework agreements with fellow state-owned entities Mubadala Investment Company and Emirates Nuclear Energy Corporation to partner on Adnoc's ICV programme. Adnoc has signed similar agreements with the Abu Dhabi Department for Economic Development, Abu Dhabi Ports and Aldar Properties.

"Abu Dhabi is working on linking various initiatives," says Frank-Fahle. "One of them is the Electrical Tariff Incentive Programme, which is linked to the ICV programme and grants cheaper electricity tariffs to producers with a high localisation score."

Meanwhile, firms that have invested in localisation are seeing efforts pay off. Swaidan Saeed Juma al-Naboodah, managing director of Al-Naboodah Group – one of the UAE's oldest family conglomerates – says localisation has led to the company's construction arm becoming a preferred contractor on megaprojects.

"Localisation has many benefits, as it protects the economy from disruptions to highly complex international supply chains, something that has been highlighted re-



cently with the Covid-19 pandemic,” says Al-Naboodah. “Localisation is also important for autonomy and stability in supply chains, reducing dependence on external suppliers and enabling better control over quality. For example, we self-supply in all of our construction projects through our in-house capabilities in the production of asphalt and concrete through Al-Naboodah Readymix Concrete [Arcon], and our plant and heavy equipment business [National Plant & Equipment].”

Arcon’s in-house laboratory testing facilities are fully equipped to supply specialised products tailored to specific applications such as airport runways, he adds.

“This is one of the many reasons why Al-Naboodah has been a preferred contractor for so many airport projects over the years, including [Dubai’s] recent 45-day South Runway Renovation Project.”

Ducab, one of the UAE’s largest industrial manufacturing businesses and among the highest scorers on Adnoc’s ICV scale, is also a beneficiary of localisation. The company saw sales of its high-voltage cables and copper rods grow 15 per cent in the first six months of 2020.

Ashish Chaturvedy, head of marketing at Ducab, says while price remains among the deciding factors, Covid-19 has taught contractors the value of the local supply chain.

“Buying cheaper overseas is always at the cost of something,” he says. “There will always be someone selling cheaper. But ultimately, if a contractor’s whole schedule is thrown out of gear, it’s going to cost them far more. There have been quite a few issues with shipping schedules because of border restrictions. So, we’ve really seen how having a robust supply chain in place, regular logistical partners, contacts with government agencies, a local workforce and a deep understanding of regulatory requirements have come to our advantage.”

## Long-term approach

But while localisation helps build resilience against future shocks, the math may not initially add up for construction, says Reed Smith’s Kerur. “A number of construction companies have very developed international supply chains [and] that’s how they massage the margins.”

And unlike with oil and gas ICV programmes, the construction sector has yet to find policy-driven support.

“What oil and gas has done very well is drive stakeholder involvement, so everybody tends to work in harmony,” Kerur explains. “The construction sector is much more adversarial.”

Margins were already “small and skinny” and Covid-19 continues to strain both expenditure and liquidity, he adds, making it difficult for firms to invest in localisation.

**“Localisation is important for autonomy and stability in supply chains, reducing dependence on external suppliers and enabling better control over quality”**

Companies are, however, likely to place emphasis on Covid-19 related metrics. “You will now see them assess which country is likely to be more prone to lockdowns or to difficulties in hiring,” says Kerur.

“The simple reality is that the UAE is dependent upon imports for many commodities, products and resources that simply aren’t available locally,” says Al-Naboodah. “This is where world-class education and STEM [science, technology, engineering and mathematics] fields will play a vital role in the UAE’s future, as high-tech, science and service-based industries will be able to flourish even in the absence of abundant local resources.”

## New technologies

The “understanding” to use new technologies to leapfrog the process of localisation is still a challenge, however, says Ashish Panjabi, chief operating officer at Jacky’s Business Solutions – a distributor of 3D and large-format printers and industrial UV printing products to construction companies and industrial innovation labs.

“A lot of big contracting companies have [innovation] departments,” he says. “But then you need a consultant to understand, and architects and clients ... the whole ecosystem.”

Panjabi insists, however, that localisation is “not going to be driven by Covid-19”.

“It’s going to happen because of the overall vision [and] because people want to do things differently,” he says. “Local and regional universities have been investing heavily in 3D printing labs, manufacturing labs, AI [artificial intelligence] and robotics labs – and once you’ve got talent available locally, you’re cultivating change on the job too.”

“We are now seeing ICV target scores in megaprojects, which require a minimum ICV score to take part in the bid,” adds Germela’s Frank-Fahle.

“This will further accelerate ICV, as pressure will be passed on down the supply chain. I expect we will soon see ICV rolled out as a federal law and become relevant to all governmental procurement.”

# HEADING OVERSEAS

Emerging markets in the region and elsewhere can provide opportunities for the UAE's national construction champions as local market conditions worsen



**W**hen arriving in either Dubai or Abu Dhabi, the first thing visitors see is what looks like a vibrant and profitable construction sector.

While a seemingly endless series of building sites and a skyline perforated by tower cranes indicate billions of dollars of ongoing construction work, they do not represent a market in rude health.

Liquidity has been a challenge across the region since the oil price collapse that started in late 2014 and in the years that followed, growing oversupply concerns in Dubai's property market have further eroded the prevailing market conditions.

The clearest reminder yet of the difficulties facing the UAE's construction sector came on 30 September, when shareholders of the UAE's largest contractor, Dubai-listed Arabtec Holding, voted to liquidate and dissolve the company. The loss-hit contractor cited unfavourable

market conditions and tightening liquidity as the key driver behind the decision.

## Contractor exodus

Arabtec is not the only contractor to decide to stop working in the UAE. International contractors such as the UK's Balfour Beatty, Netherlands-based Bam International, and South Africa's Murray & Roberts have taken the decision to leave the UAE market as they no longer feel the market offers profitable opportunities in the future.

Construction is a people-driven industry and when companies stop operating, the market risks losing the expertise that has been gained from working on projects over the past decades.

In Dubai and Abu Dhabi, construction companies have completed the world's tallest tower, one of the world's busiest international airports, some of the world's largest shopping malls, the world's largest aluminium smelters,

major international ports, oil refineries and, for utilities, a nuclear power plant and some of the world's largest solar power plants.

As well as contractors, the UAE has built up an extensive local supply chain to deliver these projects and as contractors leave the market their prospects for the future also diminish.

A way to mitigate these problems is to develop a construction industry that can export these capabilities when the domestic market is in recession.

The Middle East has benefited from the reverse of this process in the past as international contractors came to the region looking for work. Far Eastern contractors came after the Asian financial crisis of the late 1990s and Southern European firms bid aggressively for work in the early 2010s after the global financial crisis. More recently, Chinese contractors have become more active in the region as China's economic growth has slowed in recent years.

The UAE's construction sector was heading into a downturn before the start of 2020. Contract awards had slowed and as work on projects was completed, the market was starting to look like it was oversupplied with construction companies.

In 2020, the universal nature of the Covid-19 pandemic will mean companies all over the world, not just the UAE, will be hungry for work overseas. This means the competition is likely to be fierce, which means government support will be critical.

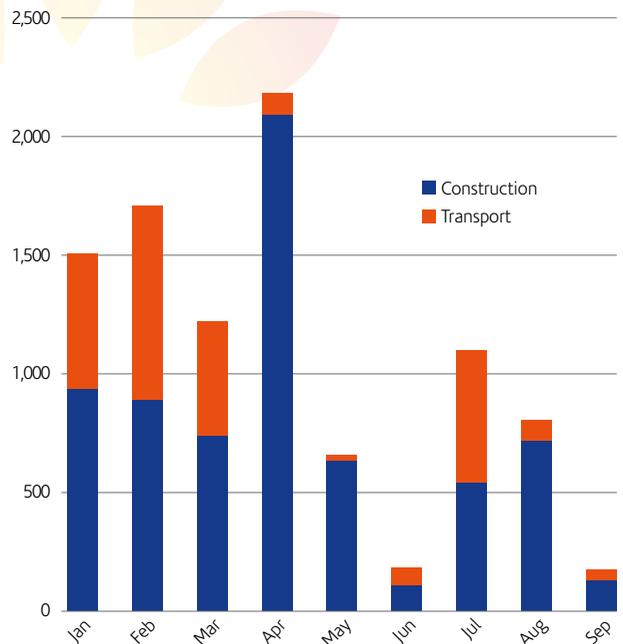
### Opportunities abroad

The first signs of this trend are now starting to emerge. In late July, the UAE's export credit agency, Etihad Credit Insurance (ECI), said it has agreed to provide export credit protection to Ras al-Khaimah's Rak Ceramics.

Rak Ceramics is one of the UAE's most active exporters and the agreement will support its global expansion

**“Construction is a people-driven industry and when companies stop operating, the market risks losing the expertise that has been gained from working on projects over the past decade”**

## UAE construction and transport contract awards January-September 2020 (\$m)



Source: MEED Projects

plans. The credit support will allow Rak Ceramics to tap into more international markets. It already has clients in more than 150 countries through its hubs in Europe, the Middle East and North Africa, Asia, North and South America and Australia.

The UAE's export credit efforts would benefit further if an integrated approach was deployed with contractors winning work overseas that they could support along with the supply chain.

There are signs this is starting to happen, as it did when the UAE's construction sector endured a downturn following the global financial crisis in 2008-09.

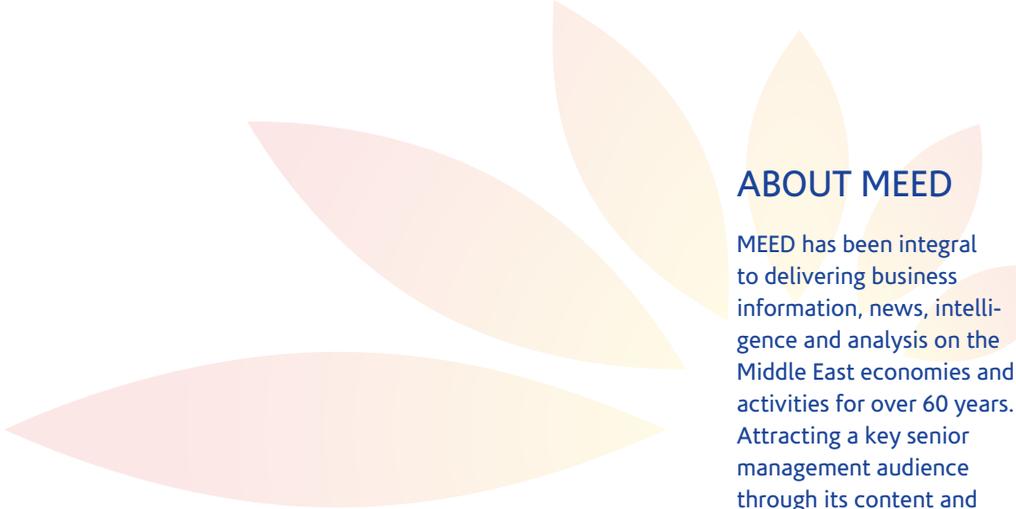
Over the past year UAE companies have been increasingly tendering for work in other geographies. The focus has primarily been on the GCC, and most notably on Saudi Arabia, where there is a large volume of upcoming construction work on the raft of new gigaprojects planned in the kingdom, as well major civil engineering and social infrastructure projects. Africa is another favoured destination as contractors can work supporting investment into emerging markets.

The challenge to overcome in the future is that the number of contractors that have the financial firepower to expand into new markets is diminishing as market conditions worsen in the UAE.



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## ABOUT MEED

MEED has been integral to delivering business information, news, intelligence and analysis on the Middle East economies and activities for over 60 years. Attracting a key senior management audience through its content and activities, MEED is a media brand, publication and data business that covers a spectrum of services which inform, engage, connect and ultimately support our subscribers and partners in their business development and strategic growth.

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Established in 1967, Mashreq is the oldest bank in the UAE, with award-winning financial solutions and services. Throughout its 50 years' history, Mashreq has differentiated itself through innovative financial solutions, making it possible for its customers to achieve their aspirations.

Today, Mashreq has a significant presence in 11 countries outside the UAE, with 21 overseas branches and offices across Europe, the US, Asia and Africa.

Mashreq launched its new Vision and Mission recently, outlining its commitment towards its clients, colleagues and the community. In line with its vision to be the region's most progressive bank, Mashreq leverages its leadership position in the banking industry to enable innovative possibilities and solutions for its customers across corporate, retail, international, treasury and Islamic banking.

Mashreq is proud to be the first financial institution in the UAE to be awarded the Gallup Great Workplace Award for four consecutive years from 2014-17. Mashreq also continues to invest in recruiting, training and developing future generations of UAE national bankers.

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