

2020 PwC Middle East Capital Projects and Infrastructure Survey

More private sector investment and a greater use of technology to improve productivity will become increasingly urgent in a post-COVID-19 world



pwc

pwc.com/me/cpi-survey-2020



Contents

About the survey

3

Executive
summary

4

Key challenges
facing the industry

8

Digital and tech
are key drivers for
change

10

The need for
alternative
financing grows

14

Conclusion

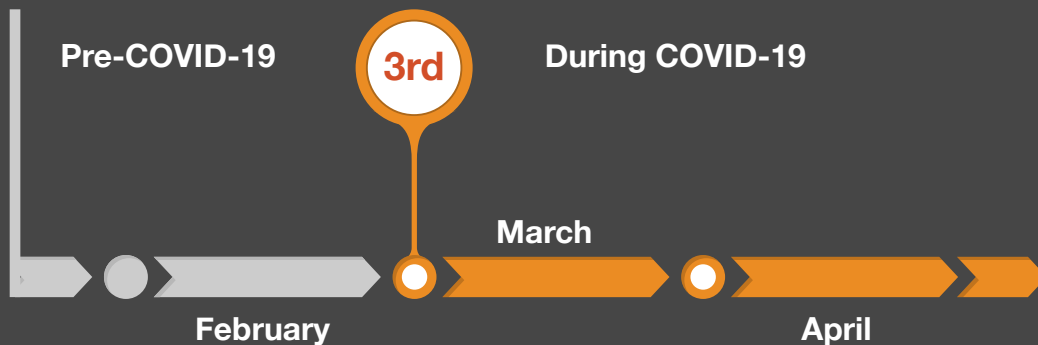
18

About the survey

We surveyed 94 organisations based in the Middle East and on average operate in three countries across the region. Respondents included project owners, developers, contractors, external advisors and financiers, all with a key role in delivering the Middle East’s major capital projects. More than half the respondents were at or above senior executive level - 22% held C-suite positions and 33% were in Heads of Department or Senior Management roles.

The survey was conducted between February and April 2020. To measure the pandemic’s impact on the industry across the Middle East, we have compared selected results between a “pre-COVID-19” period before 3 March 2020 and a “during-COVID-19” period after 3 March 2020.

“Larger organisations” are defined as those with more than 500 employees, while “smaller organisations” fall below this level. 40% of respondents were organisations that operate within the energies and utilities sector, 19% are engaged in urban development and 18% in transport.



Respondents profile at a glance



94

Organisations surveyed across Middle East

Role



22%

C-suite positions



33%

Heads of Department or Senior Management roles

Organisation size



≥ 500

Employees

Large organisations



< 500

Employees

Small organisations

Sector



40%

Operate within the energies and utilities sector



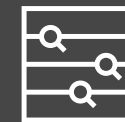
19%

Engaged in urban development



18%

Transport



23%

Other

Executive summary

Across the Middle East, the capital projects and infrastructure industry confronts a perilous market landscape. Public and private sector organisations were already challenged by sharply falling oil prices when COVID-19 struck, forcing many projects to be cancelled or temporarily placed on hold. As the region emerges from lockdown, strategic priorities have started to change, with investors and contractors conducting urgent portfolio reviews amid a severe economic downturn. Simply put, the industry will need to deliver “shovel-ready” projects, which deliver the maximum economic and social impact, more rapidly.

PwC’s latest Middle East Capital Projects and Infrastructure Survey, conducted between February and April 2020, captured the evolving sentiment of industry leaders as the pandemic progressively influenced their strategic thinking. We have divided the results between data gathered during a “pre-COVID-19” period before 3 March 2020, the time frame relevant to the Middle East, and a subsequent “during-COVID-19” period after 3 March 2020.

Our findings reveal how the economic shock delivered by COVID-19 and compounded by lower oil prices has compelled the industry to address long-standing issues such as lax project management and inadequate technology. For many organisations, survival will depend on making the correct strategic decisions in a turbulent market. Significantly, the proportion of respondents who said market volatility was a major external challenge rose from 27% to 62% before and after 3 March 2020.

However, COVID-19 also represents an opportunity in one critical area, as our survey findings indicate. Respondents increasingly recognise that they can no longer postpone implementing new technologies to boost productivity and build digitalised “smart infrastructure”, given the paramount need to improve operational efficiency. In this context, it is revealing that awareness of technology as a key driver of change rose markedly between the “pre-COVID-19” and “during-COVID-19” survey periods.

At the same time, organisations will have to invest in technology in uniquely difficult conditions, where the balance between risk and reward in funding and finance is exceptionally precarious. Respondents are acutely conscious that successful projects will depend more than ever on deeper private sector involvement and greater public investment efficiency, given the impact of the oil price and COVID-19 on state budgets.

In this fragile funding environment, the overall message from the survey is clear: technology will be the major enabler for organisations as they cut costs and improve productivity in order to address the daunting challenges that lie ahead.

Respondents who said market volatility was a major external challenge

27%

Pre-COVID-19
(Before 3 March 2020)

62%

During COVID-19
(Post 3 March 2020)



Respondents who think digital innovation will significantly transform the market in the next two years

21%

Pre-COVID-19
(Before 3 March 2020)

33%

During COVID-19
(Post 3 March 2020)



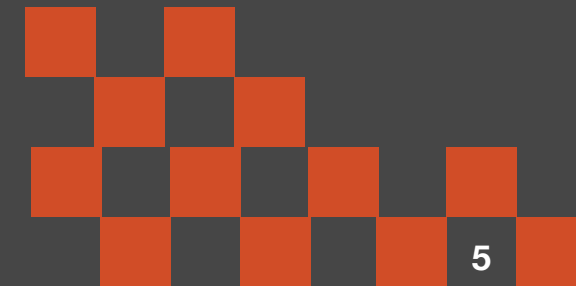
Respondents who said new technologies were improving the management of project budgets

33%

Pre-COVID-19
(Before 3 March 2020)

64%

During COVID-19
(Post 3 March 2020)



For better or worse, the pandemic is forcing change

When we began our survey in February 2020, before the pandemic became apparent in the Middle East, markets were weak and the outlook for the industry was uncertain. COVID-19, combined with lower oil prices, has intensified these prevailing conditions, as the survey results show.

More than half of organisations have experienced a major delay in projects over the past year, with contractor performance (43%) the most frequently cited issue. Other common reasons include inadequate time allocation for projects (37%) and government indecision (30%). Cost controls remain an endemic problem for the sector, with 38% reporting that on average projects have run over budget in the last 12 months.

Reasons for major delays organisations experienced when working on projects

Contractor performance

43%

Inadequate time allocation for projects

37%

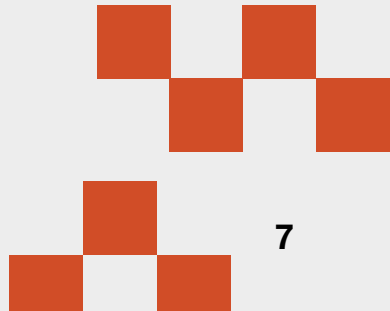
Government indecision

30%

38%

of organisations reported their projects ran over budget in the last 12 months





Key challenges facing the industry

Internal

More than half of respondents identified risk and change management as one of their organisation's five most pressing internal challenges. Organisations in the region still have work to do to develop better business cases for projects at the pre-investment stage and ensure a clearly defined scope is agreed and detailed planning carried out before procurement starts. In this regard, it is notable that 50% of respondents cited poorly defined scope or inadequate design as the main reason for cost overruns, while 31% identified project schedules as one of their organisation's top five improvement priorities for current and future projects.

Financial performance (40%) was ranked third as a major internal challenge, while 37% of respondents said funding and financing remained an issue. A significantly higher proportion of larger organisations (48%) felt funding and finance posed a greater internal challenge than smaller organisations (29%). The background to these concerns is a regional funding environment in which the combined impact of COVID-19 and the oil price drop is causing governments to review spending to ensure that public projects are necessary, affordable and efficient, and contribute to economic diversification.

Weighting shifts between the pre and post 3 March 2020 data suggest that COVID-19 triggered an urgent resetting of priorities by many organisations as markets closed and countries went into lockdown. Overall, the need to meet regulatory standards regarding privacy and cyber security was more commonly cited by those respondents who completed the survey after 3 March 2020.

Key internal challenges experienced when working on major projects



31% Identified project schedules as one of their organisation's top five improvement priorities for current and future projects



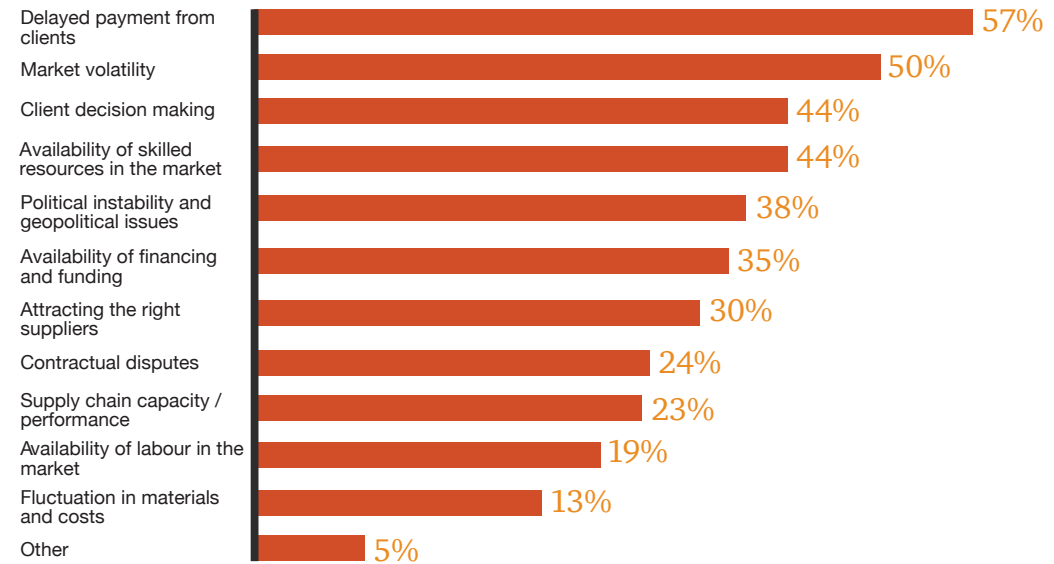
External

When respondents were asked to name their five leading external challenges, more than half identified delayed payment from clients. This proportion did not vary greatly between the pre 3 March and post 3 March results, underscoring the degree to which delayed payments are an enduring issue for the industry due to the length of supply chains. COVID-19 and associated lockdowns have further disrupted domestic and international supply chains, increasing the threat of insolvencies among both suppliers and contractors.

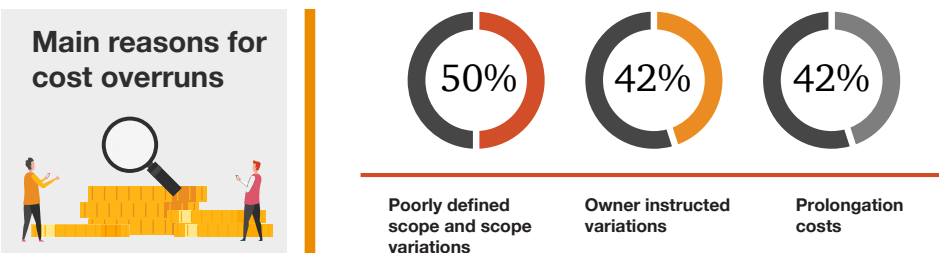
By contrast, there was a significant difference between the pre and post 3 March results regarding market volatility, ranked second (50%) in the overall survey as a major external challenge. Before 3 March, only 27% of respondents cited market volatility as a top-five challenge, but this proportion rose to 62% in the later period. This sharp increase is no surprise, given that the pandemic has meant many projects have either been cancelled or temporarily placed on hold.

Understandably, market changes – ranked 11th in the overall survey as the major reason for project delays during the past year – leapt to top place in the post 3 March 2020 responses. At the same time, widespread job losses resulting from the cancellation or postponement of projects were reflected in the declining proportion of participants who cited the availability of skilled labour as a serious challenge, from 55% in the pre-COVID period to 38% after 3 March 2020.

Key external challenges experienced when working on major projects (overall survey rankings)



In such a challenging environment, requiring extremely disciplined project management, it is worrying that the most commonly cited reasons for cost overruns were poorly defined scope and scope variations, owner instructed variations and prolongation costs. Going forward, it is clear that project owners need a greater focus on their capital planning, transparency in the supply chain and the development of in-house capabilities.





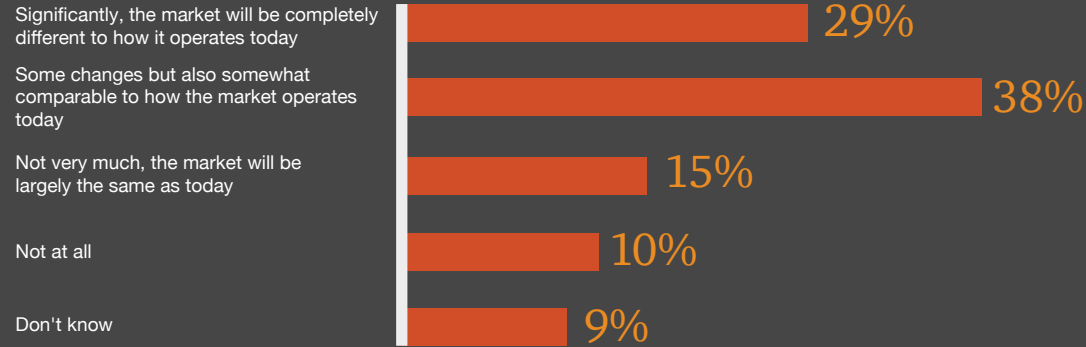
Digital and tech are key drivers for change

Our technology findings provide the main cause for optimism about the industry's prospects coming out of the lockdown, because the COVID-19 crisis appears to have impressed on many respondents the need to digitalise functions and operations.

Looking ahead, 67% of those surveyed believe digital innovation will either transform (29%) or effect significant change (38%) to the infrastructure market over the next two years.

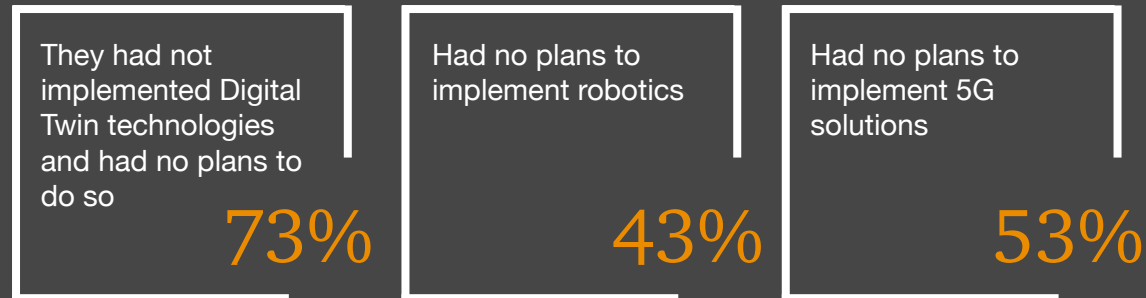
Interestingly, one-third of those who responded post 3 March 2020 thought digital innovation would be transformational to the sector.

How respondents think digital innovation will disrupt the infrastructure market in the next two years?



It seems possible, therefore, that the disruption caused by the pandemic will focus more management minds on the urgent need for organisations to embrace the digital era in order to survive in an extremely challenging market. However, the survey results also confirm that so far, the sector has a mixed track record, with too many organisations still regarding new, digital technologies as too costly or not essential.

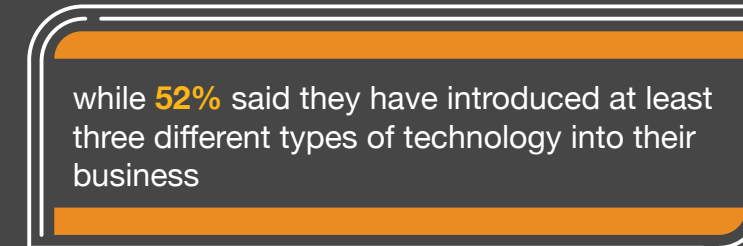
On implementing new technologies our respondents said



Respondents thoughts on Building Information Modelling (BIM)

While 74% agreed that Building Information Modelling (BIM) is essential for digital transformation in infrastructure and urban development, 59% have not implemented BIM and only 13% are planning to implement it in the next two years.

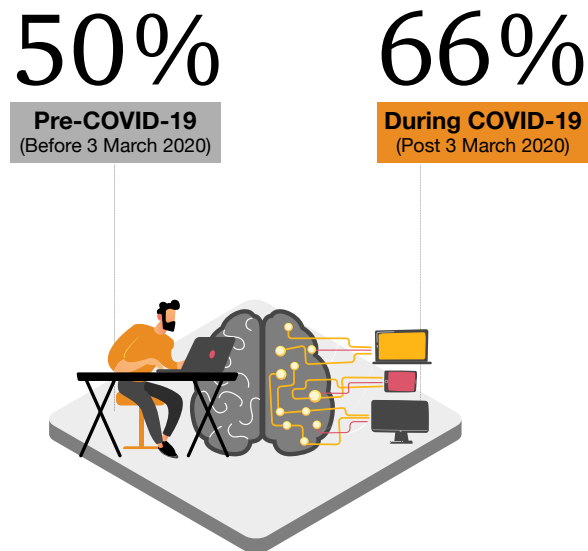
On a more positive note



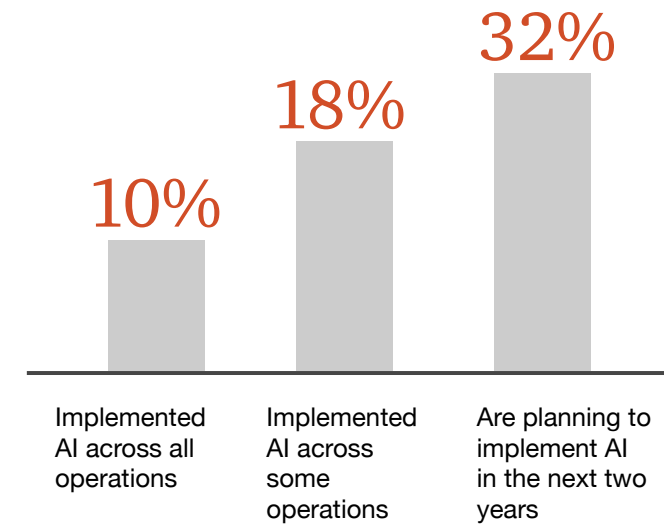
What is clear from the pre and post 3 March 2020 responses is that the COVID-19 crisis has increased the pressure on organisations and their clients to upgrade their technology and digitalise systems and processes in order to remain competitive. For instance, 46% of respondents in the pre 3 March 2020 sample said lack of client demand was a major external obstacle to acquiring new technology. Meanwhile, the proportion that identified unclear strategy as an internal barrier to acquiring technology fell from 39% to 25% between the two periods.

COVID-19 has also sharpened perceptions about which top-five new technologies that will have the most disruptive impact on the industry in the next two years and therefore need to be prioritised. Two-thirds (66%) of the post 3 March 2020 sample identified Artificial Intelligence (AI) and machine learning in their top five, compared with just 50% in the pre-COVID-19 sample. Furthermore, 60% of respondents are either planning to implement AI and machine learning in the next two years with 28% having done so across some or all of their operations against 32% of respondents who are still at the planning stage.

Respondents who identified Artificial Intelligence (AI) and machine learning in their top five technologies to disrupt the infrastructure market in the next two years



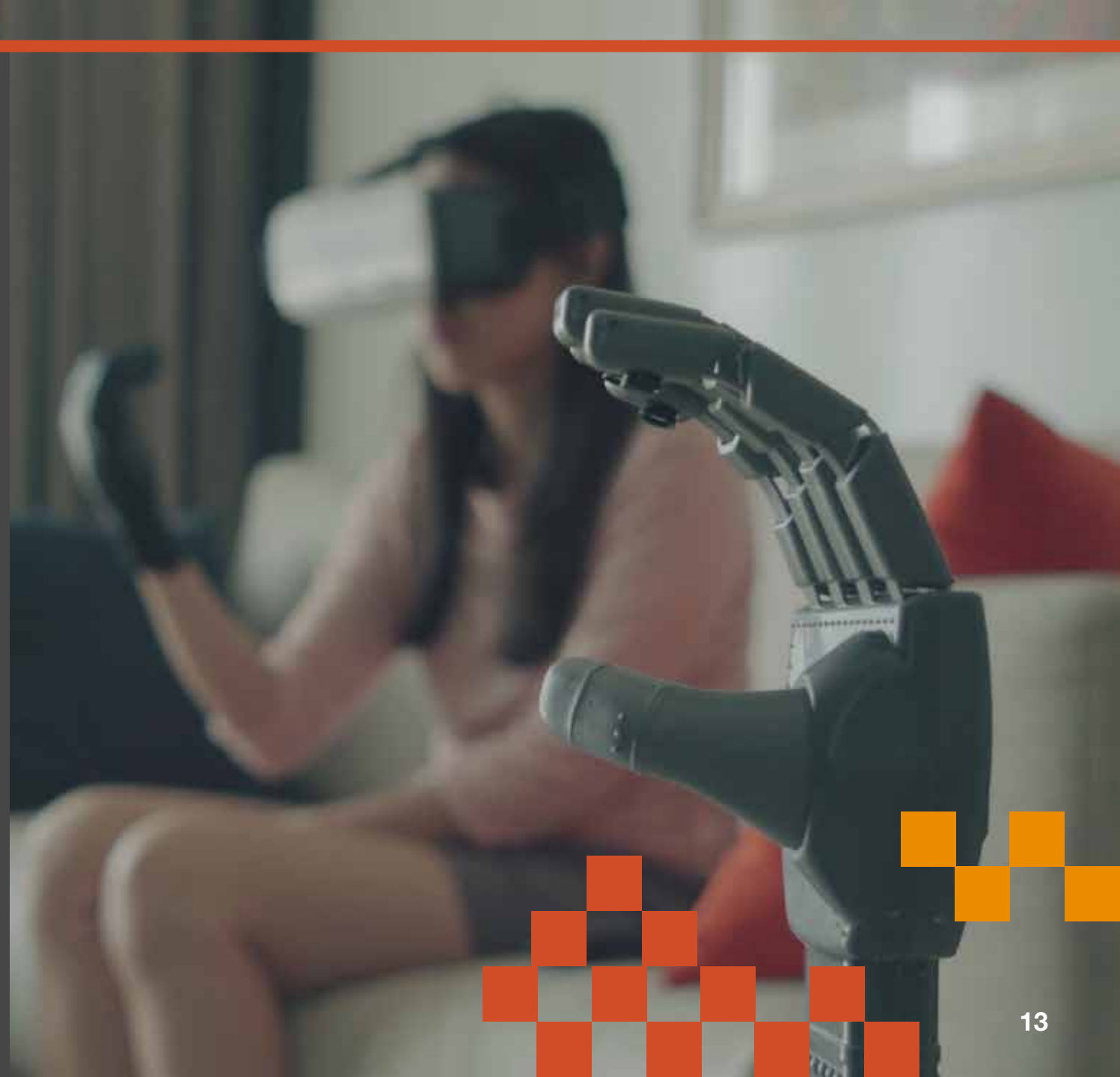
How respondents have adopted AI and machine learning across their operations



The benefits of AI and machine learning technologies are multiple. They can utilise data captured by cloud and BIM technologies to develop insights that deliver projects more effectively; for example, by improving forecasts for project costs and schedules, and by providing real-time data analysis to identify project components that can be manufactured off-site by robots. Robotics (46%) also featured far more strongly as a disruptive technology in the later post 3 March 2020 responses. Overall, 57% said their organisations either planned to implement robotics in the next two years or had partially or fully done so.

However, translating good intentions about technology into successful implementation has proved challenging in the past, due to a lack of in-house expertise and training capacity. In the current market conditions, some organisations, especially smaller ones, may find investing in technology skills too expensive to undertake as they struggle to see the immediate returns. Revealingly, almost half (48%) of smaller organisations ranked cost as one of the top three barriers to introducing technologies, compared with 29% of larger organisations.

48% of smaller organisations see costs as one of their top three barriers in adopting new technologies





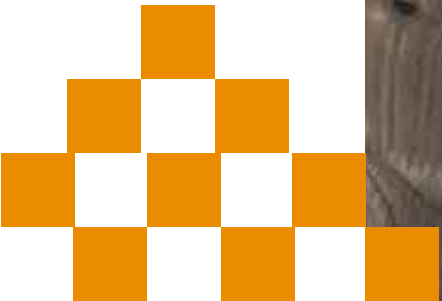
The need for alternative financing grows

As the survey results show, the impact of lower oil prices and the economic damage from COVID-19 has created a daunting financial landscape to navigate.

A large majority (83%) of respondents agree on the importance of private sector funding, in line with our 2018 survey results (80%).

83%

Agree on the importance of private sector funding



Overall, 53% of organisations expect infrastructure projects to be funded by a mix of private and government sources, around the same proportion as in 2018. This perception is realistic, because the recent steep fall in oil prices, coinciding with hugely expensive COVID-19 lockdowns, has further stretched increasingly constrained state budgets.

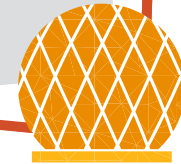
Around the region, the past two years have witnessed a flurry of government initiatives to attract more private finance to bridge the funding gap and kickstart projects.



○ In 2019, Oman's Ministry of Finance set up a new Public Authority for Privatisation and Partnership (PAPP), which since January 2020 has issued a number of requests for proposals (RFPs) for harbours, hospitals, highways, schools and government offices



○ Abu Dhabi Investment Office created a PPP Centre of Excellence last year, which has since announced projects worth around 10bn Dirhams (\$2.72bn)



○ More recently, Qatar's new PPP law, announced in May 2020, aims to facilitate private investment in a pipeline of projects covering number of sectors



○ While Kuwait and Dubai have had PPP Laws in place since 2014 and 2015 respectively these jurisdictions are launching previously suspended projects; for example the Az Zour North 2 and 3 IWPP in Kuwait and the Dubai Cardiac Centre of Excellence








Despite these initiatives, survey respondents became notably less optimistic between February and April about the ability of PPPs to secure funding and ensure projects were completed on schedule. For example, before 3 March 2020, 76% of respondents believed that PPPs, including 'Design Build Finance Operates' projects (DBFOs) and Build Operate Transfers (BOTs), increased the likelihood of delivering capital projects on budget; after 3 March 2020, the proportion fell to 51%. This decline does not appear to indicate a loss of faith in PPPs as a funding vehicle, given that most respondents see private investment playing an integral role in project finance going forward. Instead, it emphasises how governments and organisations must actively engage with private investors, in a post-COVID-19 downturn where capital availability will be severely constrained.

Conclusion

The COVID-19 pandemic, coinciding with falling oil prices, is forcing organisations across the region to address industry issues that were already significant when we conducted our previous survey in 2018. What has changed is that these challenges must be tackled in, what is, an unprecedented economic downturn, where survival will depend on making the correct strategic decisions and knowing where to prioritise and re-allocate capital. This represents a major challenge.

It is therefore encouraging that respondents became increasingly aware during the survey that an urgent review of portfolios and strategic priorities was required. Respondents recognise the need for better early planning and more robust scoping to ensure projects are delivered on schedule and on budget. They are also aware, as in 2018, that rigorous assessment of the cost base, focused on capital and operating expenditure, is crucial to maximising return on investment.

However, the survey results, especially after 3 March 2020, demonstrate how COVID-19 has pushed several issues to the top of most respondents' agendas. Based on these findings we believe the following measures are critical to success in what could be a prolonged, post-crisis downturn:

-  **1**
Re-assess the cost and benefits in the whole capital project portfolio
-  **2**
Improve supply chain transparency to reduce risk and maximise value
-  **3**
Evaluate the cost base of programmes to deal with financial constraints and deliver projects more efficiently
-  **4**
Build digitalised "smart infrastructure" and increase use of data to boost productivity and efficiency
-  **5**
Give greater certainty on portfolio planning to actively engage with private investors to ensure access to funding

Infrastructure, as it has done in the past, will play a significant role in economic recovery after the current COVID-19 crisis has been contained. Governments will begin to focus on the recovery and stimulus packages, as was done in the aftermath of the global financial crisis.

This crisis was not entirely unpredictable but the industry was clearly unprepared to deal with its impact so it's critically important for these stimulus measures to focus on projects that not only grow the economy, but also anticipate the impact of future risks.

Simply waiting for better times to upgrade technology and address operational challenges is no longer an option. The time for action is now.



Contact us

To discuss the report in more detail or find out how we can help support you navigate your next major project, connect with one of the team below.



Maarten Wolfs
Capital Projects and Infrastructure
Leader
PwC Middle East



Riyadh Al Najjar
KSA Country Leader -
Transformation Management
Leader
PwC Middle East



Andrew Stead
Partner, Capital Projects services
PwC Middle East



Ali Ayyad
Director, Capital Projects services
PwC Middle East





This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, PwC does not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

© 2020 PwC. All rights reserved. PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.

