

TECHNICAL REVIEW

النشرة التقنية - الشرق الأوسط

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Annual Construction Review 2020

ANNUAL CONSTRUCTION REVIEW 2020

Digital push

Construction firms moving ahead with advanced technologies

Insights

Addressing pain points on major projects

BUILDING UP

THE CONSTRUCTION SECTOR IS POISED FOR RECOVERY

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EDITOR'S NOTE

WELCOME TO OUR special Annual Construction issue. The region's construction industry is rebuilding its strength brick by brick, thanks to all the stakeholders' business continuity measures (p10). Also, reports on digital building technologies and green buildings throw light on the latest trends in the sector. Learn more about fuel-efficient earthmoving machinery and how managing waste on site is becoming cheaper. Focusing on sustainability, manufacturers of commercial vehicles develop ultra-modern trucks (p22). Along the same lines, tyre-makers launch eco-sensitive solutions. Elsewhere in the issue, we feature an insightful piece on water management in the extractive industries. Don't miss our Annual Construction Buyers' Guide, showcasing the manufacturers, suppliers and services across the industry (p37).

At Technical Review we always welcome readers' comments to trme@alaincharles.com



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TECHNICAL REVIEW

النشرة التقنية - الشرق الأوسط

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US MAILING AGENT: Technical Review Middle East ISSN 0267 5307 is published eight times a year for US\$99 per year by Alain Charles Publishing, University House, 11-13 Lower Grosvenor Place, London, SW1W 0EX, UK. Periodicals postage paid at Rahway, NJ.

POSTMASTER: Send corrections to Alain Charles Publishing Ltd, c/o Mercury Airfreight International Ltd, 365 Blair Road, Avenel, NJ 07001. US Agent: Pronto Mailers International, 200 Wood Avenue, Middlesex, NJ 08846.

Printed by: Buxton Press Printed in: August 2020

Arabic Translation: Ezzeddin M. Ali - Email: ezzeddin@movistar.es

Arabic Typesetting: Lunad Publicity, Dubai

© Technical Review Middle East ISSN: 0267-5307

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Serving the world of business

Briefly

Modon awards infrastructure development contracts for Riyadh City South

MODON PROPERTIES (MODON), a subsidiary of ADQ mandated by the Abu Dhabi Government to develop integrated tourism destinations and sustainable residential communities, has awarded the infrastructure development contracts for phases three and four of Riyadh City South at a cost of US\$530mn, in partnership with the Abu Dhabi Housing Authority

“This project falls in line with the efforts of the UAE’s wise leadership to provide a high-quality of life for families, social stability for citizens, and sustainable communities for residents,” said Jaber Mohammed Ghanem Al Suwaidi, general-director of the Crown Prince Court of Abu Dhabi and chairman of the Abu Dhabi Housing Authority. “The Riyadh City South project is one of the most important housing projects in the Emirate of Abu Dhabi, and it will contribute significantly to the development of the housing sector in the UAE’s capital.”

Abdulla Al Sahi, chairman of Modon, said, “Through this project, Modon is enriching the lives of citizens by providing them with an exceptional quality of life within a cohesive and sustainable community. Riyadh City South will cater to the needs of all residents by offering a range of comprehensive and integrated facilities.”

Bashir Khalfan Al-Muhairbi, director-general of the Abu Dhabi Housing Authority, emphasised the importance of enhancing cooperation between various stakeholders to implement projects that contribute to the positioning of the Emirate of Abu Dhabi as a leader in the development of integrated and sustainable communities that cater to the needs of Emirati families and align with the objectives of Abu Dhabi Plan in providing high-quality housing for citizens and residents.

“The Riyadh City South project is in line with the Authority’s efforts to cater to the needs of citizens by developing residential communities that provide them with a diverse range of facilities and amenities, supporting social stability and family life,” said Al-Muhairbi.

SODIC provides construction updates in Egypt

SODIC’S MANAGING DIRECTOR Magued Sherif has provided an update on SODIC East, one of the leading real estate developer’s largest project in East Cairo, during a management team’s site visit to the project.

“Since breaking ground in 2018 SODIC has awarded more than US\$75mn in construction contracts. All launched parcels are well underway with construction on schedule for delivery to start in 2021. There are 15 contractors and more than 2,500 workers on site. More than 65 per cent of the 776 single family homes under construction have completed concrete skeletons and exterior finishes have begun in the earlier phases. Infrastructure work is underway starting with the project’s main roads as well as the foundations for water, sewage and electric connections.”

Spanning 655 acres and master planned by renowned Massachusetts based Sasaki, SODIC East is a comprehensive integrated mixed-use development with more than 84 per cent open and green spaces. In addition to its planned schools and commercial and entertainment components, SODIC East boasts a six acre park destined to be the first camping site of its size in Egypt, adjacent to a 41 acre sports club to be managed by Club S, SODIC’s own dedicated sports platform.

“SODIC East is planned to be the twin city of SODIC West – a gateway to a modern progressive



Photo Credit : SODIC

SODIC East is planned to be the twin city of SODIC West.

lifestyle within a contemporary meticulously planned city. Perfectly positioned to capture the growing demand for homes in East Cairo. At its early development stages SODIC East is a great opportunity for early adopters and a perfect alternative for New Cairo which the younger generation of quality lifestyle seekers have been priced out from,” added Sherif.

Developed through partnership with Heliopolis Company for Housing and Development, SODIC East is ideally located between two strategic highways – Suez & Ismailia Desert Roads – and is a mere 10 minute drive from New Cairo and the New Administrative Capital via the newly developed and upgraded network of roads.

Gama Construction completes two textile factories in Al-Rubiky and Al-Mahalla El-Kubra

GAMA CONSTRUCTION HAS announced the completion of one textile factory in Rubiky industrial complex in the 10th of Ramadan City.

Egypt’s President Abdel-Fattah El-Sisi inaugurated the first stage of the new industrial complex including the factory carried out by Gama on a total area of 24,988 sq m and with a production capacity of nine tonnes per day. The Rubiky industrial city project is under the supervision of the Engineering Authority of the Armed Forces.

The Rubiky Textile Complex comes within the state’s strategy to enhance and reform the textile sector with the aim of maximizing the added value of Egyptian



Photo Credit : Gama Construction

Rubiky is a major industrial castle that brings back the glory of the Egyptian textile industry.

cotton and bringing it back to global competition.

In this context, Ihab Demian, managing director of Gama Construction, said, “Gama’s diverse experiences have qualified us to be partners in the execution of many Egyptian national projects in the past couple of years.”

Gama Construction is

currently executing the “Misr Spinning and Weaving” Factory in Al Mahalla Al-Kubra. It is one of the largest spinning facilities in the world built on an area of about 62,500 sq m and accommodates more than 182 thousand spinners with an average production capacity of 30 tonnes of spinning per day.

TAWAL selects Ericsson energy infrastructure to reduce carbon footprint in Saudi Arabia

TAWAL, ONE OF the leading telecom tower companies in the region, has signed a managed services agreement with Ericsson.

This agreement is a major step forward by TAWAL to support Saudi Arabia's Vision 2030 by establishing infrastructure for telecommunications operators and a stable platform to ensure connectivity for all residents.

Under the terms of the contract with TAWAL, Ericsson will assume responsibility for managed services for TAWAL's tower infrastructure and provide energy management solutions. Ericsson will ensure the highest levels of energy efficiency and availability – utilising AI and automation and energy management platform. This will result in reduced CO₂ emissions, improved network uptime and significant operational expenditure savings.

The operational benefits of Ericsson's Energy Infrastructure Operations include the ability to remotely monitor site infrastructure, enabling predictive maintenance and automated actions without a site visit.



TAWAL aims to support Saudi Arabia's Vision 2030 by establishing infrastructure for telecommunications operators to ensure connectivity for all residents.

Photo Credit : SasinParakisa/Adobe Stock

EWEC announces partners to develop world's largest solar power plant

THE EMIRATES WATER and Electricity Company (EWEC) has awarded the solar power plant project to a consortium led by Abu Dhabi National Energy Company (TAQA) and Masdar, with partners EDF and JinkoPower.

The project will involve the development of the two gigawatts Al Dhafra solar photovoltaic (PV) independent power producer (IPP) project.

The procurement process resulted in one of the most cost-competitive tariffs for solar PV energy, set at US\$ 1.35 cents/kWh on a levelised cost of electricity (LCOE) basis. Upon full commercial operation, the plant is expected to reduce Abu Dhabi's CO₂ emissions by more than 2.4 mmt per year, equivalent to removing approximately 470,000 cars from the road.

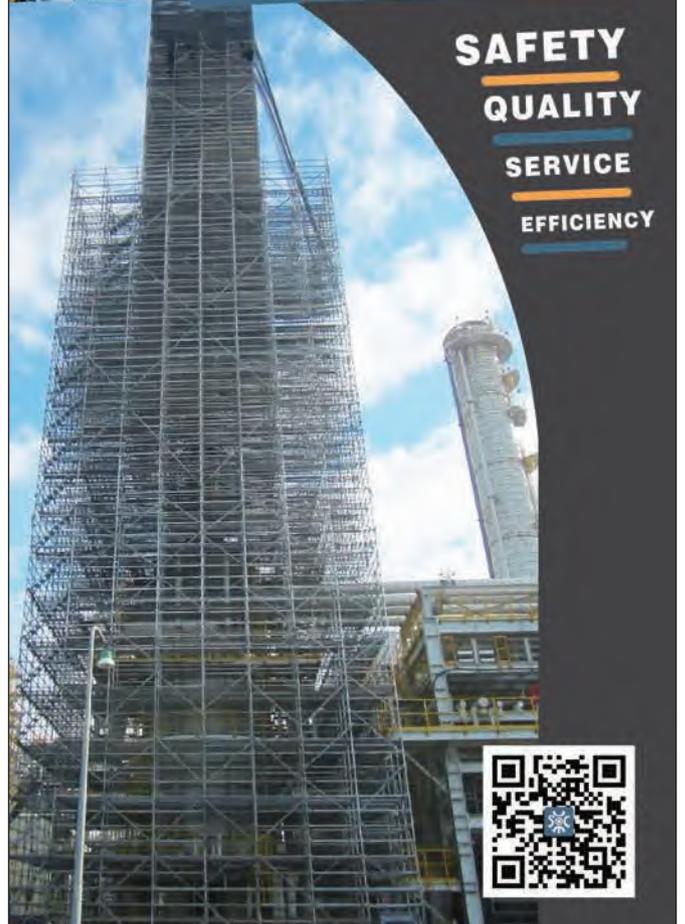


Photo Credit : Zhao Jiankang/Adobe Stock

The Al Dhafra Solar PV project is expected to provide power for approximately 160,000 households across the UAE.

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7-10	Kuwait Building Show	KUWAIT	www.kuwaitbuildingshow.com
10-13	Basrah Building conference and Fair	BASRAH	www.basrahbuilding.com
14-15	Kuwait Green Build	KUWAIT	www.kuwaitgreenbuild.com
26-28	BUILDIT	DUBAI	www.terrapinn.com/exhibition/buildit-middle-east/index.stm
26-28	CABSAT	DUBAI	www.cabsat.com
26-28	WETEX	DUBAI	www.wetex.ae

NOVEMBER

4-5	BUILDEX ALBERTA	CALGARY	www.buildexalberta.com
3-6	ECOMONDO	ITALY	www.ecomondo.com
17-18	The Mining Show	DUBAI	www.terrapinn.com/exhibition/mining-show/index.stm
17-19	Build4Asia	Hong Kong	www.build4asia.com
24-27	Bauma China	Shanghai	www.bauma-china.com

Readers should verify dates and location with sponsoring organisations, as this information is sometimes subject to change.

CABSAT 2020: 5G streaming, 8K cameras, satellite innovations and more

CABSAT, THE LEADING specialist event for the broadcast, satellite, digital media and filmed entertainment industries in the Middle East, Africa and South Asia (MEASA), is entering its 26th edition with a newly evolved format that will bring all the content, satellite, broadcast, digital media and entertainment ecosystems under one roof.

CABSAT 2020 will be held at the Dubai World Trade Centre (DWTC) on 26-28 October, bringing together creative experts from the media industry and the most sought-after technology suppliers to unpack and unveil the latest consumer habits, digitisation efforts and next-gen revenue opportunities shaped by modern audiences.

CABSAT will focus on 5G streaming, 8K cameras, satellite



The Middle East and Africa region is set to be at the centre of the 5G revolution, with 30 million 5G mobile subscriptions expected in the region by 2024.

innovations and many more of the biggest breakthroughs in broadcast, media, satellite and film.

CABSAT 2020 will host its 5G Focus Day, a one-day seminar to explore 5G advances in the MENA region that will reshape the media conversation. The

seminar at CABSAT 2020 will give visitors an insight into how 5G will drive productivity, task automation and digital connectivity under the theme of '5G and Beyond'.

Offering a series of technical and strategic keynotes, panel

discussions and workshops, the seminar will address broadcasters and content providers' needs for a smooth transition into the 5G era.

CABSAT's Content Creation pillar will be the meeting point for the industry's brightest minds. The Content Congress will engage a cross-section of senior industry stakeholders with up-and-coming influencers to share forward-looking insights into how to adapt traditional broadcast models, the benefits of disruptive thinking and the future of broadcasting not only for the region, but worldwide.

More than 450 exhibiting brands will define the future growth strategies for the MENA region. CABSAT is set to provide the perfect platform to network, build relationships, and discover the latest trends and technologies.

Photo Credit: Adobe Stock

UAE ranks in top 10 on KPMG's 2020 Global Autonomous Vehicles Readiness Index

THE UAE HAS been ranked among the top 10 countries in the world for the third consecutive year when it comes to readiness to accommodate driverless vehicles, according to KPMG's 2020 Autonomous Vehicles Readiness Index (AVRI). The third edition of the study, which evaluated the preparedness of 30 countries globally, placed the UAE in eighth position, up one place from last year's rankings despite the addition of five jurisdictions.

The 2020 KPMG AVRI assessed the level of preparedness and openness of various countries to autonomous vehicle technology, adoption and their progress in making driverless cars a reality. The main indicators of measuring a country's readiness and progress in furthering AV

deployment and innovation are: policy and legislation, technology and innovation, infrastructure and consumer acceptance. The UAE ranks ahead of the United Kingdom and Denmark and after Singapore, the Netherlands, Norway, the United States, Finland, Sweden and South Korea on the AVR Index.

As the world's most innovative countries continue to make driverless cars a reality, the UAE scored highest among the 30 countries on measures of change readiness for technology infrastructure and mobile data speeds under the infrastructure pillar, as well as the readiness of individuals under the consumer acceptance pillar.

Addressing the transformational potential of adopting AV technology in the



The UAE is well-positioned in technology adoption preparedness with an appointed minister of artificial intelligence.

UAE, Ravi Suri, partner, global head of Infrastructure Finance, KPMG Lower Gulf, said, "Driverless cars will likely transform the future of transportation and their use may expand exponentially. The initiatives undertaken by the UAE government to develop smart technologies has

facilitated the nation in making automation and AVs a reality. Given the nation's strong investment in AI, blockchain, 5G and maintaining good-quality infrastructure, the UAE is well on its way to achieving its goal of a future where the use of AVs becomes mainstream on its roads."

Al Masaood Automobiles installs disinfection booths

AL MASAOOD AUTOMOBILES has installed seven new disinfection booths across its service centres in Abu Dhabi. This latest move is in keeping with the goals of 'Project Wiqaya,' a timely initiative launched by Al Masaood Group across its subsidiaries to help ensure the welfare of all staff members, customers and the wider public.

Two disinfection booths have been installed at the company's service centres at Mussafah M12, while a unit each can be found at the Body and Paint Centre in M46 and Auto Central Service Centre in M14. The rest are located in its facilities on Airport Road, Beda Zayed and Al Ain.

Delta unveils ultra fast EV charger in EMEA

DELTA, A PROVIDER of power and thermal management solutions, has launched its next-generation 200kW ultra fast charger (UFC200) in the Europe, Middle East & Africa (EMEA) region.

Delta's UFC200, which is capable of enabling a 100km driving range with roughly eight minutes of charging, aims to serve next-generation EVs, e-trucks and e-buses in a broad range of applications such as highways, parking lots, service stations, logistics companies as well as urban traffic hubs.

With its modular power system design, remote accessibility for improved uptime service, and its backend compatibility with most of the EV charging network management systems in the market, Delta's UFC200 EV charger will prove to be an ideal solution for EV charging site operators in EMEA.

Commenting on its introduction, Vincent Lin, senior director of e-Mobility & Smart



The UFC200 features an advanced integrated metering system.

Energy Solutions business development, Delta EMEA, stated, "Foreseeing more and more EVs coming to the market with extended driving range, we have not only extended the existing product line of UFC 150kW to 200kW, but have also integrated a credit card payment solution, as well as a mechanism to adhere to Germany's Eichrecht MID-metering calibration rules, to

make this product ideal for charging point operators (CPOs) and fleet charging requirements."

At 400A charging current, the charging station efficiency can be improved up to 1.2 per cent compared to a standard liquid cooled cable system due to the reduced copper loss (without taking additional power consumption of a cooling system in account).

ON THE WEB

A round up of the leading developments and innovations recently featured on *Technical Review Middle East's* online portal. To read more or to stay up to date with the latest industry news, visit www.technicalreview.me

How to improve safety of tailings facilities in mining industry

CURRENT PRACTICES IN the mining industry should integrate social, environmental, local economic and technical considerations, according to the Global Industry Standard on Tailings Management. With an ambition of zero harm to people and the environment, the Standard significantly raises the bar for the industry. www.technicalreviewmiddleeast.com/construction/mining



Photo Credit : Curioso Photography/Pexels

Integrating social, environmental, local, economic and technical considerations in the mining sector is important.

DNV GL launches consortium to reduce carbon intensity

DNV GL HAS collaborated with Dutch glass production company Celsian to develop the technology required for a gradual transition from natural gas to hydrogen as a fuel in energy-intensive industrial production processes. The programme provides an important building block for the successful rollout of the sustainable hydrogen value chain. A major challenge for energy-intensive industrial production processes, for example in the glass, food and ceramic sectors, is to make existing heating processes carbon-free. As electrification is often not an option, a fast and sustainable route to reduce the carbon intensity for industrial heating processes is to substitute natural gas by hydrogen. www.technicalreviewmiddleeast.com/power-a-water

WESCO Distribution partners with Eaton in the UAE

WESCO DISTRIBUTION HAS announced a long-term distribution partnership with Eaton FZE in the UAE, a move that is set to increase Eaton's electrical product portfolio's availability across the country, including Backup Power and Uninterruptible Power Supply (UPS) systems.

With the WESCO and Eaton relationship strongly cemented in the USA for many years, this incremental partnership represents a strong commitment from both WESCO and Eaton to support residential and commercial building sectors and data centres with leading electrical products that provide the best in safety, reliability and efficiency in the UAE.

<http://www.technicalreviewmiddleeast.com/business-a-management>

Jaguar Land Rover develops contactless touchscreen

JAGUAR LAND ROVER and University of Cambridge have developed an AI-based touchscreen technology to help drivers on the road. The patented technology, known as 'predictive touch', uses AI and sensors to predict a user's intended target on the touchscreen. www.technicalreviewmiddleeast.com/logistics



Photo Credit : Jaguar

Lab tests and on-road trials showed the predictive touch technology could limit the spread of bacteria and viruses.

Saudi Arabia completes road maintenance work leading to Makkah

IN PREPARATION FOR this year's Hajj, Saudi Arabia's Ministry of Transport has completed the maintenance of about 491km of roads leading to Makkah and has assigned buses for each pilgrim group with full precautionary measures. Maintenance work included lighting, bridge expansion, fence repair, scraping and asphaltting. www.technicalreviewmiddleeast.com/construction/roads



Photo Credit : Nicholas Lim/Pexels

The transport system works in accordance with the precautionary measures taken by the Ministry of Health.

UPC Renewables and CFM to develop wind farm in Tunisia

CLIMATE FUND MANAGERS (CFM) and UPC Renewables (UPC) have partnered to develop a 30MW windfarm in Tunisia. The project will be one of the first wind independent power producers (IPP) in the country.

UPC will lead the development of the project with its local team that will lead land securitisation, permitting a grid connection, wind resource assessment and engineering and procurement contracts.

"We can start the construction of the Sidi Mansour wind farm in 2020, helping stimulate the Tunisian economy, create local jobs and a social plan for local communities while respecting international environmental protection guidelines," said Brian Caffyn, chairman of the UPC Group.

www.technicalreviewmiddleeast.com/power-a-water/renewables

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The UAE Ministry of Infrastructure Development (MOID) has announced the implementation of three projects in Sharjah at a cost of US\$66mn.

Photo Credit: Adobe Stock

Bouncing back

As companies navigate this 'new normal' and other aspects of business continuity, the Gulf looks to the construction sector for an economic boost. Martin Clark reports.

The scale of the pandemic – and more precisely the economic fallout – has even meant pushing back major development initiatives like Expo 2020 into next year.

IT HASN'T BEEN the easiest of starts to 2020, but the Gulf's big construction firms are battling through, despite the prevailing economic headwinds.

According to the International Monetary Fund (IMF), the region's economies are expected to shrink by around 7.6 per cent this year, not only because of the COVID-19 pandemic, but also the slide in oil prices and reduced energy demand overseas.

This economic contraction will be felt across most sectors – oil and non-oil – the IMF noted, presenting further challenge for the construction industry.

Recent events have certainly taken the heat out of Dubai's real estate market, with the well-known credit ratings agencies highlighting some of the many knock-on effects.

Moody's said in July that the pandemic – the enduring consequences of which look set to be more economic than health-related – had exacerbated oversupply in the

emirate's once-ebullient property sector.

It stated that this would further slow home sales and lower rental prices, with developers facing "further market weakening" as job losses and salary cuts curb local buyer demand and travel restrictions erase international demand.

It has meant trouble for leading developers such as Emaar Properties, builder of the world's tallest building, Dubai's Burj Khalifa.

S&P Global Ratings downgraded the group in July to a BB+ 'junk' rating from an investment-grade BBB- score, noting that it expected a big slump in the firm's earnings this year by up to 40 per cent.

The scale of the pandemic – and more precisely the economic fallout – has even meant pushing back major development initiatives like Expo 2020 into next year.

Similarly, the health crisis has left many of the Gulf's migrant workers – the backbone of the region's construction industry –

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stranded and struggling.

In a mid-year outlook for the global construction sector, Deloitte identified a number of other common themes the world over facing companies, from cost pressures to the increasing shift to digital and smart technologies reshaping work practices.

But there is hope: a commitment to infrastructure and public utility projects – particularly evident in the Gulf region – could give reason for optimism.

“Despite the grim outlook, engineering and construction firms are poised to take advantage of bright spots emerging for the industry that could facilitate recovery in the remaining months of 2020,” Deloitte noted.

Saudi Arabia

Indeed, many of the fundamentals behind the region’s big-ticket projects remain intact thanks, in large part, to deep-pocketed state sponsorship.

In Saudi Arabia, much of the major construction industry planning fits within the broad Vision 2030 blueprint – the government’s flagship development strategy.

While there will no doubt be a reappraisal of budgets, experts reckon, larger projects have been prioritised and will go ahead as planned despite the COVID-19 crisis.

Ventures Onsite has been tracking construction activity across the Middle East region for more than 15 years.

In a recent webinar online, sponsored by Bobcat, key industry figures highlighted the kingdom’s role in leading the fightback.

“We do believe that it’s still on,” commented Hafam Salahheldin, chief executive, Kabbani Construction Group,

Despite the grim outlook, engineering and construction firms are poised to take advantage of bright spots emerging for the industry that could facilitate recovery in the remaining months of 2020

referring to the Vision 2030 strategy.

He said he retains a “very high confidence” in the market, a reassuring thought coming from the head of a firm that has been active within the kingdom for over half a century.

One of the things that makes Saudi Arabia different to other Gulf states, he noted, is greater local demand, with a population of around 34 million people – that’s important in a world where air travel restrictions mean reduced foreign arrivals.

“On all of our projects, nothing has stopped,” said Salahheldin. “Yes, it has slowed down, but this is normal.”

He said this is also down to the strong planning and structure behind many of the nation’s current crop of projects.

“We see that all the projects over the past three years were better structured from a financial aspect, so it’s not easy to stop them. They are well-prepared for, well-planned, and well-financed – so it takes more than a pandemic to stop them.”

At the same time, there are new challenges to face, including nurturing reassurance – among workers, investors, contractors and consumers – at a time of crisis.

“We have to re-think the way we get

people to attach emotionally to what they are doing – because people are scared, they don’t know what’s going to happen.”

It has resulted in strong communication at all levels, he added.

“We are communicating with our people much more now; they are more involved in the decision, and more engaged in what we do.”

Major projects

As companies navigate this ‘new normal’ and other aspects of business continuity, there is a reassuring swathe of new work coming from Saudi Arabia’s long-term development projects.

That includes some of the kingdom’s pioneering tourism plans, designed to open up the country to the world and ultimately help diversify away from oil and gas dependency.

The sovereign wealth fund, the Public Investment Fund (PIF), is backing three mega projects including the hugely ambitious US\$500bn NEOM economic zone.

The company managing this initiative said in July that it had signed an agreement with Air Products and Saudi Arabia’s ACWA Power for a US\$5bn green hydrogen-based ammonia production facility – an indication



Saudi Arabia’s Red Sea Development Company (TRSDC) has awarded its largest value contract to Nesma & Partners and Almajani for airside infrastructure works for the destination’s international airport, set to open in 2022.

Photo Credit: Red Sea Development Company

that plans remain on track.

Last year, Al-Tamimi Group and Saudi Arabian Trading and Construction Company won 10-year contracts for three residential hubs that will house 30,000 workers who will develop the mighty NEOM project.

Red Sea Development Company, which is developing a huge Red Sea tourism project, also said in July that it had awarded infrastructure contracts for a new airport due to open in 2022.

The company, backed by PIF, said the contracts were awarded to Nesma & Partners Contracting Co. Ltd and Almbani General Contractors.

It is looking to develop resorts on 50 islands off the Red Sea coast, offering a nature reserve, coral reef diving and heritage sites, among other high-end facilities.

The complex hopes to attract 300,000 tourists a year in the first phase, due by 2022, and up to 1 million once the development is complete.

Saudi contractor, Binyah, is separately working on the construction of the coastal and inland connecting road links at the destination.

As well as NEOM and the Red Sea tourism development, the PIF is also backing the Qiddiya entertainment complex.

All are expected to generate significant opportunities for local and international firms now and in the years ahead.

On the ground

For contractors, suppliers and equipment manufacturers looking to play their part on the ground, it means the Gulf remains very much open for business.

That spans a whole host of niche areas and entities competing for work, local and international, from the likes of CIFA S.p.A and Yanmar BV, among numerous other suppliers.

It's good news too for long-established names like Liebherr AG, a supplier of cranes and other equipment to Saudi Arabia, the UAE and other markets, and MB Crusher S.p.A, which offers crusher buckets for excavators, skid loaders and backhoes of all sizes.

While Saudi Arabia, the region's biggest economy, is seen to be playing a lead role in reviving activity, there are plenty of other examples elsewhere of 'business as usual'.

That includes further activity in the transport sector, with Galfar Engineering & Contracting recently landing a contract worth almost US\$300m for a roads project in Oman.

There's activity in the traditional energy



Azizi Developments has announced plans to invest US\$952mn to develop 45 buildings in Dubai.

Photo Credit: Azizi

sector too, with Galfar also landing a US\$30m project for pipelines work in the Sultanate with OQ Exploration & Production.

While the energy market has suffered greatly during the pandemic, it remains the cornerstone of most Gulf economies, with some of the region's largest projects in upstream and downstream production facilities.

As well as oil and gas, that means investment in renewables and a huge upgrade to the Gulf's power infrastructure as the region races to meet rising electricity demand.

Doosan Heavy Industries & Construction won a contract in July to supply key components for the UAE's Fujairah F3 combined cycle power plant, for example.

There are reasons to be optimistic about the real estate sector too, with the UAE's Modon Properties awarding various contracts for the next phases of its Riyadh City South residential development, located 30 km from the UAE capital.

It handed three infrastructure contracts for phases two and five of the project, worth around US\$638m, to the National Projects and Construction LLC, The Nael & Bin Harmal Hydroexport Establishment and Saif Bin Darwish Company LLC.

On completion in 2023, the infrastructure works will have created more than 6,000 residential plots, a university, five schools, 28 mosques and 61 commercial plots, among other facilities.

At the end of July, Abu Dhabi also launched the Baniyas North residential project, handing a first contract to Modon, worth US\$860m.

Azizi Developments, a leading private developer in the UAE, has announced plans to invest more than US\$952mn in the next 2-3 years to develop 45 buildings in Dubai.

The UAE Ministry of Infrastructure Development (MOID) has announced the implementation of three projects in Sharjah at a cost of US\$66mn.

"These projects are being implemented according to environmentally friendly techniques and sustainable practices," said Munira Abdul Kareem, the director of the Southern Region at the Ministry of Infrastructure Development.

In another development, Dubai's Road and Transport Authority (RTA) opened five bridges leading to Deira Islands at the beginning of August.

"The newly constructed bridges and roads provide access points to and from Deira Islands at the intersection of Al Khaleej-Abu Baker Al Siddique Streets. The bridges span 2,571m in length and have a total capacity of 20,700 vehicles per hour," said Mattar Mohammed Al Tayer, director-general and chairman of the Board of Executive Directors of Roads and Transport Authority.

The project is expected to see the construction of hundreds of hotels, furnished flats, mixed-use buildings and marinas.

Challenging times for all, no doubt, but the construction industry is alive and well.

The need to accelerate momentum for green buildings

WITH THE GLOBAL focus on sustainability taking a back seat due to the COVID-19 pandemic, we must now renew the drive to make buildings more sustainable to curb the effects of global warming.

In a webinar hosted by The Big 5, a panel of industry experts deliberated on topics such as green buildings, digital transformation, the funding of sustainable projects, and what we have to do to make construction greener.

Setting goals

People talk about the reduction in emissions caused by COVID-19. However, the harsh reality is that we are still in a global climate crisis, and we need global systematic solutions to reverse the damage being caused by climate change. The Intergovernmental Panel on Climate Change (IPCC) tells us that we have until 2050 to decarbonise our way of life to limit global warming to less than 1.5 degrees, beyond which the repercussions on our planet will be disastrous.

By 2050, the world's building stock will double, increasing the impact of our sector significantly. Its demand on natural resources is a major contributing factor to global warming, and inefficient, unhealthy buildings are affecting our lives. The growth of construction places increasing demand on our energy grid, our infrastructure and

our resources.

Buildings are responsible for 39 per cent of global carbon emissions, yet energy demand will increase by 50 per cent by 2050. Buildings are also responsible for 50 per cent of global material use, and 42.4 billion tonnes of materials are consumed annually. By 2050, the global population will increase by 27 per cent to 9.8 billion, and the global floor area will increase by 100 per cent. Also, while 104 or 194 countries that signed the Paris Agreement have committed to improving building energy efficiency to meet mitigation targets, only 62 countries currently have building energy codes.

Green buildings provide some of the most effective means of achieving a range of global Sustainable Development Goals (SDGs), such as addressing climate change, creating sustainable and thriving communities, and driving economic growth.

The World Green Building Council's (WGBC) global goal is calling for all new buildings to operate at net zero carbon by 2050. WGBC has identified four action pathways to achieving these goals, including certification, corporate engagement, training and education, and government engagement. To ensure alignment, WGBC has created an umbrella definition of net-zero carbon buildings that can be adapted in different markets, as well as four key principles to ensure alignment.

These are to measure and disclose carbon, reduce energy demand, generate balance from renewables and improve verification and rigour.

With these measures in mind, it is essential to realise that what we build today will be with us in 2050. And as we work to reduce operational emissions, embodied emissions become proportionally more significant. Today we stand at a critical time to minimise the impact of embodied emissions.

The WGBC calls for all new buildings, infrastructure and renovations to have at least 40 per cent less embodied carbon emissions with significant upfront carbon reduction. The ultimate goal is for all new buildings to be net-zero operational carbon by 2050.

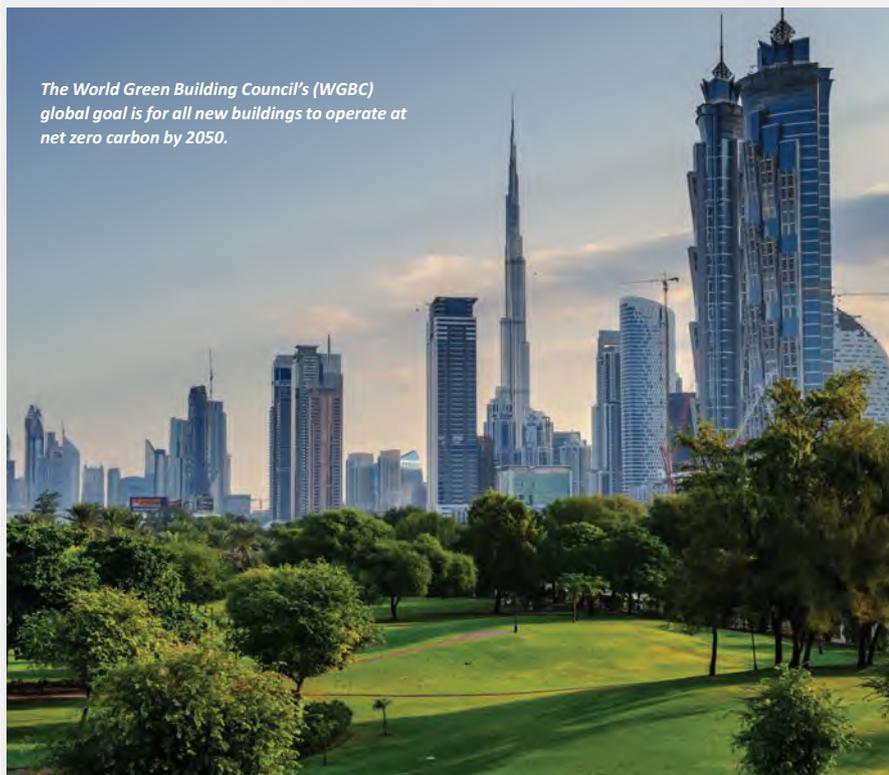
Digital and technological transformation

The construction and real estate industry has benefitted from the emergence of new digital technologies that are altogether redefining the possibilities in construction operations and manufacturing. These include innovative technologies such as APIs and microservices that rapidly create new applications and enable ecosystem partners to collectively innovate, for example. Or blockchain, which improves identity management and distribution and allows transformational business model innovations, as well as AI and analytics that supports staff in making decisions and identifies business-critical operational improvements.

The ultimate aim for the industry should be to bring together the power of technology with the industry's goals and targets in order to start applying the most appropriate innovation to increase efficiency and productivity in construction.

In order to do this, we require a step-change in the way we design, construct and operate. It is important to understand that although the initial investment and making savings in the right places is key to creating a better citizen journey, it is even more important to get into a better state of capital expenditure (capex), to operationalise the steady-state environment, to reduce the cost of failure, and to disrupt existing business models.

Building Information Models (BIM) and digital twins will enable you to bring everything together so that you can replicate this pre-execution, and you can align your plans with the physical structure



The World Green Building Council's (WGBC) global goal is for all new buildings to operate at net zero carbon by 2050.

Photo Credit: Adobe Stock

that you intend to build. You can start making better decisions on the specific assets, pre-build, and then tap into these capabilities as you operationalise it through the Internet of Things (IoT), for example.

A holistic approach is key to successfully increasing productivity and efficiency by regenerating some of the capex investment, utilising the existing environment, and being able to loop and extend these assets for further use.

Driving more finance

Why does sustainable funding matter in real estate and construction? This partly stems back to the targets set by the Paris Agreement to reduce CO₂ reduction; however, another element includes the commitment to align financial flows with a pathway towards low carbon and climate-resilient development. The financial sector plays a vital role in the achievement of these financing targets.

In terms of the built environment, green financing is not only very timely but also extremely necessary. In comparison to other

sectors, the building sector continues to receive the most significant proportion of energy-efficiency investments; however, the sums have started levelling off. While the total investment in building and construction is rapidly growing across the world, there is an emerging gap between total investment in construction and renovation and energy efficiency investments.

Currently, we are far from meeting the investment targets that the Paris Agreement foresaw. However, the positive news is that the real estate market continues to embrace and invest in green buildings and green building rating systems. Despite these efforts, there is still more work to be done.

So, if we want to drive more investments towards green buildings, what makes a construction project eligible for “green” finance? The problem is that there is no widely accepted definition of what makes a building green. And if the investor community does not feel confident in a project, they are not going to invest.

Stepping up efforts

The post-COVID-19 era will be an opportune time to renew our focus on the challenges and opportunities that we are facing in sustainability in construction. With buildings accounting for 39 per cent of the world’s energy consumption, and that figure continuing to rise, there is a pressing need to make buildings more sustainable. On a global level, there are renewed calls for drastic action from governments, industry and communities to reduce carbon emissions and create a more sustainable built environment for all.

The panel of industry experts who participated in The Big 5 webinar included: Caspar Herzberg, president – Middle East & Africa, Schneider Electric (Moderator) Mohammad Asfour, head - MENA & African Networks, World Green Building Council Mohamed Mousa, partner, IBM Services - Middle East & Africa Ursula Hartenberger, global head of Sustainability, RICS



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It is crucial to take a fresh look at current industry practices and the laws and regulations of the construction sector.

Photo Credit: Adobe Stock

Strengthening the foundations

Building on past and present learnings, the construction sector must plan for the post COVID-19 future to ensure its resurgence and growth. Mark Raymont, partner, construction advisory disputes at Pinsent Masons Middle East, explains the challenges of the 'new normal'.

OVER THE LAST two decades, the UAE has developed a formidable reputation for its far-reaching capabilities, competencies and innovations, within the construction and infrastructure sectors.

With a dynamic vision, internationally admired for delivering some of the world's most iconic mega projects, it has – in relative terms – proven to be an oasis of resilience to global challenges, backed by pragmatic and timely leadership. However, to borrow a caveat often associated with the financial sector – previous gains are no guarantee of future performance.

To meet the challenges of the 'new normal', the world's post COVID-19 environment and economy has not just exposed the construction industry's pre-pandemic challenges; it has forced into urgent consideration a raft of new measures from emerging threats to business continuity. In order to bring about the confidence needed to ensure the sector's resurgence and future growth, major factors

must be put under the spotlight – current industry practices, laws and regulations, supply chain management, technology and digitisation, and payments.

Clearly, these are not just UAE-centric or, indeed, COVID-19-specific issues. Globally, the construction sector has shown signs of stagnating for some time and across the



Mark Raymont, partner, construction advisory disputes at Pinsent Masons Middle East

GCC, this is notable from around 2015.

In particular, the combination of a five-year downturn and COVID-19's impact has simply revealed a supply chain prone to business risks. Existing elements, which have become synonymous with the industry, also include: delayed payments, legal disputes, and the fragility of a cyclical approach to hiring labour. Productivity for the sector is widely agreed to be below that of industries where technology, automation, and protected patents have seen such advantages applied and the rewards reaped. Add in the unique dynamic of COVID-19 to lagging investor confidence and low profitability margins, and there are many concerns as to the long-term quality of future products and the ability to deliver.

To address these issues, a number of recommendations exist, including white papers such as the UAE Regulatory Framework Report and Making a Global Investment Powerhouse, published by Pinsent Masons. While the latter report suggests an overwhelming majority in the

Photo Credit: Pinsent Masons

construction industry believe the UAE's laws and regulations are either 'Very Business Friendly' (44 per cent) or 'Somewhat Business Friendly' (56 per cent), it is clear, from its expanded survey, that challenges remain along common fault lines.

Issues highlighted in the report speak of concerns about ambiguities and enforcement of the law, the authorities of different regulators, talent acquisition and retention, project interruptions, and cash flow issues due to delayed payment.

Looking forward

Firstly, it should be said that the survey's results show an expression of clear confidence in the UAE's business-friendly environment – a result of federal and emirate-level governments' impressive efforts in providing a platform for world-class infrastructure. 89 per cent of those surveyed stated that the UAE represents a 'gold standard' in regulations, across the infrastructure sector. That said, UAE authorities recognise that improvements can be made. This will surely be welcomed by the 56 per cent of respondents who noted that ambiguities in existing laws are 'very challenging', and the 44 per cent who said that the enforceability of laws was a 'key challenge'. Digging deeper, it was revealed that many uncertainties relate to jurisdictions and the authorities of many regulatory bodies.

In many ways, the introduction of the UAE's Arbitration Law (2018), based on the

In conclusion, the 'quick wins' for the construction sector's growth will involve a combination of measures with a vital factor being the establishment of greater collaboration.

UNCITRAL model law, is a welcome addition and has already stimulated improvements in the recognition and enforcement of arbitral awards. With regard to delayed payments, movement at the federal level is positive, with government departments and state-owned companies now required to pay contractors within 30 days of the invoice, an improved period from the industry standard of 120 days.

Recent progress aside, there is clearly still much to do. From many in the industry, there is a reasonable call for the standardisation of contracts that reflect a more balanced risk between all parties, ensuring the enforceability of laws, and clarity on regulations and the authorities responsible. Some suggestions include the establishment of accreditation bodies and introducing technical competence assessments for all bidders. In terms of technology and supply chain management, standardisation of common processes and digitisation is where efficiencies can quickly turn into savings – a common area being in reducing mistakes that may lead to future

legal disputes. With regard to the crucial issue of delayed payments, we must recognise that, outside of dealing with government or state-owned businesses, payment terms remain woefully out of sync with other industries.

In conclusion, the 'quick wins' for the construction sector's growth will involve a combination of measures, with a vital factor being the establishment of greater collaboration (and agreed upon respective liabilities), as early on in the project as possible.

Revision of laws and regulations may take time but legal ambiguities certainly need to be addressed as they cost time and money the industry can ill afford; and, if not already being implemented, digitisation – a proven vehicle for efficiency and cost-savings – must surely be adopted. If these measures can, even in part, be introduced as an indirect legacy of the COVID-19 crisis, then improved confidence in the long-term resurgence of the UAE construction sector is possible and, may offer some future-proofing against any unforeseen downturns. ■

Globally, the construction sector has shown signs of stagnating for some time and, across the GCC, this is notable from around 2015.



Photo Credit: Adobe Stock

Al-Bahar presents GC range excavators

Designed to demonstrate a stronger positive impact on work and business, the GC range excavators offer durability, reliability, productivity, yet very cost effective.

AL-BAHAR, THE AUTHORISED CAT dealer for machinery, heavy equipment and power systems, has rolled out the Cat GC range construction equipment.

Easy to operate, service and own, these GC range excavators are set to become a game-changer for all who value reliability at a lower cost per hour. Built to move more material in less time, at a lower cost per tonne, they can get a faster return on equipment investment.

Offering add-on benefits for this equipment, Al-Bahar is providing a Free Equipment Protection Plan (free extended warranty) for 4,000 hours on online enquiries.

The **Cat 345 GC** excavator is designed to deliver a balance of performance and reliability, at the right cost. Features of the next generation excavator include:

- 25 per cent more fuel efficiency
- 30 per cent lower maintenance costs
- 25 per cent Smart Mode operation for higher efficiency
- 50 per cent reduction in cab vibration
- 50 per cent longer HYD filter replacement interval

Because of lower owning and operating cost, lower fuel consumption and higher productivity, the equipment will result in positive impact on work sites.

Samer Ismail, Earthmoving and Excavation product manager, Al-Bahar



Cat 345 GC excavator at work site.



Track Cat 336 GC excavator's filterlife and maintenance intervals via in-cab monitor.

The **Cat 336 GC** excavator offers class-leading comfort with lesser fuel and maintenance costs to ensure more productivity at the lowest cost per hour.

Benefits of the excavator include:

- 5 per cent more fuel efficient
- 15 per cent lower maintenance costs
- Smart Mode Operation enhances efficiency
- 50 per cent reduction in cab vibration
- 50 per cent longer HYD filter replacement interval

The **Cat 330 GC** excavator balances productivity with easy-to-use controls, a new comfortable cab and reduced fuel consumption.

- 10 per cent more fuel efficiency
- 20 per cent lower maintenance costs
- 50 per cent longer HYD filter replacement interval
- 50 per cent reduction in cab vibration
- Smart Mode Operation enhances efficiency ■

Photo Credit: CAT

Get the job done effectively

The latest crushing solutions mean that difficult-to-manage waste, such as columns and reinforced concrete poles, can be easily and cost-effectively reduced and recycled on site.

THERE ARE MATERIALS some operators consider “difficult” to dispose of – these materials often pile up for years and take up space. Old light poles, columns, and concrete pipes, railway sleepers, vineyard poles with spring steel – these objects seem to be more complicated and expensive to recycle than others. However, construction sites that adopted MB Crusher units found an easy and inexpensive way to crush and recycle these types of inert material.

Four minutes – it is not a riddle or an equation – it is how long it takes MB’s crusher bucket to crush an eight-metre light pole, with the MB unit attached to the excavator on the construction. A single operator can collect the pole, crush it, and separate the iron from the concrete.

Disposing of reinforced concrete poles in recycling centres is pricey, even if it is just the cost of transporting the material. If a company wants to be autonomous and use a stationary crusher, the rebar in the concrete can easily cut the conveyor belt or jam the machine, which results in downtime, work stops, and wasting time and money. Alternatively, some crush with demolition shears, but it is a slow process.

This does not happen when using MB’s crushers: the iron comes out while the unit is crushing and can be separated from the processed material with the iron separator, which is installed on the MB unit and controlled by the operator from the cabin. With the MB crusher bucket, it is easy to obtain different material output sizes. The excavator operator can do it directly on-site, by just unscrewing a few bolts, inserting or removing shims and adjusting the jaws according to workplace needs. Not only that, but the resulting material is of good quality and ready to be reused or sold.

From two construction sites, one in France and the other in Bulgaria, where the recovering of railway sleepers and

Crushing materials on site can be cheaper than transporting difficult waste.



Photo Credit: MB Crusher

reinforced concrete has become a new source of income. Using MB crusher buckets and their excavator, the companies can collect poles and sleepers and crush them. During the crushing phase, the rebar is separated from the concrete and then removed from the crushed pile with an iron separator installed directly on the MB unit. The same crusher is used for crushing rocks. The material is quickly processed on-site with a single machine.

Why throw it away when it can be recycled, thought the administration of a Slovakian municipality when they were handling material from the demolition of sidewalks. The company who took charge of recovering the material created a real recycling centre with only two attachments. A BF70.2 crusher bucket to crush the waste

and an MB-S14 screening bucket to separate it. The material was then reused as a base for road work.

In Brazil, meanwhile, it had been a long time since a large company had used the old light poles on a construction site. It used the MB crusher bucket to crush them, recover the iron, and obtain excellent revenues from the resale.

And in the Czech Republic, a railway company needed to dispose of old sleepers – renting a stationary crusher was too expensive and complicated. Bringing the material to a recycling centre meant high hauling fees. Instead, they used the BF70.2 crusher bucket, attached to their operating machine, crushed the old sleepers on the spot, eliminating rental and transportation costs. ■

Trendsetting, efficient and reliable

Built to work hard, the Mercedes-Benz Sprinter is so adaptable that users will be able to find just the right one for their transportation task.

ROBUSTNESS, EFFICIENCY AND reliability – these are the traits behind the Mercedes-Benz Sprinter’s success, which have made it a trailblazer and paradigm-setter over the years. Building on this legacy, the third Sprinter generation impresses with its progressive design plus comfort and safety features at a passenger car level.

Offering versatility

The Sprinter Chassis Cab with three different vehicle lengths and choice of standard cab or crewcab offers an impressive diversity. The numerous vehicle versions and equipment options make it possible to adapt the Sprinter Chassis Cab precisely to the transport task it is to tackle. If the payload is decisive, it is suitable to drive the 5,500 kg weight variant. As a specially equipped semi-trailer tractor, a permissible GVW of up to 8,750 kg is possible – for example, for operation as a vehicle transporter. In addition, numerous bodybuilder solutions in proven quality are available for special industry requirements.

The Sprinter Platform offers an impressive variety of options, with three vehicle lengths, standard cab or crewcab and a loading area of up to 9.2 square metres. The cargo area of the Sprinter Platform Vehicle is the right solution for the open transport of



The Sprinter offers maximum cost-effectiveness, thanks to lower total operating costs and customer-oriented features.

Photo Credit: Mercedes-Benz Vans MENA

heavy and bulky goods. The size of the cargo area varies depending on the vehicle length and whether the vehicle is equipped with a standard cab or crewcab. Folding platform dropsides limit the cargo area at the side and rear and allow loading from three sides. On the inside of the rear platform dropside, there is a step made of metal for easy access to the cargo area. The dropsides of the cargo area are made of aluminium. Ladder racks behind the cab and on the platform end are available upon request. They allow long objects to be stowed and secured so that the platform surface can be used for other goods.

The Sprinter Panel Van offers customisable cargo space to suit the requirements precisely with practical options such as the interior roof rack, a weight-optimised plastic floor covering and the loadable wheel arches. The optional pallet support in the step of the sliding door stabilises the load. The longest and tallest Sprinter configurations provide a load compartment volume of up to 17 cubic metres. The maximum payload of the five tonne weight variant is 2,646 kg (rear-wheel drive)

Choice of engines

The Sprinter comes with a choice of four engine variants. The four-cylinder diesel engine in three output levels, up to 163 hp, and the V6 cylinder diesel engine, with 190 hp, combine power and economic efficiency in the Sprinter. The diesel engines produce more torque, which make them suitable for carrying heavy loads, such as many occupants or goods. All four-cylinder diesel engine variants are available both with manual or automatic transmissions, the V6 cylinder diesel engine fitted with an automatic transmission as standard. ■



Drivers benefit from the intelligent control and display concept, which can be matched perfectly to the vehicle’s mode of use.

Photo Credit: Mercedes-Benz Vans MENA

A LONG WAY TOGETHER



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GROWING TOGETHER



Driving towards a sustainable path

The commercial vehicle sector is becoming more sophisticated. Georgia Lewis reports on some of the latest innovations which will keep businesses moving across the regions.



Hyundai Motor Company has shipped the first 10 units of the Hyundai XCIENT Fuel Cell, the world's first mass-produced fuel cell heavy-duty truck, to Switzerland.

Photo Credit: Hyundai

THE COMMERCIAL VEHICLE sector is exciting and diverse, especially as manufacturers look to be more sustainable and innovative. Now, the sector is moving beyond vehicles with internal combustion engines and high emissions and developing products which will be seen on the roads and on industrial sites in the very near future.

Anglo American is working with ENGIE to develop and fuel the world's largest hydrogen-powered mine haul truck. ENGIE is providing the hydrogen-generation solutions and Anglo American is developing

the truck. It is hoped that by the end of the year, a testing and validation programme will be underway at Anglo American's Mogalakwena platinum group metals mine in South Africa, after which the trucks are expected to be deployed at other Anglo American operations. Engineers are looking to develop trucks with performance the same or better than the original diesel trucks, with cleaner air, less noise and lower maintenance costs.

"As part of our Smart Power Project, where we analysed our mine site power requirements and applied a unique decision

process on how we look at renewable energy systems and their benefits, we came up with a mix that allows us to be carbon neutral and have a very different footprint. This is part of our plan to create a smart energy mix that moves us closer towards our carbon and energy targets for 2030 and, ultimately, our vision of operating a carbon-neutral mine," said Tony O'Neill, technical director of Anglo American.

Daimler Truck AG and the Volvo Group, meanwhile, have signed a preliminary non-binding agreement to establish a new joint venture. The intention is to develop, produce and commercialise fuel cell systems for heavy-duty vehicle applications and other use cases. Daimler will consolidate its current fuel cell activities in the joint venture.

"Truly carbon-neutral transport can be accomplished through electric drive trains with energy coming either from batteries or by converting hydrogen on board into electricity. For trucks to cope with heavy

"Using hydrogen as a carrier of green electricity to power long-haul trucks is an important part of the puzzle, and a complement to electric vehicles"

Martin Lundstedt, Volvo Group, president and CEO

loads and long distances, fuel cells are one important answer and a technology where Daimler has built up significant expertise through its Mercedes-Benz fuel cell unit over the last two decades,” said Martin Daum, chairman of the board of management for Daimler Truck AG.

“Electrification of road transport is a key element in delivering the so-called Green Deal, a carbon neutral Europe and ultimately a carbon neutral world. Using hydrogen as a carrier of green electricity to power electric trucks in long-haul operations is one important part of the puzzle, and a complement to battery electric vehicles and renewable fuels,” added Martin Lundstedt, Volvo Group president and CEO.

Looking beyond Africa for ideas on how to make road travel more sustainable, Siemens, through its Siemens Mobility division, has been involved in developing eHighways as an alternative to transporting freight by rail in a more sustainable way than simply putting more traditional trucks on the road.

Developing eHighways will have the additional benefit of sustainably eliminating some of the limitations of rail transport, such as a lack of door-to-door service, impracticality over shorter distances and difficulties in reaching areas that are not serviced by rail lines. This means that a share of this transport will need to be carried out by trucks that are reliable with minimum environmental impact. Siemens has found that the eHighway system is twice as efficient as conventional internal combustion engines. This works by supplying trucks with power from an overhead contact line. This reduces local air pollution and helps reduce the carbon footprint of the transport sector.

Siemens Mobility has already been involved in eHighway projects in Germany, Sweden and the US.

In Germany, the project was commissioned by the University of Keil's Research and Development Center in 2018 to create the first infrastructure for electric trucks on the autobahns. This was piloted



Electrified highways may be an alternative to traditional truck and rail transport.

Photo Credit : Siemens Mobility

with a 5km stretch of road between the Reinfeld and Lübeck interchanges on the A1 autobahn.

For the American transport sector, where traditional trucks have reigned supreme on the roads for decades, Siemens Mobility installed and tested a two-mile-long overhead contact line system for hybrid electric trucks near the US ports of Los Angeles and Long Beach in November 2017. Three trucks hauling freight run along the stretch of highway with select lanes electrified via an overhead catenary system. This catenary system supplies the trucks with electric power, similar to trams on many city streets. The system allows for truck operation outside of the electrified sections of infrastructure.

In Sweden, the first eHighway system on a public road was inaugurated in June 2016 after two years of testing. The catenary system for trucks was tested on a two-kilometre stretch of the E16 highway north of Stockholm. The trial used two diesel-hybrid trucks manufactured by Scania and adapted, in collaboration with Siemens Mobility, to operate with the catenary system. During the trial, Sweden's transport authority Trafikverket and the district of Gävleborg gathered data to see whether the system is suitable for further expansion, particularly as the country has committed to

ensuring its transport sector is independent of fossil fuels by 2030.

Moving away from ambitious mega-projects which require serious infrastructure investment, meanwhile, Faymonville has successfully launched its eight-axle MultiMAX semi-trailer and it has arrived safely at the port of Tema in Ghana. It is the first Faymonville trailer for Baj Freight Limited, a West African freight and logistics company which provides customs brokerage, freight forwarding and logistics support across a wide range of industries including oil and gas.

The company chose Faymonville, as an all-rounder to move a large variety of heavy and oversized cargo, such as tanks, columns, transformers and cranes. The MultiMAX is equipped with hydraulic suspension and steering, an hydraulically lifting and lowering gooseneck and robust double ramps. The platform is double-extendable up to a maximum length of 33.5 metres.

At an African manufacturing level, Enugu-based Anambra Motor Manufacturing Company (ANAMMCO) has been busy building trucks since 1980 and in the past four years, production has been boosted, largely thanks to the N63bn investment made by the Dangote Group. The partnership started in 2016 with an initial order of 350 Trucks by Dangote when they signed a Transit Support Services (TSS), a subsidiary of ABC Transport. As of this year, 3,500 trucks have been supplied to Dangote from the ANAMMCO plant. Each of the trucks costs more than N18mn.

Frank Nneji, chairman of TSS, said the revival of ANAMMCO was made possible by Dangote's patronage "in identifying a plant that has capacity in the south-east, in Enugu to give us the opportunity to produce trucks locally instead of importing them." ■

“For trucks to cope with heavy loads and long distances, fuel cells are an important answer and Daimler has built up significant expertise.”

Martin Daum, chairman of the board, Daimler Truck AG

On the **move**

Continental's Conti EcoRegional family enables fleet operators to significantly increase the efficiency.

Photo Credit: Continental

Ranging from developing eco-sensitive products to innovating intelligent tyre monitoring systems, many tyre manufacturers are pushing the boundaries. Abhishek Paul takes a look at the latest trends and developments in the sector.

WHILE THE AUTOMOTIVE industry is becoming increasingly connected, autonomous, shared, and electric (CASE) pushing for disruptive changes, the tyre manufacturing sector is entering the next phase to drive sustainability and support advanced mobility solutions. Many solution providers of this sector are tapping digital technologies' potential to support a safer and smarter transportation experience.

Leading the way, tyre and rubber manufacturer Bridgestone is collaborating with Microsoft to develop a world-first monitoring system for detecting tyre damage issues in real-time. These issues are a serious matter, contributing to some 30 per cent of all car accidents caused by technical failure.

Bridgestone's Tyre Damage Monitoring System delivers real-time awareness of damage. It uses Microsoft Connected Vehicle Platform's (MCVP) cloud framework together with existing sensor data, from hardware that is already installed, and uses algorithms to detect events affecting the

tyre surface and carcass. The driver can then be immediately notified of the hazard and act accordingly to remedy the situation. There is currently no other equivalent monitoring system available in the market. Alternatives would require extra hardware to be installed.

The system not only understands when damage has occurred, but also where. It thus allows broader insight into road conditions and infrastructure, which can be used to alert the agencies responsible for road damage issues to the presence and location of potholes and other hazards. Future autonomous vehicles could also be beneficiaries of the system – as vehicles pass information about local hazards to others in the vicinity, as well as cloud data stores.

Currently, Bridgestone's new Tyre Damage Monitoring System is available to all vehicle fleets and OEM's that use MCVP. The partnership with Microsoft also enables Bridgestone to further develop its solution to meet the requirements of fleets and major OEM partners around the world.

Another notable solution from

Bridgestone is Tirematics, which enhances safety and efficient mobility using Microsoft Azure. This solution reduces tyre inspection and maintenance workloads and helps to prevent tyre-related operating issues.

Tirematics currently measures and collects tyre pressure and temperature data, but its scope is likely to expand. Bridgestone has already started tests to make features such as AI available on third-party sensors via Azure IoT Edge.

With the advances in Internet of Things (IoT) and other technologies, it's possible to collect information from in-use tyres and develop new services.

Sustainability factor

Another major player Continental is focusing on developing tyres that can reduce fuel consumption and improve mileage. Continental's new truck tyre line offers the same. The Conti EcoRegional family enables fleet operators to significantly increase the efficiency of their vehicles in regional transport. The Conti EcoRegional HS3 and HD3 are the suitable

solution for reducing CO₂ emissions, thanks to a new manufacturing process in combination with an innovative tread design for the steering axle and a rubber compound that is optimised for rolling resistance for the drive axle.

Additionally, no sacrifices have been made in terms of the other significant tyre properties such as mileage, robustness and traction. The Continental developers have been particularly successful in balancing the trade-off between mileage on the one hand, and rolling resistance and fuel efficiency on the other.

With the introduction of the Conti EcoRegional Line, Continental is presenting a product that is tailored to the new emissions regulations for truck manufacturers. The vehicle energy consumption calculation tool (VECTO), which was introduced by the European Commission, is intended to ensure that the ambitious European targets for CO₂ reduction are met.

New models

Offering stability, safety and high load capacity, BKT has launched two new models – Maglift Eco and the Maglift Premium – the tyre specifically designed for forklifts.

Maglift Eco is made with two layers of rubber compound and has a special shape and very wide lugs to offer stability and load distribution. Among its distinctive features there is also the particular rim guard designed to protect it against damage and denting. Low rolling resistance and high resistance to overheating can assure maximum efficiency. “Completing the picture are the steel wires incorporated into the hitch which offer very secure grip and prevent any risk of slippage,” according to BKT. There are two versions available,



standard and “LIP” i.e. with an asymmetric hitch to avoid having to add flanges.

Maglift premium has instead been designed for forklifts used for the toughest operations and comes with an extra deep tread to guarantee a long life cycle. The design of the tread is both robust and aggressive, enabling operators to count on excellent steering control and great forward and lateral traction. The central grooving of the tread ensures low rolling resistance. Available in both standard and “LIP” versions.

All the Maglift models have in common load distribution, stability, safety and high load capacity, essential characteristics for a tyre for forklifts, vehicles which carry out very delicate operations to move heavy goods.

Also of fundamental importance is the compound used in these products which BKT has made resistant in particular to wear and tear and to cuts and, in addition, in order to guarantee operators' comfort, a softer compound, offering a very comfortable drive, has been included in the central part of the tyre section.

“Again as regards the compound, there is

also the non-marking version of Maglift which does not leave any traces, thus ensuring flooring is left perfectly clean,” as stated by BKT. It is specifically for logistical and production facilities in the food and pharmaceutical sectors where maximum hygiene is necessary. The Maglift range is now available in 23 different sizes.

Designed to meet the requirements on the rough surface conditions and the bare road driving, the Nokian R-Truck series is at home in demanding on/off-road applications. Their good self-cleaning properties enable good grip even on soft surfaces, while high quality materials ensure resistance against chipping and tearing.

“In response to the need for a premium winter steering tyre for heaviest snowplowing trucks and such, Nokian Tyres released a special Extra Load XL version of the Nokian Hakkapeliitta Truck F2 steer axle tire earlier,” said Teppo Siltanen, product manager at Nokian Tyres. “Now, we want to enable also the heaviest construction and timber trucks to have heavy duty on/off-road tires, so we developed the Nokian R-Truck Steer XL.”

Off-road use sets high demands on a tyre. Nokian R-Truck Steer XL has an open tread pattern and wide grooves that ensure good self-cleaning and grip for controlled steering in changing driving conditions. What's more, its main grooves have stone ejectors that prolong the tire operating life especially on rough surfaces.

“We aim to develop tyres that retain their good properties throughout the tire service life,” he said. “The high-quality rubber compound wears slowly, and the low heat build-up means longer tyre life.”

The new Nokian R-Truck Steer XL tyre is made available in the popular 385/65R22.5 size. “We want to open up new possibilities for heavy trucks,” he stated. ■



Nokian R-Truck Steer XL tyre

Going digital: entering the next phase

The COVID-19 pandemic has accelerated the deployment of digital technologies in the construction industry, says Paul Wallett, regional director, Trimble Solutions Middle East and India.

TECHNOLOGY HAS COME to the fore during the COVID-19 crisis, as every business has been made to rethink the way it works. Companies adopting new technologies are likely to see a long-lasting impact on their business beyond the pandemic, and digital deployment for remote work has become a new normal. According to a recent McKinsey Digital Report, the onset of COVID-19 has advanced the adoption of consumer and business technology five years in the span of eight weeks. Connectivity and data are two of the most important drivers of change.

There have been major challenges faced by the construction industry in the adoption of technology, however, when economies globally were locked down, the utilisation of 4.0 technologies by construction companies increased, with the adoption of BIM and Cloud computing, blockchain, IOT, AI and autonomous operations on job sites.

At Trimble, we believe in transforming the way the world works by delivering products and services that connect the physical and digital worlds. Cloud computing has become a mainstream solution in the construction sector in the last three months. It is one of the solutions we offer with the aim of allowing people to mitigate risks and continue to work anytime from any place.

Trimble Connect, our cloud-based collaboration platform that connects the right people to the right data at the right time, further enables informed decision making and enhances project efficiency. The platform has now surpassed 10mn users. In response to COVID-19, distributed working has intensified the need for teams to share information and collaborate remotely, leading 1.2mn users to join Trimble Connect in March and April alone. To date, Trimble Connect has hosted more than 80,000 design and construction projects, making it possible for people to collaborate and work together from anywhere in the world.



The Trimble/Boston Dynamics bio-inspired robot.

Photo Credit : Trimble Solutions Middle East & India

Furthermore, the number of invitations to collaborate on projects increased 58 per cent in April over the previous month, indicating that users are adjusting to new remote and distributed working dynamics and enabling teams to stay resilient, despite interruptions to their traditional daily routines.

Trimble also offers Sketchup, one of the most widely used 3D modelling solutions. It is used across multiple divisions such as architecture, engineering, and construction and 3D Warehouse – a platform to share and download Sketchup 3D. Since the beginning of the pandemic, there has been an increase of 41 per cent in monthly active users of Sketchup. There has also been 33 per cent increase in downloads and 50 per cent increase in uploads during the same period on 3D Warehouse as well. This data clearly indicates that the construction industry has deployed digital solutions more than ever during this crisis, and technology has kept the industry moving, even when onsite work was drastically affected.

Technology is not just supporting people working from office or home, but is also helping construction companies improve

data collection efficiency and the safety of the on-site team through autonomous robots. This was proven during the massive renovation of the Great Hall at the Denver International Airport, one of the busiest airports in the world. Trimble collaborated with Boston Dynamics to integrate Trimble's X7 scanner to a bio-inspired robot to perform scans, and capture 360 images of the site. Considering the complex work environment at the airport, this project needed multiple scans to capture the building conditions – if done traditionally it could have taken several hours or even days, causing delays in construction. The Trimble's X7 and the bio-inspired robot was successfully deployed to avoid delays and help perform the task better. It has made things easier because it allows remote operation and frees onsite workers from repetitive work.

In the future we will see a reduced number of people onsite to maintain global standards of social distancing. Robots can be a great part of the future workforce, supporting on-site teams at complex and hazardous working environments, further improving the productivity and safety of workers in construction workflows. ■

Project Databank

Compiled by Data Media Systems

Project Focus

Compiled by Data Media Systems

Project Summary

Name of Client	ICD - Investment Corporation of Dubai
Estimated Budget (US\$)	965,000,000
Facility Type - Sector	Mixed-Use Development - Construction
Status	Construction
Location	Dubai
Project Start & End Date	Q1-2008 & Q4-2021
Last Updated	09-07-2020
PMC	Mace Group
Main Contractors	ALEC, Al Futtaim Carillion
Contract Value (US\$)	950,000,000
Award Date:	Q2-2017

Background

Investment Corporation of Dubai is developing a mixed-use high rise tower at World Trade Centre area, know as One Zabeel. The project is located strategically between the old and new business districts of Dubai on Sheikh Zayed Road.

Project Schedules

Project Announced	1Q-2008
Feasibility Study	2Q-2008
EPC ITB	2Q-2015
Engineering & Procurement	2Q-2017
Construction	3Q-2017
Completed	4Q-2021

Project Scope

The unique complex will include:

- A residential tower with 450 apartments
- A five-star hotel tower with 370 rooms
- 133 serviced apartments
- Retail area
- A commercial tower offering 500,000 sq ft of office space
- Swimming pool
- Meeting rooms
- Car parking spaces
- Other associated facilities

Project Finance

ICD, as the investment arm of the government of Dubai currently has a portfolio that represents a cross-section of Dubai's most recognised companies, in sectors that the government of Dubai has deemed to be strategic for the continued development of the Emirate. The sectors include: Financial services, Transportation, Energy and Industrial, Real Estate and Leisure, Retail and other Holdings.

Project Databank

Compiled by Data Media Systems

MAJOR INFRASTRUCTURE AND CONSTRUCTION PROJECTS, UAE

Project	City	Sector	Facility	Budget	EPC Award Date	Status	Project Start	Project End
RTA - Dubai Metro Route 2020	Dubai	Infrastructure	Railway	2900000000	2016-Q3	Commissioning	2013-Q3	2020-Q3
ICD - One Za'beel	Dubai	Construction	Mixed-Use Development	965000000	2017-Q2	Construction	2008-Q1	2021-Q4
Ethihad Rail - Trans - Emirates	Abu Dhabi	Infrastructure	Railway	11000000000	2019-Q1	Construction	2018-Q1	2025-Q4
Ethihad Rail - Trans - Emirates Rail Network - Phase 2 - Package B & C	Abu Dhabi	Infrastructure	Railway	1500000000	2019-Q2	Engineering & Procurement	2018-Q1	2025-Q4
DWTC - EXPO 2020 Site - Overview	Dubai	Construction	Mixed-Use Development	3000000000	2017-Q1	Construction	2013-Q4	2021-Q1
IMKAN Properties - Ghantoot Al Jurf Gardens	Dubai	Construction	Beaches and Resorts	5000000000	2020-Q2	Construction	2018-Q4	2021-Q4
Ethihad Rail - Trans - Emirates Rail Network - Phase 2 - Package A	Abu Dhabi	Infrastructure, Construction	Railway	895000000	2019-Q1	Construction	2012-Q3	2025-Q4
DCT - Saadiyat Island - Zayed National Museum	Abu Dhabi	Construction	Convention and Exhibition Centres	1000000000	2019-Q1	Construction	2013-Q1	2021-Q4
Miral - Yas Island SeaWorld Theme Park	Abu Dhabi	Construction	Theatre/ Entertainment/ Leisure Facilities	1000000000	2019-Q1	Construction	2016-Q4	2022-Q1
Tilal Development Company - Sharjah Tilal City Development - Overview	Sharjah	Infrastructure	Roads	653000000	2015-Q3	Construction	2014-Q4	2023-Q4
Jubail Island Investment Company (JIIC) - Jubail Island Development (Overview)	Abu Dhabi	Construction	Mixed-Use Development	1360000000	2020-Q1	PMC	2019-Q2	2022-Q4
Nshama Development - Town Square Development (Overview)	Dubai	Construction	Mixed-Use Development	5000000000	2015-Q3	Construction	2015-Q1	2021-Q2
Emaar - Ras Al Khaimah - Al Marjan Island Address Hotel & Residences	Ras Al Khaimah	Construction	Beaches and Resorts	1800000000	2020-Q3	Design	2017-Q4	2021-Q4
MAG Lifestyle Development - MAG City - Overview	Dubai	Construction	Residential Development	2000000000	2019-Q3	Construction	2019-Q1	2025-Q4
Sharjah Holding - Uptown Al Zahia Development - Overview	Sharjah	Construction	Residential Development	1500000000	2019-Q1	Commissioning	2018-Q2	2021-Q1
Emaar Properties - Dubai Hills Estate - Dubai Hills Mall	Dubai	Construction	Malls/Retail Outlets	770000000	2017-Q1	Commissioning	2016-Q3	2020-Q4
Aldar Properties - Dubai & Abu Dhabi Border - Al Ghadeer Community Extension	Dubai	Construction	Mixed-Use Development	2720000000	2018-Q4	Construction	2018-Q2	2020-Q4
DAEP - Al Maktoum International Airport Expansion - Overview	Dubai	Infrastructure	Airport	36000000000	2015-Q2	EPC ITB	2014-Q1	2030-Q4
DAEP - Al Maktoum International 1 Airport Expansion - West Terminal Building & Concourse	Dubai	Infrastructure, Construction	Airport	33000000000	2020-Q2	EPC ITB	2018-Q1	2030-Q4
Ethihad Rail - Trans - Emirates Rail Network - Overview	Abu Dhabi	Infrastructure	Railway	11000000000	2011-Q4	Construction	2008-Q4	2025-Q4
RTA & Hyperloop One - Dubai to Abu Dhabi Hyperloop	Dubai	Infrastructure	Railway	500000000	2020-Q4	Design	2016-Q4	2023-Q4
ADPC - Khalifa Port and Industrial Zone Expansion - Overview	Abu Dhabi	Infrastructure	Port	7200000000	2007-Q4	Construction	2006-Q1	2030-Q4
Abu Dhabi Municipality - Abu Dhabi to Al Ain Hyperloop	Abu Dhabi	Infrastructure, Construction	Hyperloop Transport System	7200000000	2020-Q4	Feasibility Study	2017-Q1	2025-Q4
Ethihad Rail - Trans - Emirates Rail Network - Phase 3	Abu Dhabi	Infrastructure, Construction	Railway	11000000000	2020-Q4	PMC	2012-Q1	2025-Q4
Jubail Island Investment Company (JIIC)- Mafraa Al Jubail and Souk Al Jubail	Abu Dhabi	Construction	Mixed-Use Development	36000000000	2020-Q2	Project Announced	2019-Q1	2025-Q4
Shurooq & Diamond Developers - Sharjah Sustainable City - Overview	Sharjah	Construction	Mixed-Use Development	1500000000	2019-Q1	Construction	2018-Q1	2025-Q4
Nakheel - Deira Islands Development - Deira Islands Boulevard	Dubai	Construction	Residential Development	1300000000	2020-Q3	EPC ITB	2017-Q1	2022-Q4
Wasl Properties - Wasl Gate - Overview	Dubai	Infrastructure, Construction	Mixed-Use Development	10000000000	2016-Q2	Construction	2015-Q4	2030-Q1
Arada - Sharjah Aljada Residential City	Sharjah	Construction	Mixed-Use Development	6500000000	2018-Q3	Construction	2017-Q3	2025-Q1
Dubai Holding - Mall of the World	Dubai	Construction	Malls/Retail Outlets	22000000000	2020-Q1	PMC	2014-Q3	2024-Q3
Gulf Cooperation Council (GCC) - The Pan GCC Railway Network	Various	Infrastructure	Railway	30000000000	2021-Q3	Feasibility Study	2005-Q2	2030-Q4

Tailor-made solutions to make a difference

Italy-based Layer Electronics develops advanced and customised industrial Uninterruptible Power Supply (UPS) to serve the utilities and oil and gas industry.



Photo Credit: Layer Electronics

Advanced and customised industrial UPS from Layer Electronics.

LAYER ELECTRONICS, AN Italian manufacturer of a range of electro-technical and electronic support systems for its clientele across the globe, has supplied an advanced industrial UPS to assist one of the most significant drainage projects in the Middle East.

Entirely designed and developed in Italy, the highly advanced and customised industrial UPS 2x2 kVA, 2x15 kVA, 4x40 kVA, 2x60 kVA, 2x80 kVA, 2x100 kVA, 2x250 kVA, with input and output transformers, were manufactured in two months, delivering all the units by the end of 2019, as requested by Hyundai Rotem, a South Korean manufacturing and environmental facilities organisation.

Equipped with 2mm-thick cabinets and not-RAL colour, Layer Electronics' innovative industrial UPS solution installed at a mega sewage treatment plant helps produce high-quality treated wastewater for use in non-restricted irrigation.

The project will be serving 205,000 people, an estimated population for 2036, in the area with a peak flow of 1,950 litres a

second. The project comprises Sewage infrastructure with a daily average flow of 56,200 m³/day. Sewage transmission mains will consist 21 km of twin rising mains and approximately 11 km of twin rising mains. The treatment process includes Mechanical Treatment, Biological Nutrient Removal, using Sequencing Batch Reactors (SBRs), Sand Filters and Ultrafiltration, Ultra Violet (UV) disinfection and chlorination system.

The customised industrial UPS solution installed at a mega sewage treatment plant helps produce high-quality treated wastewater.

After completion of the project in the third quarter of 2020, treated water can be used for irrigation in agriculture and landscaping, and the sludge can be recycled into construction material and compost.

Meeting industrial needs

In the 11th year of its operations in the Middle East, Layer Electronics is striving to consolidate its presence in the region with an increased market share. It is working towards expanding its operations in the America, Africa and Asia markets.

To meet the growing power demands, the company implements essential updates to its AC & DC UPS and inverters, increasingly focused on the industrial, oil and gas, and utilities markets, with their stringent specifications.

Other specialised products from Layer Electronics include Frequency Converters, AVR (Stabilisers), Ferro Saturated Stabilisers, Electronic Line Conditioners, Solar and Wind Inverters, Wind Generators up to 20 kW, Charge Regulators, Cathodic Protection Power Supplies, DC/DC Converters. ■

Why water management matters most?

CDE, a provider of wet processing equipment for quarries, mines and recycling operations on the global market, gives a perspective on effective water usage in the extractive industries.

IT'S INCOMPREHENSIBLE FOR most. The notion that around the globe we face issues arising from water stress on a planet whose surface area is made up of over 70 per cent water and whose total water volume – a staggering 96.5 per cent – is contained within our oceans. Whether for consumption or sanitation clean water in some parts of the world is taken for granted, as we fail to recognise the processes and infrastructure needed to maintain a clean water supply or neglect to acknowledge that basic access to clean water is not universal.

In 2017, 785 million people lacked a basic drinking water service, including 144 million people who were dependent on untreated surface water, 206 million who had access to an improved water source but were required to make a 30-minute trip for collection, and 435 million who were extracting water from unprotected wells and springs, according to WHO.

That aside, the mining and quarrying, manufacturing and construction sectors accounted for 10.6 per cent of total water use in Europe alone in 2017.

CDE recognises that the benefits arising from sustainable practice and processes are two-fold; they are economically advantageous and minimise our impact on the environment. Indeed, they are green from both perspectives. To that end, among the Sustainable Development Goals (SDGs) adopted by CDE is number six: Clean Water and Sanitation.

Challenges

The Middle East and North Africa (MENA) is home to 6.3 per cent of the world's population, yet only 1.4 per cent of its accessible freshwater supply, stated an EcoMENA report. Water scarcity issues in the region are compounded by multiple factors such as climate change, water quality, and poor water management practice against a backdrop of fragility and



The mining and quarrying, manufacturing and construction sectors accounted for 10.6 per cent of total water use in Europe alone in 2017.

Photo Credit: Adobe Stock

conflict. In 2015, at World Economic Forum, experts on the region suggested the water crisis is “the greatest threat to the region—greater even than political instability or unemployment”.

Commenting on the severity of water management challenges in the region, Ruchin Garg, CDE regional manager for MENA, says, “The Middle East and North Africa is the most water-scarce region on earth and its total water productivity is half

“Twelve out of the 17 most water-stressed countries are in the Middle East and North Africa.”

The World Resources Institute's data

that of the global average,” according to data from The World Bank.

According to data from the World Resources Institute, “Twelve out of the 17 most water-stressed countries are in the Middle East and North Africa”.

“In a region where an incredibly high percentage of GDP is vulnerable to water stress, it's vital an effective water management strategy is identified – and ours is an industry that can adapt to the call for better water management. The technology exists and CDE is working with many in the region to set the benchmark.”

Water economics

Water as a resource delivers economic value to a range of industries. Within the extractive industries, the value of materials is significantly increased when washed, but wet processing in mining and quarrying operations is hinged on water availability and processing plant efficiency.

Garg comments, “More often its water availability and access that prevents producers getting into the washing business

in the first place. That, and the uncertainty around typical top-up water requirements which, in the case of CDE water management solutions, are very low. Our focus is on recycling and recirculating as much water as possible through the system.”

Recycle up to 90 per cent of process water

At the forefront of CDE’s water recycling systems is the AquaCycle, a single, compact, and user-friendly unit that can be applied to high and low tonnages across many markets.

An alternative to water extraction and the costly process of pumping water to the plant, CDE’s AquaCycle is a highly efficient water management solution that minimises costly water consumption by ensuring up to 90 per cent of process water is recycled for immediate recirculation.

After feed material has been washed and classified, waste is sent to the AquaCycle thickener tank. Here, a small amount of polyelectrolyte flocculant is added to the water via an automatic dosing station which forces fine particles to settle on the bottom of the thickener tank. The clean water on the top overflows the weir and is stored in the AquaStore tank before being re-circulated around the plant. The result is a highly efficient water recycling system that requires only a 10 per cent supply of top-up water.

Waste sludge is discharged into a buffer tank where a motorised rake in constant rotation ensures the material does not settle and solidify. If further dewatering is required, a filter press or decanter is added to the wet processing solution to eliminate the need for settling ponds.

Garg says, “In MENA, we have 75 wet processing plants successfully utilising CDE water management and recycling technology.”

Intelligent design

Though water recycling may seem simple in theory, it is, in practice, much more complex. Water thickeners are not born equal and their efficiency is the result of years of dedicated research, development, and refinement. Every aspect of its design is carefully considered so that the system is responsive to the site-specific needs of its owner.

“We sweat the small stuff,” says Kevin Vallyelly, director of Engineering at CDE.

“CDE has been co-creating with customers for over 25 years to deliver collaborative, imaginative and unique processing systems, and this process has



CDE’s AquaCycle is a highly efficient water management solution that minimises costly water consumption.

Photo Credit : CDE

been informing and refining our water recycling technologies.”

All CDE equipment is designed to allow plug-and-play operation, that is equipment is pre-wired and pre-tested before despatch, designed for rapid assembly and set up and can start processing material within days of arrival on site.

He adds, “Fast return on investment is a very real proposition when the CDE AquaCycle thickener is introduced to a

washing operation. It boosts the efficiency of the wet processing plant by maximising the settlement of solids which reduces the quantity of flocculant required, cuts running costs, and optimising the overall efficiency of the plant.”

Return on investment with a CDE AquaCycle is typically achieved in just six to nine months.

Settling ponds are known to be the source of significant revenue losses, not only due to high maintenance costs, site footprint, and downtime, but also because high-value fines can become lost and trapped at the bottom of ponds.

He continues, “By recycling up to 90 per cent of process water, the requirement for settling ponds is greatly reduced.

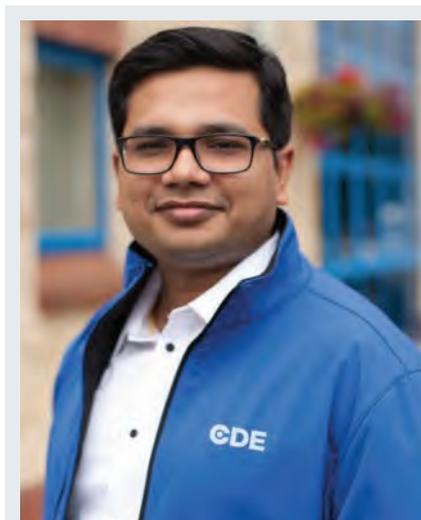
“With the addition of a filter press tailings management system that need is completely eliminated. When combined with a CDE filter press custom-built fines management system this figure increases to 95 per cent, removing the need for settling ponds altogether.”

Long-term benefits

Water management systems are becoming a must-have for mine and quarry operations to comply with environmental regulations. Matters concerning the protection of finite resources on the planet will only become more prevalent, too.

Vallyelly concludes, “The AquaCycle ensures operators stay ahead of the curve while extracting maximum value from available resources and driving down operating costs.”

The AquaCycle system is available to operators around the world and is ready to complement wet processing applications in five sectors – sand and aggregates, mining, construction and demolition waste recycling, environmental applications, and industrial sands. ■



“Our focus is on recycling and recirculating as much water as possible through the system.”

Ruchin Garg, CDE regional manager for MENA

Get ready for a next-gen built environment

The Middle East's facilities management industry is poised for more growth as demand for state-of-the-art FM services remains strong – Deblina Roy catches up with Michael Nicholas, general manager, Tafawuq Facilities Management.

How do you see digital or computer-aided facilities management (CAFM) services for the UAE's built environment?

Wider adoption of CAFM services is expected within the UAE built environment in the coming years, owing to the country's comprehensive digital transformation approach. CAFM services enable building maintenance professionals to execute customised strategies for faster reaction times to solve issues and more efficient regular maintenance activities. They are vital to efforts automating facilities management (FM) services. The system allows for easy access to all available building information digitally and in 3D format, which is crucial to documentation and compliance-related activities. We expect that its full utilisation in the industry is going to be the norm soon.

Can you elaborate on the 'Get Wonky' programme and how it strives to make an impact on the communities it operates in?

'Get Wonky' is our organisational and business enhancement culture. Launched by our parent company, Eltizam Asset Management Group, the programme reflects our organisation's commitment to transforming our system as part of our endeavours to do things differently. This way, we are ensuring customer happiness, inspiring employees to excel, achieving revenue growth, and reinforcing the brand's corporate values to sustain positive business outcomes. It has six main pillars, namely Technology, People Development, Corporate Social Responsibilities, Happiness, In-Country Value, and Vision 21. All of them are aligned with Eltizam's core corporate values.

How Tafawuq's suite of facilities management services helping the UAE's different sectors?

At Tafawuq Facilities Management, we provide fully integrated FM services to



Photo Credit: Tafawuq Facilities Management

According to Nicholas, there is a need for the roll-out of the right prevention and containment approaches to maintain facilities and protect the welfare of the people.

different industries in the country. Our offerings are wide-ranging, from mechanical, electrical and plumbing maintenance (MEP) and specialist MEP maintenance services (lifts, gate barriers and building management system) to security, cleaning and pest control, and landscaping solutions. Our most in-demand services include façade cleaning, waste management, and FM consultancy. Besides, to serve our clients better and ensure an exceptional experience with us, our contact centre has been made available round the clock.

How Tafawuq's solutions stand out in terms of cost-effectiveness and user-friendliness?

We leverage the right technologies to make our solutions cost-effective and environment friendly. We have, in fact, made substantial investments in this regard. Our solutions stand out because we continue to innovate. This is evident in our technology-driven services such as our paperless mobility maintenance and our intelligent cleaning robot solutions. In addition to reducing costs, they facilitate enhanced and efficient operations.

What is the company's further expansion plan in the region?

The FM industry in the region is poised for more growth in the coming years as demand for state-of-the-art FM services remains strong and healthy. We will continue to invest in next-generation technologies such as artificial intelligence, the Internet of Things, predictive maintenance and advanced cloud-based FM solutions to sustain our market edge.

What do you think the impact of COVID-19 in the UAE's built environment and Tafawuq's solutions to counter this?

The COVID-19 has an immense impact on the UAE's built environment like other industries. In the FM business, we saw the need for the roll-out of the right prevention and containment approaches to maintain facilities and protect the welfare of the people.

Seeing this urgent need, we, at Tafawuq, responded by launching innovation-driven sanitation and disinfection services designed for homes and various communities in the UAE. Our focus as of the moment is the cleanliness of homes, offices and communities at large. We are making a difference in this regard. Also, we have been optimising Tafawuq GO, our maintenance mobility solution, especially during this period. This technology allows our technicians to receive, carry out, and close work orders digitally without the need for face-to-face interactions. Moreover, we launched 'QuickPay' to facilitate contactless online payment for customers.

We aim to leverage Eltizam's technology solutions as well. These include the SAP4 HANA enterprise resource planning (ERP) system, which enables remote and real-time approval of transactions using mobile devices; and NESTROM, an online management system for quality, health, safety and environment (QHSE) inspections that allow paperless and contactless work. ■

Cashing in on the safety services boom

In response to the COVID-19 outbreak, several facilities management firms are offering a new line of specialised cleaning and disinfection services to businesses, offices and residential properties as markets reopen. Abhishek Paul reports.

AFTER THE COVID-19-INDUCED lockdowns, the businesses across all the industries are passing through choppy waters. It is interesting how facilities management sector is cashing in on by repackaging its services.

With health and safety becoming causes for concern while reopening the markets, many companies operating in this sector are offering disinfection and cleaning services to stay afloat.

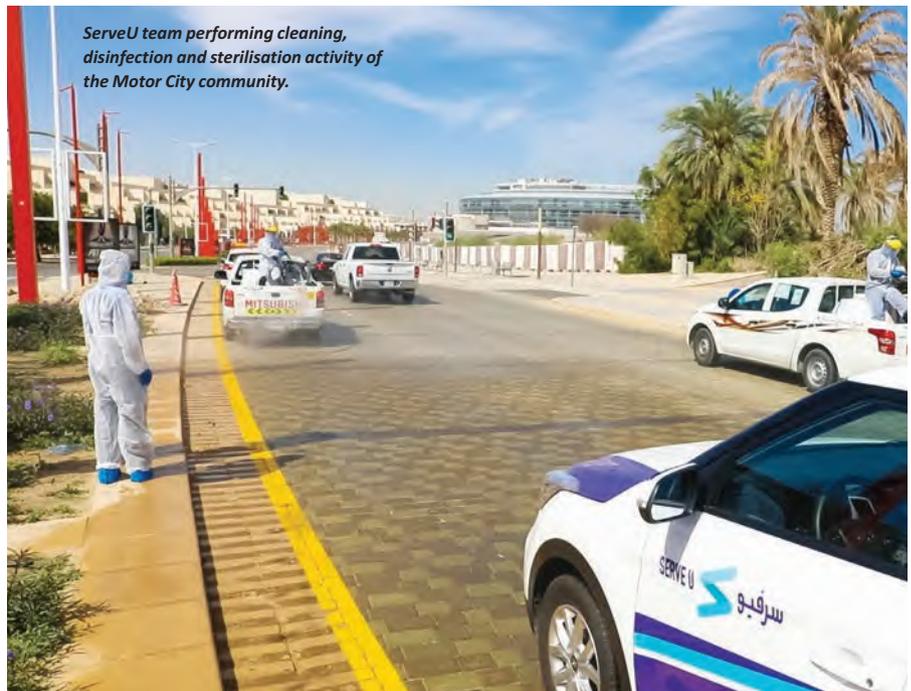
Imdaad, a Dubai-based group of companies that provides integrated, sustainable facilities management services, has announced the launch of its new disinfection service.

Described as 'Infinite Protection Package', Isnaad, a subsidiary of Imdaad, is spearheading the new service, providing multi-level protection from germs on surfaces in both residential and commercial facilities. It includes deep cleaning, disinfection, nano treatment, a unique air purification system, and the indoor smart anti-pandemic patrol robot (AIMBOT).

Further, the installation of an air filtration system will help disinfect and keep the air quality sterile. According to Imdaad, the AF100 air purifier removes all particulate matter with a diameter of 2.5 microns or more, thereby providing an exceptionally good AQI of PM2.5.

Similarly, Engie Solutions has provided Group 42 (G42), a cloud computing and artificial intelligence company, with its technology-based facilities management solutions – and the manpower required to operate them – to improve safety and efficiency within the new high throughput COVID-19 detection laboratory in Masdar City. The laboratory is capable of conducting thousands of COVID-19 tests per day.

Engie Solutions provides the laboratory with bespoke smart building and technology services, which will reduce the number of people on-ground, thereby decreasing



ServeU team performing cleaning, disinfection and sterilisation activity of the Motor City community.

Photo Credit: ServeU

safety risks for laboratory personnel.

Additionally, the company incorporates wireless IoT (Internet of Things) sensor technology to control various functions, including energy management, air quality and health, comfort, and safety. It will offer a condition based monitoring service, which provides live monitoring and alerts for both asset and environmental conditions. Over time, collected asset information will facilitate data-driven decisions with regards to asset maintenance strategy, replacement, and running costs.

Meanwhile, ServeU, a subsidiary of Union Properties and a facilities management service provider in the UAE, has unveiled a new line of specialised disinfection services.

Working closely with their customers and government departments, ServeU has been setting up specialised disinfection services which are most suitable to their needs.

Gary Reader, general manager of ServeU, said, "The new services include the

disinfection and sanitisation of all surfaces including hard to reach areas. Our cleaners comply with COVID-19 measures and are daily disinfecting and sanitising workplaces, buildings and homes to prevent the further spread of the virus."

Another significant development came from technology and sustainability-driven facilities management firm Farnek. It has implemented a new contactless face recognition system to measure the temperature and monitor the attendance of its employees.

In line with Dubai Municipality regulations, the system allows Farnek to check the temperature of all employees when entering and leaving their offices, or when entering and leaving external workplaces, where the technology has been implemented, reducing the threat of COVID-19 spreading. If there is an alert, the employee is denied access, isolated and Farnek management is informed instantly. ■

Liebherr launches Remote Service App

LIEBHERR HAS DEVELOPED a remote service tool for crawler cranes, deep foundation equipment and maritime cranes that improves assistance through visual information, so leading to faster and easier troubleshooting. Audio and video calls, a chat function, screen sharing, image and document exchange, as well as whiteboarding functions are some of the features that have been integrated in the tool. These enable real-time, fast and effective customer support from Liebherr experts worldwide.

Throughout the last 12 months, Liebherr has tested the tool in remote locations and challenging situations in order to meet and adapt to customer requirements. During this phase, a lot of experience has been gained and a high level of positive feedback has been received.

Due to the current pandemic situation worldwide, Liebherr has decided to accelerate the market launch of Remote Service in terms of an extended test phase. This means all Liebherr customers now have the opportunity to use the Remote Service App free of charge until the end of 2020. A laptop, tablet or smartphone and an internet connection are all that are needed.

Kyocera's tooling solutions ensure stable and safe cutting

KYOCERA HAS UNVEILED innovative tooling solutions to achieve high-performance cut-off solutions and strong clamping mechanism, increasing safety and security.

The MFWN miniseries is a smaller version of the original cutters, which also offer excellent performance and tool life.

According to Kyocera, when it comes to cutting operations in general, the workpiece can be difficult to secure which leads to rigidity and chattering issues. Therefore, the cutting speed is usually low at the workpiece rotation centre. Also, tools tend to be broken easily by chip troubles. All these issues are long gone with the KPK series as it features a new insert, blade and a tool block design for rigid, safe and speedy cut-off operations in the fields of steel, stainless steel, cast iron and aluminium. Due to the easy insert replacement, the downtime is reduced to a minimum.

Hamm introduces next generation pneumatic tyre rollers

WITH THE HP series, Hamm presents a new generation of pneumatic tyre rollers.

The series is full of technical innovations and advances – particularly in relation to the platform of the operator, the water and additive sprinkling system and the ballasting process. The company said the HP series will replace the existing GRW series worldwide by the end of 2020.

For the HP series, Hamm has developed a common platform for all model variants in every market throughout the world. Hamm will continue to produce various basic versions of the pneumatic tyre rollers. First, there are the models of type HP 180 and HP 180i with operating weights of eight tonnes to a maximum of 18 tonnes.

Second, there are the HP 280 and HP 280i models with operating weights ranging from 10 tonnes to 28 tonnes maximum. Here, HMM provides the specific models for the individual markets to suit the locally relevant weight classes and equipment variants.

The new HP series pneumatic tyre rollers also offer a modern, spacious operator platform or panoramic cabin with maximum visibility over the machine and construction site.

In terms of machine design, Hamm sticks to the proven concept of asymmetric frames in the HP series. Not only is this a hallmark, it is a quality advantage, because it follows the offset track between the front and rear wheel sets and always



Photo Credit: HAMM

HP series offers considerable latitude with its variable ballasting concept.

allows a clear view of the front and rear wheel outer flanks.

HMM also offers a supplementary water tank with a volume of 1,500 l for all HP series models. It may be used as a water reservoir for the sprinkling system, but also serves as an easily quantifiable, flexible supplementary weight. Operation of the supplementary tank is remarkably easy because it is connected to the basic water tank by means of interconnecting pipes.

To facilitate fast refilling, the developers have provided a C-pipe connection to complement conventional filling. It enables the entire tank to be filled in around three minutes. A pump is also fitted to allow complete discharge.

Oil-free turbo blowers from Kaeser

PILLAERATOR TURBO BLOWERS from Kaeser Kompressoren are developed for high air demand aeration processes in biological water treatment applications. Using advanced technology, they can provide energy-efficient and reliable operation to assure low life cycle costs.

With flow rates from 50 to 275 m³/min and differential pressures up to 1.3 bar, Kaeser turbo blowers can be used wherever low pressure process air is required. Turbo blowers provide the solution for delivery of large volumes of air necessary for aeration in industrial and municipal wastewater treatment settings. They are equally well-suited to other industrial applications, such as flotation, fermentation, fluidisation and the generation of blowing air for air knives.

The turbo impeller is directly driven by a high-speed motor inside a shaft supported by magnetic bearings, which makes the system completely wear-free. This means no lubrication is required, saving time and costs



Photo Credit: Kaeser

Pillaerator turbo blowers from Kaeser provide exceptional efficiency and are completely wear-free.

when it comes to maintenance. Smart magnetic bearings, which are protected against unexpected power failure, actively control the rotor position so as to maintain it within its orbit, even in the event of fluctuating operating parameters. The bearings operate independently of speed, allowing a wide control range.

Safety for smart power supply

THE EFEN BRAND caters to industrial, infrastructure and power supply sectors with expertise in safety interfaces for energy distribution systems according to the International Electrotechnical Commission (IEC) and German Institute for Standardisation (DIN) standards. As a specialist for safe and intelligent grid operation, the company offers systems and solutions from a single source.

Its solutions help distribute electric energy, protect people and investments and ensure intelligent grid operation. Solutions from EFEN are Smart Grid Ready and ensure a stable, safe and smart energy supply for meeting current and future requirements, providing reliable grid operation and safe shutdown in case of overload or short circuit.

Enhanced grid stability

The requirements for energy distribution in terms of usage, functionality and structures are ever changing. Power grids are subject to the severe deviations in energy flow caused by renewable sources. In the future, grids will also be challenged by electric vehicles drawing power at charging stations.

Transparent energy flows are a prerequisite for the stability of smart grids. Accordingly, actual grid states must be combined in a smart manner in order to match supply and demand. This is essential in order to balance the strongly fluctuating energy flows caused by volatile power sources on the one hand and consumption peaks caused by the steadily increasing number of



Photo Credit: Adobe Stock

Transparent energy flows are a prerequisite for the stability of smart grids.

electric vehicles drawing power for recharging on the other hand.

To allow grid operators to make cost-efficient adjustments to the infrastructure, it is necessary to continuously measure and monitor the dynamic loads in the distribution grids.

With the EFEN Smart Grid Interface Module, metering points can be implemented at strategic points in distribution grids, easily and at low costs.

www.efen.com

New Pressure Washer Attachment for Bobcat Loaders



Photo Credit: Bobcat

The new attachment is versatile, as the operator can either operate the sprayer from the cab or with a handgun.

BOBCAT HAS LAUNCHED the new Pressure Washer Attachment for Bobcat loaders, joining the Bobcat family of more than 100 different kinds of original attachments.

Designed to spray high pressure water on city streets, roads or any other suitable surfaces, the plug and play design of the new pressure washer attachment ensures that it is quick and easy to connect with the Bobcat loader, allowing the operator to begin work with the new attachment immediately.

There are three different Pressure Washer Attachment models – the 250S, 250M and 250L – to match different Bobcat loaders and to meet the specific requirements of the many different applications for the attachment which include: Roadwork and construction, disinfecting to protect against Covid-19 or any other kind of sanitisation, cleaning furniture in parks and urban streets, maintaining railways, bridges and tunnels, cleaning animal or poultry sheds and cleaning many types of machinery.

www.technicalreview.me

Peter Berghaus GmbH

Safety products for work zones

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Manitowoc rolls out Potain MCT 275 at China factory

EXPANDING ITS POPULAR MCT range of topless cranes built in China, Manitowoc has launched Potain MCT 275. As with other cranes in the range, the MCT 275 can deliver easier transport and assembly, plus efficiency and reliability on construction projects. The company unveiled the crane during a virtual launch event at Manitowoc's factory in Zhangjiagang, China, where the 10-tonne version of the MCT 275 was displayed with its full 70 m jib. This new model has taken advantage of the advances and innovation Manitowoc made with the introduction of the MCT 325 and was largely inspired by it.

"With the increasing popularity of precast concrete construction, topless cranes like the MCT 275 are becoming the go-to solution for the speed and simplicity they bring to job sites," said Kwong-Joon Leong, regional product manager, Tower Cranes, Manitowoc. "The topless design allows multiple units to overlap on site and with the MCT 275 we're giving customers a new choice in the 10-tonne and 12-tonne range. With its standout 70m jib, we believe this crane will appeal to a wide range of companies and projects."

Available in two versions, the MCT 275 offers jib length configurations from 30m up to an 70m, in increments of 5m. At its 70m jib end, the MCT 275 can handle 2.3-tonne for the 10-tonne version and 2.2-tonne for the 12-tonne version.

On a well-prepared site, the MCT 275 can



Photo Credit: Manitowoc

The MCT 275 will ultimately replace the MC 235 model, a long-serving and popular hammerhead top-slewing crane.

be setup within 1.5 days, with the full jib and counter-jib erected in four lifts. The complete upper part of the crane can be transported in six containers.

The MCT 275 is designed to work with the 2m x 2m L68 mast systems and can be utilised with fixing angles on a regular high-

rise construction project. Users can assemble the crane in an internal climbing configuration or mounted on a chassis, for maximum versatility.

As with all Potain cranes, customers have a variety of options for the hoisting, slewing and trolley mechanisms.

Haulotte expands its RTJ telescopic range

DESIGNED FOR WORKING in challenging environments and tackling the most demanding projects, the HT16 RTJ O/PRO shares the same design and performance characteristics as the other models in the Haulotte RTJ range. Incorporating Haulotte safety standards and latest innovations, the new telescopic boom provides a dual platform capacity along with four-wheel steering and is ideal for work up to 16 metres high.

The latest addition to the RTJ range is an outdoor telescopic boom designed for versatile applications: heavy construction, finishing, maintenance, sports and other events. It perfectly combines efficiency with excellent all-terrain ability.

The new RTJ machine offers a weight capacity of 250kg. For applications requiring heavy equipment, the dual-load option increases the basket load capacity to 350kg. Haulotte's new telescopic boom can elevate the operator to the work area quickly (less than one minute to full height), thanks to quick and simultaneous movements associated with a 360° turret rotation. The mechanical axle drive allows for the use of a smaller, simpler engine (24hp/18.5 kW) while maintaining the same performances as other RTJ booms. The telescopic boom eliminates the need for a Diesel Oxidation Catalyst (DOC). In STAGE V regulated countries, there is also no requirement to use a Diesel Particulate Filter



Photo Credit: Haulotte

HT16 RTJ O/PRO is designed for versatile applications: heavy construction, finishing, maintenance, sports and other events. designed for versatile applications: heavy construction, finishing, maintenance, sports and other events.

(DPF). It benefits from an automatic start-and-stop system, stopping the engine after an idle period of 90 seconds. The engine restarts instantly when the deadman pedal is pressed. This integrated innovation means reduced operating costs and improved residual value as fuel consumption is reduced up to 20 per cent. It also increases the comfort of MEWP workers and people nearby thanks to reduced pollution and noise annoyances.

Construction Buyers' Guide 2020

The Middle East's annual where-to-buy guide

Section One: Listings by category

Section Two: Suppliers of construction & mining equipment and services

Section Three: Contact details of Middle East agents & subsidiaries listed by country

Section One: Listings by category

AIR COMPRESSORS

Cummins Middle East FZE
Doosan Portable Power
General Navigation and
Commerce Co. (GENAVCO) LLC
Rotair Spa

Diesel Driven

Doosan Portable Power
FG Wilson
Kaeser Kompressoren FZE
Perkins Engines Company Limited
Rotair Spa

Electric

COELMO spa
Kaeser Kompressoren FZE

Petrol Driven

Kaeser Kompressoren FZE
Rotair Spa

BUILDINGS

COELMO spa
INMESOL, S.L.

COMPONENTS AND SPARE PARTS

COELMO spa
Liebherr-Export AG
Marini S.p.A.
Van der Hilst International b.v
WIRTGEN GROUP, Branch of
John Deere GmbH & Co. KG

CONCRETE EQUIPMENT

Iveco Astra
Liebherr-Export AG
Vortex Hydra S.r.l.

Batching Plant

Ammann Group
CIFA S.p.A.
Lintec and Linnhoff
Parker Plant Ltd.
Vortex Hydra S.r.l.

Block/Tile - Making Equipment

Vortex Hydra S.r.l.

Breakers

Bobcat
Doosan Portable Power

Concrete Pumps

CIFA S.p.A.

Formwork

PASCHAL-Werk G. Maier GmbH
PERI
RMD Kwikform UAE
Sucoot Co., LTD

Mobile Mixing Plant

Lintec and Linnhoff
Parker Plant Ltd.

Pipe Making Equipment

MB Crusher

Recycling

Liebherr-Export AG

Concrete Equipment - Other

Bobcat
CIFA S.p.A.
Doosan Portable Power
Lintec and Linnhoff
Vortex Hydra S.r.l.

CONSTRUCTION VEHICLES

Caterpillar
General Navigation and
Commerce Co. (GENAVCO) LLC
Goldhofer AG
Iveco Astra
Liebherr-Export AG
Perkins Engines Company Limited
Zahid Tractor & Heavy Machinery
Co. Ltd.

Dump Trucks and Haulers

Balkrishna Industries Ltd. (BKT)
Caterzo Astra

Engines, Components and Accessories

Caterpillar
COELMO spa
Jubaili Bros
Perkins Engines Company Limited
Van der Hilst International b.v
Volvo Penta

Site Dumpers

Caterpillar

Tractors

Caterpillar
Goldhofer AG

Trailers

Cometto S.p.A.
FAYMONVILLE DISTRIBUTION AG
Goldhofer AG
SCHEUERLE FAHRZEUGFABRIK
GMBH

Construction Vehicles - Other

Caterpillar
Iveco Astra
Liebherr-Export AG

CONSULTANCY SERVICES

Cummins Middle East FZE
Imeco Handelsgesellschaft M.B.H.

DEMOLITION EQUIPMENT

Bobcat
Doosan Portable Power
Liebherr-Export AG
MB Crusher

Components and Accessories

Van der Hilst International b.v

Drilling Machinery and Plant

Imeco Handelsgesellschaft M.B.H.

Piling

Imeco Handelsgesellschaft M.B.H.

Trenching and Pipe Laying

Imeco Handelsgesellschaft M.B.H.
Liugong Dressta Machinery sp. z o.o.

Tunnelling

Imeco Handelsgesellschaft M.B.H.
Liebherr-Export AG

Drilling - Other

Doosan Portable Power

EARTHMOVING EQUIPMENT

Bobcat
Caterpillar
General Navigation and
Commerce Co. (GENAVCO) LLC
Iveco Astra
Liebherr-Export AG
Liugong Dressta Machinery sp. z o.o.
MB Crusher
Perkins Engines Company Limited
Zahid Tractor & Heavy Machinery
Co. Ltd.

Attachments and Accessories

Bobcat
Caterpillar
MB Crusher
Van der Hilst International b.v

Backhoe Loaders

Balkrishna Industries Ltd. (BKT)
Bobcat
Caterpillar

Dozers

Caterpillar
Liebherr-Export AG
Liugong Dressta Machinery sp. z o.o.

Dumpsters

Liebherr-Export AG

Excavators

Bobcat
Caterpillar
Liebherr-Export AG
Yanmar Europe B.V.

Loaders - Other

Bobcat
Caterpillar
Liebherr-Export AG
Yanmar Europe B.V.

Mini-Excavators

Bobcat
Caterpillar
Liebherr-Export AG

Motor Graders

Balkrishna Industries Ltd. (BKT)
Caterpillar

Scrapers

Caterpillar

Skidsteer Loaders

Balkrishna Industries Ltd. (BKT)
Bobcat
Caterpillar

Earthmoving Equipment - Other

Bobcat
Caterpillar
Liebherr-Export AG
Telestack

Equipment

Jubaili Bros
Vortex Hydra S.r.l.

Services

PASCHAL-Werk G. Maier GmbH

LIFTING EQUIPMENT

General Navigation and
Commerce Co. (GENAVCO) LLC
Hi-Force Ltd.
Liebherr-Export AG
Perkins Engines Company Limited

Components and Accessories

Hi-Force Ltd.
Van der Hilst International b.v

Cranes

Balkrishna Industries Ltd. (BKT)
Liebherr-Export AG
Rabiah & Nassar Group

Hoists

Liebherr-Export AG

Hydraulic

Hi-Force Ltd.

Jacking Equipment

Hi-Force Ltd.

Mechanical

Hi-Force Ltd.

Pneumatic

Doosan Portable Power

Telescopic Handlers

Bobcat

MOBILE POWER SUPPLY UNITS

Altaaqa Global Energy Services
Cummins Middle East FZE

Doosan Portable Power
FG Wilson
INMESOL, S.L.
Jubaili Bros
KOHLER-SDMO
Linz Electric S.p.A.
Mahindra Powerol - Mahindra &
Mahindra Ltd.
SAB, Standard Aggregatebau
Evers GMBH & CO. KG
Visa S.p.A.

PUMPING EQUIPMENT

General Navigation and
Commerce Co. (GENAVCO) LLC
Mahindra Powerol - Mahindra &
Mahindra Ltd.
Visa S.p.A.

Concrete

CIFA S.p.A.
Liebherr-Export AG

Truck Mounted

CIFA S.p.A.

Pumping Equipment - Other

Yanmar Europe B.V.

Crushing, Screening and Washing

MB Crusher
Parker Plant Ltd.
Rockster Austria International
GmbH
Telestack
WIRTGEN GROUP, Branch of
John Deere GmbH & Co. KG

Quarrying

Doosan Portable Power
Liebherr-Export AG
Liugong Dressta Machinery sp. z o.o.
Telestack

ROAD BUILDING EQUIPMENT

Bobcat
Caterpillar
Doosan Portable Power
Liebherr-Export AG
WIRTGEN GROUP, Branch of
John Deere GmbH & Co. KG

Asphalt Plant

Ammann Group
Lintec and Linnhoff
Marini S.p.A.
Parker Plant Ltd.

Compaction Equipment

Ammann Group
Caterpillar
Doosan Portable Power

Pavers

Ammann Group
Caterpillar

Recycling

Lintec and Linnhoff
Marini S.p.A.
MB Crusher
Telestack

Road Marking

Peter Berghaus GmbH
Rotair Spa

Rollers

Ammann Group
Caterpillar

Road Building Equipment - Other

Bobcat
Caterpillar
Doosan Portable Power
Liugong Dressta Machinery sp. z o.o.
Marini S.p.A.

Peter Berghaus GmbH
Rotair Spa
Zahid Tractor & Heavy Machinery
Co. Ltd.

SOFTWARE

PASCHAL-Werk G. Maier GmbH

STEEL

Hypertherm Europe b.v
Valbruna Gulf FZE

Fabrication and Structures

Hypertherm Europe b.v
Kirby Building Systems

Steel - Other

Hypertherm Europe b.v

TOOLS

Doosan Portable Power
Hi-Force Ltd.
Hypertherm Europe b.v

Hydraulic

Hi-Force Ltd.

Mechanical

Hi-Force Ltd.

Pneumatic

Doosan Portable Power
Hi-Force Ltd.

Tools - Other

Hi-Force Ltd.
Hypertherm Europe b.v

OTHER SITE EQUIPMENT AND MATERIALS

Bobcat
COELMO spa
Cummins Middle East FZE
Doosan Portable Power
FG Wilson

Lighting Masts/Towers

Doosan Portable Power
INMESOL, S.L.

Jubaili Bros
KOHLER-SDMO
Mahindra Powerol - Mahindra &
Mahindra Ltd.
SAB, Standard Aggregatebau
Evers GMBH & CO. KG
Visa S.p.A.
Yanmar Europe B.V.

Sand Blasting Equipment

Doosan Portable Power
Rotair Spa

Scaffolding

PASCHAL-Werk G. Maier GmbH
PERI
RMD Kwikform UAE
Sucoot Co., LTD
Wilhelm Layher GmbH & Co KG

Welding Equipment

INMESOL, S.L.
KOHLER-SDMO
Linz Electric S.p.A.

USED EQUIPMENT

Caterpillar
Visa S.p.A.
Vortex Hydra S.r.l.

RENTAL EQUIPMENT

Altaaq Global Energy Services
Caterpillar
Cummins Middle East FZE
FG Wilson
Hi-Force Ltd.
INMESOL, S.L.
Jubaili Bros
Peter Berghaus GmbH
RMD Kwikform UAE
Rotair Spa
Visa S.p.A.
Zahid Tractor & Heavy Machinery
Co. Ltd.

ALTERNATORS FOR GENSETS

Linz Electric S.p.A.

Section Two: Suppliers of construction & mining equipment and Services**Altaaq Global Energy Services**

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Dubai, United Arab Emirates
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9505

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Web: www.altaaqglobal.com
E-mail: info@altaaqglobal.com

Agents:
South Africa - Altaaq Global Energy Services

Ammann Group

Eisenbahnstrasse 25
Langenthal, 4901, Switzerland
Tel: +41 62 9166161
Fax: +41 62 916402

Web: www.ammann.com
E-mail: info.aag@ammann.com

Agents:
United Arab Emirates - Ammann NME FZE

Balkrishna Industries Ltd. (BKT)

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Fax: +91 22 66663898
Web: www.bkt-tires.com
E-mail: mena@bkt-tires.com

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Bobcat

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Cluster I, Level 18, Office 1802, Dubai
United Arab Emirates
Tel: +971 4 2767206
Fax: +971 4 2767204
Web: www.bobcat.com
E-mail: gaby.rhayem@doosan.com

Agents:

Bahrain - Yusuf Bin Ahmed Kanoo Co. WLL
Egypt - Otrac Heavy Equipment
Iraq - Vara Company for General Trading LTD
Jordan - Arab Equipment Trading Co. (Bobcat)
Kuwait - Bahrah Trading Co. WLL
Lebanon - Tracksparco Ltd.
Libya - Danah for Import of Road Equipment and Heavy Machinery LLC
Oman - International Heavy Equipment LLC
Saudi Arabia - General Trading & Machinery
United Arab Emirates - Kanoo Company LLC
Yemen - Blue Triangle Trading LTD

Cat Lift Trucks

Hefbrugweg 77
Almere
z1332 AC
Netherlands
Tel: +31 36 5494411
Web: www.catlifttruck.com
E-mail: info@catlifttruck.com

Agents:

Bahrain - Mohamed Abdulrahman Al-Bahar Bahrain
Iraq - Mantrac Group Iraq (Cat)
Jordan - Jordan Tractor & Equipment Co. Ltd. (Cat)
Kuwait - Mohamed Abdulrahman Al-Bahar Kuwait
Lebanon - M. Ezzat Jallad & Fils (Lebanon)
Oman - Oasis Trading & Equipment Co. LLC
Saudi Arabia - Zahid Tractor & Heavy Machinery Co. Ltd.
United Arab Emirates - Mohamed Abdulrahman Al Bahar Al Ain
United Arab Emirates - Mohamed Abdulrahman Al Bahar Dubai
United Arab Emirates - Mohamed Abdulrahman Al-Bahar Abu Dhabi
United Arab Emirates - Mohamed Abdulrahman Al-Bahar Sharjah
Yemen - The Tehama Trading Co. (CAT Lift Trucks)

Caterpillar

PO Box 262147
Jebel Ali Free Zone (South)
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United Arab Emirates
Tel: +971 4 8106464
Web: www.cat.com

Agents:

Bahrain - Mohamed Abdulrahman Al-Bahar Bahrain
Egypt - Mantrac SAE
Iraq - Iraqi Co. for Machinery and Equipment Service (Cat SRL)
Jordan - Jordan Tractor & Equipment Co. Ltd. (Cat)
Kuwait - Mohamed Abdulrahman Al-Bahar Kuwait
Lebanon - M. Ezzat Jallad & Fils (Lebanon)
Oman - Oasis Trading & Equipment Co. LLC

Saudi Arabia - Zahid Tractor & Heavy Machinery Co. Ltd.
United Arab Emirates - Mohamed Abdulrahman Al Bahar Dubai
United Arab Emirates - Mohamed Abdulrahman Al-Bahar Abu Dhabi
United Arab Emirates - Mohamed Abdulrahman Al-Bahar Sharjah
Yemen - Tehama Trading

CIFA S.p.A.

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E-mail: info@cifa.com

CIFA is a company that for more than 90 years has been designing, producing and distributing innovation in the concrete field. It is a full liner with a complete range of products for production, transportation and laying of concrete. CIFA belongs to the Zoomlion group.

Agents:

United Arab Emirates - Zoomlion Gulf FZE

COELMO spa

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Agglomerato Industriale ASI
Acerra (NA), 80011, Italy
Tel: +39 081 8039731
Fax: +39 081 8039724
Web: www.coelmo.it
E-mail: sales@coelmo.it
info@coelmo.it

Agents:

United Arab Emirates - COELMO (DMCC Branch)

Cometto S.p.A.

Via Cuneo, 20
12011 Borgo San Dalmazzo (CN), Italy
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Fax: +39 0171 26 63 35
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E-mail: cometto@cometto.com

Cummins Middle East FZE

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United Arab Emirates
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Fax: +971 4 8860518/9
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E-mail:
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Doosan Portable Power

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Fax: +971 4 2767204
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www.doosanportablepower.com
E-mail: gaby.rhayem@doosan.com

Agents:

Bahrain - Mohammed Jalal & Sons WLL
Egypt - Otrac Heavy Equipment Co. (Doosan Portable)
Egypt - Triangle Heavy Equipment
Ethiopia - My Wish Enterprises PLC
Iraq - Tristar Co. Iraq
Jordan - Toolbox
Kuwait - Bahrah Trading Co. WLL
Lebanon - Tracksparco Bachalani SARL
Libya - Gunny Oilfield Services
Mauritius - Prime Plant Company Limited
Saudi Arabia - Saudi Diesel Equipment
Saudi Arabia - The Machinery Group LLC
United Arab Emirates - Al Futtaim Auto & Machinery Co. LLC
United Arab Emirates - Saudi Diesel Equipment
Yemen - Blue Triangle Trading LTD

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General Navigation and Commerce Co. (GENAVCO) LLC

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United Arab Emirates - Ebrahim Al Shaker Industrial
Equipment Trading LLC
United Arab Emirates - Hi-Force FZE
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Agents:

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Jordan - Global Brand For Trucks Ltd.
Kuwait - Kuwait Automotive Imports Co. W.L.L.
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Oman - International Integrated Equipment LLC
Pakistan - Adam Motors
Pakistan - Master Motors Corporation Ltd.
Palestine - TOMECO - Tower Mechanical Equipment
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United Arab Emirates - Al Ghandi Automotive Group
United Arab Emirates - United Alsaqer Heavy
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Kuwait - Al Boom Marine Co.
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Kuwait - Al-Mahhar Al-Kuwaitiya for Light and Heavy Equipment and Machines
Lebanon - Cyber Roads
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United Arab Emirates - GENAVCO LLC
Yemen - AFCO for Heavy Equipment

Yanmar Europe B.V.

YANMAR

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Zahid Tractor & Heavy Machinery Co. Ltd.

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Section Three: Agents & subsidiaries in the Middle East

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Transworld Group signs strategic partnership deal with DP World

TRANSWORLD GROUP HAS announced a strategic partnership with DP World and its subsidiary Unifeeder Group, with an aim to strengthen its position as a leading shipping and logistics conglomerate. Unifeeder, through its Unifeeder ISC platform, will acquire three business units of Transworld Group. These include Transworld Feeders FZCO, Avana Logistek Limited (including its subsidiary Avana Global FZCO) and Transworld Feeders Pvt Ltd. The acquisition is subject to regulatory approval.

Transworld Feeders FZCO and Avana Global FZCO are leading independent feeder and non-vessel operating common carriers (NVOCC) operators, offering container feedering services and regional trade solutions connecting a wide range of ports in the region. The central hub port at Jebel Ali (UAE) plays a pivotal role for a large part of the services.

"The acquisition of three of our portfolio companies will provide DP World and Unifeeder ISC a robust platform to jointly deliver a more complete range of solutions to our customers. We are excited to be part of the DP World family and look forward to building on our continued legacy as a globally renowned independent shipping and logistics conglomerate," according to Ramesh S Ramakrishnan, chairman of Transworld Group and Shreyas Shipping and Logistics Limited.

Sultan Ahmed Bin Sulayem, group chairman and CEO, DP World, added, "Our Unifeeder ISC (Indian Subcontinent) platform will continue to operate an asset-light, independent common-user platform, as we continue to build the Unifeeder brand, which is best known for efficient connectivity, flexibility and reliability."

Both the companies have a strong presence within trade routes west of the Indian subcontinent and complement the recent acquisition of Feedertech and Perma Shipping.

Software AG partners with du to boost IoT implementations in UAE

SOFTWARE AG AND du, from Emirates Integrated Telecommunications Company (EITC), have partnered to provide a subscription-based licensing model for IoT services to its business customers.

The collaboration aims to enable Software AG and du to address complex IoT implementations for organisations in UAE. These businesses are set to benefit from rapid application development features, reduced time to deployment and IoT analytics and dashboard of their IoT data.

The partnership is expected to empower customers to freely design, build, deploy and upgrade IoT applications with agility and flexibility, combining cloud, on-premise and edge deployment models.

Additionally, the platform is set to drive IoT across major industries of government, healthcare, utilities, manufacturing, transport and automotive, enabling them to track assets and improve logistics and gather data from smart city applications to make peoples' lives easier.

Farid Faradooni, deputy CEO for the enterprise solutions, EITC, said, "Software AG's global expertise to build new functionalities for telcos through IoT adoption fits perfectly with our strategy to deliver comprehensive IoT solutions for the UAE market. The move will bolster UAE's IoT adoption across SMEs, large organisations and the government. This reflects our efforts to enhance UAE's position as a regional innovation hub."

Philippe La Fornara, president EMEA, Software AG, stated, "IoT services can help organisations to not only achieve greater insights into their business, but also to build their digital resilience. Data is the heartbeat of a business today, so the task of gathering, analysing and acting upon it should be a top priority."

Epiroc presents mobile underground core drilling rig

EPIROC IS LAUNCHING the second-generation underground core drilling rig with a mobile carrier. It utilises the drilling capacity of the Diamec Smart 6 and mobility and sturdiness of the Boomer S2 rig carrier. It is purpose-built for demanding underground operations with an extremely stable yet flexible boom. The drilling capacity of the Diamec Smart 6M equals that of the Diamec Smart 6, meaning that the deep hole version is rated for 1080 m hole depth. For drilling vertically up the number is 575 m.

"We have three different rotation unit options for the Diamec Smart 6M, from A to H size. The strongest one offers as much as 2390Nm of rotation torque which gives our customers the ability to achieve their required depth even in difficult rock conditions," said Ebrahim Nikafroozi, global product manager for underground core drilling rigs at Epiroc.

The new rig features a Rod Handling System (RHS) for increased operator safety and productivity. It has the capacity to handle drill rods and inner tubes. The Rod Handling System is fully synchronised with the drill rig through the Rig



Photo Credit: Epiroc

Control System (RCS) and is operated from the control panel.

The Rig Control System offers a number of useful features including automatic functions. It is fully compatible with exploration manager for advanced data collection and analysis.

The cabin of the Diamec Smart 6M is safe and comfortable with its FOPS/ROPS certification and air condition. The control panel can be moved in and out of the cabin which allows for the operator to stay in the cabin while drilling.

The options offered for the new Diamec Smart 6M are developed to meet customers' demands on the global market. These are; Tier 3 and Tier 4 Final/Stage V engine, rear-view camera, LED spotlights, and fire suppression system.

Komatsu launches ZT44 blasthole drill for mining-duty applications

KOMATSU'S NEW ZT44 blasthole drill is a down-the-hole surface drill rig specifically designed for mining-duty applications. This track drill is a versatile machine, used for pre-split, production, auxiliary and any other application the end user demands. The ZT44 can offer higher reliability and production due to its purpose-built structures and dual-setting compressor, adaptable to varying hardness conditions.

Additionally, the blasthole drill provides flexibility and smaller footprint to excel in the quarry, aggregate or construction environments. Equipped with a dual-pressure air compressor enabling high- or low-pressure drilling, the machine can efficiently adjust to changing drilling conditions to still achieve optimal performance.

Paired with a power unit, the ZT44 is ready for a variety of work locations, including challenging elevations where production often drops off. A tough chassis and accompanying structures mean you will not need to worry about shortened component life

from longer work windows, while the smaller footprint of the machine means it still provides the flexibility of drilling in locations that can't be accessed by larger rigs.

Better pulling capacity allows the ZT44 to move around unstable ground and tackle steeper grades than other OEMs.

A wireless remote pendant supports a safer environment for routine maintenance. The operator can remotely position the rig and position the boom or mast efficiently to change out consumables.

An external catwalk and handrails provide accessibility around the machine for routine maintenance and an internal walkway through the canopy provides access to internal componentry, such as the engine and compressor.



Photo Credit: Komatsu

Siemens presents building automation controllers

SIEMENS SMART INFRASTRUCTURE has launched its new building automation controllers Desigo PXC4 and PXC5 to transform buildings into high-performing, energy efficient assets.

The new generation of Desigo building automation controllers offers a wide range of benefits for automating small and medium-sized buildings to get the most flexible and scalable building automation.

With the new, licence-free Desigo Engineering Framework, devices can now be seamlessly integrated in the same framework for intuitive engineering.



Photo Credit: Siemens

The new Desigo controllers are the first of a new range of building automation controllers that expand and strengthen the Desigo system.

Features such as open by design for successful integration of different protocols and easy wireless access facilitate building automation. Both controllers were designed to expand and strengthen the Desigo portfolio and focus on one specific automation element - the Desigo PXC4 for HVAC plants and Desigo PXC5 for system functions and integration.

The new controllers were simultaneously released with the Desigo Engineering Framework, which consists of the HIT Portal, a web-based planning and selection tool; the engineering and commissioning tool ABT Site for PC users and the commissioning tool 'ABT Go' app for mobile use. The framework doesn't require a license and can support the building throughout its entire lifecycle.

With a wide number of pre-configured functions as well as program blocks and various example sites, the engineering tool ABT Site offers simplified programming to highly reduce engineering complexity. Due to the open by design approach, multiple protocols can be integrated and mixed easily. With this setup, projects can now be processed easier, faster and more reliably - on-site or remotely.



باستخدام الطائرات المسيرة بدون طيار يستطيع المقاولون جمع البيانات في دقائق

ومع قدرة الطائرات بدون طيار على مسح حتى أكثر المواقع خطورة والمواقع النائية في غضون دقائق معدودة، يمكن للمقاولين الحصول على لقطات وصور بيانات تفصيلية من مكابهم دون تكبد أي عناء. كما يمكن لهذه المركبات الجوية الصغيرة إرسال معلومات دقيقة محدثة مباشرة إلى جهاز حاسوب لتقييم المسار السريع.

وأضاف بو راشد قائلاً: «يمكن لقطاع الإنشاءات في المملكة العربية السعودية التقدم أكثر - بكل تأكيد - من خلال استخدام الطائرات المسيرة بدون طيار. إذ يمكن أن تكون التكنولوجيا التي تمتلكها حيوية حقا في توفير النفقات الإضافية والوقت والجهد على الشركات. كما يمكنها المساعدة في الحفاظ على رفاهية وأمن وسلامة العمال وكذلك توفير بيانات أكثر دقة دون الحاجة إلى إنفاق فلس واحد أو إضاعة وقتهم».



ربيع
بوراشد

وفيما يتعلق بتفتيش موقع البناء، قال بو راشد إن الشركات لم تعد بحاجة إلى جمع قوة عاملة ضخمة وقضاء عدة أيام فقط لتقييم كل بقعة من المشروع والتي في كثير من الأحيان تشكل مخاطر وقوع حالات سقوط بين العمال.

توفير الوقت والمال

وأوضح بو راشد أن الطائرات المسيرة بدون طيار يمكن أن تساعد في خفض النفقات بنسبة تصل إلى 11,8 في المائة فيما يتعلق بمراقبة تطوير مشروع البناء، وذلك يعزى سببه إلى أن تقنية الطائرات المسيرة بدون طيار تسمح لهم باكتشاف الزلازل والأخطاء على أساس منتظم. وأضاف قائلاً إن قدرة الطائرات المسيرة بدون طيار على مراقبة حالة البناء بشكل ثابت، من خلال الرحلات المتكررة والخرائط الجوية الدقيقة، عالية الجودة والدقة. وعلاوة على ذلك يمكن أن تساعد المديرين في تحديد التحديات المحتملة دون عناء قبل أن تتفاقم المشاكل. كما أنها توفر على الموظفين خمس ساعات في الأسبوع تُهدر في اجتماعات لا داعي لها.

وقال: «يمكن أن تساعد الطائرات المسيرة بدون طيار في تجنب الأخطاء المكلفة لأنها تساعد المطورين على التعرف على الأخطاء والزلازل فيما قبل وأثناء البناء، والتي إذا تركت دون رادع يمكن أن تضع عبئا على ميزانية المشروع لاحقاً». مشيراً إلى أن هذا يمكن أيضاً أن يقلل من إعادة العمل اليدوي بنسبة 25 في المائة. وعندما يتعلق الأمر بالمضي قدماً في المشاريع بسرعة، أكد بو راشد على أن الطائرات المسيرة بدون طيار تساعد المطورين على توفير ساعات أو حتى أيام فيما يتعلق بتخطيط الموقع. وأضاف أنه قبل الطائرات المسيرة بدون طيار كانت الشركات تحتاج إلى استئجار طائرة هليكوبتر والتحليق فوق المناطق لمجرد التقاط الصور ورسم خريطة الموقع. وباستخدام الطائرات المسيرة بدون طيار يمكن للمقاولين جمع البيانات المطلوبة في غضون دقائق بالإضافة إلى تقليل حجم إهدار الوقت بنسبة تصل إلى 18,4 في المائة. بالإضافة إلى ذلك، ذكر الرئيس التنفيذي إن الإنتاجية بين العمال ستعزز بشكل أكبر إذا استخدمت الطائرات المسيرة بدون طيار بالكامل في مشروعات البناء. وذكر بو راشد إن المركبات الجوية الصغيرة يمكن أن تقلل الوقت الذي تقضيه في جرد المهام بنسبة 32 في المائة، وزيادة معدل الإبلاغ عنها بنسبة 25 في المائة.

مفكرة الفعاليات 2020

سبتمبر/أيلول

دي

معرض إدارة المرافق

16 - 14

أكتوبر/تشرين الأول

دي

معرض تقنيات المياه والكهرباء - ويتكس

28 - 26

نوفمبر/تشرين الثاني

دي

معرض التعدين

18 - 17

التأكيد على السلامة ودقة البيانات

تتجه العديد من شركات الإنشاءات في دول مجلس التعاون الخليجي إلى استخدام الطائرات المسيرة بدون طيار، ليس فقط بسبب ميزاتهما الموفرة للمال والوقت ولكن أيضاً بسبب السلامة التي توفرها للمقاولين والعمال، وفقاً لما أدلى به الرئيس التنفيذي. وقال «لقدرتها على العمل من خلال اتصال بشري أقل وتوفير بيانات دقيقة جعلت من الممكن لهذه الشركات ضمان السلامة الكاملة في عملياتها خاصة وأن العالم يواجه الآن أزمة صحية عالمية».



شهد قطاع الإنشاءات في السعودية نموا ملحوظا في الربع الأول من العام

استخدام الطائرات المُسيّرة بدون طيار في قطاع الإنشاءات بالسعودية

سيشهد قطاع الإنشاءات في المملكة العربية السعودية انتعاشا أسرع باستخدام الطائرات المُسيّرة بدون طيار في ظل الإعداد «المعتاد الجديد» والذي لا يزال يتطلب اتخاذ تدابير وإجراءات السلامة بما في ذلك التباعد الاجتماعي. هذا وفقا لما ذكره السيد ربيع بو راشد، الرئيس التنفيذي لشركة «Falcon Eye Drones» - المورد الرائد في الشرق الأوسط لتكنولوجيا الطائرات المُسيّرة بدون طيار وتكنولوجيا البيانات والتحول الرقمي.

التقرير أن «الربع الأول من عام 2020 شهد نموا إيجابيا في قطاع الإنشاءات والإسكان». وقال ربيع بو راشد إن الزخم يمكن أن يبدأ باستخدام الطائرات المُسيّرة بدون طيار. وأن القائمين على صناعة البناء في دول مجلس التعاون الخليجي، ممن يستخدمون الطائرات المُسيّرة بدون طيار في إنجاز مشاريعهم مع الحفاظ على رفاهة العاملين فيها في ازدياد، مشيرا إلى أنهم ينظمون الأنشطة بوتيرة أسرع وأكثر اقتصادا ودقة من عملية البناء التقليدية.

توفير بديل فعال لضمان استمرارية عمليات قطاع البناء مع ضمان الصحة والسلامة العامة».

ويبين تقرير حديث صادر عن وزارة الإسكان بالمملكة العربية السعودية ارتفاع نمو القطاع بنسبة 8,03 في المائة في عام 2019 بعد مشاريعه الكبرى بما يتماشى مع «رؤية المملكة العربية السعودية لعام 2030». وعلاوة على ذلك فقد ساهم في زيادة الناتج المحلي الإجمالي للمملكة بنسبة تصل إلى 12,6 في المائة. بالإضافة إلى ذلك أكد هذا

قال بوراشد إن الطائرات المُسيّرة بدون طيار هي أداة ضرورية لضمان استمرارية عمليات البناء في المملكة العربية السعودية، والتي فيها قد ازدهر قطاع الإنشاءات على مدار السنوات الماضية. وتحدث أيضا قائلاً: «لقد شكّل الوباء تحديا كبيرا لقطاع الإنشاءات في المملكة العربية السعودية، والذي كان يتطلب في السابق عددا كبيرا من العمال. وبما أن المملكة بها انتشار للمرض يعتبر مصدر قلق كبير، فإنه يمكن أن تساعد الطائرات المُسيّرة بدون طيار على

المحتويات

القسم العربي

تحليلات

استخدام الطائرات المُسيّرة بدون طيار في قطاع الإنشاءات بالسعودية ٤



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الوكيل البريدي بالولايات المتحدة: النشرة التقنية - الشرق الأوسط
Technical Review Middle East ISSN 0267 5307
تشرها ست مرات في العام، لقاء 99 دولاراً أمريكياً، شركة آلان تشارلز للنشر
Alain Charles Publishing , University House, 11-13 Lower Grosvenor Place, London, SW1W 0EX, UK
يتم سداد ثمن المجلات لدى: Rahway, NJ

مدير البريد: أرسل التصحيحات إلى: Alain Charles Publishing Ltd, c/o Mercury
Airfreight International Ltd, 365 Blair Road, Avenel, NJ 07001. US
Agent: Pronto Mailers International, 200 Wood Avenue, Middlesex, NJ 08846

الإنتاج: سريدي شيكارز، نلي مينديز، باكشيت شيفاكومار
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رئيس مجلس الإدارة: دريك فوردهام

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في خدمة شركات المنطقة منذ ١٩٨٤

UK £10, USA \$16.50

التقرير السنوي للإنشاءات 2020

طائرات مسيرة بدون طيار في قطاع الإنشاءات

اتجه العديد من شركات الإنشاءات في دول الخليج إلى استخدام الطائرات المسيرة بدون طيار من أجل خواصها الموفرة للمال والوقت