

CONSTRUCTION THINK TANK

Recommendations to build a better
construction industry in the UAE

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EVERY INDUSTRY HAS BEEN DISRUPTED BY THE PANDEMIC, BUT FEW MORE THAN THE UAE CONSTRUCTION SECTOR. AND MUCH OF THAT DAMAGE IS THE RESULT OF SHORT-SIGHTED STANDARD PRACTICES THAT HAVE LONG-PERSISTED IN THE INDUSTRY AND WHICH NEED TO BE ENDED”

FOREWORD

IMPROVING THE SYSTEM

Despite its well-deserved reputation as one of the most dynamic and productive industries anywhere in the world, the UAE construction sector at the start of 2021 is in crisis. And while many of the challenges it is facing will be recognised by construction companies around the world, the problems in the UAE represent a threat to the country's national vision.

At the root of the crisis lie a set of established practices, long-used by project sponsors, construction clients and contractors, that are contributing to high levels of waste, conflict and delay.

For years, these practices have continued unchecked. But since 2015, the slowdown of the region's projects market started to reveal the structural threat posed by these flawed processes.

And in 2020, the full extent of the problems was fully exposed by the coronavirus pandemic. A slump in new project opportunities, increased payment delays and a rise in contract disputes has put many businesses under severe financial stress.

Every industry has been disrupted by the pandemic, but few more than the UAE construction sector. And much of that damage is the result of short-sighted standard practices that have long-persisted in the industry and which need to be ended.

It is time to fix the problems that have been allowed to continue for so long. New approaches and mechanisms must be introduced to bring an end to the challenges facing the industry.

After months of severe economic and commercial disruption from the pandemic, the third UAE Construction Industry Think Tank examined what actions could be taken by the industry together with the government to fix and improve the UAE's construction system.

The Think Tank brought together senior representatives from across the UAE construction sector to discuss the challenges facing the industry, and to recommend practical actions for change.

This white paper presents the recommendations for action from the third UAE Construction Industry Think Tank, and summarises the opportunities and challenges for successfully implementing these actions.



IT IS TIME TO FIX
THE PROBLEMS
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CONTINUE FOR
SO LONG”

Mohammad Al Shouli

Executive Vice President

Global Head of Contracting Finance

Mashreq Bank

INDUSTRY REPRESENTATIVES



ACTIONS FOR CHANGE

GOVERNMENT ACTION

- Regulatory requirement to have early contractor involvement on all public-sector projects
- Introduce regulations requiring greater transparency of company financial information and up-front costs.
- The government to take steps to eliminate 'on-demand' bonds.
- Government to require that the terms of bonds include the requirement for third party assessors to ensure proper use of these instruments.
- Establish a mechanism that directly links payments with performance.
- Establish a transparent national programme of projects that will provide clarity on the pipeline of future projects in the UAE as well as the funding secured for each project.
- Establish/enable an industry body to promote collaborative practices, transparency and innovation in construction.

CLIENT ACTIONS

- Clients mandate use of digital data tools such as BIM to create common data platforms and share information with various parties and across phases.
- Introduce strategic procurement models such as partnering and supply chain management (SCM) with greater visibility of future project pipelines.
- Clients to drive the need for more stringent actions on reducing carbon footprint of their entire portfolio, through a whole-life carbon approach.
- Take steps to ensure the implementation of ICV schemes ensure the circulation of money and opportunities in the local economy.
- Introduce alternative contract models that enable collaboration.
- Encourage alternative designs and innovation for improved productivity by contractors.

INDUSTRY INITIATIVES

- Establish an industry initiative to digital capture real time project data to provide clearer understanding of the contributing factors to overruns as the project progresses.
- Industry establishes a series of demonstration projects.
- Establish a national programme of training workshops to educate project clients on best practice, and to disseminate information.
- Establish a construction industry body encompassing projects sponsors, contractors, government entities, contractors, consultants, subcontractors and suppliers.
- Build a national construction industry project archive that acts as a 'memory bank' of project details, behaviours and lessons learnt.
- Introduce a system of accreditation for contractors and suppliers.

FOCUS SHIFTS

ANALYSING THE UAE CONSTRUCTION AND TRANSPORT PROJECTS MARKET AT THE START OF 2021

Already buffeted by weak oil prices since 2015, and facing a growing oversupply of property, the UAE construction sector in 2020 was bludgeoned by the impact of the Covid-19 pandemic.

The economic and logistical disruption caused by the measures taken to slow the spread of the virus affected on-going and planned schemes alike, and saw the value of construction contract awards in the UAE crash by more than 55 per cent in 2020 compared to the previous year.

According to data from regional projects tracker MEED Projects, about \$12.6bn worth of construction and transport contracts were awarded in the UAE in 2020, down from about \$28bn in 2019, and some 65 per cent below the \$36.5bn of contracts awarded in 2017.

The value of construction and transport project contracts awarded in the UAE in 2020 is the lowest level of awards seen in the country since 2011.

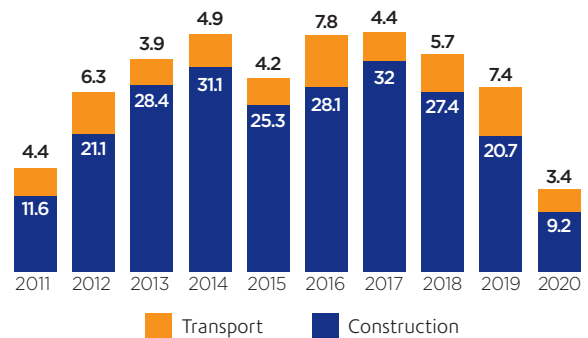
Over the past decade, infrastructure projects and residential developments have been the primary drivers of construction activity in the UAE, as the country sought to meet the needs of its expanding population and prepared to host the first ever World Expo in the Arab region.

Infrastructure projects accounted for the biggest segment of construction contract awards in the UAE in 2020 with some \$3.3bn of awards on projects that included the Etihad Rail phase 2 packages and infrastructure works on the Riyadh City development by Modon Properties.

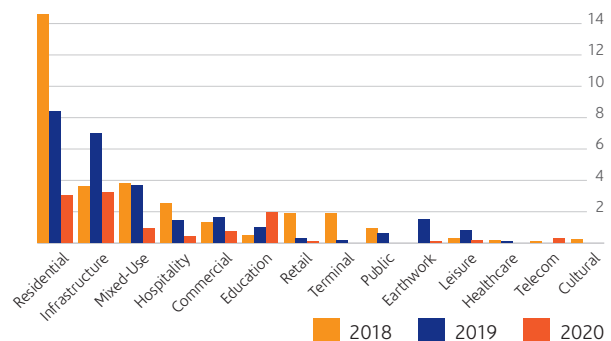
The UAE's education sector saw a surge in awards in 2020, recording its highest value of contract awards in the past 10 years, led by the \$1.8bn award to develop Block 7, an innovation hub and academic campus in Abu Dhabi.

The commercial real estate projects market however plunged in 2020 as the office, retail and hospitality sectors saw a steep drop in contract awards, attributed to a glut in the properties be-

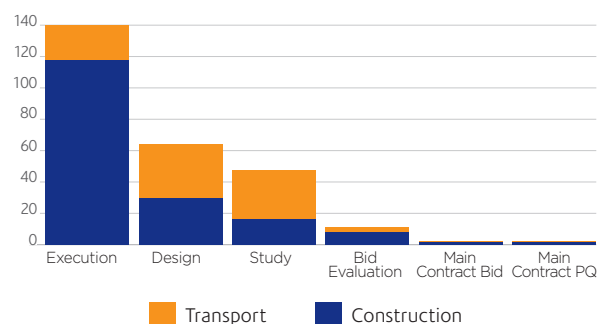
C&T* CONTRACT AWARDS 2011-2020 (\$bn)



TYPES OF C&T CONTRACTS AWARDED IN 2018-2020 (\$bn)

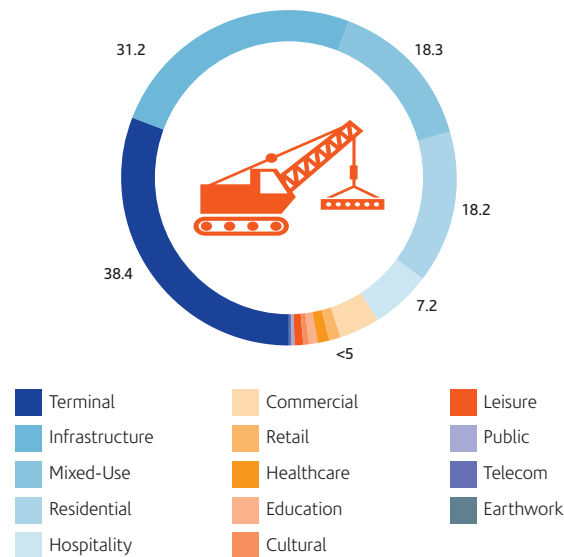


C&T PROJECTS PLANNED AND UNDERWAY (\$bn)

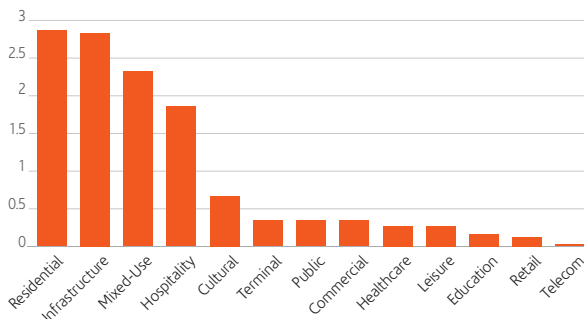


Source: MEED Projects ; C&T*=construction and transport

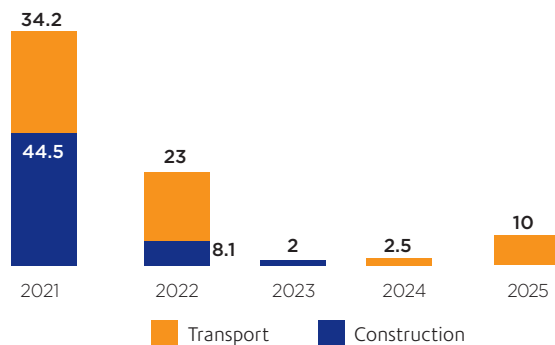
TYPES OF C&T PROJECTS PLANNED (\$bn)



TYPES OF C&T PROJECTS BEING TENDERED (\$bn)



FORECASTED AWARD YEAR FOR PLANNED C&T SCHEMES (\$bn)



Source: MEED Projects ; C&T=construction and transport

coming available in the market at the same time as demand for new properties slumped.

Some \$264bn worth of construction and transport projects are planned or underway in the UAE, with building and real estate projects accounting for nearly two-thirds of this total.

Of this total, the majority of schemes, about \$140bn worth, are under construction. These include the \$5.8bn Dubai Creek Harbour project, \$5.6bn District 7 Meydan City project and the \$2.96bn Abu Dhabi Midfield Terminal complex.

The majority of the \$124bn worth of construction and transport projects in the pre-execution stage are still at some stage of design.

The pipeline of future projects planned in the UAE is led by the transport sector, in terms of value of planned investments. This represents a significant departure from previous patterns in the UAE, in which real estate investment has typically accounted for the lion's share of planned project investment.

Of the \$124bn worth of projects planned in the UAE, about \$69.6bn is being directed towards transport projects.

The UAE's building and real estate segment has a estimated \$54.6bn pipeline of future projects in planning covering both mixed-use and residential sectors in almost equal values.

OUTLOOK

In a recent report, UK-based data business GlobalData, MEED's parent company, said that it expected construction activity in the UAE to increase by 3.1 per cent in 2021, after recording a decline of 4.8 per cent in activity in 2020.

The report concludes that while there is unlikely to be meaningful recovery in the near term for the residential sector due to the supply-demand imbalance, there will be an increasing focus on infrastructure spending.

Infrastructure projects form a key part of the UAE's economic expansion, as not only the country but the wider GCC region still has huge infrastructure needs.

However, the government's economic and fiscal policies will continue to be partly guided by global oil price movements, as Abu Dhabi, which funds a major share of federal spending, is still heavily reliant on oil revenue.

THE NEED FOR CHANGE

THE CHALLENGES FACING UAE CONSTRUCTION ARE A RISK TO THE COUNTRY'S GROWTH AMBITIONS

The collapse of Arabtec Holding, Dubai's biggest and best-known construction group, in late 2020, shone a light on the challenges facing the UAE's construction sector.

While many of these challenges are common to the construction industry around the world, they are particularly significant in the UAE where the development of the built environment plays a central role in the country's growth ambitions.

TROUBLES MOUNT

What is clear from the Arabtec situation is that something must be done to change the way firms work and projects are managed.

To achieve the goals laid out in their vision statements, it is vital that GCC governments and industry work together. It's important that we learn from the lessons of Arabtec.

Since 2015, the industry has faced growing stress from a slowing projects market in the GCC triggered by weak oil prices and an oversupply of property. The resulting slowdown in new projects hit contractor turnover.

As competition increased in a shrinking market, contractors cut their tender bids to the lowest prices possible in order to win work and to keep cash flowing. The squeeze on profit margins left little room to deal with problems or to make strategic investments. Delays in contract payments added to the cash flow concerns.

By the start of 2020, many contractors were finding it difficult to survive, and several international companies chose to leave the market.

Then, the coronavirus pandemic hit hard. The further collapse in oil prices in March 2020, along with the disruption caused by the measures taken to slow the spread of the virus exacerbated an already tough situation. Several construction projects were temporarily put on hold during the lockdowns implemented.

For many, Covid-19 provided an excuse to

justify disruptions and delay payments.

Industry surveys conducted by Deloitte Middle East in early and mid-2020 found that even prior to the pandemic, companies in the GCC had a grim outlook on their businesses' future financial prospects relative to the preceding 12 months.

The respondents said that they expected to see a fall in revenues, declining operating margins, tightening cash flow and reduced hiring, as well as increasing delays in receivables, uncertified work in progress days and bank borrowing.

According to Deloitte's survey, payments due for work done took 35 days longer to be made in 2019 than in 2018. In 2020, the delay is reported to have increased by a further 73 days as result of the pandemic. This leaves contractors at the end of 2020 having to find finance to fund nearly four additional months, with the cash conversion cycle now averaging at approximately one year for in-progress contractual cashflows.

Subcontractors and smaller suppliers are some of the worst affected, as they lack the capital and human resources necessary to deal with an economic downturn of this scale.

Already fragmented and siloed, the construction culture in the UAE has become less collabo-



SINCE 2015, THE INDUSTRY HAS FACED GROWING STRESS FROM A SLOWING PROJECTS MARKET IN THE GCC TRIGGERED BY WEAK OIL PRICES AND AN OVERSUPPLY OF PROPERTY"

ISSUES PLAGUING PROJECT DELIVERY

Criticality of the problem (Immediate impact on project delivery)

VERY HIGH



On-demand bonds



Incomplete designs and late changes



Delayed payment cycles



Cashflow

HIGH



Adversarial relationships



Poor clarity on scope of work



Risk dumping

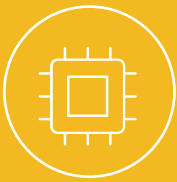


Lowest price tendering

MEDIUM



Slow dispute resolution



Latency in tech adoption



Dated procurement practices



Dated contract models

LOW



Limited visibility of projects pipeline



New entrants willing to take on more risk



Wastage of resources



Failing to consider project lifecycle costs at the outset

relative and more adversarial over recent years.

As troubles pile up for contractors in the UAE and the entire supply chain, the country's banks are also becoming more risk averse. And as the perceived risk of default increases, so too does the cost of borrowing, with some financial institutions even cutting new credit lines to construction companies to protect themselves.

But as projects are delayed, and companies withdraw from the market, it could be the UAE's attraction for foreign direct investment that faces the biggest risk. At a time when the UAE and other countries in the region are seeking to open up their economies to international investors, the failure of one of its flagship industries will raise areas of concern when evaluating risks and opportunities for potential investors.

THE WAY FORWARD

For many people in the UAE construction industry, it has long been apparent that there is a need for change.

But for change to happen, key construction industry stakeholders, particularly government and construction clients, must acknowledge that there is a problem. And that something needs to be done to resolve the problem.

The government and its related agencies are the biggest clients in the UAE construction industry, driving infrastructure and other major schemes and providing major economic impetus for the industry to survive.

This provides them with an opportunity to drive change through the implementation of new mechanisms, standardisation and regulations that can improve the state of the market, and also ensure projects can be delivered on budget, on time and deliver the planned return on investments.

An important aspect of this will be to establish a constant dialogue between government agencies and the construction industry, the introduction of national benchmarks to measure project and industry performance, and to provision research and information on best practice in areas such as reducing waste and improving sustainability of the industry.

It is also important to remember that many of the issues facing UAE construction are uni-



GOVERNMENT AND INDUSTRY HAVE TO WORK TOGETHER TO ENSURE THAT INFRASTRUCTURE IS DELIVERED AT PACE, WITH VALUE, INNOVATION AND A HIGHLY SKILLED WORKFORCE"

versal, especially the transactional approach leading to adversarial relationships. The UAE's forward-looking vision could help it lead in the collaborative contracting sphere, setting an example both in the region and globally.

Government and industry have to work together to ensure that infrastructure is delivered at pace, with value, innovation and a highly skilled workforce. This can ensure higher productivity as an industry, and as a region.

DIGITAL OPPORTUNITY

There are also other opportunities for the industry to capitalise upon.

Traditionally a laggard in the adoption of technology, the construction industry is now rapidly coming around to the benefits of technologies such as artificial intelligence, building information modelling (BIM), digital project management and commercial dashboards, digital twins and 3D printing, as a way to improve productivity and reduce waste.

Effective digitalisation provides new opportunities to measure the performance of construction processes, create costing benchmarks and ensure an efficient use of resources.

Covid-19 provides an opportunity for UAE construction to rethink its priorities. Instead of building less for more as is the norm, the industry can start building more for less. Harnessing new methods of delivery and technologies can underpin a thriving supply chain that is world leading.

It is vital that government and industry come together to drive the transformation of the construction sector the industry wants to see.

STAKEHOLDER IMPACT

EXPECTATIONS

REALITY

- Project delivered on time and within budget
- Alignment between planned project and final output
- Proportionate balancing of risk
- Project meets the level of quality specified
- Whole life costing models



OWNER

- Project faces both budget and cost overruns
- Reputation affected
- Delayed market delivery
- Unfair risk transferred to contractor
- Whole life costs not considered at outset impact maintenance and operational efficiency in long-term

- Fair allocation of risk
- Clear scope of work
- Completed designs
- Collaborative working with owner and designer
- Healthy supply chain management
- Early contractor involvement models (ECI)



CONTRACTOR

- Carrying risk throughout
- Tendering with incomplete designs
- Facing payment delays
- Owner triggers bond payouts
- Pass thorough cash squeeze to supply chain

- Clear and fixed client brief
- Feasible designs
- Feeding data into BIM models to pass them down the value chain
- Fastracked, smooth delivery
- Collaborative relationships with client and supply chain
- Design issued on time



DESIGNER

- Incomplete designs that require contractor to be delayed, usually at the latter's risk
- Non-feasible designs requiring rework during construction
- BIM data only gathered at design stage and lost during subsequent phases
- Changing client requirements

- Clarity on scope of work and site conditions
- Work conducted meets project quality specified



SUBCONTRACTORS AND SUPPLIERS

- Contractual agreements signed without scope being clarified
- Burdened under risk passed on by the contractor

- Conduct due diligence in borrower's history, reputation and delivery capability
- Feeding data into BIM data models to pass them down the value chain



BANKS

- Lack of due diligence on borrower
- Greater exposure to risk by lending in an inherently risky industry
- Risk-averse lenders reluctant to extend credit to contractors with a history of default
- Lack of active project engagement
- Bond encashments

BARRIERS TO REFORM

WHY THE CONSTRUCTION INDUSTRY HAS BEEN SLOW TO CHANGE

- **Overcapacity** resulting in contractors and subcontractors accepting excessive risk and insufficient margins
- **Reliance on expatriate labour** at all levels creates detachment within the UAE for the need to change
- **High value transactions** with complex supply chains enables profiteering and reduces incentive to reform industry
- **Project and management accounting rules** encourage optimistic revenue projections, locking in potential disputes
- **Regulation of real estate project financing** allows developers to undervalue project accounts to bridge funding shortfalls
- **Misalignment of consultants/designers and contractors**, making it tough for the former to act as a peace maker
- **Slow and costly dispute resolution** encourages a short term approach and engagement with the practices identified above
- **Cost of finance:** Willingness of funders to provide capital at prices that don't reflect the industry's risk/returns
- **One-off projects**, meaning that there is no opportunity to learn from previous projects and creates little reason to collaborate
- **Competitive lump-sum tendering** fosters a 'lowest-price-wins' approach, increasing the risk to companies
- **Traditional contracts** do not incentivise supplier performance and positive behaviours
- **Poor governance** and performance management systems result in missed benefits or escalating costs
- **Weak data systems** provide limited oversight of performance at client level and undermine accountability for delivery

THINK TANK

THE THIRD UAE CONSTRUCTION THINK TANK AIMS TO FIND ACTIONS TO STRENGTHEN THE INDUSTRY FOR THE LONG RUN

Construction has played a vital role in the development of the UAE, with the sector acting as an economic barometer for the country. As the nation enters its 50th year, a new era of change is underway, driven by long-term vision.

The economy is rapidly diversifying away from oil. An important part of this narrative is a focus on digitalisation and sustainability, both of which rank low in the construction sector.

To continue its role as a critical industry, construction needs to take practical measures and initiatives that accelerate the role of technology and better the approach to sustainability and financial viability in its practices.

At the same time, it needs to better prepare itself to support the national vision of greener, smarter infrastructure and societies.

Addressing the challenges facing its construction sector provides the UAE with an opportunity to be a catalyst for change around the world. Successfully resetting the UAE construction sector will position the country as a world leader in rethinking construction and how projects are delivered using new approaches from forms of contract, through to technology adoption and sustainability.

Supporting reform in project delivery provides the government with an opportunity to push the boundaries of innovation and test new ways of doing things. And the government will find that it has the support of an industry that is ready for change, and ready to continue playing its part in the UAE's upward journey.

At the third UAE Construction Industry Think Tank, representatives from across the UAE construction industry gathered to address four key questions. The recommendations under each of these sections are geared towards improving the state of UAE construction, not just in the short-term but in the long-term as well.



What change is needed to create a supportive construction ecosystem?



How can the commercial models used to finance projects be mandated?



How can the industry support construction clients in the need for change?



What actions can be taken to sustain and protect the supply chain?

BETTER BEHAVIOURS

One of the biggest failings of the construction industry is its siloed nature. Companies, often working side-by-side, typically work as disconnected actors rather than as collaborators on a project. This leads to duplication of efforts in some areas, while leaving gaps in others. Risk aversion, protecting self and blaming others to avoid the problem have become commonplace.

Typically brought on board when designs are at an advanced but incomplete stage, contractors are given little opportunity to contribute to the plan. This becomes problematic when designs turn out to be unfeasible during construction, a situation that could be avoided by engaging the contractor early on.

Siloed behaviours impact the overall cost and operability of a project. For instance, data created and gathered during the design and construction phase could be beneficial for operations and maintenance, and even the decommissioning phase.

Project clients commonly embark on projects without developing a rigorous understanding of the feasibility of delivery or evaluation of options. Alternative ways of achieving the outcome are ruled out too early.

Early contractor involvement ensures better designs, particularly on complex and large-scale projects. It reduces clashes and delays, and encourages collaboration, improves planning and costing, allowing room for innovation.

A 'whole life' approach to project delivery during the design and construction phase will significantly improve the performance and value of a project through its life cycle, from design to decommissioning. But it requires far higher degrees of collaboration and communication between owner, operators, consultants, designers and contractors. Clients, in particular, needs to make whole life costs a priority instead of exclusively focusing on capital expenditure.

The process of information sharing is being made easier through building information modelling (BIM) and other digital tools. Data stored

on common cloud platforms can be passed on through the life cycle of the project, resulting in smarter and more efficient asset management.

Collaborative contracting and alliancing models can support the implementation of better behaviours in the construction industry by ensuring that project companies share in the successes of a project, and in its failures.

These behaviours require trust however, and contractors need to build their credibility through best performance – but so do clients, by streamlining payments, sharing risks and spearheading collaboration where possible.

There is a need for greater transparency of costs upfront, to serve as a better starting point for collaboration. This is where lifecycle costing can be useful, to provide an overall view of the project budget and thus effectively deploy resources.

IDEAL SCENARIO

Project parties work closely in a collaborative fashion. Contractors are involved early on in the design phase of projects, which allows for better value creation.

The client drives the use of collaborative contracts, engaging in constant communication with its supply chain.

Throughout the entire building life-cycle, building-related information is captured and reused, through the use of digital repositories such as BIM models. Data is fed into the BIM model through a standardised method, generating actionable information.

ACTIONS TO CREATE A SUPPORTIVE CONSTRUCTION ECOSYSTEM

CHALLENGES	RECOMMENDATIONS
SILOED BEHAVIOUR Owners, designers and contractors work as disconnected, independent parties, leading to inefficiencies in the development process. Designs have to be reworked or modified at a later stage.	EARLY ENGAGEMENT Regulatory requirement to have early contractor involvement on all public-sector projects to allow contractors to feed in their experience at the design stage, improving buildability and efficiency, and ultimately financial viability.
LINEAR APPROACH Project delivery is typically segmented into distinct phases – planning, design, construction, operations and decommissioning, with little overlap between phases.	WHOLE LIFE APPROACH Educate project sponsors to plan projects for their entire lifecycle from the outset. Encourage models that account for total life costs to promote understanding of how changes at one stage impact other stages, allowing intelligent and calculated commercial decisions. The government to enforce use of digital data tools such as BIM to create common data platforms and share information.
HIDDEN ISSUES There is typically a lack of transparency on projects. Communication on issues such as delays and cost overruns is limited. These lead to clashes and payment problems, worsened by insufficient accountability.	OPEN BOOK Establish an industry initiative to capture project data to provide clearer understanding of the contributing factors to project overruns. This can be done by gathering data digitally and using this to mitigate costs in real time.
CONVENTIONAL CONTRACTS Traditionally, construction contracts are bilateral transactions between two parties, requiring no collaboration with any other entities. There are no incentives for stakeholders to jointly deliver project outcomes. In this the environment, many project relationships are very adversarial.	COLLABORATION Launch an industry initiative, supported by government to encourage the consideration of alternative contract models that enable collaboration. The incentives of all parties on a project are aligned and focused on project outcomes rather than individual contractual targets.
LOST INSIGHTS Project parties do not share or carry forward knowledge gained from errors/successes on a development. Moreover, there is no platform to share this on an industry-wide level.	TRUST CULTURE Build a national construction industry project archive that acts as a ‘memory bank’ of project details, behaviours and lessons learnt, which is shared across the industry.

RETHINKING FINANCE

Construction contracts in the UAE typically require contractors to provide performance bonds that can be cashed in by their client if they fail to deliver work specified in the contract. The bonds provide clients with access to funds to cover the cost of remedial works, and protect the client from default by the contractor.

The on-demand bonds are letters from the contractor's bankers that promise to pay the client monies, up to the value of the bond, whenever the client demands it.

However, where a dispute arises between the client and its contractor over performance, the bond represents a significant risk for the contractor. Mere demand triggers payment, even if there is no independent assessment on whether a contractual obligation was breached.

The set up typically allows clients to encash the contractor's performance bond even in situations where the contractor may not be at fault. As the banks have taken security for the bond, where a bond is liquidated it creates financial pain for the contractor as well impacting its reputation in the market and can affect its borrowing capacity, potentially hurting its ability to bid for future work.

Where the bond was liquidated unfairly, the contractor will typically have to prove through court or arbitration that it was not at fault in order to recover the monies. This can take years. In the meantime, it is likely to be suffering this squeeze on finances at a time the client is also withholding payments and retention monies.

Moreover, the perceived security of holding bonds can embolden the client to try unproven contractors, and the outcome is usually messy.

What many clients fail to understand is that triggering the bond is bound to affect the delivery of their projects, as the contractor will not be able to perform to its best under significant financial pressure.

In the current market, with lenders increasingly concerned about their exposure to con-

struction industry risk in the region, additional securities are required.

For banks to continue to finance projects for contractors, an assignment mechanism needs to be in place whereby project payments are legally enforced by being assigned to the lender and routed only through the contractors account with this lender.

ADDITIONAL CONCERNS

Delays in payments are cited as one of the biggest commercial challenges facing construction companies and their suppliers. High up-front costs and narrow profit margins are used by contractors as justification to delay payments to their subcontractors and suppliers until they get paid themselves.

An additional challenge for the construction industry is the lack of visibility about future projects and upcoming tenders. Without a proper view of the project pipeline, it is difficult for contractors to plan ahead in terms of allocating their resources.

IDEAL SCENARIO

Bonds are treated as financial instruments that protect the interests of the client but not at the cost of the contractor's liquidity and reputation.

The language of guarantees is worded in a way that allows clients to trigger liability only after careful scrutiny by an independent third-party assessor.

Banks are also encouraged to undertake due diligence on the project or require contractors to do so. If a client has previously encashed a bond, this becomes a factor when considering whether to finance a project by the same client.

Contracts are well-crafted to ensure payment terms are clear, based on the scope of work, progress and performance. Legal repercussions of late payments are upheld.

ACTIONS TO MANDATE COMMERCIAL MODELS USED TO FINANCE PROJECTS

CHALLENGES	RECOMMENDATIONS
EXPLOITATION OF BONDS Existing encashment terms of performance bonds allow project owners to insulate themselves from any project risk and instead pass it onto the contractor and supply chain. This leaves contractors exposed to liabilities that are outside their control. Too many bonds/mechanisms to penalise contractors - tender bonds, performance bonds, liquidated damages, retention etc.	REVISE BONDS The government to take steps to eliminate “on-demand” and tender bonds.
IMPROPER GOVERNANCE The liquidation of bonds by construction clients is conducted without any proof the contractor is at fault, creating a significant risk of abuse. In some cases, bonds are liquidated even after a project is complete.	INDEPENDENT ASSESSMENT The government to require that the terms of bonds include conditions requiring proof of default from a third party assessor. Introducing escrow accounts can provide some security to contractors. Development funding needs to be in place prior to the commencement of a project. There also needs to be a review of the regulation of real estate projects funding to ensure that loopholes are closed, funds are kept within a single escrow account for a project and the funding arrangements are more transparent.
LATE PAYMENTS It can often take up to six months for payments to be released to contractors working on public sector projects, compounding contractual progress for the supply chain.	IMPROVE PAYMENT CYCLES Establish a mechanism that directly links payments with performance. Once work is certified as complete, payment is immediately released to avoid cashflow issues downstream.
NERVOUS MARKET The lack of visibility of the pipeline of future projects has made it difficult for contractors to plan ahead, and to make more robust investments in areas such as innovation, talent and research.	PROJECT PIPELINE Establish a transparent national programme of projects that will provide clarity on the pipeline of future projects in the UAE as well as the funding secured for each project.

SUPPORTING CLIENTS

The UAE's project sponsors and construction clients are vital to fixing the problems facing the construction industry, public sector clients in particular, whose multi-billion-dollar schemes involve thousands of suppliers.

By pursuing a lowest-price-wins approach to procurement, and by pushing risk onto their contractors, many construction clients are creating weakness and instability in the industry.

Contractors say that many of the UAE's project clients are unaware of how their approach to procurement and delivery is damaging their projects, as well as the construction industry.

Traditional procurement practices of competitive tendering and appointing contractors and subcontractors only at the construction phase also encourage adversarial relationships from the outset between project teams instead of collaboration.

A new approach is required to encourage healthier relationships between project parties from the outset of a project. Improved client-contractor interactions based on trust, with complete transparency will foster better use of their competencies. While price will still play an important role, there needs to be healthy competition that encourages better performance of all parties.

Collaborative and alliancing models can be an effective way to improve the involvement of clients in project delivery. However, these models require buy-in from all stakeholders involved, particularly clients.

UAE construction clients have been slow to adopt collaborative contract models on projects without clear proof of the benefits in the local market. It is important to communicate the potential value of alternative and innovative approaches to project sponsors, such as time and cost savings, and the reduction in errors and unnecessary rework.

There is also a growing need for more sustainable building and operational practices across all stages of a development. Clients are

well-positioned to drive this change top-down by engaging consultants and contractors that meet minimum sustainability requirements in line with national targets. A whole life carbon approach is needed, taking into account construction and operational phase emissions.

The UK has issued a Construction Playbook in December 2020, outlining commercial best practice and specific sector reforms including the government's expectations for public sector contracting authority and supply chain engagement, with greater focus on productivity and innovation.

The UAE government could take a similar approach to improving the industry.

IDEAL SCENARIO

Clients understand the need for "doing things differently". There is a greater adoption of collaborative contract models and the client is closely involved in various stages of planning, construction and delivery in a manner that optimises rather than slows down work.

It will be beneficial for the UAE construction industry to establish a portfolio of demonstration projects that can help inform project sponsors and other stakeholders about the potential benefits of alternative and innovative methods and new technologies.

Project 13, a joint initiative of the UK's Institution of Civil Engineers' and Infrastructure Client Group, sets out a delivery model based on effective collaboration between client organisations, contractors and other partners. It defines value within the context of overall outcomes per whole life cost rather than lowest capital cost, with the overall objective being the delivery of high performing and resilient infrastructure networks in the UK.

By quantifying waste on traditionally contracted projects and comparing this to the savings that can be made on an alternatively procured project, contractors and suppliers can further prove to the client the value of doing things differently.

ACTIONS TO SUPPORT PROJECT SPONSORS IN IMPROVING CONSTRUCTION

CHALLENGES	RECOMMENDATIONS
LACK OF UNDERSTANDING There is a lack of awareness among project clients that many traditional practices are creating waste and directly contributing to cost and time overruns. Siloes built up within client groups - procurement, delivery, commercial - make them disjointed in managing project performance as all are driven by separate incentives.	RAISING AWARENESS Establish an industry initiative to capture project data to provide clearer understanding of the contributing factors to project overruns. The data and analysis will be open to all in order to inform project sponsors about the best opportunities to reduce monetary waste. Contractors will volunteer projects to support the research. Greater overlap of incentives between different client departments can help drive common success.
A CASE FOR INNOVATION There is not enough experience in the region of using alternative and collaborative contract models.	PROVEN TECHNIQUES The government to establish a series of demonstration projects to pilot collaborative contracting models and other innovations. These projects can be driven by semi-government and private sector clients.
INSUFFICIENT CLARITY Project owners lack information on ways to improve construction practices.	UNDERSTANDING THE PATH AHEAD Establish a programme of professional development and training workshops to support project clients and other industry stakeholders to enable best practices, and to disseminate information on topics such as collaborative contracting and innovations.
POOR COMMUNICATION There is a lack of dialogue between the UAE construction industry and the government to explain the challenges facing the country's construction supply chain.	COMMON VOICE Establish a construction industry body encompassing projects sponsors, contractors, government entities, contractors, consultants, subcontractors and suppliers to communicate the challenges facing the industry as a whole.
ENVIRONMENTAL IMPACT There is not sufficient consideration given to the carbon emissions from various stages of the development.	DRIVING CHANGE Clients to drive the need for more stringent actions on reducing carbon footprint of their entire portfolio, through a whole-life carbon approach.

SUPPLY CHAIN

Establishing a resilient supply chain is vital to ensuring that the UAE construction industry can deliver the country's programme of projects.

The bespoke nature of most construction projects, which feature unique locations, individualistic designs and frequent one-off clients, means that the construction supply chain is complex when compared to other industries.

This is compounded by the just-in-time-delivery practices followed by many manufacturers. When something goes wrong, there is little time to put it right, and the knock-on effect can throw an entire project off schedule. This is particularly the case on large projects that can involve hundreds of specialist subcontractors and suppliers.

Traditionally, project clients sign separate contracts with a lead consultant or designers, and with a main contractor for construction, frequently on the sole basis of the lowest priced bid for the work. Each company then works to the requirements of its own contract, often without any consideration of the overall project outcome.

Project clients typically pass the majority of the risk and responsibility for delivery to their main contractor, often including unexpected changes to the scope of work after a project is underway. The contractor may pass some of the risk onto the supply chain, which can leave suppliers carrying high up-front costs and make them vulnerable to time and cost delays.

Lacking the financial reserves of large companies, many subcontractors and suppliers lack the capacity to survive the effects of a slowdown in the market.

A growing number of government and semi-governmental entities in the UAE have sought to increase the local content in their projects by adopting the in-country value (ICV) programme pioneered by Abu Dhabi National Oil Company (Adnoc). Major construction clients such as Aldar, Department of

Economic Development Abu Dhabi, and Abu Dhabi Ports are now utilising an ICV rating in their tender evaluations.

The importance of having a robust local supply chain has been highlighted by the Covid-19, crisis, which exposed the vulnerability of being reliant on international supply chains.

Localised supply chains can also mean quality enhancements and reduced transportation times, while keeping money within the local economy.

Construction industry leaders, however, say that ICV scores are creating gaps in the projects market by prioritising scores over actual ability to deliver work. Moreover, despite tender evaluations taking ICV scores into consideration, lowest priced bids often take the precedence.

IDEAL SCENARIO

The UAE's healthy construction supply chain is supported by strategic initiatives, including:

- An ICV programme that provides consistent opportunities for local firms that enables the development of local talent and resources
- Support for suppliers through fairer procurement practices and partnering on projects
- An accreditation system for contractors
- A centralised body that ensures standardisation and consistency in procurement on government-backed projects

ACTIONS FOR A MORE SUSTAINABLE PROJECT SUPPLY CHAIN

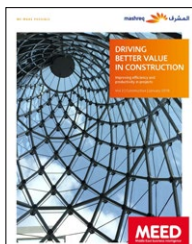
CHALLENGES	RECOMMENDATIONS
RESOURCE GAPS In-country value (ICV) programmes have become a bureaucratic exercise that is being manipulated in order to win contracts and is weakening resources.	LOCAL CAPABILITIES Take steps to ensure effective implementation of ICV schemes in a way that ensures the circulation of money and opportunities in the local economy. The schemes should drive firms to perform better, rather than be used as an excuse to win work.
SUPPORTING SMES A slowdown in cash flow from delayed payments and fewer new projects, mean that small and medium-sized enterprises (SMEs) are vulnerable to weak economic conditions due to their lack of financial reserves.	RESILIENT SUPPLY CHAINS Introduce strategic procurement models such as partnering and supply chain management (SCM) with greater visibility of future project pipelines in order to support small businesses. Specialist SMEs can bring unique expertise to projects through partnerships.
RISKY MOVES Eager to win work, new contractors will submit loss-making bids for contracts in order to secure work, and will take on high levels of risk on projects, agree to skewed payment terms and aggressive delivery timelines. This undercuts higher-quality established players and undermines standards and relationships in the industry.	COUNTERING RISK Introduce a system of accreditation for contractors and suppliers in order to ensure quality standards and sustainability in the industry.
PROCUREMENT Inconsistency in procurement practices, particularly on government-led construction projects.	CENTRAL BODY Establish a central procurement body, to drive consistency and allow an overall view of capital and operational expenditure requirements. Such a body would also coordinate the delivery of national programmes to ensure that capital is invested efficiently and effectively on projects. Efforts to centralise procurement in other regional markets such as Kuwait have faced challenges. It is important to analyse and learn from what has worked and has not worked in these instances.

MEED MASHREQ CONSTRUCTION PARTNERSHIP

Over the past four years, the MEED Mashreq Construction Partnership has provided valuable insights into the industry, with the support of senior executives and thought leaders from around the world



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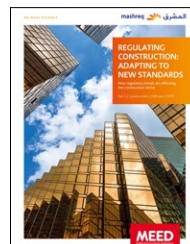
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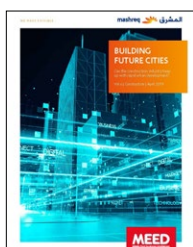
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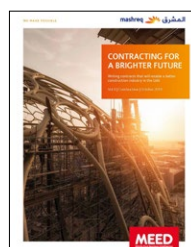
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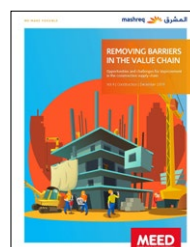
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