

We have become accustomed to living in a time of constant change, with the Fourth Industrial Revolution having completely transformed the way business is being done across countries. Yet no one could have predicted the impact that the coronavirus (COVID-19) could have had in such a short amount of time. In a matter of a few short months, entire countries have been on full or partial lockdowns, closed off borders, stopped all non-essential businesses, entire industries have been severely impacted, including air travel, tourism, trade, and food and beverage with some stating that recovery would take years to reach pre-coronavirus times.

Yet as many businesses deal with the "respond" phase of the COVID-19 crisis, others have reached the "recover" phase, and some are even looking to enter the "thrive" phase. It will be interesting to see the impact of COVID-19 in the next few weeks, months and years on these sectors. This thought leadership publication has been written to reflect the situation at the time of publishing, with the caveat that times are fast-changing and unprecedented, which could render the information provided in this report inaccurate or no longer applicable.

## Foreword

We are pleased to present our 10th annual edition of the Deloitte GCC Powers of Construction publication, and what changes we have witnessed in these 10 years. Our publication aims to analyze current trends and provides insights into the marketplace. This edition draws on data and opinions from external sources, as well as leveraging Deloitte Middle East expertise.

Like all sectors across the world, Construction has not been immune to the impact of the global COVID-19 pandemic. Already, pre-COVID-19, the Construction industry in the region was facing several challenges including low margins, increased competition, significant delays in projects as well as a significant volume of change orders and lower awards in projects despite significant plans in the GCC to invest in infrastructure and capital projects, all leading to significant pressure on liquidity. With the additional challenges posed by COVID-19, contractors' liquidity circumstances have been exacerbated as most organizations turned to cash preservation measures, which resulted in further delays of payments to contractors and their supply chain.

The Construction industry's response to COVID-19 went through the three distinct phases of Respond, Recover and Thrive. In the early Respond phase, the industry's natural focus turned to ways to effectively and safely execute projects at the pace and scale required to minimize social and economic damage and to contain costs while focusing on cash preservation. This called for an emphasis on cash flow visibility by project and at an organisational level and scenario planning, quantifying the impact of COVID-19 on project costs and cash flows, and applying short-term measures to reduce costs and

establish mechanisms and procedures to prioritise cash disbursements and understand the contractual implications.

As the regional Construction industry moves into the Recover phase, it is essential to adopt a strategic view. Here, the focus should be on the effective execution of projects and payments to contractors being made in a timely manner to ensure the much-needed liquidity to complete the projects under execution. An equal focus should be placed on resolving any long-overdue unapproved claims and variations, which continue to disrupt cash flow and project progress which ultimately impacts the overall cost of the asset being built.

Amid the pandemic, future projections have been revised, with recent industry forecasts indicating that approximately US\$83 billion worth of contracts could potentially be awarded this year across the region, a reduction from the original project award forecast of US\$127bn. However, if the current rate of project awards were to continue to the end of the year, then estimates indicate that approximately US\$61 billion worth of contracts could be signed, representing a fall of 52% on the original forecast project award prediction<sup>1</sup>. Such a scenario would continue to add pressure across the industry, with further potential repercussions felt across the supply chain.

As stakeholders grapple with the 'new normal' that COVID-19 has presented, they also face an opportunity to rethink the way they used to work and discover new opportunities to change the status quo collectively. This should be addressed in the Thrive phase. High on the agenda will be creating enhancements to Construction

contracts, with the goal of attaining standardized Construction contracts that fairly balance the risk and reward between the employer and the contractor, and, as a result, reduce the extent of cost overruns which benefits the developers and the contractors and eliminates unnecessary overspend which is otherwise called waste.

Going forward, the importance of tech to the sector has never been greater. Not only does tech – such as drones, robotic Construction processes and AI - deliver advantages in terms of driving cost optimization, but it can also help to minimize other risks associated with any second wave of COVID-19 or future pandemics.

Longer term, in addition to working towards building long-term enhancements to cash flow management and contractual terms and conditions, Construction companies should be seeking to establish a better foundation for the future through creating a new level of engagement and collaboration with employers for the overall benefit of the wider economy.

We hope that this 2020 edition of the Deloitte GCC Powers of Construction provides you with in depth insights on how the industry can come together in this 'new normal' to create a future in which everyone thrives and waste is eliminated and capital projects are built at a cost that is both reasonable and economically viable.

**Cynthia Corby** – Partner and Regional Construction Industry Leader, Deloitte Middle East

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The GCC Construction industry has weathered a number of storms through the years. The events and aftermath of 9/11, the real estate crash of 2008/09, and the halving of oil prices in 2014 all had a dramatic impact on the market and its fundamental dynamics.

Yet, arguably nothing has come close to the recent double whammy of the COVID-19 pandemic and collapsing oil prices. Combined, the two sudden events threaten to completely alter the market's outlook and create a whole set of new challenges for project companies to overcome.

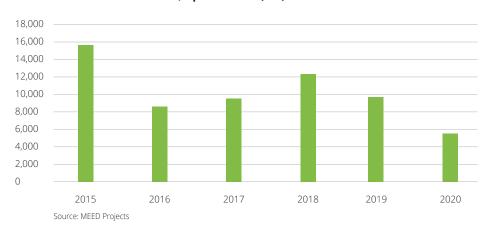
The latest data speaks for itself. In April, the first full month of the coronavirus impact, just \$4.1bn worth of contracts were awarded in the GCC, close to 40% lower than the \$6.2bn worth of contracts in the same month last year, according to the MEED Projects tracking service (www. meedprojects.com). The wider MENA region as a whole, recorded a slightly steeper decline of 42% year-on-year as clients held off on awarding new deals in the face of such uncertainty.

Similarly, there has been a sharp rise in projects either under execution or planned that are being put on hold or even cancelled as a result of deteriorating conditions. More than 550 projects, worth over \$60bn, are known to have been suspended or delayed since 1 March in the GCC alone as clients take stock of the situation.

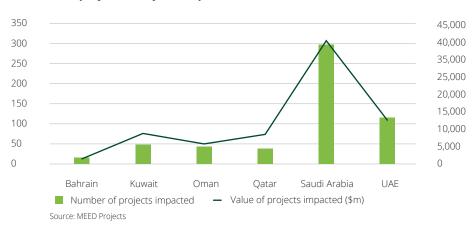
These figures include close to 15% of all active water projects, totaling \$9bn, and more than 11% of all transport projects, worth more than \$23bn. Conversely, some sectors appear more immune to short-term delays and postponements; only 2.5% of oil schemes have been impacted, for instance.

Saudi Arabia has been the worst hit GCC state with just under 300 projects put on hold, followed by the UAE with 115 pending projects. However, it should be noted that both countries have proportionally a much larger number of projects than their neighbours.

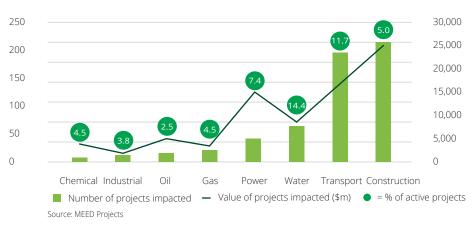
### Total MENA Contract Awards, April 2015-20 (\$m)



### Known GCC projects delayed, suspended or cancelled due to COVID-19



### Known GCC projects delayed, suspended or cancelled due to COVID-19 by sector



As the market slows, project companies now face two distinct challenges. In the immediate short term, they have to adhere to contracts and maintain Construction output while at the same time meeting the requirements for social distancing among staff and transporting them to and from site.

In parallel, there is anecdotal evidence of payments slowing and cashflow deteriorating, while falling building material production also threatens to disrupt project schedules as the availability of key supplies like mortar, brick and plasterboard becomes more limited.

Beyond these immediate operational issues, firms have to face up to the potential of a shrinking market as plummeting crude prices and declining output compel authorities to pare down expenditure. For example, Dubai's Department of Finance in early April told all government agencies to cut capital spending by 50%, delay new projects, and reduce spending on ongoing construction projects, according to Bloomberg.

The same month in neighbouring Abu Dhabi, MEED reported that Adnoc asked its suppliers and contractors for "cost savings", and canceled \$1.6bn worth of contracts on its Dalma field development project just three weeks after their signing.

Oman's state-run companies were told to cut expenditure by 10% and to stop the implementation of all new projects, according to Reuters, while Bahrain went further and insisted on a 30% cut in costs. Qatar said it was going to postpone some \$8.2bn of un-awarded capital projects in its 7 April bond prospectus.

In Saudi Arabia, the region's largest projects market, Finance Minister Mohammed Al-Jadaan warned in an interview with Bloomberg in early May that some projects under the Kingdom's Vision 2030 will be "postponed and extended to next year and to the year after". Media reports on 12 May suggested Riyadh was planning some \$8bn in cuts to projects in 2020.

The result of these cutbacks is likely to be a sharp fall in the expected value of work awarded in 2020. MEED Projects at the start of the year forecasted the total value of projects to be awarded in 2020 at about \$127bn. This was about \$22bn up on the 2019 total of \$105bn¹.

However, COVID-19 has necessitated a revision of the original forecast. MEED Projects now predicts that if the pandemic results in a three-month lockdown of economic activity, forecast spending for the year will instead reach \$107bn, about 15% down on the initial \$127bn forecast. If the virus were to have a longer lasting six-month economic impact, then the forecast is for just \$87bn work of contracts awarded. This would mark the worst projects market performance for the GCC in at least a generation.

While this year's spending outlook is now bleak, it may only be the start of a prolonged downturn.

Beyond the immediate issue of cutting back on capital expenditure, all of the six GCC nations are revising their long-term visions to reflect what may be a very different world once the pandemic has passed.

For a start, it is becoming apparent that some sectors and industries, such as aviation, retail and tourism, may inexorably change or at the very least take years to return to their pre-virus norm as people

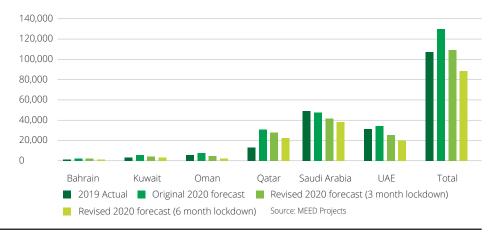
adjust their spending habits. For instance, when announcing Emirates Airline results on 10 May, Group Chairman Sheikh Ahmed bin Saeed al-Maktoum said that he did not see air travel returning to normal for at least another 18 months.

The economic slump that follows the pandemic is set to compound the situation. The UAE, for example, with its majority expatriate population, may actually experience depopulation as people lose their jobs and return to their home countries. In this scenario, it is hard to see anything but a further contraction in property prices and consumer spending in the region.

Equally uncertain is the future of crude oil. As with other sectors, the oil industry could potentially emerge from its current crisis in a very different guise. It will undoubtedly recover some of its recent price falls as demand recovers. But no one can claim with any certainty that it will definitely reach \$50 a barrel anytime soon let alone the \$70-plus most economies in MENA require to balance their books. Some have already acted. On 10 May, Saudi Arabia took the dramatic step of tripling VAT to 15% while simultaneously removing a cost of living allowance for public sector employees. The move was made to help cover a potential budget deficit of more than SR200bn as crude revenues slump.

Others have acted less overtly but with the same intent. The UAE's Prime Minister and

### Forecast projects spending 2020, GCC (\$m)



<sup>1.</sup> It is worth noting that this 17% increase was based in part on approximately \$20bn of exceptional contract awards on the Qatar LNG expansion program. Without this one-off item, spending would have been more or less flat year-on-year.

Dubai Ruler Sheikh Mohammed bin Rashed al-Maktoum in May challenged his cabinet in a three-day meeting titled "Preparations for the post-coronavirus, COVID-19, period," urging it to adopt new ideas and stating "our national priorities need to be reviewed to cope with the post-COVID-19 world."

Faced with lower client expenditure and a radically changing economy, firms dependent on projects spending cannot afford to stand still.

For an industry that was already struggling under declining project activity, cashflow and payment issues, decreasing margins and increased competition, many companies now face an existential challenge. Those that embrace innovation and technology will be better equipped to prosper in this new environment.

Many have already adapted by trimming workforces and adopting more efficient processes. Investments in new and emerging construction technologies, such as BIM, 3D printing, Big Data, digital twinning, and the Internet of Things (IoT), can help speed up development and reduce costs.

In parallel, companies have also followed more traditional approaches, such as diversifying into more resilient sectors of the market and entering new geographies. Solar power, water and wastewater infrastructure, and offsite modular construction are good examples of sectors to have bucked the trend and witnessed strong growth in the past half-decade.

From a new market perspective, Sub-Saharan Africa states represent a growing opportunity, given their infrastructure requirements and high economic growth. But targeting new countries is both costly and risky, and rewards are not guaranteed. A case in point is Egypt. While the construction market in the country is booming thanks to high population growth, it is difficult to access because local firms are so well entrenched and highly competitive. International companies wishing to enter the market would need to have a compelling proposition in order to be successful.

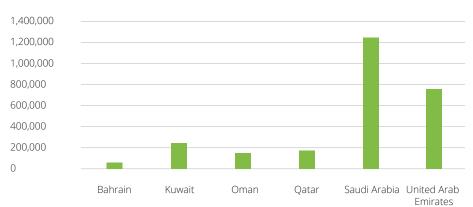
Finally, it is always worth remembering that the future pipeline of projects in the region remains considerable. At more than \$2.5 trillion, even if the pipeline were to halve, it would still represent a very sizeable market opportunity.

And what COVID-19 and the oil price fall have done is served to focus minds on the need to accelerate economic diversification and movements toward each country's national vision. From that at least many major new opportunities will emerge. The companies which can pre-empt and grasp these changes will be those that will be best-positioned to face the challenges ahead.

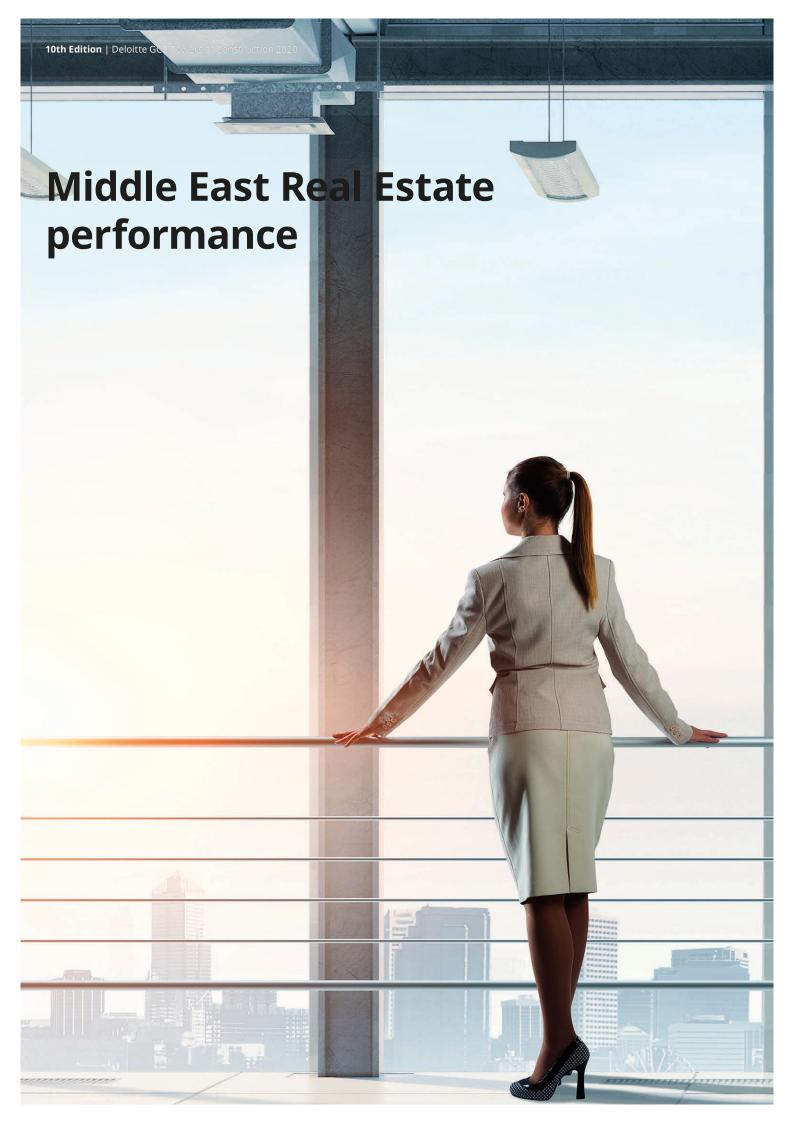
by **Ed James** – Director of Content & Analysis at MEED Projects

Saudi Arabia has been the worst hit GCC state with just under 300 projects put on hold, followed by the UAE with with 115 pending projects. However, it should be noted that both countries have proportionally a much larger number of projects than their neighbours.

### Value of planned and un-awarded GCC projects (\$m)



Source: MEED Projects



### Dubai

Real Estate sector performance in Dubai continued to be impacted by oversupply in 2019, which resulted in falling capital and rental values, particularly in the residential sector of the city. Meanwhile, COVID-19 has caused significant disruption across all Real Estate sectors and the magnitude of the impact due to travel restrictions and lockdown measures will depend on the shape and pace of recovery.

The average sales price for residential property across Dubai declined by approximately 7 percent between Q3 2018 and Q3 2019<sup>1</sup>. Meanwhile, increasing supply also impacted rents, which declined by approximately 9 percent over the same period.

Notably, the UAE government put in place certain initiatives, such as the Higher Committee for Real Estate which was formed in September 2019 and aimed at mitigating the imbalance in supply and demand in the medium term. Meanwhile, Dubai has become more affordable to a wider audience and the key to success will be translating this into sales and lettings and permanent residence opportunities.

In 2019, Dubai continued to retain its position as one of the most attractive tourism destinations in the world, in terms of the total number of international overnight visitors. However, average daily rates (ADRs) and occupancy rates experienced downward pressure from increasing supply and minimal demand growth.

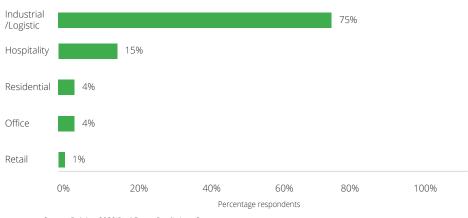
For commercial assets, oversupply in select locations and a limited number of new occupiers were among the key factors for sluggish activity in 2019. The primary demand was for Grade A properties, such as DIFC.

Looking forward, the outlook for the Real Estate sector is tied to macro-economic factors and to related recovery measures for businesses from COVID-19, including actions from the Central Bank and policy makers. It remains to be seen whether the pandemic will result in structural shifts in the real estate sector<sup>2</sup>.

### Residential sales price index for Dubai, Jan 2003 to Jan 2020



### Q. Which asset class in Dubai has the most potential in 2020?



Source: Deloitte 2020 Real Estate Predictions Survey

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## Kingdom of Saudi Arabia (KSA)

Diversification efforts, social reforms and government-led investments in Infrastructure, Entertainment and the Tourism sector will be key to the Real Estate sector's recovery and growth in the long term.

### Market performance<sup>3</sup>

### Riyadh

Average occupancy levels in Riyadh rose by 5 percent in the first half of 2019 compared to the same period in 2018. However, increasing supply and competition led to declines in average daily rates (ADR) by 10 percent over the same period. This resulted in an overall decline in revenue per available room (RevPAR) by 6 percent.

Approximately 850 new keys were handed over in Riyadh during the first half of 2019, bringing existing stock to 14,874 keys. This included key offerings such as the Marriott Hotel and Marriott Executive Apartments Riyadh Diplomatic Quarter.

Approximately 4,500 additional keys are scheduled to be completed by 2021, assuming there are no project delays or suspensions.

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This additional supply is expected to exert further downward pressure on both occupancy rates and ADR as supply continues to outstrip demand, which has been severely impacted by the COVID-19 outbreak and counteracting measures.

The announced infrastructure developments and the dramatic transformation in the Entertainment and Leisure sectors are expected to help diversify the city's tourist base and increase demand within these sectors in the long term.

### Jeddah

Occupancy levels remained stable in Jeddah during 2019, but increasing supply and competition continued to drive reductions in ADR and consequently RevPAR. The latter declined by approximately 11 percent in the first half of 2019, compared to the same period last year.

During the first half of 2019 approximately 556 keys were handed over in Jeddah, which included Adagio Aparthotel Jeddah Malik Road and Ibis Jeddah Malik Road.

Approximately 7,600 keys are expected to be completed by 2021, representing a 60 percent increase to existing supply, although some projects may face delays or suspensions.

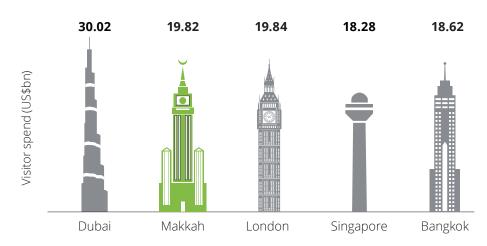
### Makkah

Occupancy rates in Makkah increased by 10 percent year-on-year to reach 68 percent in the first half of 2019. However, the supply increase continued to exert pressure on ADR, which declined by 8 percent over the same period. This resulted in an increase of 1 percent in RevPAR.

Approximately 1,489 keys were delivered during the first half of 2019, including Millennium Makkah Al Naseem and the Doubletree By Hilton Makkah Jabal Omar. An additional 20,100 keys are expected to be delivered until 2021, mainly located in proximity to Al Masjid Al Haram.

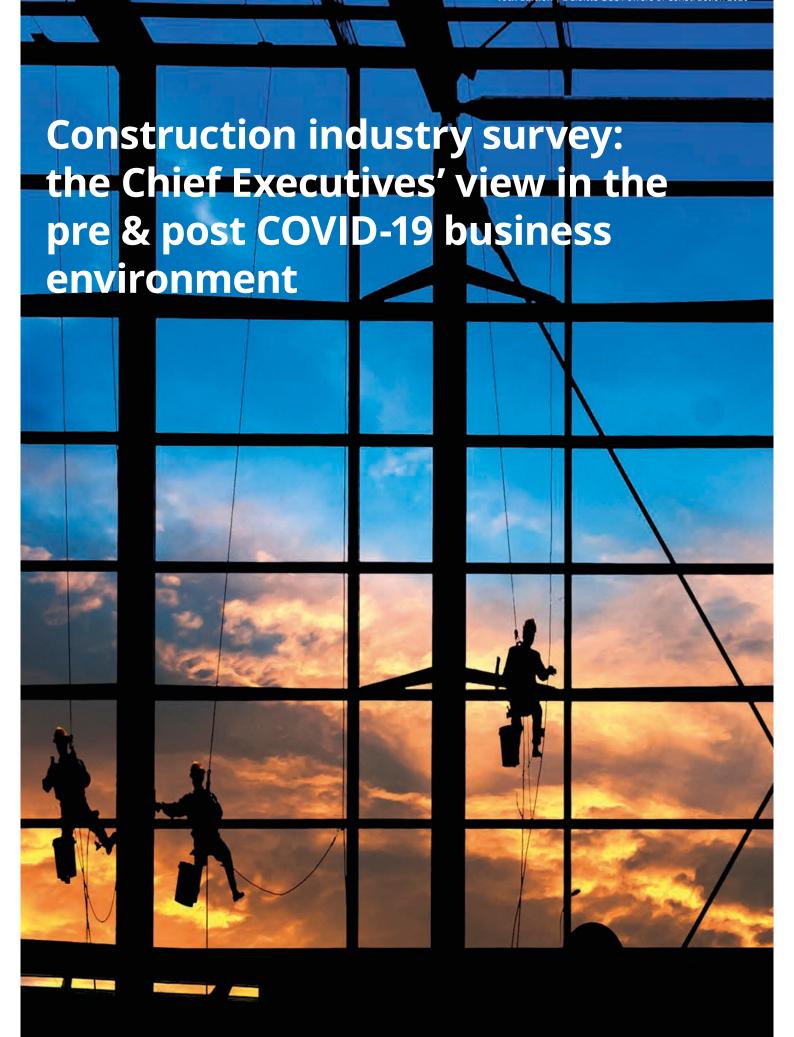
by **Oliver Morgan** – Director, Head of Real Estate Development, Deloitte Middle East, **Dunia Joulani** – Head of Travel, Hospitality and Leisure, Deloitte Middle East, **Manika Dhama** – Assistant Director, Real Estate Development, Deloitte Middle East

## International overnight visitor spending, global top five destinations, 2018



Source: Mastercard Global Destination Cities Index

- 1. Reidin, Q3 2018 vs 2019 YOY average sales prices.
- $2. \quad \text{Deloitte Dubai Real Estate Predictions 2020, a survey of 100 leading investors and developers} \\$
- 3. Data from STR



Deloitte conducted two surveys of Chief Executives from the GCC Construction industry. The initial survey, conducted in early 2020, was to gain insight into market sentiments on a range of topical issues impacting the construction industry across the GCC region. We then conducted a follow-up survey in June 2020, to reflect on how these sentiments have changed as a result of the COVID-19 pandemic.

Even prior to the pandemic, respondents had a grim outlook on their businesses' future financial prospects relative to the preceding 12 months. The added uncertainty of the pandemic world has further impacted sentiment among the respondents.

The outlook on future financial prospects was driven primarily by external market drivers, such as the global and local economy, increased competition, and increased pressure on liquidity.

The following is a summary of the key findings.

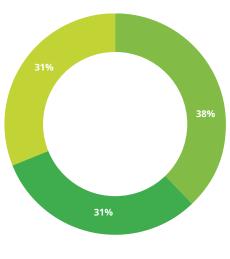
## The impact of the pandemic on GCC construction

The pandemic has drastically impacted the future outlook on financial metrics of companies around the globe, and the GCC construction sector is no exception. The respondents expect that their key financial metrics will perform negatively in the coming 12 months, as would be expected in such unprecedented times. Decreases are expected in revenue, operating margins, operating cash flow and hiring, along with increases in average receivable days, uncertified work in progress (WIP) days, and bank borrowings.

In addition to the impact on financial metrics, the sector has also encountered significant operational issues in its battle against the pandemic. The industry was deemed 'key' in many jurisdictions and largely continued to operate during the various lockdowns enforced by governments to contain the spread of the pandemic. However, many businesses have faced operational challenges including labor productivity, surplus labor, health & safety challenges for onsite personnel,

disruption to global supply chains and work delays, all amounting to an increased cost on these projects, and further deterioration of liquidity and cash flow. Almost half of the respondents have experienced a delay or termination of works, or have had to notify employers under the force majeure/change of law clause in their contracts in an attempt to recover these additional costs and protect themselves from potential liquidated damages.

To counter these challenges and alleviate some of the liquidity pressures, businesses in the sector are implementing self-help measures. All respondents confirmed that their business took some action in a bid to ensure business continuity and cash preservation, with some businesses implementing more than one measure; 31% of respondents implemented temporary or permanent salary reductions, 31% reduced headcount, and 38% implemented a reduction in both salary and headcount.



Salary reductions

Headcount reduction

Both

Figure 1: Self-help measures implemented by business in the construction sector  $\,$ 

### **Optimism downturn**

The Construction market was challenging for many contractors even prior to the pandemic. During 2019, oil prices remained at a standstill with no clear signs of recovery, thus weakening economic growth in the GCC. This continued to have an impact on the timing of the award of Government construction projects. Similarly, the private

sector has continued to be cautious with new Construction awards, in light of economic and geopolitical pressures. Consequently, there was a downturn in optimism among respondents about future awards

Prior to the pandemic, 33% of the respondents were optimistic about their future financial prospects relative to the preceding 12 months. This compares with 56% of respondents in 2018 who were more optimistic about the future. It comes as no surprise that the pandemic has eroded this already declining optimism with oil prices at the level they are.

### **Cash deprivation**

Consistent with prior years, the majority (2019/2020: 87%, 2018: 72%) of respondents believe that there is greater pressure on contractors to help fund projects due to delays in payments. During 2019/2020, 28% of respondents have seen increases in their bank borrowings to fund the Construction of ongoing projects.

The need for additional funding can be attributed to the growing cash conversion cycle for contractors, i.e. the time taken from when work is performed on site to being certified and then being paid the cash. To determine the average cash conversion cycle of contractors in the region, we asked respondents about the average time for conversion of 'work done (uncertified WIP) to receivables' and the average 'collection time of receivables' once certified. On average in 2019 it took 35 days longer than in 2018 to receive payments for work done, with this increasing substantially in 2020 by a further 73 days as result of the pandemic. This has left contractors having to fund a further 108 days of working capital compared to 18 months ago, with the cash conversion cycle now averaging at approximately 1 year for in-progress contractual cashflows.

It should be noted that the above collection timeframe assumes there were no legal/contractual disputes. Respondents indicated that when there is a dispute with the employer, the collection period is substantially longer, and this further increases the financing requirements of the business.

### **Contractual disputes**

When asked if the level of contractual dispute activity had increased over the past 18 months, either in terms of number of disputes or the value of those disputes, 40% (2018: 61%) of respondents agreed.

Given the dispute activity, contractors still feel they have little choice but to enter into dispute resolution proceedings to recover their costs. Approximately 80% (2018: 83%) of respondents are currently involved in some form of contractual dispute, whether due to unapproved variations, contractual claims, project cancellation or other reasons, with 60% of respondents not recognizing any revenue associated with these disputes until they are resolved. This therefore negatively impacts their performance for their financial year as all the contract costs need to be recognized against no revenue, given the uncertainty of the revenue.

### **Dispute resolution**

Based on the survey results, the average dispute resolution time appears to have increased by almost four months (2019: 35 months, 2018: 31 months). These are significant timeframes when considering that the contractor (and the employer) will be incurring additional legal and professional advisor fees during the dispute resolution process, further impacting margins and cash flows and putting further pressure on funding requirements.

The majority of respondents believe that the pandemic has caused further unknown delays to the current dispute resolution process. It is too early to able to estimate the extent to which the dispute resolution time will increase, but any additional delays to this already protracted process are likely to strain contractor resources even further.

### Financing availability

There is increasing pressure on contractors to help fund projects during construction, which is primarily due to the increasing cash conversion cycle (currently averaging at approximately one year) and dispute resolution time (currently averaging at approximately three years). As a result, similar to prior years, the majority (2019:



Figure 2: % of respondents optimistic about future financial prospects correlated to average oil prices (in US dollars per barrel)

Average oil price source: https://www.statista.com/statistics/262858/change-in-opec-crude-oil-prices-since-1960/



Figure 3: Average time taken to receive payments for work done



Figure 4: Average time to resolve contractual disputes

87%, 2018: 76%) of respondents are experiencing greater pressure to fund projects relative to 12 months ago.

Given the increased need to fund projects, respondents were asked about their experiences regarding availability of finance. Based on the survey results of 2019/2020, there was an improvement in the availability of finance to contractors, with only 20% of respondents finding it hard to get financing for their business, compared to 33% in 2018.

In these unprecedented times and challenging business environments, the GCC governments have taken rapid and significant actions to support businesses which are impacted by the pandemic through the introduction of stimulus packages. These packages were designed to offer relief to businesses in a variety of

ways, including but not limited to delayed repayments on loans and an increase in the availability of credit facilities. When respondents were asked if they have been able to access any of the stimulus measures introduced by their respective Central Bank, only 15% said yes, while the remainder were either not able to access or not aware of how they could access the relief announced.

### **Future outlook**

Given the continuing challenging environment for the construction sector and the unprecedented challenges that contractors are experiencing as we emerge into a new post-pandemic world, it becomes even more important for contractors to efficiently manage cash flow.

When respondents were asked when activity is expected to rebound for the construction sector, 76% believe this will not be earlier than Q1 2021, with half of these expecting it to take even longer.

However, with a future rebound, 70% of respondents believe that the pandemic will give the sector the much-needed push to reshape the GCC Construction industry.

Note to reader: This was a "pulse survey" conducted to ascertain the views of C-Suite industry leaders. It is not, nor is it intended to be, scientific in its number of respondents, selection of respondents, or response

rate.

by **Jaimi Raikundalia** – Audit Partner, Deloitte Middle East, **Pavan Kumar** – Audit Manager, Deloitte Middle East

Even prior to the pandemic, respondents had a grim outlook on their businesses' future financial prospects relative to the preceding 12 months. The added uncertainty in the new pandemic world has further decreased optimism among the respondents.



The social and economic disruption caused by the coronavirus (COVID-19) outbreak will shape the UAE construction industry for years to come. There are segments that are stressed simply because of their dependency on either labor or imports at a time where movement is an issue! Everyone is still figuring out what the real medium term impact of COVID-19 is, and how to approach it. The extent of its impact can be mitigated by accelerating long-overdue reforms to the way the Construction industry operates.

It is imperative for the region's Construction industry to lead the world in terms of quality, productivity and safety. In the UAE alone, there are major projects planned, so there is clearly a lot at stake here. Then, there is the heightened scrutiny of the value of public sector spending, where every Dirham spent now needs to deliver value. This is increasingly apparent in the region's Projects sector, where late delivery and greater-than-expected costs are draining large sums of money. Technology would be one area that can provide a solution for the many challenges faced by the Construction industry in the region. In essence, UAE's Construction companies need to better plan their long-term investments to sustain the transition towards a technologydriven Construction landscape, however, first there needs to be a change in mindset!

# However, first there needs to be a change in mindset!

This change in mindset goes down to the core issue of the culture in the industry, where clients look to complete projects as quickly and cheaply as possible. Tenders are still awarded to the lowest bidder and there is very little thought given to the long-term sustainability of the project stakeholders. This undermines sustainability and is damaging in the long-term- an evident example of mindset that needs to change.

To add to industry's multiple issues, a lack of financing and accounting discipline by contractors in general compounds their struggle to secure financing during the difficult times. The infamous "need to borrow" generally with no clear structure has

negatively affected the viability of so many contractors during these difficult cycles.

While the industry has a lot to address, one observation lenders focused on during the financial crises of 2008 and the existing pandemic is, "Contractors who ring-fence the cashflows of their projects are likely to fare better and raise finance for those projects faster". That's where the "contracting finance model", a term used by lending banks, comes into the picture.

The model is dependent on the "What":

- · Initial project cashflow
- Project execution plan
- Legal contract defining scope, time, cost and responsibilities

Once the "What" is analyzed, "the How" is assessed for the required financing instruments and these will be structured around:

- Contractual warranties that need to be provided by the contractor (performance, advance payment and retention bank guarantees)
- Procurement requirements, be it materials or equipment (documentary credit)
- Temporary cashflow deficits, which arise due to the timing of incurring cost and the receipt of payment from the project owner as per the terms of the contract (short term loans or overdrafts)

For the ring-fencing project finance to work, all payments made or received should be within a specific bank account that is only used for the purpose of completing this project. Upon completion of the project, the account will cease to operate. Such arrangement will require the contractor to assign the proceeds to that account held with the lender, and the project owner to recognize and accept the same and make sure the payments are only made to the project-specific account. The rejection of some project owners to accept project proceeds makes it difficult for contractors to source the right cashflow financing from their banks.

Under this model, banks will make sure to extend all possible support to allow the project to complete, which will result in the return of the performance guarantees and rundown of exposure. Banks will support project financing if the source of repayment is secure and identified; they will support more if payment is assigned to the bank and paid into the project ring-fenced bank account.

This arrangement also helps contractors and their finance teams to maintain the discipline of ring-fencing projects cashflows and avoiding the malaise of using a specific project's funds to shore up other struggling projects, which ultimately leads to failure. When the cashflows reduce these projects suffer tremendously due to a shortage of new inflows to cover the earlier withdrawals outside the project cashflow.

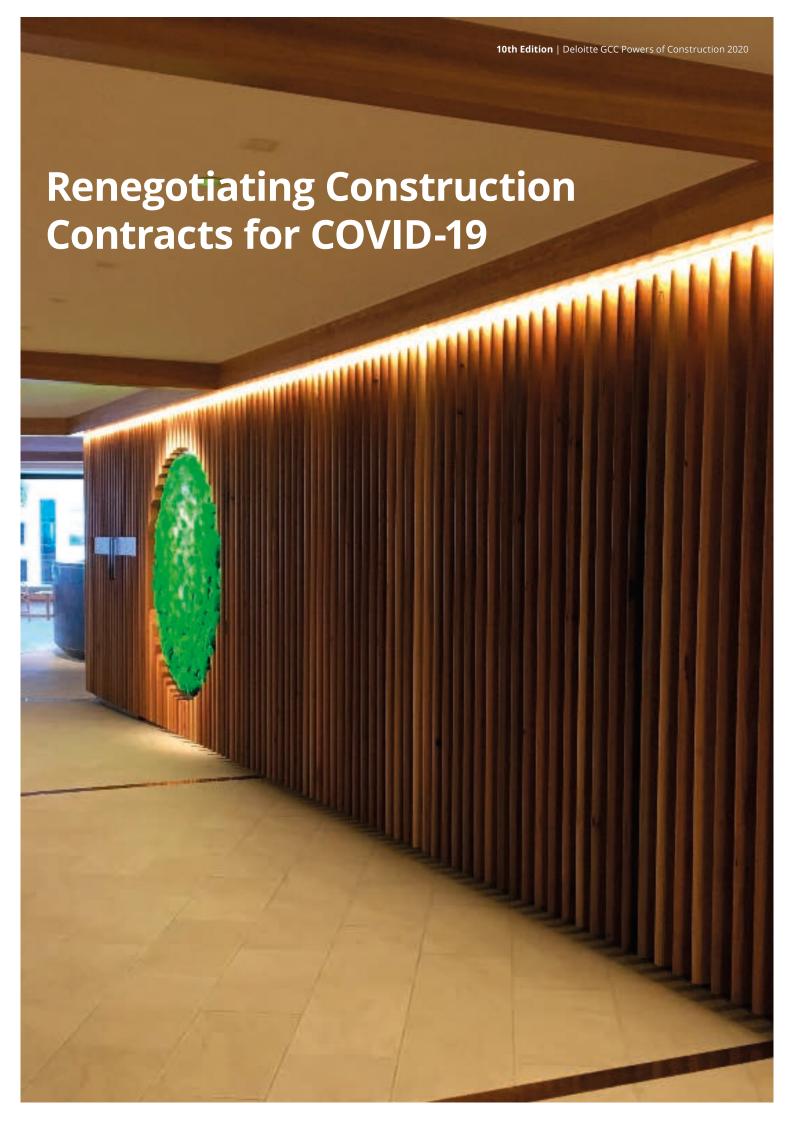
Therefore, it is an ecosystem that needs to exist if we are to protect and enhance the performance of this crucial industry. All parties need to realize that no one can operate in isolation, and a failure by any party to uphold their contractual responsibility will result in a failure of the project.

Where do we go from here...?

Now is the time to set this discipline to ring-fence each projects cashflows and work with the industry to facilitate, and maybe mandate, the assignment of project proceeds to the bank that is issuing the performance guarantees. It is also time for us to reconsider what burdens we place on the contractor; unbalanced risk and reward contracts, delayed certifications and the size and tenure of project bank guarantees all need to be addressed.

This is an easy, conscientious decision we need to make, which will allow us to start addressing the real issues constraining the evolution of this industry; writing fair contracts, promoting the use of technology, building sustainably... Now is always the best time to change!

by **Mohammad Al Shouli** – Executive Vice President Global Head of Contracting Finance, Mashreq



The Construction landscape before COVID-19 was one where inequitable risk allocation had eroded industry profit margins, late payment had created a cash flow crisis, and an unparalleled level of scope changes by employers resulted in a culture of chronic cost and time overruns, disputes, and mounting financial losses.

COVID-19 has brought with it a few more challenges: social distancing requirements and safety measures on site and in labor camps, a shortage of labor, plants and materials, travel restrictions and quarantine rules, all causing delay and disruption to projects.

But perhaps most significantly, COVID-19 has resulted in uncertain demand for projects already underway.

In an environment of inequitable risk allocation, it was inevitable that the response of some employers has been to tell contractors to reduce their prices.

Contractors are asking if legally they must comply and employers are asking how they can use the contract terms to justify such a demand.

Assuming that the contract price is a traditional lump sum, there is unlikely to be any contractual mechanism entitling the employer to require the reduction of the contract price without also decreasing or changing the contractor's scope (such as omitting works or changing the types of installations).

The only exception is where the contract contains a provision for adjustments by which there is a reduction to the contractor's costs (eg, GC-13.8 of FIDIC Red Book, if utilized). However, whilst

some commodity prices, such as steel, may have reduced in price, the broad expectation is that COVID-19 related events will have increased the contractor's cost of delivering a project as a result of delay and disruption, meaning that the most likely outcome would be the contractor raising claims for additional payments under this and other contractual provisions to recover its losses.

With no contractual justification to require a reduction in the contract price, does the contractor have to reduce its price? No. The contractor is entitled to rely on the agreed contract price. But is it desirable for the contractor to reduce the contract price? Possibly.

The contractor may be at risk of termination or finding itself with no further work on the project. Where turnover is crucial to survival, this risk may be unacceptable for the contractor. Against this alternative a price reduction may be more desirable.

Is it a real risk? It may be. If either party gave notice of force majeure and the execution of substantially all of the works is prevented for a prolonged period of time (84 days in the 1999 FIDIC contracts), it is likely that either party will have a right to terminate. Employers, in any event, typically have a contractual right to terminate for convenience. Even without that right, employers could fall back on the approach favored in the global financial crisis to "de-scope" the remainder of project works in order to remove the contractor. It should be noted that while the unamended forms of FIDIC prevent these actions where the intention is to award the works to another contractor, in this region that clause is usually removed.

In these circumstances the contract usually entitles the contractor to payment for the works carried out to date (and costs incurred in contemplation of completing the rest) but not loss of profit.

Faced with this possibility a contractor might be minded to consider reducing the contract price. If so, and if able to negotiate

something in return that may ease its financial difficulties, the most obvious consideration is cash flow. This could be considered in terms of the below:

A request to increase the frequency of interim applications, payments two weeks in advance and two weeks in arrears, and/or a shorter payment period. Whilst there is a cost to it, consider a project bank account to protect against delayed payments. This also has the advantage to the employer of ensuring the subcontractors get paid and the money is spent on its project.

Ceasing the withholding of retention.

A reduction in performance security (and thus cost of maintenance): performance bonds are usually linked to the contract price so it would follow that the bond is reduced proportionately as a minimum.

Settlement of any existing claims for time and cost.

An amendment to the contract will need to be drawn up in writing and consideration will need to be given as to how the other terms will operate to avoid any unintended consequences, in particular:

- What is the revised time for completion?
- Are the provisions for extension of time and additional cost still appropriate?
- Does the provision for delay damages need amending if intended to be a percentage of the contract price?
- Are programs and BoQs still reliable/ relevant for the purposes of assessing interim payments?
- Does insurance need extending in time or coverage to meet the new conditions?
- Who is to cover the cost of any plant or material which has suffered deterioration during any slow-down or suspension? The cost of expired manufacturers warranties? Re-mobilization?

- How will a second wave of COVID-19 (or other coronavirus) be dealt with?
- Are the suspension and termination provisions still appropriate?
- Do the subcontract and supplier contracts need to be amended to reflect changes in the main contract (eg. in relation to pricing or the provision of information/forecasts to feed into the main contract applications for payment)?

The contract amendment must be signed by someone with the express authority to bind the company to new contracts and to enter into settlement agreements on behalf of the company.

However, the existing tight margins call for a more sophisticated solution than simply reducing prices.

Before the COVID-19 pandemic occurred, the industry said it was almost at breaking point. The GCC had a reputation for being a notoriously difficult market in which to make a profit. International companies were leaving the market, main contractors were experiencing the insolvency of four or five suppliers and subcontractors on each major project, and developers were complaining of delivery risk with main contractors on the edge of insolvency. A simple reduction in contract price will intensify these issues.

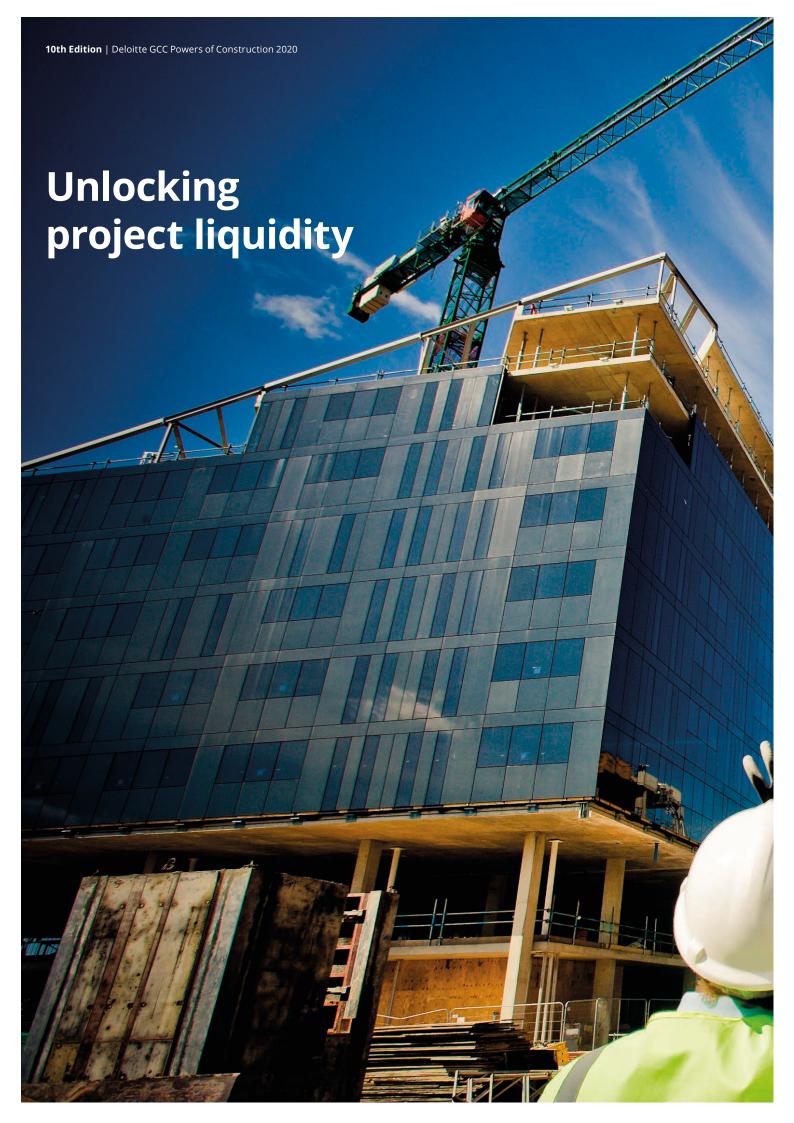
Resilience will come in the form of a more collaborative approach to the project post-COVID-19. Consider for example, value engineering on certain aspects of the scope in order to bring the price down whilst still more or less respecting the originally intended overall scope and quality of the project. Project bank accounts would offer security for all. Switching to a cost reimbursable contract would give the employer more confidence in the contractor's ability to deliver and promote transparency. A modest profit

margin could be agreed and the employer would benefit from any gains arising from lower commodity prices.

Again, any changes will need to appropriately documented in an amendment to the contract and consideration will need to be given to impact on the other contract clauses.

It is in everyone's interest that our industry survives. Renegotiating contracts will be a key part of that survival. If there was ever a time to turn to a fair, collaborative approach to construction contracts to drive success, it is now.

by **Suzannah Newboult** – Partner, DLA Piper



### **Unlocking project liquidity**

It's no secret that Middle East contractors are feeling the squeeze in a highly competitive environment fueled by a decreasing supply of new projects in the construction market. As bid teams battle it out over a lower volume of project awards, developers are naturally pressing contractors harder on project commercial terms.

The "new normal" is an awakening for contractors forced to accept not only lower project margins but a decreased volume of projects - a compounding reduction on gross profits. Project contract risks are inherent and omnipresent, but in an unfavorable market environment of reduced supply and tighter margins, it becomes more important than ever for contractors to remain operationally and financially diligent to manage these risks and achieve the forecast margins.

Profits, however small, may still appear on paper. Therefore it's understandable that the greatest daily challenge for contractors in the current market is liquidity management. Cash is not only a product of the business but the "blood" that drives it – and projects. Over the last year we have seen a number of contractors seeking to raise new debt or negotiate new terms with not just banks but sub-contractors and suppliers. Contractors therefore have a lot more to consider when bidding and entering into new contracts.

## Plan and negotiate your project cash profile not just your margin

When bidding, aligning project receipts to cash outflows is key; so too is management of advance payments. The Middle East construction sector has historically benefited from significant advance payment terms of typically 10 to 25 percent of the contract value. Whilst intended to support mobilization

and the early procurement of long-lead items through the contractor supply chain, advance funds are regularly being utilized against costs and delays of other projects – potentially starving the intended recipient project of cash from the outset. This leads to cash challenges on one project contaminating the rest of the projects and business, potentially giving rise to a host of stakeholder challenges (i.e. multiple customers and creditors) as the whole contracting business rather than a particular project is put at risk, including performing projects.

An understanding and monitoring of the actual cash profile of each project on a standalone basis in addition to their combined outcome is therefore critical. Only then can robust cases be put to clients for further cash advances or to speed up the collection of receipts, or can a case be demonstrated for further equity or debt funding.

An understanding and monitoring of the actual cash profile of each project on a standalone basis in addition to their combined outcome is therefore critical.

### Liquidity management best-practice - tactics to employ

Cash receipts – debtor management	
Tactic	
Align receipts to project cash needs (or sooner) not just costs	This may include agreeing earlier payments for contractors' committed spend and materials off-site.
Rapid submission and vigilant follow-up of certifications, claims and variations	Too much emphasis on delivering the project can detract from important efforts to substantiate robustly the value or works and cash entitlement, as well as potentially accelerate spending.
Client/project credit worthiness and sources of funding	Understanding clearly how a client expects to fund contractors and the clients' sources and quantum of financing made available for doing so, can influence whether to bid.

Cash payments - cost reduction and trade creditor management		
Outsourcing of works to reduced fixed cost base	If decreased project volumes lead to decreased utilization of fixed cost employees, aligning to the new normal and employing variable costs allows greater flexibility to adapt to a volatile volume of projects.	
Strategic procurement to drive enhanced pricing and terms	Centralization of procurement and advance procurement planning can enable procurement divisions to manage fewer orders of higher volumes with pricing reductions and rebates. Similarly, fine-tuning the timing of procurement can smooth the cash flow profile.	
Capital governance and project control		
Selective bidding and enhanced focus on risk allocation	Enhance the bid process for tender approval, focusing on risk allocation and suitability based on the working capital profile.	
Project-wise and enterprise cash planning and analysis	Bottom-up, ring-fenced, cash flow planning gives visibility over the drivers of cash flow and the pinch points where careful management is required to inform decision-making.	
Avoid gaps in data sharing and client management	Claims knowledge and data can be lost during times of high staff turnover, making it challenging for others to pursue. Ensure documentation is robust, updated and secure at all times.	
Establish a cash mind-set in commercial and project managers	A cash focus should be cascaded down to project teams, to ensure they remain vigilant in regard to receipts and payments and their net cash position.	

## When does a project need bank support? The bank's view:

A tough message for many to acknowledge is that with the appropriate cash planning, bank financing of contractor operations is typically low and restricted to projects with significant time between milestone payments. Furthermore, where cash requirements may be temporary over the profile of a project, contractor bank support may not even be necessary at all times.

However, the story on-the-ground appears different. Regionally, and based on a sample of listed peers, contractors with debt to equity ratios in excess of 1x are not uncommon. By comparison, global counterparts typically have debt to equity ratios of less than 0.3x. These highly leveraged positions erode long-term shareholder value and dividends. This is further demonstrated by interest to EBITDA ratios of close to 1x, against a 0.2x global benchmark. To unlock any long-term value from this position, reducing debt

is critical for regional contractors. From a bank perspective this only heightens their risk allocation of the Construction sector, pushing up interest rates, and bond collateral requirements, making debt not only harder to attain but also less attractive as a significant source of cash.

Despite this, overall banking sector liquidity is at comfortable levels, with a desire to deploy. However, demonstration of the following is key:

- A clear purpose and requirement for debtnot to fund project losses or overheads
- First-ranking repayment security in the form of pledged receivables or fixed assets in excess of borrowings

To raise debt at a corporate level (as opposed to a specific project) in addition to the above the contractor would typically require a much larger portfolio to absorb the risk of any loss-making contracts.

Contractor bonding in favor of clients has been a mainstay of the industry, in particular performance bonds. Contractors should seek to price the cost of these into their tenders, as well as any other finance costs. Demonstrating a focus on liquidity management can also reduce the cash collateral required to secure these.

by **David Stark** – Partner, Restructuring, Deloitte Middle East, **Thomas Bullock** – Director, Restructuring, Deloitte Middle East



## Deloitte Middle East talks to Mr Ahmad Al Matrooshi, Managing Director, Emaar Properties PJSC, about Emaar's strategic plans and the digital transformation journey.

## What defines Emaar and its culture as a key regional Real Estate developer and what would you ascribe Emaar's success to?

Emaar was founded on the vision to shape the future through integrated master-planned communities. Over 22 years later, we have set an impressive track-record in developing and delivering world-class property, malls, and hospitality projects in countries around the world, creating thriving lifestyle communities while contributing to the local economy. Better yet, we provide innovative and memorable lifestyle experiences that enhance the everyday life of our residents.

As we continue to grow and innovate ahead of the curve, our ongoing investment in customer-centric innovation across our business results in continued interest from foreign investors in both residential and commercial developments. Today, Emaar's positioning in the global development landscape is the result of that single-minded vision, and the focus on long-term value creation for stakeholders that has consistently been delivered. Emaar's performance in 2019 was robust, maintaining growth within a challenging market. This is a testament to our innovative concepts and products, and the people behind them. Emaar does not simply look to the future — we build it.

## How have you adapted your strategy to respond to the changes in the Real Estate market?

Our strategy is and remains to build premium real estate assets for regional and international markets. As a business, we remain resilient and agile to market conditions. We are prepared for the complexities of our operating environment and aim to meet the demands of an everchanging environment. Transformation is ingrained in the fabric of Emaar and is a mindset that helps us to secure long-term and sustainable growth.

What are your views on Sheikh Mohammed's New Year letter and the initiative announced to rebalance the

#### **Real Estate market?**

Sheikh Mohammed bin Rashid Al Maktoum, Prime Minister and Ruler of Dubai, outlined an optimistic view of our shared future and one we share here at Emaar.

The United Arab Emirates is advancing at unprecedented speed; adopting technologies and putting in place the right legislation to support future growth. To put it simply, we are preparing for tomorrow, today. An important part of this journey, as a country and as a business, is the ability to adjust and change course when faced with external challenges. As His Highness said, we are a country that faces facts and reviews calculations. Agility is the recipe for success and will contribute to the success of both Emaar and secure the future of the UAE.

## There appears to be a large pipeline of infrastructure projects for the forthcoming years, how does this feature in your future strategy?

We are primed for growth and redefining the landscape of Dubai remains at the core of our business. Upcoming projects, such as The Valley, encapsulate the next chapter of Emaar. Our ambitions are nested in the future trends of the property market and are focused on modern living – core to the development of building premium Real Estate.

# Can you tell us more about Emaar's ongoing digital transformation journey and how this is being applied in your developments as well as your day-to-day project management?

From efficiency and productivity, to connectivity and customer-centric services, technology is raising the standard of expectation across the industry. As we come to be defined by the agility, flexibility and responsiveness to the demands of customers and a shifting market, the opportunity to significantly enhance the value of our assets and properties sits within the technology sector.

Emaar is committed to implementing continuous, seamless transformation

through a robust execution and delivery strategy of digital solutions. From building our first 3-D printed home to the recent partnership with Xiaomi for Emaar Smart Home, Emaar is leveraging the potential of innovative digital technologies across all aspects of operations, with a digital-first and customer-first strategy.

What innovative construction technologies have you used when building your most recent projects? Dubai's first 3D printed home is an Emaar project, can you tell us more about this and how this may feature in your future strategy and where you see the opportunities and the challenges with 3D construction in the future? How do you see this impacting the home of the future?

Offering several benefits, including more flexibility in design, 3D printing is also 'greener' with sustainable home construction techniques significantly lowering waste and noise pollution during wall construction.

In early 2019, Emaar launched a global competition, in which the world's leading 3D printing technology providers participated to 3D print a model home in Emaar's Arabian Ranches III residential development. Following the competition, an international 3D printing technology company and a UAE-based contractor were awarded the contract. The construction will be facilitated using a local contractor and locally sourced printing materials with the goal of building in-country competencies in 3D printing for the property sector.

Starting with 3D printing of the home's walls, this signifies a nascent crossroad, with rapidly evolving technology that will continue to advance over time. Emaar's 3D-printed home, printed on-site in just 72 hours is the first step towards our ambition to become a leading adopter of advanced construction technologies, allowing to print at scale and ultimately creating a future in which customers can design, download and print their own homes and communities.

## Tell us about Emaar's partnership with Xiaomi as part of your roll-out of the Emaar Smart Home?

As the first developer outside of China to enter a strategic partnership with Xiaomi for a smart home experience, the MoU reflects our shared commitment to the creation of communities that meet the demands of tomorrow. The partnership adds a new dimension to Emaar's diverse portfolio of products offering customers greater convenience and next generation living.

Emaar Smart Home features an exclusive set of digitally-enabled residential developments, powered by Xiaomi and controlled via a voice-enabled app.

The Emaar Smart Home, featuring oneof-a-kind smart home experiences, is equipped with a set of pre-installed smart home and IoT products, offering a new level of comfort and connectivity for customers with Xiaomi's smart home solutions.

The roll-out plan for Emaar Smart Home revolves around launching locally, with the concept potentially being brought into Emaar's international markets.

What other innovations are you currently adopting to improve your business? Why is it important for Emaar to innovate and invest in modern technologies and what are the key benefits this can offer? How will this influence the Middle East construction sector?

Technology and innovation sit at the core of everything we do. We are committed to adopting construction technologies to advance our ambitions which allow for better, faster and more efficient delivery.

Just take 3D printing as an example: this technology will create more efficient construction and Emaar is bringing this technology to Dubai's residential market for the first time with Emaar's premier 3D printed home.

What changes do you think are required in the construction sector to embrace technology effectively?

Technology is reshaping the construction

industry. Connected equipment, mobile apps, autonomous equipment, drones and augmented reality are readily available and being used across the world. The future of construction rests on the ability to adopt innovations and invest in big tech. This is the future of our industry and should be the front of mind for construction companies the world over.

At Emaar, our ambition is to be a leading adopter of advanced construction technologies. Our plans to embrace 3D printing of homes is a key part of our digital-first approach. In doing this, we are not only positioning ourselves as an early adopter of technology, but also demonstrating the advantages of such technology, including a more efficient use of materials and a higher level of sustainability.

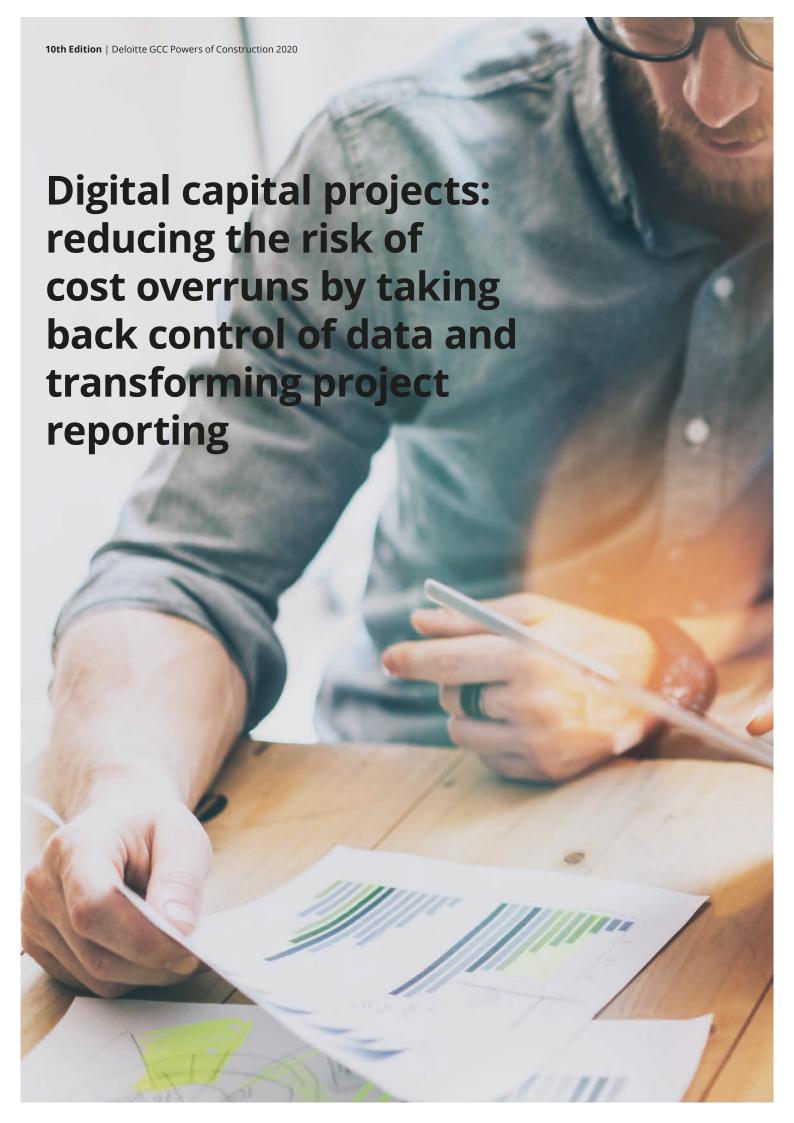
The adoption of technologies like 3D printing helps support the vision of our leadership to build smart and sustainable cities, helping to accelerate the innovation ecosystem in Dubai, inspiring start-ups to contribute towards advanced construction technology.

How can employers like Emaar and contractors collaborate differently in the future to ensure a common goal to deliver projects on time and on budget, with a key focus on eliminating waste (materials and time), so ROI can be achieved for owners?

Collaboration across industries is essential in project delivery. Collaboration leads to benefits, including innovation, time and cost-saving and added value for the client. In practice, however, working together presents its own set of challenges. Technology can provide working solutions including the implementation of project management tools to ensure timely access to information. The introduction of technology solutions with a view to increase communication has positively impacted construction. Smartphones, to cloud-based project management software, have made it easier to manage construction projects and are and will be key to driving collaboration to ensure projects are delivered on time and on budget.

by **Ahmad Al Matrooshi** – Managing Director of Emaar Properties

The United Arab
Emirates is advancing
at unprecedented
speed; adopting
technologies and
putting in place
the right legislation
to support future
growth. To put
it simply, we are
preparing for
tomorrow, today.



### The digital capital project

A "digital capital project" is a project that places data at the heart of its delivery, along with information processing capabilities and related technology. For project owners willing to invest, the digital capital project of the future will be safer, designed and built with reduced CAPEX cost, and delivers greater value in operations.

The data-driven approach of digital capital projects fundamentally reshapes the way in which projects are delivered. Placing data at the heart of delivery enables improved use of project information. The digital capital project embodies fundamental improvements across the entire capital project lifecycle, with significant savings possible for those who invest with a "data from the outset" approach. For example, a 10 to 30 percent reduction of hours during the planning and design phases can be achieved by drawing on project performance data from previous projects and by adopting a truly collaborative and virtual design environment, in a cloudhosted platform.

### The importance of data

Capital projects need to build digital capability in phases. A "data from the outset" approach allows subsequent investment in technology to have much more significant impact. Project owners must take control of their data and digital strategy and not wait for the supply chain to act, since they are in the best position to integrate data across projects and programs. Developing a digital data platform represents the logical first step for most project owners and provides a foundation for future phases, with technology that can provide further time and resource savings as well as additional benefits (Figure 1).

### The consequences of poor project controls

One area where immediate benefits of establishing a project data platform can be realized is project controls. Poor project controls have been cited as a significant cause of failure for projects and can lead to serious financial consequences. Ninety

percent of large mega projects have been shown to experience typical cost overruns of 50 percent<sup>1</sup>, which increases further each year that a project is delayed. The financial consequence of getting project controls and reporting wrong, for a typical mega project worth \$1bn, is estimated to be between \$100m to \$150m.



Cost overrun on a typical mega project due to poor project controls and performance reporting

This cost overrun is primarily driven by a lack of visibility and understanding of project delivery issues, before or immediately after they occur, resulting in delays to critical decision-making. When decisions are made, they are often based on data with questionable integrity. These costs are avoidable through an alternative, digital and data-driven approach to project performance reporting.

## Traditional project reporting is not fit for purpose

The project reporting status quo in the GCC often fails to provide utility to the owners and stakeholders of capital projects.

The objective of project reporting is to provide all management layers with accurate, timely, clear and relevant information from which to make decisions. Current approaches to reporting on major projects fail to meet these objectives and create waste within project delivery organizations and supply chains.

The traditional reporting environment comprises internal and external project management functions and suppliers providing large volumes of disparate reports to senior leadership teams for review. Multiple unsubstantiated versions of project performance are produced during reporting cycles that are often misaligned. As a consequence, project performance information lacks clarity, reports are likely to contradict one another, and data may be between four to six weeks old when finally reviewed.

Perhaps the greatest tragedy with the traditional approach is that engineering and construction expertise is diverted away from complex problem-solving for the construction to the production of superfluous reports that are rarely read in their entirety. Senior engineers and project managers may dedicate anywhere between 20 to 40 percent of their time collating project information and producing reports.

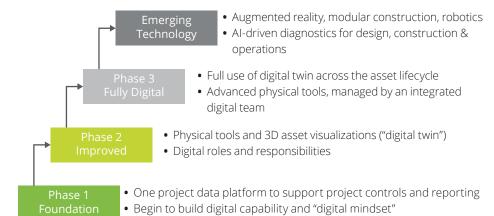


Figure 1- Digital capital project maturity

<sup>&</sup>lt;sup>1</sup> Flyvbjerg, B. (2011). Over budget, over time, over and over again: Managing major projects. The Oxford Handbook of Project Management. Oxford University Press. 321-344.

### Digital capital project reporting

In contrast to the traditional approach, digital project performance reporting leverages interactive visualizations of integrated project controls data to provide clarity on performance and drive accountability across major projects and programs. At its core is a single, reliable, integrated project controls database (Figure 2).

between source system 'data lockdown' and report production is significantly reduced, meaning decisions can be made based on 'real-time' data that is clear and relevant.

Leveraging the integrated database, dashboards can be structured in a way that engages users with the information and provides ease of navigation across projects Firstly, the vision and requirements for digital reporting should be defined. Then an assessment of the current digital capability and reporting environment should be undertaken to understand gaps to be addressed and create an implementation plan for the new digital asset.

Secondly, in the design and delivery phase, the integrated project controls database must be established. The digital project performance dashboard can then be piloted and implemented with supporting data analytic capability to maximize value. Finally, once operational, projects are managed and controlled using enhanced digital reporting capability and continuously improved to maximise operational efficiency and facility management can be more predictive rather than routine.

### MSenior Leadership Team Project performance dashboard and visualizations Integrated project controls database Project data source owners Schedule Commercial Source System System System System System

Figure 2- Digital capital projects reporting

By establishing an integrated project controls database, digital project performance dashboard solutions (Figure 3) can be developed to facilitate timely and effective decision-making on major capital projects and portfolios. A typical digital dashboard provides:

- Interactive visualizations of integrated performance data
- Shortened and simplified reporting processes
- A single source of truth for project and portfolio data

Senior leadership are immediately able to challenge the accuracy of project data deriving from source systems (and data owners) to promote continuous improvement of processes and greater accuracy of performance data. The period

and functions. Visualizations and data structures facilitate data 'drill-down' through projects and across functions, as well as engaging non-project functions within organizations, such as Finance and Internal Audit.



Figure 3- Digital project performance dashboard

### **Getting there**

Digital transformation of capital projects reporting, as with other types of digital adoption, should be undertaken in stages.

### **Summary**

The digital capital project embodies fundamental improvements across the entire capital project lifecycle, seen across cost, time, risk, quality, health and safety and the environment. By focusing on data, organizations can maximize efficiency savings across the lifecycle of a capital project.

An immediate opportunity centers on establishing an integrated project controls database and digital reporting assets to manage and control projects more effectively. Such a solution can reduce the likelihood of cost overrun on projects and provide a springboard for the implementation of other digital capital project capabilities and technology.

by **Paul Hirst** – Infrastructure and Capital Projects Lead, Deloitte Middle East , **Matthew Hanson** – Senior Manager, Infrastructure and Capital Projects, Deloitte Middle East

One area where immediate benefits of establishing a project data platform can be realized is project controls.



We are currently facing an epidemic in the construction industry, which will very likely result in the demise of many long-standing competent stakeholders if not properly addressed. We need to collectively take urgent action to reverse the current downward spiral of inefficiency taking place in our industry. In addition, we should collectively work towards eliminating waste throughout the lifecycle of designing, constructing, and operating assets.

Imagine a Martian landing on Earth, climbing out of his spaceship with the intent of executing a development on the planet. The Earthlings would then try and explain to the Martian how we currently go about delivering a project. The confused Martian, in disbelief and struggling to understand the inefficient delivery process, would then asked the Earthlings: "So how many projects do you finish on time, within budget, and with all stakeholders succeeding?" The Earthlings would reply, "Very few". The Martian would then wisely decide to get back in his spaceship and return to outer space to develop a project with minimal waste on a better planet - and who could blame the Martian for leaving!

Currently, waste can take many shapes and forms, but ultimately we need to find a new formula and model that results in everything being performed at optimum levels with the clear objective of achieving zero rework.

The current situation is that we are in an industry riddled with inefficiency. The process starts with the client, who is responsible for establishing the environment in which everyone will coexist and function. Currently, this relationship is often defensive and confrontational with unclear responsibilities among the parties. Constant change of the project brief and excessive variations result in additional costs/reworks and delays. The client is also the paymaster, but payments are often late and undervalued, resulting in stress for the entire supply chain. We find that the design is also a challenge, as it is often late and incomplete, which requires redesign and reworks. This results in multiple resubmissions to get the design to a point that allows the contractor to progress with the works. The drawings, specifications, and preambles are often not clear, outdated and contradict one another, resulting in more waste of time and more effort to gain clarity. Multiple layers of approvals and inspectors further delay the execution of the works. All the above results in management being sucked into multiple meetings and workshops, which are all-consuming, further distracting the stakeholders from managing and successfully executing their own works. This results in onerous delays, excessive letter writing, and contractual positioning by all parties. With these multiple ongoing distractions, the contractor cannot plan the works effectively and is forced to work unproductively and out of sequence. Variations are issued on an ongoing basis and the contractor struggles to receive fair compensation and payment for the change. The works are further delayed, and the contractor and sub-contractors are blamed for not performing. The client is not satisfied and receives the project late and over budget. Consultants, contractors and sub-contractors experience losses on the project for which they are not fairly compensated.

The billion-dollar question is how do we change the current scenario to an improved formula that allows delivery of projects on time, within budget, with overall stakeholder success, and with zero waste? The answer might be that we need to hit 'Ctrl Alt Delete' and start with a fresh page.

### The way forward

The client plays a critical role in creating a project environment that allows all parties to succeed. It starts with a clear project brief, an efficient, lean structure with decisive competent people, having fair,

aligned contracts with an open environment of collaboration and with clear responsibility for everyone. Appoint the right-minded consultants, pay them well (this is money well spent), and make the consultant fully responsible for delivering an efficient design that allows construction to progress seamlessly in the right sequence on program. Rewrite the specifications so they are simple and clear and reflect the latest technologies and products available (for example, don't specify an iPhone 5 when the latest product is an iPhone 11). We need all stakeholders to resolve issues fast and create a winning culture on projects. Work as a collective team with a common goal and have open direct communication. Create an environment for all to succeed, remain friends beyond the project, and move on to the next project wiser and smarter.

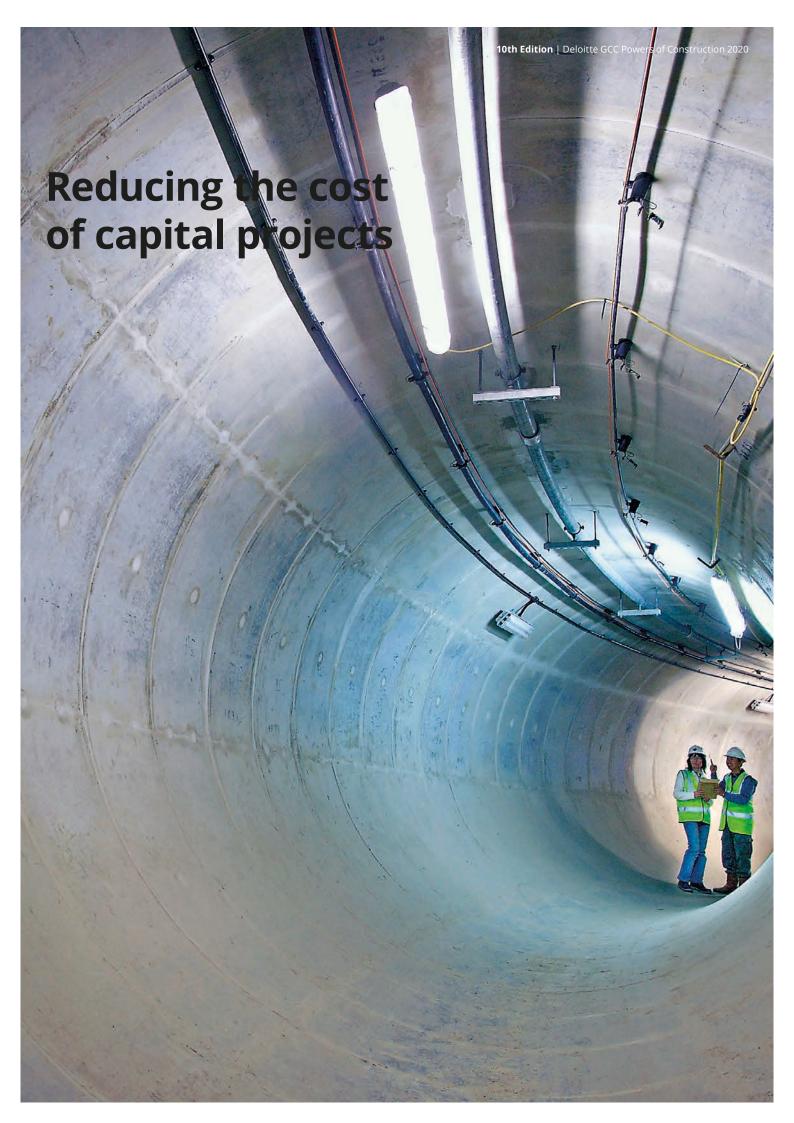
The greatest opportunity facing our industry is to create these winning environments that allow overall project and stakeholder success.

The waste taking place in our industry is worth billions. This is a serious situation that needs all our focus and attention. We need to wake up, take note, and rectify the current situation and only then could we proudly invite the Martians back to Earth and show them a project delivery model that allows success for all on all projects.

We need to raise awareness of the current inefficiencies and pave the way forward to transform the construction industry to an efficient and sustainable future for all succeed.

by **Kez Taylor** – Chief Executive Officer, ALEC

We should collectively work towards eliminating waste throughout the lifecycle of designing, constructing, and operating projects.



#### Introduction

Even before the challenges introduced by COVID-19, the Construction industry continued to face the significant pressures of tightened liquidity in the private sector coupled with reduced government spending and contract awards. Fewer guaranteed opportunities in the market, lower margins due to cost increases from inflation and increased competition, operational inefficiency and new regulations have left many businesses looking to drive out cost in their capital projects in order to be profitable.

Such transformations can be particularly challenging given the industry's structural deficiencies, which include inequitable risk allocation, adversarial contracts, late payments, scope changes and overruns. These issues are compounded by regional factors such as stress on contract prices, working capital and cash flow, which hurt regional and international players in the GCC Construction sector.

What, then, should industry participants do in order to remain competitive, deliver value and remain profitable?

We believe that the answer is to identify and remove waste and cost leakage across all aspects of project delivery functions. Such exercises should be undertaken in a structured and methodical way that go far beyond a simplistic and unplanned headcount reduction or contract review approaches.

## Capital projects cost optimization framework

While measures such as renegotiating contracts and reducing headcount may alleviate cash flow pressure and reduce costs in the short term, they often do not result in sustainable long-term change and can negatively impact the delivery capability of organizations. For example, a reduction in headcount can be counterproductive, as capabilities are significantly reduced

in key project management and control areas. Similarly, renegotiating contracts only delays inevitable disputes and causes disenfranchisement within the supply chain.

Cost inefficiencies can occur across the lifecycle of a capital project as a result of a poorly established and fragmented operating model. A more holistic approach to reducing capex delivery costs could therefore be followed, such as the use of a capital projects cost optimization framework. Such frameworks can identify up to 30 'value tree levers' for cost efficiencies to be realized across the project lifecycle and throughout an organization's operating model (Figure 1).

#### Portfolio & program management Construction & **Feasibility** Procurement & & engineering handover contracting Contract management Standardization of design Timely and accurate [HHI] ŊΩ performance reporting capability **Governance** Reference class Data-driven decision Incentivizing collaboration forecasting -making 'Make-or-buy' engineering Procurement and Shared services adoption contracting strategy expertise **Process** 'Open-book' risk Process automation and Internal planning and design capabilities management lean construction Buildability and Collaborative contracting Internal and external sustainability focus models resource re-allocation 品 **Organization** Portfolio risk/contingency Integrated delivery, testing Value engineering management and commissioning plans Leveraging BIM and Strong governance and Change management processes parametric design focus **Data & Reporting** Standardized executing, Front load effort on Leveraging data to drive monitoring and control projects procurement decisions processes Design management Commercial strategy and Digitizing O&M handover policies and procedures dispute avoidance processes **Technology** Requirements Digital and data-driven Lessons learned capture management contract management

Figure 1 - Capital Projects Cost Optimization framework

## Operating model: the platform for driving cost out of capital projects

Experience in infrastructure and capital projects has confirmed that the most sustainable savings accrue by having the right target operating model as an enabler to continuously identify and remove waste throughout project and portfolio lifecycles.

Given the increased number of mega/giga and complex projects in the GCC pipeline, there is an urgent need to build strong internal capability with which to manage projects to budget and drive the most value from the supply chain. Organizations should look to optimize costs through considering the following within their operating model:

- Enabling quick and transparent decisionmaking through well-defined governance arrangements, and fit-for-purpose reporting, to meet tight deadlines and satisfy audit requirements
- Placing collaboration at the center of procurement and contracting strategies and develop design and execution processes to reflect this approach
- Re-assessing the costs and benefits between in-house and outsourced capabilities and ensure organizational structures are tailored to best support project delivery
- Enhancing data management systems to improve clarity of project performance and support senior management making datadriven decisions
- Leveraging the right systems and technology to reduce operational costs and catalyze collaboration

### Cost levers across the project lifecycle

With the right operating model in place, the benefits of tactical solutions and initiatives can be maximized across an organization's portfolio. In the short term, and particularly for poor performing projects, tactical interventions can still be implemented to drive cost out of projects as they progress through the lifecycle.

### a. Feasibility and engineering

Experience shows that projects with inadequate front-end planning have a greater probability of incurring large cost overruns. During the early project phases, proposed specifications and design standards should be carefully assessed and challenged by project teams to ensure they satisfy user requirements, are buildable and provide the greatest value for money across the asset lifecycle. Using collaborative and advanced digital technology for optioneering and multidisciplinary design optimization (such as value engineering using BIM) can also facilitate the identification of costsaving opportunities before (and during) construction.

### b. Procurement and contracting

Developing a tailored program-wide procurement strategy that defines and optimizes procurement routes for individual project elements is a fundamental prerequisite for obtaining the best value from sourcing activities. This should take into consideration project-specific factors such as cost, schedule, quality, supplier relationships, risk allocation and management capability. Clients should place equal importance on establishing strong contract management capability to

actively manage supplier performance while pro-actively avoiding engaging in expensive and resource-sapping disputes. More collaborative procurement and contracting approaches, that encourage risk sharing and 'open-book' workshops for example, should also be considered, given their ability to deliver major cost savings.

#### c. Construction and handover

The application of lean construction management techniques can help to reduce resource wastage and streamline Construction management processes. This includes the use of digital tools for simulating complex building processes, make-ready planning, and resource optimization. Organizations should incentivize the supply chain to use these principles and technologies during implementation to benefit from increased productivity and quality of execution.

Strong project controls processes and by-exception reporting that is accurate, timely and clear is essential in supporting decision-making to save costs on projects. Poor project controls practices on projects lead to a limited understanding of how a project is performing against plan, which in turn leads to delayed decision-making, ineffective governance and wasted capex.

As the project reaches the handover phase, having a structured and data-driven asset handover process is critical to eliminate inefficiencies during the commissioning and handover of assets and ultimately then in the maintenance of the assets for the owners.

Cost inefficiencies can occur across the lifecycle of a capital project as a result of a poorly established and fragmented operating model.

## Optimizing costs in capital project organizations

To secure long-term and sustainable cost savings, organizations should look for efficiencies in the way they operate in order to thrive in a challenging market. This should begin with the review and prioritization of projects within the portfolio to help understand where efficiencies can be made on live projects, as well as ensuring future projects are delivered as efficiently as possible (Figure 2).

A capital projects cost optimization framework can help organizations reduce capex throughout the project lifecycle in the short, medium, and long-term. By focusing on reducing waste and driving innovation throughout their target operating model, organizations can realize significant cost savings and position themselves for a profitable and successful future.

by **Matthew Hanson** – Senior Manager, Infrastructure and Capital Projects, Deloitte Middle East , **Mohamed Abdullah** – Senior Consultant, Infrastructure and Capital Projects, Deloitte Middle East

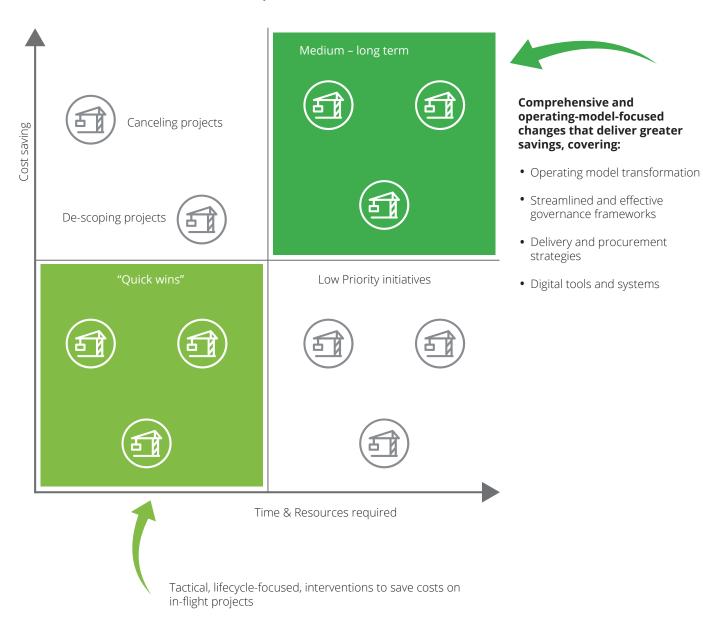
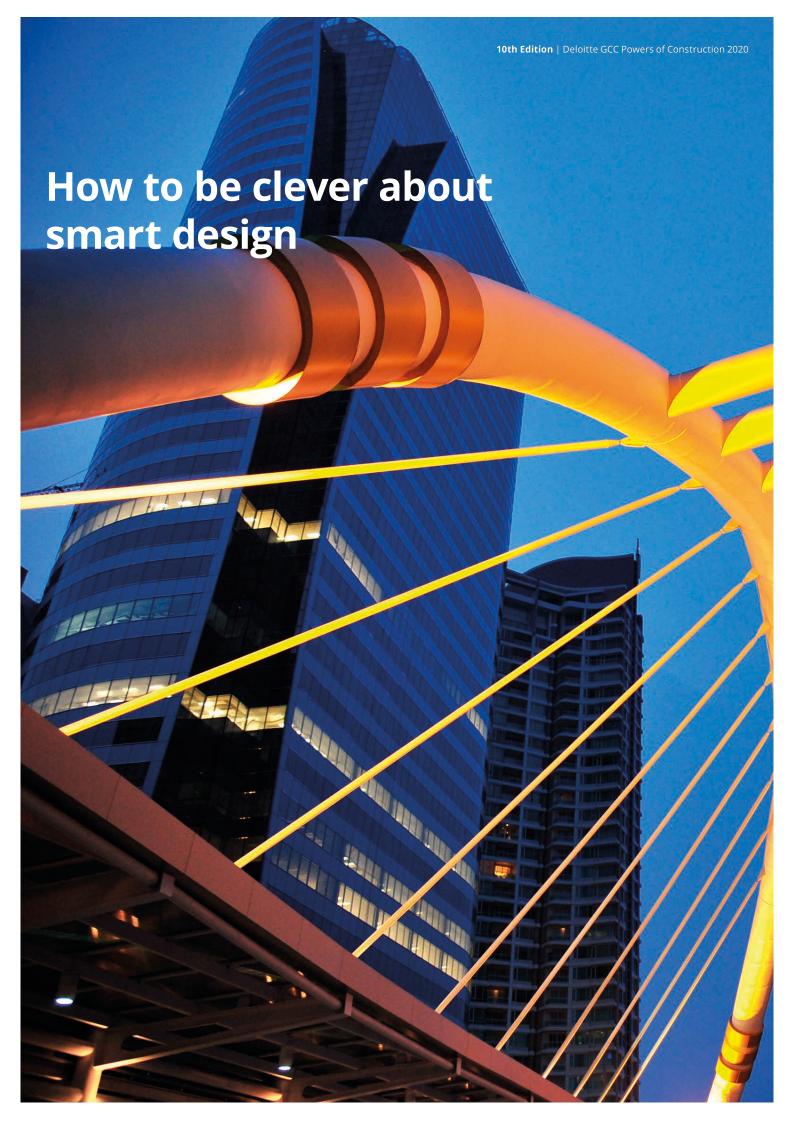


Figure 2 - Portfolio prioritization of cost-reduction initiatives



As we enter a new decade, the Middle East is seeing an increased demand for infrastructure development that enhances connectivity, efficiency and people's wellbeing. With mega projects in the construction industry underway, industry players have the opportunity to share knowledge, key learnings and best practices towards creating smart design and sustainable built environments.

Globally, the last two decades were dominated by the "smart" agenda. Smart City 1.0 focused on the use of advanced technology to enhance viability and control over public spaces, such as sensor implementation for utility management. Smart City 2.0 relied on the Internet of Things (IoT) and using data more proactively and in a more predictive manner to enhance productivity and address environmental challenges. The latest iteration, Smart City 3.0,¹ aims at creating cities that are platforms for interaction and co-authorship amongst the city itself and its citizens.

One of the challenges the term "smart city" poses is the fact that incorporating the latest technology into an urban setting does not necessarily mean that a city will become by default "smart". Another challenge is the point of confluence between the digital and the human, which lately has given priority to the digital realm over ensuring a balance between nature, humans and the built environment.

As societies and technologies continue to evolve, how can we define the ethos behind Smart City 4.0, or perhaps, more fittingly, clever<sup>2</sup> cities?

An overarching philosophy that can help re-shape the industry approach to developing smart cities and trim down all the excess baggage that transforms smart projects into dead-end endeavours is "via negativa", from Latin, meaning the negative way. It proposes that in a complex scenario with uncountable variables, understanding what to avoid is of a greater value than constantly searching for new solutions. Lebanese philosopher Nassim Taleb, the author behind this concept, says: "Knowledge grows by subtraction much

more than by addition — given that what we know today might turn out to be wrong but what we know to be wrong cannot turn out to be right, at least not easily." <sup>3</sup>

Following this philosophy of "trimming down" problems instead of "adding up" solutions, clever design has a key role to play in creating a well-orchestrated, core structure that efficiently balances all the myriad aspects that influence "great living".

#### **Human-Centrism**

One of the challenges facing the evolution of Smart City 4.0 is the ability to move away from over-obsessing about the latest technologies and thinking bottom up: ensuring we understand human needs first and pose the right questions and in the right hierarchy of importance. And most importantly, that we come up with design solutions that directly address these needs in an effective manner.

Taking mobility as an example, strategies often look at increasing mobility options for citizens through new road infrastructure, transit-oriented development, multi-modal public transport infrastructure, smart electric vehicles, and smart ridesharing. Nevertheless, as an example, building more roads will lead to increasing traffic. A paper published by the Transportation Research Record found that for every One percent increase in highway capacity, traffic increases 0.29 to 1.1 percent in the long term (about five years out), and up to 0.68 percent in the short term (one or two years)4. Therefore, the real question is how to design living environments that eliminate the root problem: citizens being too dependent on constant long-distance transportation in order to conduct their daily lives.

#### **Sector hybridization**

There was a time when airports used to be quite simple and utilitarian. Today, airports

are becoming integrated destinations comprising hospitality, retail, leisure, entertainment and commercial activities. Business models such as co-working spaces have blended the workplace with hospitality. Shopping malls are also being mixed with other typologies, and even super-specific types like arenas and stadia are moving towards hybrid programs.

Hybrid buildings provide an opportunity to reduce the inherent challenges of repurposing and giving existing projects a second life, thereby reducing the cost for owners and the environmental impact of building brand new structures. One example is the transformation of London 2012's Olympic Park, where Atkins worked alongside the London Legacy Development Corporation (LLDC) to transform the Queen Elizabeth Olympic Park from games venue into vibrant, new districts in London. Expo 2020 Dubai is another great example that demonstrates the benefits of flexible design. Following the six-month World Expo, District 2020<sup>5</sup> will be repurposing over 80 percent of the Expo's built environment to create a vibrant, integrated community for people to live, work and

## Homogenous distribution of Heterogenous Offer

Overspecialization in buildings can lead to evolutionary dead-ends and missed chances in terms of effective use of resources plus a decrease in efficiency and losing the valued "two for one" opportunities. A great part of achieving everyday happiness is based on the ability of humans to execute their daily chores and routines in an efficient, expedient manner. The practical applications that IoT and technologies can bring to everyday life in terms of helping us use our time more efficiently need to be complemented by clever design that physically helps people to fulfil their daily tasks in an efficient

The main question that we need to think about as designers and urban planners is how to create buildings and structures that put people at the heart of every design.

manner. Designing and distributing a diverse catalogue of offer for all citizens based on distances which can be managed without the need of transport is a great starting point.

In the same manner, designing "sponge-like" cities with well distributed blue-green infrastructure to create clever climate mitigation systems and enhance people's wellbeing is also a way to address climate challenges and add value, without having to implement costly solutions down the line. Portland's Green Streets Program is

a clear example of this approach. As of January 2018, Portland had installed 1,927 Green Streets along extensive parts of its sidewalks to create a flood mitigation network.<sup>6</sup> The program incorporates bluegreen infrastructure such as bioswales in a small but highly distributed manner to enhance citizens' quality of life and mitigate flooding risks in most parts of the city.

In conclusion, as British architect Cedric Price said in 1966: "Technology is the answer, but what was the question?".

While cities can benefit from the use of technological advancements in the digital era.

Smart technologies are a great cherry on top, but smart cities designed with variety, flexibility and balance as a solid foundation are the whole cake.

by **Edward McIntosh** – Regional Design Director, Atkins Middle East

<sup>1.</sup> Definition of Smart City evolution from "Smart Cities, a Toolkit from Leaders" published by the Wharton School of Business, University of Pennsylvania: http://d1c25a6gwz7q5e.cloudfront.net/reports/2018-12-10-Smart%20Cities%20Report-TCS-FINAL.pdf

<sup>2.</sup> The Difference Between Smart And Clever Is The Difference Between Winning And Losing, published by Business Insider: "Clever takes smart a step farther, adding insight and a dash of the unexpected. Clever people evaluate a situation, determine the smart thing to do, and then go a step farther to determine an often-surprising way to capitalize on an opportunity"- Jeff Haden

<sup>3.</sup> https://www.businessinsider.com/smart-isnt-enough-in-business-2012-12

<sup>4.</sup> Antifragile: Things That Gain From Disorder is a book by Nassim Nicholas Taleb published on November 27, 2012.

<sup>5.</sup> The Science Is Clear: More Highways Equals More Traffic, published by USA Street Blog: https://usa.streetsblog.org/2017/06/21/the-science-is-clear-more-highways-equals-more-traffic-why-are-dots-still-ignoring-it/

<sup>6.</sup> District2020, Dubai, UAE: https://www.district2020.ae

<sup>7.</sup> Green Infrastructure Distribution in Portland, Oregon, published by Reed College: https://www.reed.edu/es/assets/ES300-2018-project-Green-Infrastructure-Distribution-FINAL.pdf

## **Constructing the future** of Saudi Arabia



The Kingdom of Saudi Arabia has accelerated its transformation agenda, which has seen an increased focus on diversification, strengthening international relations, increased regulation, and a continued focus on Saudization. With the country being the only G20 member in the Middle East, it continues to drive influence in global markets and attract foreign interest, particularly as access to the market eases.

Economically, the country remains focused on driving growth, despite the recent challenges as a result of the reduction in oil prices and the economic impact of COVID-19; based on the latter, it has been reported that the budget deficit is expected to widen to SR229 billion (\$61 billion)1, however this is expected to decline in 2022-23 if non-oil income expands. The fiscal account is expected to move into surplus in 2024, aided by an expected rise in hydrocarbon production. In line with Saudi Vision 2030, there is increased investment and focus on driving industry growth within financial services, construction, infrastructure and education to further support the diversification plans of the Kingdom and to safeguard the future.

With one of the youngest populations in the Middle East, the increased need for urbanization and infrastructure development continues to be pivotal in driving the transformation agenda to ensure the country is future-ready.

The government has continued to focus on gradual economic liberalization, with an emphasis on the private sector and developing emerging industries, in addition to the dominant oil & gas sector. The Saudi Arabian General Investment Authority (SAGIA) reported an increase of 54% in 2019 of the number of new foreign companies establishing operations in the country<sup>2</sup>. One of the keys to achieving the country's large-scale diversification program is the transformation of Saudi Arabia's Public Investment Fund (PIF). The capital injection from the fund continues to be invested in large-scale project development, benefiting the infrastructure and construction industry.

Prior to the COVID-19 outbreak, it was reported that the infrastructure and construction industry in Saudi Arabia was amongst the largest in the Gulf Cooperation Council (GCC) region, with more than USD825 billion worth of planned and un-awarded projects. The industry had seen growth in the contracts awarded - from USD11.2 billion in 2016 to USD14.6 billion in 2018. However, given the volatility experienced around the world as a result of the recent pandemic and the fluctuating oil price, the forecast for construction output growth has been revised from 4.6% to 2.9% in 2020<sup>3</sup>. This forecast is based on a positive scenario that the market will return by the third quarter of 2020, with eased travel restrictions which will aid international mobility into the Kingdom. However, if this mobility forecast should alter, then there may be a further downgrade expected to the output growth projections, which are dependent on international infrastructure specialists and government support.

With increased focus from both the private and public sector, the need for infrastructure and construction development will continue to grow in line with Vision 2030. As the Kingdom further opens the leisure and hospitality market, the ease of travel to the Kingdom will continue to drive growth in the hospitality sector. This has seen an increase in the number of rooms being built, leading to international hoteliers having an increased construction and development need to drive their growth ambitions, supported by foreign direct investment. Although this has seen a recent marginal slowdown as a result of the impact of COVID-19, activity is expected to return with Saudi Arabia having the largest pipeline of rooms under development in the region with approx. 210 projects that aim to deliver over 69,000 rooms4, which is in line with the Kingdom's strategic vision to transform the country to further aid future stability.

## **Powering the construction sector**

Saudi Arabia has embarked on a journey to undertake a large-scale economic overhaul, which has seen both private and public sector companies focused on reforms, further supporting Vision 2030.

Under this, the government is planning Saudi Arabia's economic, educational and related wholesale reforms with the aim of innovating and diversifying the Kingdom's landscape. To accomplish these goals, the government has created the National Transformation Project (NTP), an action plan to improve three overarching and important pillars of the country: economic enablers, standards of living for its citizens, and governmental operational excellence.

Vision 2030 and the NTP provide the foundations underpinning the integration of sustainable development goals into the national planning process. One of the key programs of Vision 2030 – Life Quality – is directly linked to the sustainable development goals. At the heart of all this sits Saudi Arabia's infrastructure and construction industry.

With ongoing investment and technological advancements, the country is investing in diverse projects. The aim of such large-scale initiatives is to provide access to housing opportunities for lower-income groups, create new employment opportunities, and further diversify the economy. Saudi Arabia is planning to invest approximately USD1 trillion in the country's non-hydrocarbon sector by 2030<sup>5</sup>. Some of the key projects include Neom, the Red Sea Project, Qiddiya Entertainment City, King Abdullah Financial District and Amaala, to name a few.

These substantial infrastructure investments are the foundation on which the Kingdom is envisioning its new future. Along with these 'giga-projects', Saudi Arabia is also investing in many social and urban development projects, such as the Sakani housing program, further illustrating the country's commitment to driving development using smart tech.

In order to further enhance mobility in the Kingdom, the government is investing in expanding the transportation infrastructure through city infrastructure projects, such as the USD22.5 billion Riyadh Metro and Riyadh Rapid Bus Transit System<sup>6</sup>.

Reflecting the changing times, Saudi

Arabia's infrastructure and construction industry continues to be driven by technology adoption, dynamic approaches to construction delivery and implementation of new operating standards, which further fuel infrastructure and construction growth in the country.

#### **Technology adoption**

With mega-projects such as Neom, the Kingdom's PropTech market is expected to gain further traction. Approximately USD2 million<sup>7</sup> in seed funding has been allocated to home maintenance services startups such as B8ak, FalconViz, Ajeer, and Muqawiloon. PropTech is disrupting and improving the way transactions of residential and commercial properties take place, changing the traditional ecosystem. Alongside this and in the post-COVID-19 era, the need to drive technology adoption in construction with the use of AI, robotics and 3D printing will become more important to meet future demand in a changing world.

## Dynamic approach to construction delivery

Technology adoption is expected to continue to transform construction

delivery. The use of prefabricated building techniques, such as those used by the Ministry of Housing with 3D printing, reduces the construction time, provides standardization, improves quality and is less labor intensive than traditional techniques whilst adding agility and addressing continued demand.

## Implementation of new operating standards

To incorporate the sustainable development goals into existing processes, the Saudi government is actively working towards investing in green buildings and standardizing the building rating system. The Ministry of Housing developed a new standard for rating buildings, known as the Mostadam Standard. Referring to the Saudi Building Code (SBC) and designed to comply with existing legislation while reflecting regional building rating requirements, the Mostadam Standard was launched in 2019. The government remains conscious of the need to develop sustainable buildings in order to reduce the impact of buildings and construction on energy usage and CO2 emissions.

The infrastructure and construction industry remains crucial to the government's plan to overhaul the Kingdom's economy, more so now as post COVID-19 actions are being planned, taking into account the economic challenges the pandemic presents. With giga-projects incorporating a mix of technology and sustainable development elements, the government is trying to engage not only marginalized communities but the young demographic as well. The Kingdom has ongoing support from some of the largest funds in Saudi Arabia, which continue to invest in key projects, such as the recently launched real estate company 'Roshn' led by PIF, which will specialise in developing integrated urban neighbourhoods containing residential communities across the country; this, coupled with an optimistic sense of improvement in the global trade environment, is further empowering the Kingdom to usher in a new era led by digital transformation and emerging industries, which will positively impact both current and future generations.

by **Anwar Hadidi** – Senior Executive Director, Deloitte Middle East, **Nav Dulay** – Senior Manager, Deloitte Middle East

With one of the youngest populations in the Middle East, the increased need for urbanization and infrastructure development continues to be pivotal in driving the transformation agenda to ensure the country is future-ready.

- 1. Saudi Arabia's budget deficit forecast to widen to 61bn on virus oil rout, Arabian Business, 21 March 2020
- 2. International companies in Saudi Arabia up by 54% in 2019, Saudi Gazette, 19 Jan 2020
- 3. Coronavirus (COVID 19) Projects Impacts: Saudi Arabia, MEED, 29 April 2020
- 4. Middle East opens just seven hotels in Q2 2020, reveals report, Hotelier Middle East, 25 Aug 2020
- 5. Saudi Arabia Infrastructure, Construction and Real Estate 2020 report, extracted from EMIS through Intellinet on 14th Feb 2020
- $6. \quad \hbox{Riyadh metro mega-project to be fully operational by 2021, The National, 8 Mar 2018}$
- 7. Saudi home maintenance services startup B8ak raises \$2 million in seed funding, MENABytes, 12 June 2018

China's Belt and Road Initiative and the Middle East: aspiring towards a win-win partnership



Bilateral trade and investment between China and the Middle East has been growing steadily over the past decade. Since 2009, China has been the world's largest consumer of energy and the largest buyer of Saudi oil. Booming energy markets have created a string of opportunities in infrastructure development, both as a response to facilitating energy trading and as a result of energy-led growth and wealth creation among regional economies.

The scale of these opportunities fits nicely with the goals and objectives of the Belt and Road Initiative (BRI). Positioned to bridge Chinese investments mostly with emerging economies and countries with potential socio-economic synergies, the BRI has a focus on economic growth via infrastructure development. This involves not only physical construction of oil and gas pipelines, facilities, roads and railways, but also aims to promote greater financial inclusion, the internationalization of China's renminbi (RMB) currency, and software infrastructure in the form of an information Silk Road linking IT-related technology networks.

Many Chinese companies offer some of the most competitive one-stop-shop solutions in their fields. These enterprises are natural partners with Middle Eastern countries planning or executing transformational mega projects, thanks to their strong Engineering, Procurement and Construction (EPC) credentials, project delivery capabilities and price competitiveness. As a result, Chinese companies have been expanding their footprint in the regional infrastructure space dramatically over the past few years.

AEI's China Global Investment Tracker has recorded a dramatic surge in the value of MENA oil and gas projects being awarded to Chinese contractors. The value of energy deals has more than doubled from \$10.58bn in 2009 to \$22.93bn in 2018. In the GCC alone, business has increased from \$6.77bn in 2009 to \$12.55bn in 2018. During the past decade (2009-2019), Chinese companies have been the most active in the Kingdom of Saudi Arabia KSA with a combined contract value of \$28.45bn, followed by the United Arab Emirates (UAE) at \$22.42bn, Egypt at \$19.79bn, Algeria at \$16.34bn, Iraq at \$11.05bn, Kuwait at \$9.16bn, and Qatar at \$6.39bn. Energy

stood out as the sector of most significance. Nearly half of the construction contracts for Chinese companies have been energy related (\$51.28bn over the decade), followed by real estate construction at \$30.21bn, transportation at \$25.82bn and utilities at \$11.1bn.

The new normal of a low-price oil environment has added a new dimension to this increasingly interconnected bilateral relationship between China and the Middle East, two of the world's most important emerging markets. With a main revenue source significantly reduced, governments in the Middle East now have a stronger incentive to seek new sources of investment in order to help them balance their national accounts and fulfill promises to their citizens, whether in employment, welfare provision, social development or economic diversification. Saudi 2030, UAE 2021/Abu Dhabi Economic Vision 2030, Kuwait 2035, and Oman Vision 2040 are such national development programs that require significant budgets to be implemented.

With mega project investment opportunities, Chinese companies arguably have a competitive edge. In addition to their comprehensive engineering credentials, they also benefit from the financial resources available to them through the BRI. Among the various regional financing platforms focusing on the BRI, the AIIB (\$100bn) and Silk Road Fund (\$40bn) have been the most active. The former counts KSA and UAE as founding members with five approved projects (three in Egypt and tw in Oman); the latter has been involved in signature regional power projects and also recently acquired a 49 percent stake in ACWA Power's Renewable Co.

Strong positive momentum aside, for Chinese companies eyeing infrastructure opportunities in this region, commercial success does not come easily. Usually there is a hefty price tag for those less prepared.

As emerging economies, the business environment, as well as legal frameworks and practices of most countries in the region, tends to be more complex. Market participants without local know-how and networks face significant disadvantages when it comes to winning bids, hence it is crucial to align with strong local partners early in the process. It is worth noting that the scale of opportunities also produces a fiercely competitive environment. Therefore, it is critical for entrants to understand the market dynamics of this region, and carefully adjust their strategies as well as resources, in order to ensure lasting success.

There is no straightforward formula for making successful investments in the region. Careful consideration and timely management of multiple levels of interests (e.g., locals, investors, governments, etc.) are thus required, particularly when it involves multi-billion-dollar infrastructure projects. Early discussions with the statefunded China Export & Credit Insurance Corporation (Sinosure) regarding political risk insurance coverage in Middle Eastern countries will benefit Chinese investors with a clear financing strategy and mitigate future political risks for large infrastructure investment projects. As new players, Chinese companies could gain immensely from external advisors with deep knowledge and relationships, able to guide them in navigating the local environment.

The new normal of a low-price oil environment has added a new dimension to this increasingly interconnected bilateral relationship between China and the Middle East, two of the world's most important emerging markets.

A number of considerations are essential in this journey.

First of all, given the sheer efforts that go into a winning bid, it is important to:

- Focus resources on robust projects and transactions that benefit from political as well as financial support
- Be selective
- Have full knowledge of the project background and investment opportunity, including:
- Visibility with regard to the track record of the off-taker or procurer
- Credit support arrangements
- Political buy-in

Secondly, given the different business environment, it is nearly impossible to fully navigate the opportunities in the market without a professional partner and/or advisor. Considering the scale of efforts that go into project bids and transactions, a company could benefit from:

- Support from external resources with strong technical expertise as well as local credentials
- Better visibility of opportunities in advance
- Access to comprehensive due diligence to ensure returns on investments
- Structuring/guarding the investments with appropriate risk control mechanisms based on international best practices tailored to the local business environment

Thirdly, Chinese infrastructure players need to take into consideration the local market standards while putting together their bids. This is not surprising given that the region has long benefited from the British contractual framework and delivery system, which is manifested in building codes, equipment standards and practices. When competing in an environment with British or other equivalent American and European standards, Chinese companies need to:

- Address practical challenges when they wish to leverage their global supply chains and resources to deliver efficiently on local projects
- Invest time to identify and understand the differences
- Invest resources to reconcile the differences and structure the bid in line with local requirements

Other than local market know-how and support networks, another challenge for Chinese companies comes from financing. Although the focus of the BRI on infrastructure developments has lent strong financing support to Chinese companies operating in the Middle East infrastructure market, one needs to be realistic about how great a competitive advantage this would offer Chinese companies to secure project wins.

For projects supported by bilateral agreements, Chinese contractors could benefit from having financing support from Chinese Financial Services Institutions. However, unlike the other key infrastructure market - Africa - where Chinese infrastructure offerings of capabilities and financing have been taking over the market via G2G arrangements, the Middle East infrastructure and construction market is a lot more diverse. Competition is strong, and commercial feasibility as well as technical know-how would clearly differentiate a winning bid.

For most projects in the region, Chinese financing might not come with the most competitive rates or the most efficient process. It is not uncommon to see Chinese companies trying to bring Chinese finance to the opportunity, yet the lengthy process to get credit approvals compromises their chances of winning. For Chinese companies, it boils down to whether they take the developer role and seek alternative financing arrangements from international financiers active in the region or partner with other strong regional developers with capabilities to structure the financing competitively and then act purely as an EPC contractor.

The common challenges can be summarized in the following table.

#### Challenges

# Operation Contracting and Greenfield Investment

- Insufficient knowledge of the local investment and business environment, including visibility of opportunities, the contracting frameworks, and risk allocations.
- Lack of risk control mechanisms and experience in management and operations related to engineering, contracting and greenfield investments.
- Ambiguity in the long-term investment strategy.
- Immature PPP bidding strategy.

## Overseas M&A

- Inadequate access to comprehensive due diligence prior to M&A.
- Lack of post-merger integration capabilities and management.
- Inability to realize the business synergies arising from M&A.

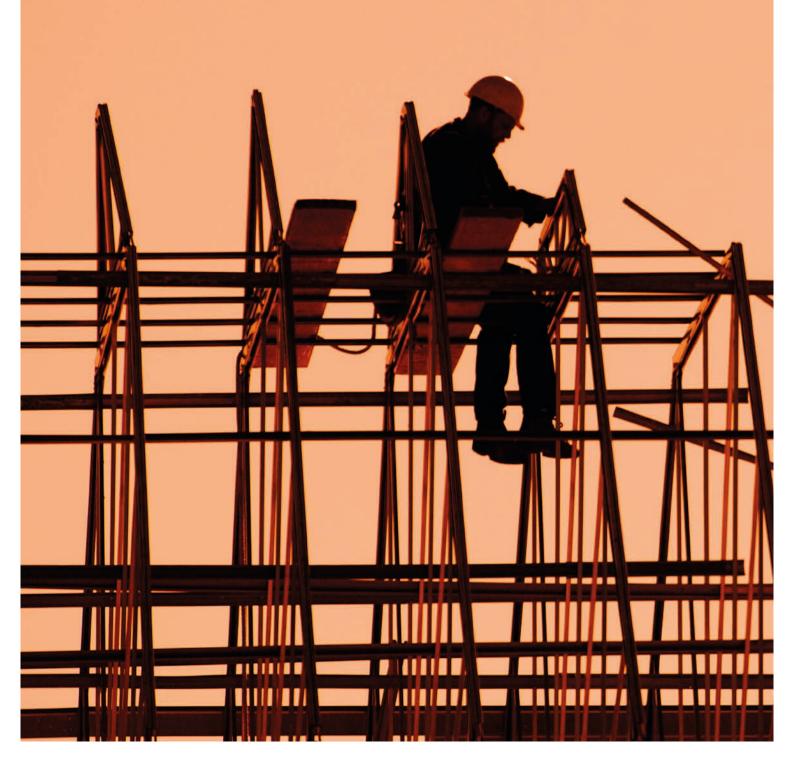
## nancing

- Heavily reliant on Chinese financing with full corporate guarantee.
- with full corporate guarantee.
  Unfamiliar with project financing.
- Inadequate talent with regard to global financing knowledge.

In the foreseeable future, the Middle East will continue to be an important region for China's Belt and Road Initiative. With the Middle East providing 44 percent of China's overall oil imports, energy security remains a critical issue for the country. Strategically, China has the motivation to step up cooperation and partnerships with key Middle East countries to ensure minimal disruption to maritime transportation through the Strait of Hormuz, the world's most important oil chokepoint. Although less visible in the region's security affairs, China's economic development-led approach to ensuring peace and prosperity could be a valuable addition to the existing regional framework for stability, with infrastructure development serving as a foundation for further growth opportunities. This is what the BRI aspires to facilitate, from which all market participants across the region could potentially benefit.

by **Derek Lai** – Partner, Global Belt and Road Leader, Deputy Chairman of Deloitte China, **Patrick Fung** – Partner, Global Financial Advisory Belt and Road Leader -Infrastructure, **Nick Prior** – Partner, Global Head of Infrastructure & Capital Projects

## Adaptability: the key to truly sustainable, future-proof cities



Once considered a novelty in urban design and planning, sustainability has become an imperative as societies recognize the need for greater environmental responsibility. Architects, designers and planners across the world are setting frameworks and guidelines for the sustainable development of cities, urban spaces, and communities. As a result, sustainable design and construction has become part of the 'new normal' among developers.

## **Building on a bedrock of sustainability**

Sustainability is at the heart of our planning for Expo 2020, and life beyond. From the very beginning, our mandate included a drive to host one of the most sustainable World Expos in history, one that integrates the principles of sustainability not only in its design and operations, but also in its impact and legacy.

When it opens its doors on 1 October 2021 – after being postponed for a year due to the COVID-19 pandemic – Expo 2020 will bring together the world's greatest minds from 192 countries as well as global corporations, educational institutions, and multilateral organizations. It will highlight a new era of exciting ideas and transformative solutions to overcome the world's most pressing challenges and shape a better future for our planet.

We recognize that responsible development is not a one-off investment, which is why it is deeply embedded in the vision for Expo 2020, and will be showcased via the best examples of collaboration, innovation and cooperation from around the world.

We will continue to carry this vision forward when the Expo 2020 site transitions to District 2020, which will emerge shortly after Expo 2020 closes on 31 March 2022 with a mandate to support growth across industries.

District 2020 is integral to our commitment to stimulate sustainable, long-term economic growth and create new jobs, well beyond the six months of Expo 2020. Carrying forward momentum from Expo 2020, and with sustainability central to its approach, District 2020's curated and

human-centric global ecosystem will have a sharp focus on helping to diversify Dubai's economy through innovation and collaboration. These efforts will be directed toward industries and technologies key to Dubai's future economic growth and play an important role not only in driving the city's economic resilience, but also in creating a future-proof community that can grow, evolve and provide value to residents and visitors for decades.

#### Carrying the impact forward

In order to be future-proof, the ecosystem needs to be adaptable and comprise flexible infrastructure that enables District 2020 to respond to changing trends in how cities operate. Future-proofing must also consider the inevitable arrival of new technologies and how they can be incorporated seamlessly within the wider environment to serve residents and visitors.

Adaptability and flexibility are deeply engrained in District 2020's blueprint. The most notable example of adaptability is the fact that 80 per cent of Expo 2020's infrastructure will be repurposed in District 2020. This allows us to gain maximum value from Expo 2020's investments, long into the future.

The purpose of retaining Expo's existing infrastructure provides two vital advantages. Firstly, District 2020 can expand in phases and spur sustainable economic growth for years to come as an innovation-focused ecosystem. Growth across key industries, nurtured within District 2020, will also support the diversification of the UAE's economy. Secondly, retaining Expo 2020's modular architecture – characterised by low-rise buildings – will allow us to repurpose buildings for virtually any application, from offices and commercial to retail and residential.

## Helping communities to live sustainably

Our interpretation of sustainability extends further to wellness and the manner in which District 2020 will encourage a responsible and balanced lifestyle among its future community.

The physical infrastructure and built environment are designed to be human-centric and pedestrian-orientated. This is made possible through interconnected pedestrian pathways that encourage walking and cycling, complemented by an abundance of natural, environmentally-friendly spaces, such as shaded open areas, green public parks and event areas to encourage collaboration and connection.

Forming part of a wider transport strategy that emphasizes clean mobility and low emission travel, District 2020 will feature autonomous vehicle (AV) routes, as well as a direct link to Dubai Metro. These components help District 2020 limit emissions and meet strict air quality standards.

#### The inevitable role of technology

Naturally, another crucial element of our responsible masterplan was the integration of advanced technologies. The role of next-generation technologies will be paramount in allowing District 2020 to adapt in unison with the changing demands of our residents, partner tenants and the innovation-driven economy of the UAE. Such technologies will allow us to create an innovative, collaborative ecosystem for local and global companies while simultaneously reducing our carbon footprint.

In the early planning stages, we considered how we would integrate smart technologies, such as 5G and the Internet of Things (IoT). These technologies are crucial in creating an adaptable environment because they will continuously evolve to influence the ways that people choose to live their lives. We are already seeing their impact through various smart city operations, including smart mobility and autonomous driving technology, the automation of security and housing systems. Other sectors, such as virtual education platforms, the evolution of healthcare and agricultural farming methods, are also being impacted through this technology.

An underlying ICT infrastructure (Telecom, Network & Data Centre) will allow us to fulfil green practices that are central to a flexible city. Buildings fitted with smart sensors for Expo 2020 will be inherited, providing precise analytics of resource consumption at District 2020, including water and energy. These smart elements will constantly grow in sophistication to improve the quality of life for both residents and workers.

#### A collaborative effort

District 2020's adaptability, longevity and value are not possible without the vital contribution of our tenants. Our partners will constantly add value to our ecosystem and will be central to its evolution and growth. They will be the job creators and innovators that respond to the changing market, driving industries forward locally and regionally through their ongoing collaboration, research and development facilities.

As part of our sustainability mandate we have been looking to attract tenants which have innovation and responsible business at the front of mind. The partnerships we have already formed with several global organizations are testament to this. As Official Partner for Intelligent Infrastructure and Operations for Expo 2020, Siemens – one of our anchor tenants – will support the creation of a blueprint for a smart and future-proof city.

Siemens' digital solutions, enabled and digitalized by their cloud-based

IoT operating system, MindSphere, will connect, monitor and control buildings across the site, powering the collection and analysis of data for intelligent decision-making and action. Through this collaboration, Expo 2020 will be a test bed for future innovation and a model for future smart cities, enhancing the Expo 2020 visitor experience and the lifestyle of District 2020 residents.

Our collaboration with German multinational Merck KGaA will see the creation of a Sustainability Center at District 2020 to address the world's most pressing sustainability challenges, through innovation in science and technology. We continue to engage with innovation-driven businesses and forge other partnerships that will each play a role in advancing our vision for a forward-looking, smart and sustainable community.

Ultimately, while every community or city-within-a-city will be shaped in the developer's own vision, we believe that all truly sustainable, future-focused developments must incorporate one characteristic when planning for the long-term – 'adaptability'. Life never stands still, and neither should the environments we choose to live and work in.

by **Nadimeh Mehra** – Vice President, District 2020 Architects, designers and planners across the world are setting frameworks and guidelines for the sustainable development of cities, urban spaces, and communities.



#### **General description**

The Public Investment Fund (PIF) was established in 1971 as the sovereign wealth fund of the Kingdom of Saudi Arabia. PIF's objective is to provide financial support for projects and investments aligned with the strategic expansion of the Kingdom's economy through the expansion and creation of new sectors.

PIF is currently the 10th largest sovereign wealth fund (SWF) globally, and holds assets worth approximately US\$300 billion; these are expected to increase dramatically, targeting US\$400 million by 2020 and US\$2 trillion by 2030. The fund has a multi-sector investment approach, with a number of key investments in new and leading technologies across the globe and also major infrastructure both within the Kingdom and major international cities. PIF is one of the rarer types of SWF, typically described as a strategic development sovereign wealth fund.

## **Alignment with Vision 2030**

"The 2030 Vision outlines the reduction by the Kingdom on the reliance of the energy industry by boosting the private sector."

PIF's strategy is directly aligned to the 2030 Vision, enabling strategic and sustainable diversification, through both the establishment of new sectors and supporting the expansion of existing business sectors.

#### **General description**

The fund has six key areas of investment – Saudi equity holdings, Saudi sector development, Saudi real estate & infrastructure development, Saudi gigaprojects, international diversified pool, and international strategic investments. In 2015/2016 PIF initiated a number of high profile investments that highlighted the new investment strategy to the global financial community, including an investment in Uber and the announcement that it would be a major investor in the SoftBank Vision Fund over the next five years, with plans to invest up to US\$45 billion.

In April 2017, the Council of Economic and Development Affairs (CEDA) introduced the

new "PIF program" in order to strengthen the Public Investment Fund, in line with the Saudi Vision 2030. The PIF program will derive its funds through a range of funding sources, i.e. capital injection from the government, transfer of government assets, loans and debt instruments, international investments, giga-projects and retained earnings.

#### The objectives are:

- The growth of PIF assets: To grow the fund into one of the largest SWFs, maximizing the value of under-utilized government assets and investments
- Unlocking new sectors: To stimulate the necessary actions to achieve economic diversification by launching new sectors, i.e. creating new ecosystems, large-scale infrastructure and real estate projects
- Building strategic economic partnerships: Focused towards developing PIF's assets in international markets. International assets are likely to reach 25% of its total assets in 2020
- Localizing edge technology and knowledge: To encourage organizations in Saudi Arabia to expand their R&D efforts. The fund will Invest US\$55 billion SAR210 billion in advanced technology sectors and R&D, both locally and internationally, creating 11,000 new direct high-skilled jobs

The PIF program is also undertaking numerous steps to achieve its objectives with 30 initiatives spanning:

- Local initiatives To boost and support companies in KSA
- International initiatives To increase revenues by investing in global projects
- Institutional initiatives To raise PIF's profile and promote it as an institution/ investment fund

## Driving projects forward & PIF's impact on the KSA Construction sector

Since 2015, Crown Prince Mohammad bin Salman has highlighted a list of projects including the King Abdullah Financial District and others which were led predominantly by domestic companies. Looking forward, PIF is now one of the key sponsors/managers of projects totaling almost US\$1 trillion, including Amaala, Qiddiya, The Red Sea Project, and largest of all, NEOM. In order to meet the expected standards, PIF has been actively investing in the construction sector, either through acquisition or through the formation of joint ventures with international construction firms.

## PIF's impact across the wider KSA community

PIF currently invests 25-30% of its assets into overseas opportunities, whilst a significant portion of the remainder is invested in strategic domestic projects; these assets have included a significant portion of the monies raised from the listing of Saudi Aramco. The recent appointment of PIF's director, HE Yasir Al-Rumayyan, as the chairman of the board of Saudi Aramco highlights the strategic links between these two entities and likewise the importance of PIF to the KSA economy.

## Socioeconomic impact

Saudi Arabia currently has US\$1.15 trillion of future projects in the pipeline with construction and infrastructure, and transportation being the biggest future sectors. The PIF program plans to be an active investor in order to maximize PIF's assets, drive growth and improve the performance of projects. Moreover, KSA is making huge developments, aiming ultimately to become a global tourism hub, for which PIF is developing a series of giga-projects which will have a vast socioeconomic impact on the economy. The idea behind such large investments in the tourism and hospitality sector is to attract a share of the US\$20 billion that Saudi nationals spend outside Saudi Arabia. This vision is heavily reliant on the five giga-projects below:

 NEOM, a new region in NW KSA, which will be built as a living laboratory, is focusing on developing a number of industries, and is expected to contribute over US\$100 billion to GDP based on 1 million residents. (Approximate project budget SAR 2 trn)

- The Red Sea Project, a luxury tourism resort, anticipates one million tourists per annum by 2035. By the end of phase two, it is likely to create 8,000 housing units and 10,000 hotel rooms, and is expected to contribute SAR 22 billion annually to GDP. PIF plans to phase this project in an innovative partnership with foreign investment. (Approximate project budget SAR 50 billion)
- The Qiddiya Project is a new city close to Riyadh, focused on entertainment sports & culture, likely to see 17 million visitors per year by 2030 and is projected to contribute SAR 17 billion to GDP and 57,000 new jobs. (Approximate project budget SAR 45 billion
- AMAALA, a high-end luxury resort, is focused on culture and well-being, with 2500 hotel rooms to be completed by 2028 (Approximate project budget SAR 12 billion
- King Abdullah Financial District (KAFD) is a new mixed-use development, now overseen by PIF, which on completion will house 45,000 people in a live-work environment. (Cost over SAR 35 billion)

PIF has also undertaken initiatives in real estate and infrastructure projects, generating economic, social and financial returns. It launched a real estate refinance company, the Saudi Real Estate Refinance Company, to inject liquidity into the property market with the aim of growing the rate of home ownership to 52% by 2020. Other initiatives include:

 The Sakani housing program is offering free land to 90,000 families and prefabricated housing units to 117,748

- families, as well as allocating 39,332 under Construction housing units to increase the national rate of home ownership, aiming to serve 300,000 new families by 2020.
- Additionally, PIF has also partnered with South Korean and Chinese firms to build a million low-cost homes in the coming five years and with US-based contractor Katerra to build 4,101 homes across the Kingdom, to increase home ownership and expand mortgage financing

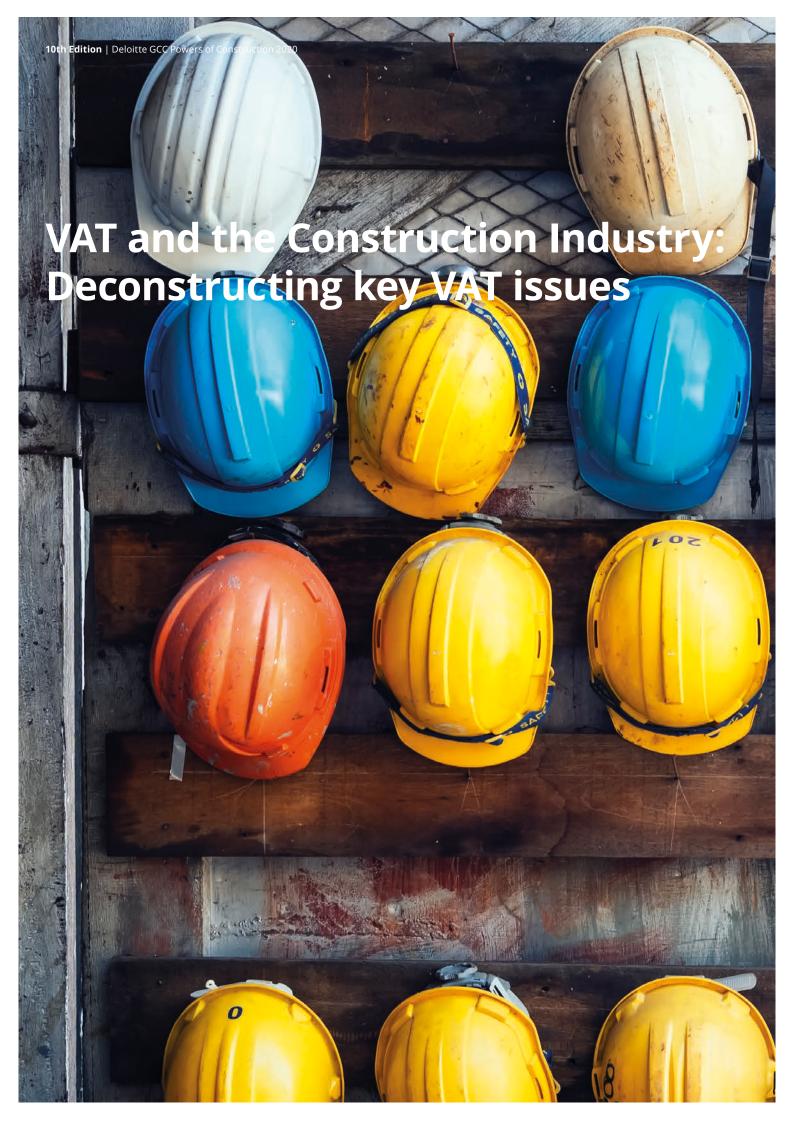
Increased government initiatives under Vision 2030 and progress on giga-project developments will create new opportunities in the Kingdom. KSA is undertaking initiatives to change its conservative image to attract investment, lure foreign visitors, create jobs, and improve life quality. Below are some of the further key opportunity areas:

- Entertainment: The Kingdom is focusing on the untapped sector of entertainment with the intention of attracting business, talent and investment through events. The government is eyeing numerous sports, events and exhibitions, such as NBA basketball and Spanish-style running of the bulls. Such events are likely to bring together developers, researchers, businesses, and designers opening significant retail opportunities (known as 'shoppertainment') in KSA. The development of the retail sector is expected to create 1 million jobs for Saudi nationals by 2030
- Healthcare: Saudi Arabia's healthcare transformation outlined in Vision 2030 will take place in three phases

- Phase I involves capability building. It commenced in 2018 and will finish by the end of 2020. This phase includes clinical systems improvement, capacity and capability building and preliminary institution building
- Phase II will include developing autonomy and value, and will see the re-purposing of the Ministry of Health to implementing health in all policies, starting in 2021 and to be completed by 2025
- Phase III is expected to commence at the beginning of 2026 and run until the end of 2030. This will include the extension of the National Health Insurance Scheme (NHI) to all citizens, residents and visitors
- Transportation: Public transportation represents a major opportunity through programs like the Saudi railway network, Riyadh and Jeddah metro and the new bus network and metro system being developed in Saudi's holy city, Mecca, intended to bring major construction projects delivering social benefits
- Localization: The Kingdom has undertaken measures to support its localization ambitions. For example, in communications and the IT sector, the Saudi government has launched a program to nationalize 14,000 jobs.

by **Neal Beevers** – Partner, Consulting, Deloitte Middle East, **James Hewitt** – Director, Sovereign Wealth Fund, Deloitte Middle East

PIF is currently the 10th largest sovereign wealth fund (SWF) globally, and holds assets worth approximately US\$300 billion; these are expected to increase dramatically, targeting US\$400 million by 2020 and US\$2 trillion by 2030.



Out of the six Gulf Cooperation Council ("GCC") Member States, three have now introduced a Value Added Tax ("VAT") regime in the country. United Arab Emirates ("UAE"), Kingdom of Saudi Arabia ("KSA") and Kingdom of Bahrain ("BH") have all implemented local VAT legislation and compliance with the legislation is the top priority for businesses operating in these countries.

As the VAT regime matures in each of these countries, several guides have been published by local Tax Authorities to help taxpayers in different sectors apply the legislation to their specific businesses. However, there are several issues across different industries that still need resolution and the VAT treatment to be applied in specific scenarios remains unclear. In such a situation, it is key to follow a process to establish the VAT treatment for each transaction and document that treatment in order to demonstrate good governance and remain compliant.

Bringing the focus to the construction sector, our experience from across the industry has highlighted a number of concerns. We have discussed a few here to provide a perspective on industry issues and also broadly consider how businesses can continue to remain compliant with local VAT laws.

## Retention payments under transitional contracts – long-term contracts spanning VAT implementation in the UAE

Where long-term Construction contracts span the implementation of VAT in the country and there are payments including retention received under these contracts post the introduction of VAT (transitional contracts), establishing the VAT liability for these payments can be difficult and as the contract values are generally quite high, the exposure to penalties for incorrect reporting can be significant.

The Federal Tax Authority in the UAE has issued guidance on how to treat retention payments received post 1 January 2018, that relate to contracts signed prior to this date. It provides the following criteria whereby such payments may be considered outside the scope of VAT:

- Retention payments become due to the supplier after 1 January 2018
- The supply of services was completed before 1 January 2018
- The supply is not considered to be completed until retention is signed off

From the above, in order to assess the VAT liability of payments received under the contract, it appears imperative to establish the point of completion of services provided. For example, whether the services are considered complete when the taking over certificate is signed off or is completion only after the contractors obligations under the contract, including defects liability, are over. An additional consideration is whether the completion of the services is dependent on release of the retention payments.

In view of the above, contractors should assess the VAT treatment of transitional retention payments on a case-by-case basis through an analysis of the contract.

## Joint Venture and other similar project structures

It is common practice to setup separate Joint Ventures ("JV") entities to deliver a Construction projects. As such, consideration should be given as to how these JVs are setup and whether they will be able to register for VAT purposes. Registration requirements for VAT purposes in the UAE can pose some concerns for registering unincorporated JVs that do not have separate legal entity status. The FTA

Contractors should assess the VAT treatment of transitional retention payments on a case-by-case basis through an analysis of the contract.

may need additional information in such cases in order to confirm the JV's status as a taxable person that can be registered separately from the JV Partners. As such, JV setup should also be considered from a VAT point of view prior to clearly establish reporting requirements.

Where these JVs are to be registered for VAT, their compliance obligations should be considered as well. Generally, with regards to common issues, it is observed that at times invoicing for the projects may still done by the JV partners themselves as opposed to the JV or payments to sub-contractors are made by the JV partners on behalf of the JV and then recharged back. In such cases, there can be several VAT touch points for the JV itself, for example, the invoicing arrangements should be clearly established between all parties to ensure that the JV is correctly issuing valid tax invoices to its customers, reporting output tax in the

Registration requirements for VAT purposes in the UAE can pose some concerns for registering unincorporated JVs that do not have separate legal entity status. The FTA may need additional information in such cases in order to confirm the JV's status as a taxable person that can be registered separately from the JV Partners.

correct tax period and also recovering VAT correctly. Contractual arrangements are also fundamental in such cases to clearly establish the supplier and recipient of goods and services under the contracts, especially where multiple parties are involved, in order to clearly understand the VAT reporting requirements for each party.

## Labour accommodation - Considerations for recovering VAT

It is common practice for construction business to be involved in providing labour accommodation to its employees and at times, to external staff as well. VAT recovery on labour accommodation has been the subject of much debate over the last two years and currently we see varied practices in the industry. There are even businesses that adopt a prudent approach and do not recover any vat costs associated with their labour accommodation, significantly adding to the cost base of the business.

There are several questions that need to be answered before the VAT implications for providing labour accommodation can be established, primarily:

- Whether the accommodation provided is an employee benefit or whether the employer can be seen as making a supply of accommodation to the employee instead
- Is the accommodation residential or would it meet the criteria for a serviced accommodation, depending on the amenities of the accommodation building

The VAT on costs incurred to provide labour accommodation can be a significant value and the specific circumstances need to considered to establish firstly, if there was a taxable or exempt supply made by the accommodation provider, and secondly, to what extent can the VAT on costs be recovered by the business, if any.

The importance of keeping proper records cannot be stressed enough in each of the cases above.

by **Nurena Tarafder** – Director, Indirect Tax, Deloitte Middle East, **Sabeka Arshad** – Manager, Indirect Tax, Deloitte Middle East

The United Arab Emirates, Kingdom of Saudi Arabia and Kingdom of Bahrain have all implemented local VAT legislation and compliance with the legislation is of the utmost priority for businesses operating in these countries.

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