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NOVEMBER 2019

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ARRIVAL OF THE DIGITAL FACTORIES

3D printing technology is transforming the production floor by offering additive and subtractive equipment as well as innovative printing substrates.



Ashish Panjabi,
COO Jacky's.

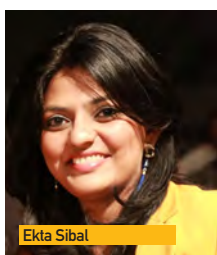


Latik Gupta,
Head of Enterprise,
Jumbo Group.



Geneva Murphy, Micro Focus

WHY TRANSFORMATION IS LESS OF FORKLIFT AND MORE OF COEXISTENCE WITH LEGACY



Ekta Sibal

SUPER ACHIEVERS ARE ALWAYS TRANSFORMING THEMSELVES



Jay Walder, CEO Virgin Hyperloop One

VIRGIN HYPERLOOP TO CREATE 124,000 TECH JOBS IN SAUDI ARABIA



Jad Hajj, Strategy&

ONLY 15% EMEA COMPANIES TO CREATE DIGITAL ECOSYSTEMS IN 5 YEARS



Jeff Youssef, Oliver Wyman

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3D printing is becoming into a serious business in the country. In this month's cover feature, Jumbo Group's Latik Gupta and Jacky's Ashish Panjabi, cover the terrain in terms of how this technology is going to disrupt manufacturing and the shop floor in the country. While we have robotic arms and other mechanical devices, automating industrial functions and other role plays, digital printing techniques have always coexisted with other industrial technologies.

3D printing uses two types of production techniques. One is a process of adding layers of special substrates like metal, fibre glass, carbon fibre, ABS, while following a 3D distribution model, to build a complete product, in a very efficient manner. The other is to chip away at a body of a substrate, to render and complete the product in 3D. We are seeing rapid innovation in both these areas. According to Ashish Panjabi, these two innovation cycles are coming together, and the result is the emergence of a completely new form, the digital factory.

Adding teeth to the adoption cycle are various showcases, mandates and directives by the Dubai Government's vision and thought leadership teams. In 2025, based on Dubai Municipality's regulations, every new building in Dubai will be 25% 3D printed. Dubai Health Authority has committed to regulating and setting the standards to the use of the technology in the health sector, and will explore the use of 3D printed prosthetic limbs, 3D printed teeth, and 3D printed hearing aids in public clinics and hospitals. And in Dubai, the Office of the Future is the most advanced 3D printed building in the world.

To drive competency and skills at the grass root level, the Jumbo Group has set up an impressive facility. The Jumbo 3D Manufacturing's Application Development Centre, serves as a proof of concept for early adopters as well as acts as an initiative to develop a community of professionals involved in 3D manufacturing in the UAE. The objective is to pool knowledge, design capability, skills and resources to create an ecosystem for faster adoption of 3D printing technology in the country.

Also, in this issue are must read, thought leadership opinions by Gartner's Paul Proctor on Eight reasons why a CEO can be fired after a breach; Ektaa Sibal's on why Super achievers are always transforming themselves; and Regus' Katerina Manou on how A leader's digital style can transform the workplace.

If you are a top CIO in UAE or GCC and have missed registering for the Global CIO Forum being held on 09-10 December, please do send me an email. The rest of the 200+ CIOs, we look forward to meeting and engaging with you at Ras Al Khaimah.

Happy event and happy networking.

Arun Shankar
arun@gecmmediagroup.com

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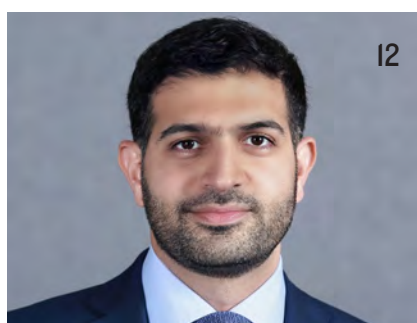
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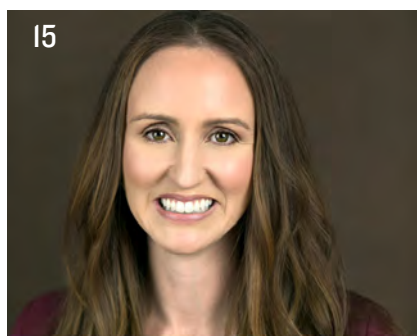
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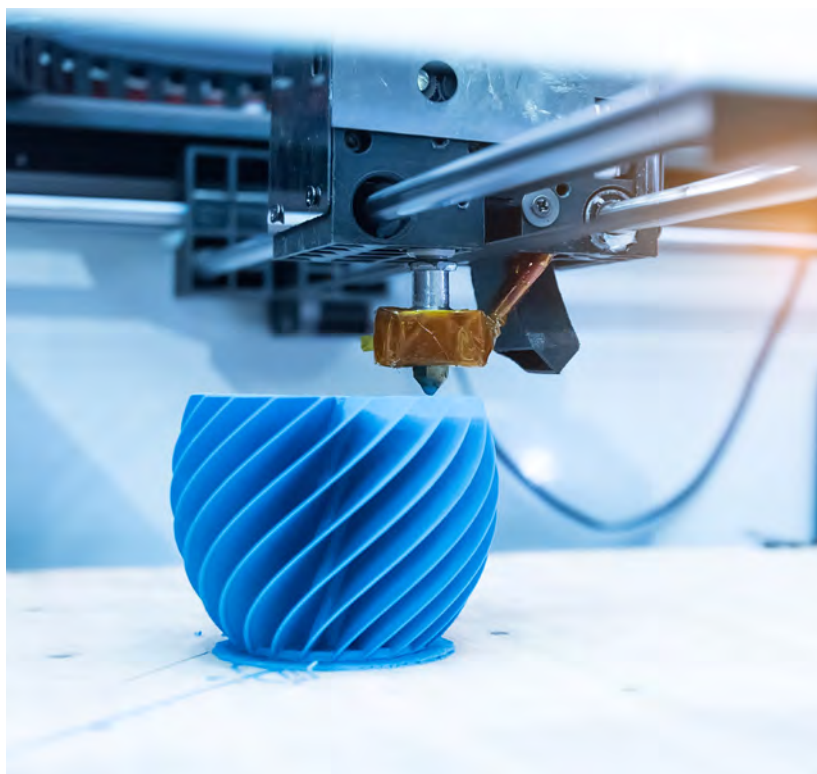
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EIGHT REASONS WHY A CEO CAN BE FIRED AFTER A BREACH

An organisation's security is a combination of process legacy and myopia, for which the CEO alone is not responsible, explains Paul Proctor at Gartner.



PAUL PROCTOR,
Distinguished VP Analyst, Gartner.

CEOs are increasingly blamed and punished as a result of cybersecurity-related events — even more so than IT executives. The consequences include dismissal, resignation or loss of significant compensation.

Here are eight reasons why more CEOs will be fired over cybersecurity breaches. Addressing them will make a security programme more defensible, not against bad guys but with key stakeholders, so they are satisfied with the organisation's security approach.

#1 INVISIBLE RISKS

Businesses make decisions every day that negatively impact their security readiness, for example, refusing to shut down a server for proper patching, or choosing to keep working on old hardware and

software to save budget. CIOs need to be sure that invisible systemic risk is recognised, reported and discussed in governance processes.

#2 CULTURAL DISCONNECT

While organisations have understood for more than a decade that security is a business problem, they continue to struggle with approaching it as one. Its treatment remains largely a technical problem, handled by technical people and buried in IT, even though it has been presented in the boardroom at least annually for years.

#3 THROWING MONEY

You cannot buy your way out, and you still will not be perfectly protected. Avoid negatively impacting business outcomes by raising ongoing operational costs and potentially damaging the ability of the organisation to function.

#4 THE DEFENDER

Security staff are hired because they are experts and their job are to protect the organisation. This places people in charge of protecting business outcomes they do not understand.

#5 HIRE TO FIRE

Accountability means that a decision to accept risk is defensible to key stakeholders. If accountability means that someone will get fired if something goes wrong, no one will engage.

#6 POOR RISK STATEMENTS

Organisations create generic high-level statements about their risk appetite that do not support good decision making. Avoid promising to only engage in low-risk activities. This is counter to good business and creates another good reason to fire you if you engage in risky activities.

#7 ROB THE BANK

Blaming an organisation for getting hacked is like blaming a bank for getting robbed. The difference is that the banks are defensible — most organisations are not. When a headline-grabbing security incident happens, society just wants heads to roll. While this is not fair, it is the result of decades of treating security as a black box. Society is not going to change until organisations and IT departments start treating and talking about security differently.

#8 HOW TRANSPARENT?

One can witness countless interactions with organisations that have boards and executives who do not want to hear or acknowledge that security is not perfect. Some board presentations are filled with good news about the tremendous progress that has been made in improving security, with little or no discussion about where gaps and opportunities for improvement exist.

IT and non-IT executives alike must be willing to understand and talk about the realities and limitations of how security works, to tackle the challenges. ■

A graphic of a hand with a finger pointing up, overlaid with a blue circular digital interface and a fingerprint pattern, symbolizing security and identity.

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SUPER ACHIEVERS ARE ALWAYS TRANSFORMING THEMSELVES

Super achievers adapt to their environment and new challenges while striving for holistic success, explains gifted energy healer, Ekta Sibal.



Ekta Sibal is an International Inner Self, Transformation Specialist and an International Meditation Expert, Speaker and a Gifted Energy Healer with inborn intuitive abilities.

A super achiever is one who achieves more than what is expected. They do things above and beyond what an average person may or can do. They have the same 24 hours in a day, yet they manage to use those hours much more effectively.

As they are internally driven, they flourish and succeed in almost all the areas of life. Be it physical or mental health, business or career, or, social life and relationships –

super achievers manage all these dimensions in an exceptionally good way.

There are two foundational values that all super achievers have in common which are consistency and never give up attitude. These values direct an individual towards the mindset of success.

Super achievers believe in being consistent in all the actions that are productive and have a positive impact on their life. Consistency is all about doing the right things over and over again till it becomes a habit.

While super achievers may look like picture perfect individuals, it is not that they have not failed in life. However, what makes them different even while facing an adversity is that they accept every hardship and failure as a learning process. And their attitude to never give up and to remain consistent becomes the reason for them to develop into super achievers at work or life in general.

While the above values are the basis of becoming a super achiever, there are some habits that you can also follow. Here are the traits that an average person can embrace to become a super achiever.

EVOLVE CONSTANTLY

To create success in your life, it is important to always learn and adapt to your changing environment. To become a super achiever, one needs to tackle problems and solve it not by the same strategy but by thinking

out of the box and without any fear of changes.

MORNING ROUTINE

Highly successful people pay a lot of attention to having a morning routine. And when the morning rituals include meditation as an everyday exercise, it has proven to create a deep impact on becoming a super achiever.

COMFORT ZONE

Success happens when you challenge yourselves and convert those challenges into opportunities. Success and growth come to those who are willing to go through discomfort and be uncomfortable when they try something new.

CREATE HAPPINESS

Finally, remember happiness leads to holistic success, and it is not the other way around. If you are happy from within, you will always be motivated to become more successful. And super achievers do not seek that happiness externally but they create that happiness internally which is not dependent on anyone, or any situation.

So, when you are seeking happiness always look within to create it, and creating this happiness will lead to holistic success that super achievers always aim for! ■



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A LEADER'S DIGITAL STYLE CAN TRANSFORM THE WORKPLACE

The digital traits of a team leader are often followed and help to build the digital culture of the workplace, explains Katerina Manou at Regus.



KATERINA MANOU,
Regus, Regional Vice
President.

KEY TAKEAWAYS

- So much of a workplace culture is dictated by the traits and values of whoever is in charge.
- Those who support business leaders, usually feel the need to fall in line with their boss's digital habits.
- Having a digitally enlightened workplace is becoming vital for retaining talent.
- The rise of flexible working culture is helping to fuel the digitalisation of the workplace.

So much of a workplace culture is dictated by the traits and values of whoever is in charge. If a company director recognises the benefits of a four-day working week, or going paper-free, for example, they are more likely to make it part of company policy. But perhaps one of the most obvious ways that a leader's traits become enshrined in a business is in its digital culture.

Those who support business leaders – such as executive assistants – usually feel the need to fall in line with their boss's digital habits. This may mean they need to adopt some new skills quickly – be that mastering the art of coordinating zoom meetings at the drop of a hat or acquainting themselves with the ins and outs of a salesforce.

Or, at the other end of the scale, they could find themselves reining in their personal digital hacks and reverting to logging schedules on Excel spreadsheets rather than their preferred time management software.

Either way, there is no denying that the new way of working requires the digital transformation of many businesses from top to bottom. As well as the physical tools we need to get our jobs done – the virtual workspaces we occupy. A challenge for executive assistants is to have a chameleon-like ability to adapt to a company's digital culture. And a challenge for companies across the world is to move with the times to avoid falling behind.

The rise of flexible working culture

is helping to fuel the digitalisation of the workplace. As companies embrace the benefits of remote working, recruiting team members in different countries – or even different continents – and setting up in flexible workspaces rather than traditional offices, the reliance on technology is increasing. And it is forcing companies to take a long, hard look at the systems they have in place to see if they are up to scratch.

Another added pressure is the fact that Generation Z is now entering the workplace. Unlikely to recall a time before Wi-Fi, with an intuitive knack for getting to grips with new tech, studies show that out-of-date IT processes are one of the main factors that would cause frustrated Gen Z employees to look for a new job. Therefore, having a digitally enlightened workplace is becoming vital for retaining talent.

By staying informed about how workplace technology is evolving, businesses and the executive assistants who support them, can keep up with the demands of their company's operations, newest employees and the pace of office technology internationally.

Executive assistants can play their part in the digital transformation of their workplace by streamlining processes they are in charge of, and encouraging others to do the same. By setting an example, and exploring and embracing new technology, those who support their business's core processes can make a real difference. ■

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HOW TO GET RETURNS FROM DIGITAL TRANSFORMATION

Mohamad Awad at AVEVA draws attention to four ways on how to generate a return from digital transformation especially across industrial areas.



MOHAMAD AWAD,
Vice President Middle East, North
Africa and Pakistan, AVEVA.

Digital transformation is the buzzword across the Middle East, as organisations seek to leverage its benefits. Whether it is smart governments or capital-intensive industries such as manufacturing and aviation, the opportunity to streamline operations and deliver enhanced returns has become evident as the benefits of new technology become apparent.

The region's oil and gas sectors are no different. For an industry that has played a pivotal role in effecting change across societies, digitalisation

offers significant advantages. Data intelligence and optimisation, for example, can catch asset failures before they have a chance to wreak significant damage.

In a major utility with over 60+ plants in six states, including coal, simple cycle combustion turbines, combined cycle and integrated gasification combined cycle plants, predictive asset analytics software can flag up a single early warning of a crack in a turbine rotor, saving over \$7.5 million.

Digital transformation pays for

itself many times over particularly in an economic environment, where capital budgets and overheads are constantly being reduced even as new competitors enter the market and energy producers are faced with spiraling manufacturing costs and lower margins.

Not only does digitalisation power new and better customer experiences, but it exploits value creation across asset and operations lifecycles – improving profitability, maximising shareholder value and offering an enhanced competitive edge.

KEY TAKEAWAYS

- Digital transformation is a constant journey towards continuous process improvement that involves people, processes and assets.
- Modern digital platforms must deliver returns across the entire value chain of the enterprise.
- Digital transformation pays for itself many times over particularly where capital budgets and overheads are being reduced.
- Digitalisation powers better customer experiences and exploits value creation across asset and operations lifecycles.

But even as the promise of digital transformation becomes apparent, decision makers are faced with a bewildering array of emerging technologies.

Pivotal technologies such as cloud computing, the industrial Internet of things, digital twins, and augmented and virtual reality are presaging the next industrial revolution. Each offering significant advantages and enterprise benefits. In such scenarios, how can producers in the upstream market, pipeline operators in the midstream market and refineries in the downstream market ensure they make the right technology investments for their business?

And the reality is that digital transformation does not always succeed. McKinsey research highlights that 70% of complex, large-scale change programmes do not reach their stated goals because organisations are unaware of just how to effect lasting conversions.

Success does not have to always involve an engineering degree. There are four simple technology pillars that can forecast the impact of a new solution and ensure optimum ROI when taken together.

#1 ACROSS THE VALUE CHAIN

Modern digital platforms must deliver returns across the entire value chain of the enterprise. Technology investments must enable the digital integration of engineering, planning and operations, control, visualisation, information and asset performance solutions to create a 360-view, from the shop floor to the top floor.

Solutions that deliver only partially should be considered in the context of the business unit they benefit and not confused with broad-based applications.

#2 OPEN SOLUTIONS

Interoperability and cross-platform support accelerate a path towards continual process improvement. Rapidly sharing big data and insights across multiple platforms including

cloud, mobile, augmented and virtual reality requires open, system agnostic technology solutions that augment rather than rip and replace existing asset investments.

An open, system agnostic approach to digital transformation drives long-term value and lowers total cost of ownership.

#3 DIGITAL ECOSYSTEMS

Technology investments should be backed by a multidisciplinary ecosystem of knowledge partners. Such networks should include capabilities of planning, design, development, delivery, maintenance and support of industry-specific solutions on a global scale.

Ecosystem partners may include software developers, technical distributors, system integrators, OEM providers and technology partners, all of whom must be focused on extending value and driving innovation across industries.

#4 AGILE IMPLEMENTATION

Adapting to unforeseen events becomes automatic through flexible technology implementation options. True digital transformation platforms provide the ability to choose between several deployment options, including on premise, cloud or hybrid rollouts. Agility in procurement options allows organisations to obtain the required tools through several options, including perpetual licensing or subscription-based services.

Solutions for implementing technology on an as-needed, staged approach help reduce upfront costs and decrease the time-to-value of new investments while accelerating a path toward increased profitability.

Digital transformation is part of a constant journey towards continuous process improvement that involves the collaboration of people, processes and assets through new technology. When correctly deployed, it bridges the operations and knowledge gap to yield enterprise-wide efficiencies and increase capital returns. ■



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WHY MANUFACTURING NEEDS TO INNOVATE USING CLOUD

After successfully adopting cloud, manufacturing is struggling to drive innovation from the cloud, writes Kerrie Jordan from Epicor Software.



KERRIE JORDAN,
Director of Cloud Product
Management and Product
Marketing, Epicor Software.

Although cloud is an accepted part of everyday operations within the manufacturing industry, making the most of it can still be a challenge, and leading to many businesses using it, but not necessarily unlocking its true potential. According to recent research, a staggering 84% of those within the manufacturing industry view investment in the cloud as hugely important in delivering their overall growth strategy.

However, despite this, only

17% consider cloud a strategic investment, with only a third 31% saying they make significant use of cloud applications today.

With traditional manufacturers often steeped in legacy, on-premises technology, the advent of cloud-based platforms provided a cost-effective and smooth way to embrace digital transformation and transition from outdated systems to innovative applications.

It levelled the playing field and gave companies of all sizes the ability to compete—whether they were a new kid on the block, whose systems were born out of agile and scalable technology platforms, or a traditional manufacturer who was investing in the cloud to keep up with old adversaries and new counterparts.

Today, spending on public cloud services is still a huge growth area for manufacturing, with IDC predicting that discrete manufacturing in particular will spend more than \$20 billion on it this year, accounting for more than one third of the worldwide total spend. Process manufacturing will spend an estimated \$15 billion. With so much being invested in cloud-based services, it is vital to get the most out of every penny spent.

Cloud technologies are certainly accessible and more affordable.

However, is the ease with which manufacturers can get up and running with new technology and applications coming at a cost? With cloud being the new normal, is the industry in fact leaping first and looking later?

For all the benefits it can bring, unless cloud technology is adopted in the right way, businesses will struggle to make the move towards digital transformation work.

Gartner suggests that despite cloud being one of the most valuable innovations in current IT and business strategies, it can fail to live up to expectations and is often misunderstood. The analyst firm predicts that as a result, through 2020, 95% of cloud security failures will be due to customers not understanding cloud security, or the skills necessary for successful cloud implementation.

This sentiment is reflected in research, with a quarter 26% of the people admitting they lack understanding when it comes to cloud technologies.

The cloud is not simply about being able to compete, but to differentiate. However, there is currently a gap between using and really utilising all of the benefits afforded by cloud, in order to make this ideal a reality.

UNLESS CLOUD IS ADOPTED IN THE RIGHT WAY, BUSINESSES WILL STRUGGLE TO MAKE THE MOVE TOWARDS DIGITAL TRANSFORMATION WORK.

Key steps need to be taken to help get the balance right between enabling innovative technologies and using the cloud to your advantage. This can only be done from a position of trust and knowledge, to take cloud-based services from playing a purely functional role to becoming a strategic part of business success and growth.

Understanding the potential is vital in reaping the benefits. As well as providing business agility and the ability to adopt innovative technology fast, using a cloud-based model can improve operational visibility, analysis and insights. This means that manufacturers can react more quickly to changing market conditions and customer demands, as well as make business decisions based on deeper insight not just intuition.

Taking enterprise resource planning ERP as an example, a cloud-based solution not only provides flexibility and scalability but can also empower IT departments to support more strategic growth initiatives by giving them time to focus on more value-added tasks.

Keeping pace with innovation can be easily achieved with upgrades to services taking place quickly and with minimal upheaval.

General International, a provider of specialized engineering services to the UAE and Africa market, is just one example of a company which has used cloud-based ERP to help

transform and grow its operations. The cloud-based ERP solution will open the door to new found efficiencies in business continuity, cybersecurity and risk management, as well as offer the benefit of 24x7 support and disaster recovery.

The cloud model is also expected to deliver up-to-the-minute upgrades, faster time to value, as well as significantly lowering capital and human resource investments.

However, managing any change should also be high on the agenda to ensure it achieves business objectives. Getting buy-in and making sure users understand the technology and how to get the most out of it is vital. As well as unlocking value to aid business growth, using cloud-based services can also help companies realise environmental obligations, by harnessing the collaborative power of the cloud and saving energy as a result.

Adopting cloud is just the first step. Unlocking its potential is where the real value comes in. ■

KEY TAKEAWAYS

- There is currently a gap between using and really utilising all of the benefits afforded by cloud.
- A quarter 26% of the people admitted they lack understanding when it comes to cloud technologies.
- Key steps need to be taken to help get the balance right between enabling technologies and using the cloud to your advantage.
- Adopting cloud is the first step, while unlocking its potential is where the value comes in.

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GOVERNMENTS MUST USE AI WITH CITIZEN DATA LAKES

Big Data lakes that contain information about citizens are suited for analytics driven by artificial intelligence explains Shukri Dabaghi from SAS.



SHUKRI DABAGHI,
Vice President Middle East and
Eastern Europe, SAS.

One of the maxims of governments all over the world has long been doing more with less. To strengthen their competitiveness, nations today are under pressure to adopt the Fourth Industrial Revolution technologies such as artificial intelligence, machine learning, and automation more effectively.

Why do Governments need to be competitive? They compete to attract

investment, as well as to consistently deliver on an ever-widening range of services to an increasingly tech-savvy population. There is one key resource, however, that governments definitely do not lack; and that is data.

According to projections by Seagate in its recent research, the Europe, Middle East and Africa datasphere will increase to 48.3 Zettabyte in 2025. To visualise the vastness of this number, think of it as greater than the estimated number of grains of sand in the entire Arabian Desert!

That the region will generate this much data from everyday citizen actions should not be surprising – the Middle East is one of the most digitally connected regions in the world, with smartphone penetration above 100% in some GCC states, and some of the world's highest social media usage rates.

Governments in the region have plenty of big data to work with, and doing more with it requires the power of advanced data analytics. Put simply, big data analytics enables governments to examine large amounts of data to uncover hidden patterns, correlations, and other insights, and effectively convert the swathe of data into a platform for artificial intelligence.

Governments must be able to separate the relevant from the insignificant and the public from the confidential to ensure effectiveness and excellent stewardship. Analytics is the key to unlocking the true

artificial intelligence value hidden in this ever-growing data.

While governments have been collecting data for years, they have been slow to realise the benefits they could realise from it. The opportunity is in unifying data silos so that government leaders can pinpoint the intelligence in their data. The artificial intelligence capabilities that are now enabled on big data – the big-picture view of what is happening, why it happened, and what is likely to happen next – enables authorities to build connections across agencies that help to better serve citizens.

A recent example is how the Abu Dhabi Judicial Department applied artificial intelligence-based analytics solutions to make the most of its data and deliver value by enabling quicker and better decision-making. The department implemented machine learning capabilities to easily identify and segment customers, process their requests in a timely manner, enable more informed decision-making using analytics, improve access to data, enhance the quality and consistency of its judgements, and prepare customised, real-time reports for the management and customers.

By using tools such as artificial intelligence and machine learning, administrators can gain deeper insights across a wide spectrum, and go as specific as individual sectors and even organisations. For instance, healthcare authorities are using artificial intelligence on data

ACROSS SECTORS AND FOCUS AREAS, ARTIFICIAL INTELLIGENCE IS SLATED TO BE A TREMENDOUS DISRUPTOR TO THE PUBLIC SECTOR.

KEY TAKEAWAYS

- The analytical insights you can gain from your stores of big data can improve outcomes that have a direct impact on citizens.
- We are moving from smart devices to smart cities, with Dubai and other cities in the region focusing on digitising their services.
- There is one key resource, that governments definitely do not lack, and that is data.
- The opportunity is in unifying data silos so that government leaders can pinpoint the intelligence in their data.
- The big-picture view enables authorities to build connections across agencies that help to better serve citizens.
- According to Gartner, artificial intelligence will stimulate 2.3 million new jobs by 2020.

gathered from hospitals, research institutes and other bodies to nip epidemics early, by detecting patterns in reported illnesses, determining the best response and care, and enforcing preventive measures.

The amount of data available to governments is only going to increase. Interconnectivity and interoperability between smart devices are growing and producing even more data, helping to drive the Internet of Things IoT. We are moving from smart devices to smart cities, with Dubai and other cities in the region focusing on digitising their services.

One of the big fears around a growing reliance on artificial intelligence is the potential impact on jobs, with the very mention of automation immediately throwing up fears that long-held jobs may be eliminated. While this may be true in certain instances, it is by no means at the scale that many fear.

According to Gartner, artificial intelligence will stimulate 2.3 million new jobs by 2020. HSBC Bank has identified a number of new job titles, including algorithm mechanic, conversational interface designer and digital process engineer, that could become commonplace in the future.

Whether spurring the Government to take action in preparation for the labour market of the future, or actually preparing employees for tomorrow's work environment, we once again turn to analytics to understand the best tasks to automate, the processes to digitise,

and the roles to modernise.

A recent EMEA survey commissioned by SAS states that nearly three-quarters of organisations 72% claim that analytics helps them generate valuable insight and 60% state their analytics resources have made them more innovative. Greater use of analytics-powered intelligence in workforce planning will enable government employees to serve the public more effectively.

Across sectors and focus areas, artificial intelligence is slated to be a tremendous disruption to the public sector. Whether tackling national health issues, responding to a local disaster, protecting against the loss of sensitive information or intellectual property, or simply making government more efficient, the analytical insights you can gain from your stores of big data can improve outcomes that have a direct impact on citizens.

The data revolution has transformed the world as we know it. It is disruptive, exciting, and, let us face it, a bit overwhelming! It is, however, a significant opportunity for governments to become more data-driven and forever change the way they serve their citizens. ■

Key takeaways on digital transformation from Gitex 2019

Top executives from the ICT industry spoke to Editor, Arun Shankar on video, about how transformation is impacting go to market and end-customers. Excerpts.



ANDY HEATHER,
Vice President and General Manager EMEA, Centrify.

For end users adopting Privileged Access Management for the first time, the initial step recommended by Centrify is to build a password vault and to start exercising control over passwords. Adoption of Privileged Access Management is dependent on the internal pain points that the organisation has gone through, and Heather points out a lot of end users are not doing much in this area.



ALAIN KADDOUM,
General Manager Logistics Automation Middle East, Swisslog.

Automation in the warehouse works well, where the requirement is precision of picking, high volume throughput, speed and reduction of cost. Swisslog supplies a warehouse management system and is active in the UAE and Saudi Arabia. Along with the automation solution, Swisslog offers integration management, project management, and site support. Its products are manufactured in USA, Europe and China.



ALEXANDER WALLNER,
Senior Vice President and General Manager EMEA, NetApp.

The adoption of artificial intelligence is similar to what Big Data was three years ago. The adoption of artificial intelligence is very business critical, because for a lot of companies it could bring competitive advantage compared to their competitors. Being strong in artificial intelligence is very strategic. It is a C-level talk, and there is high interest in its investments.



ALP UYSAL, Vice President Strategy, Technology, Innovation and GIR, Middle East and Africa, Ericsson.

Ericsson is investing in eco system partnerships, which includes 20 universities and 40 industrial leaders. We are investing to test out new use cases that will be enabled through high throughput, low latency and massive connectivity that 5G will enable. As leaders in the 5G space, we are setting up the landscape for the industry to take advantage of.



ASHISH PANJABI,
COO Jacky's.

Innovation is taking place in materials being used for 3D printing. Jacky's is using humanoid robots to enhance its visitor management systems. The investment being made by Jacky's is to support software development and hardware upgrades for the Pepper range of humanoid robots.



CLAUDE SCHUCK,
Regional Manager Middle East, Veeam.

Availability, backup and recovery around virtualisation was Veeam's act one in their product journey. Act two for Veeam is doing the same things around cloud and hybrid platforms. Everyone is going to cloud and everyone should be going there. All 5,000 installed, end customers in the Middle East have Veeam Cloud Connect that is enabling them to move workloads to the cloud.



DMITRY DOSHANIY,
General Manager, NNTC.

Face recognition is possible in the field with computer vision enabled spectacles that have a two-way stream of video data. The wearable server with the application and data is carried by the person in the field, reducing the response time and allowing quick, on the spot actions. The application software can support multiple images cues such as missing people, blacklist, and number identification.



EMILE ABOU SALEH,
Regional Director, Middle East and Africa, Proofpoint.

The vendor is focusing on an organisation's biggest threat and assets, which are its people. We help organisation's protect people. With digital transformation, the threat landscape has changed and threats actors are targeting people or whoever has access to data to get what they want. Executives such as the financial controller are targeted. Everyone is targeted more after digital transformation.



FRANCIS MESTON,
Group Executive Vice President, CEO MEA, Atos.

In the past Atos may have relied on its outsourcing and managed services contracts with large enterprises and government accounts. But this model is changing not only in the GCC but globally as well. Digital transformation requires a much quicker response time, and time to market agility. The rigid contracts of outsourcing, that are not very flexible, and are very structured, do not work for digital transformation.



GAUTAM AHUJA,
Commercial Director, DGWORLD.

While there is a need for humanoid robots in society, they will never replace industrial robots. Humanoid robots are required for customer engagement, information taking and information sharing. Saudi Arabia has become the first country to grant citizenship to a robot. When DGWORLD was first started with a robotics division, people were skeptical, since robots had never been used. The division was started for selling industrial robots with arms.



HOZEFA SAYLAWALA,
Director of Sales Middle East, Zebra.

Retail omni channel is driving transformation in the logistics industry. Omni channel is making the retail industry meet the fulfilment demands of customers more quickly and more efficiently. In the past, the logistics and retail industry functioned on the basis of consolidation of shipments, now it has changed to 1-2 SKUs being shipped out on the same day.



JIHAD TAYARA,
CEO Evoteq.

Evoteq is moving to a consultative approach of institutionalising all its services and offerings. Tayara points out that the system integrator does not offer its customers a set of predefined services and products. We help the customers in their journey. This is really where digital transformation is and how it should be tackled, he says.



JOACHIM AERTEBJERG,
DIRECTOR TECHNICAL SOLUTION SALES EMEA, INTEL.

Intel with NNTC is enabling a wearable device that can help in safety and crowd control uses. The wearable is based on an additional image displayed inside the glass, that is based on computation happening on a wearable PC. Inside the wearable PC are Intel processors and new memory technologies like persistent memory technology, that allows faster data processing and more data capacity.



KHWAJA SAIFUDDIN AHMAD,
Senior Sales Director Middle East,
Western Digital.

The vendor is bringing the edge, close to the end point. Generically the core and the edge are two distinct areas of computing. With Western Digital's latest 1TB micro SD card, suitable for mobile connected devices, the application and the storage are resident on the same card. Imagine if all data being created by body worn cameras could be analysed as it was created.



MANSOOR SARWAR,
Regional Technical Director, Sage
Middle East.

Regional customers are adopting the cloud platform as a race to outperform their competitors. Five years ago, cloud skeptics dominated the crowd majority - today they are a minority. The driving need for regional end customers is to make sure their systems are future proof and to ensure their technology is cutting edge. The race to outpace competitors is around superior customer experience.



MARCUS JOSEFSSON,
Nozomi Networks Director, Middle East,
Africa and Russia.

Transformation is taking place across industrial control system. With the advances in digitalisation, operational technology and IP digital systems are converging and getting integrated. The vendor's product suite is helping end users to secure industrial control systems and the design of product architecture.



MARWAN BINSHAKAR,
Vice President Access and Transport
Planning Operations, du.

Telecom network architectures need to be modified to support 5G operations and their use cases. Preparations need to be made well in advance to prepare for the transition to 5G, right to the core of the telecom datacentre.



MAYA ZAKHOUR,
MEA Partners and Pathways Lead,
NetApp.

The NetApp portfolio of products is being transformed to meet the requirements of digital organisations. Alliance partners such as NVIDIA play a critical role for artificial intelligence applications, and the use cases of the connected and autonomous vehicles. As the partner community progresses with transforming the end user community, there are opportunities and challenges along the way.



MENA MIGALLY,
Senior Director Middle East,
Riverbed.

Riverbed has been adapting its portfolio of products and solutions to meet network and application requirements of digital organisations. Riverbed is gearing up to deliver anything and anywhere, and the demand for improving the performance of the network and user experience of applications, through software defined controls, is going through the roof.



MIROSLAV KAFEDZHIYEV, Vice
President and General Manager, Middle
East, Russia, Custom Union, Turkey,
Central Asia, Africa, Honeywell.

The logistics industry is facing challenges from digital transformation. Honeywell is boosting the migration away from legacy Windows Mobile based terminals to Android based connected terminals. Honeywell is giving end customers the choice of selecting middle range type terminals with multiple hardware and operating system upgrades and refreshes or a more expensive hardware with only software refreshes.



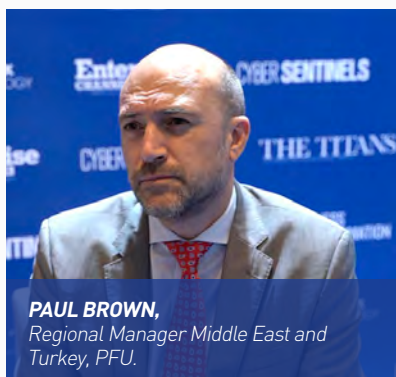
NELLY BOUSTANY,
Senior Director EMEA South,
HCM Value, SAP.

Organisations need to decide what is the culture they want to have in order to survive and sustain their business. They need to rethink the way they do things inside the organisation. Does the new world require more agility? Are the internal processes too complex to move fast enough? Change is therefore a combination of culture, revisiting the business and human processes, and finding the technology to enable those processes.



NICK JHENG,
Regional Manager Middle East,
Synology.

Synology supports the integration of 7,000+ IP cameras from 100+ vendors in its Synology NAS surveillance software. This software can be managed through notebooks or mobile devices says Jheng. As a scalable solution, the biggest Synology NAS can manage 100 IP cameras per machine. To scale further, Synology CMS software server is used to manage recording servers. In Saudi Arabia, Holiday Inn is managing 500 IP cameras using Synology CMS Software.



PAUL BROWN,
Regional Manager Middle East and Turkey, PFU.

The vendor is innovating its workflow and document management product suite in the face of strong competition around it. Brown stresses that the quality of the vendor's imaging is a key differentiator and is also boosting its role in integrating with process automation initiatives taking place in the enterprise.



RAJESH GANESAN,
Vice President Product Management, ManageEngine.

The vendor has kept pace with the changing nature of the IT organisation and has continuously innovated its suite of products to reach the current number of 90+. Ganesan points out that the vendor's double-digit growth in revenue is less important than the growth of product features and the growth of customer numbers.



SAMEER AREFF,
COO, SAP Middle East South.

SAP products are driving process transformation across the region. Areff points out the importance of capturing the contextual side of data creation in driving analytics associated with any process inside an organisation.



STEPHANIE WILLEMS,
Vice President of Sales EMEA, Belkin.

A joint market opportunity is being created across the three brands Linksys, Belkin, and Phyn. Our view of the world is quite holistic and not limited to the Belkin brand alone. We believe in seamless interconnected experiences that enhance the lives of consumers. Eventually the experiences of using these products are expected to interconnect. The cloud applications that support these experiences will be interconnected.



TODD FORSYTHE,
Senior Vice President and Chief Marketing Officer, Veritas.

The challenges of managing the growth of organisational data silos can slow down the process of digital transformation. Veritas' latest enterprise solutions is meant to tackle the growth of such data silos and help organisations cope with hidden and unused data, the concept of Databerg.



VIKAS PANCHAL,
Associate Zonal Head, Tally Solutions.

Tally ERP 9 is designed for start-up companies with one employee, as well companies with 1,000 employees. The product is fully functional whether it is used by one user or multiple users. It is meant for any business that is automated. Inside Tally, all the functions are integrated, so the business can start enabling the functions as they grow. Since a business cannot function in isolation, Tally is not sold in modules.



WALID GOMAA,
General Manager Middle East and Pakistan, Hitachi Vantara.

The global vendor is selling business outcomes to potential customers, based on its long-term capability in delivering technology solutions. Gomaa describes the vendor's portfolio as being adapted to meet the expectations of business heads in transforming organisations.



WALID LAHOUD,
Head of Sales MENA, Secure Land Communications, Airbus.

The latest devices from Airbus secure data and voice communication. These are hybrid devices that use LTE and TETRA network communications and switch over based on the strength of the signal. The push to talk devices from Airbus are used by public safety agencies and others.



XAVIER ANGLADA,
Managing Director Digital Lead, Middle East, North Africa, Turkey, Accenture Digital.

Accenture Digital's engagement with their end customers is not a small step, consulting only, engagement. Anglada points out that Accenture really goes deep with customers. The common thread across all digital transformation journeys is the role of data in organisations.



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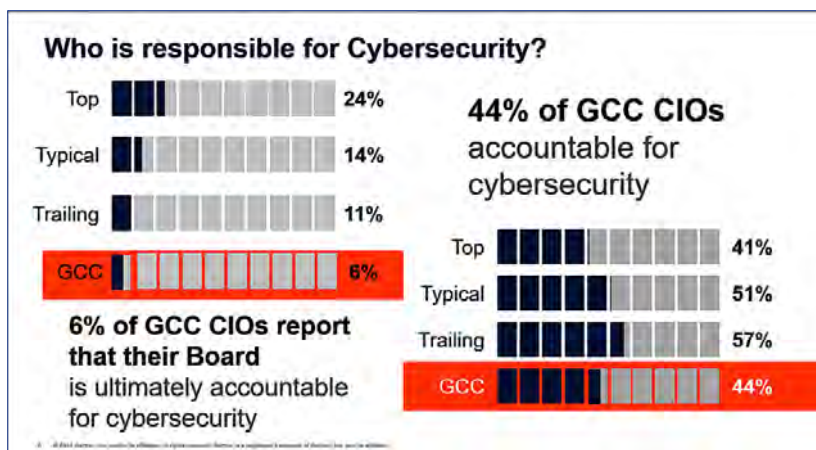


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Data protection and cloud security driving cyber security transformation in MENA



SAM OLYAEI,
Research Director at Gartner



Enterprise Spending on Security/Risk Will Touch \$1.7 Billion in 2020

- Cloud Security spend at \$15M - 84% growth
- Data Security spend at \$72M - 26% growth
- Infrastructure Protection spend at \$255 - 10% growth
- IRM spend at \$33M - 9% growth
- Security Services spend at \$828M - 10% growth



Middle East and North Africa enterprise information security and risk management spending will total \$1.7 billion in 2020, an increase of 10.7% from 2019, according to a recent forecast by Gartner. Security services and network security continue to be the top two security and risk management spending priorities for CISOs in MENA. Both segments will account for 66% of total security and risk management spending in 2020. Managed Security Services includes services that involve security processes such as monitoring, detection, and

response.

Despite smaller levels of spending, cloud security and data security will continue to remain the fastest growing segments for enterprise security and risk management spending. A shift to a cloud-first strategy remains a priority in MENA, especially as major cloud service providers set up shop in the region.

Additionally, The Data Protection Law implemented in Bahrain in April 2019 and the possibility of United Arab Emirates to deploy strict data privacy rules by the end of 2020 have compelled

MENA organisations to rethink their data security framework to continue doing business in the region. As a result, Gartner predicts that by 2020, investment in data security will total \$72 million, an increase of 26% year over year.

The growing spending in security and risk management also showed that it has become a boardroom priority locally. CISOs in MENA are seeking to improve their communication with the board of directors who have more visibility on security, threats and vulnerabilities than ever. ■

GEC Media recognises transformation champions across end users and industry

Organised by GEC Media Group, the 6th edition of the GEC Awards roared its way to a houseful theatre as over 230 stalwarts, veterans and leaders from the IT industry walked the red carpet on 1st October at The Rixos Premium JBR. This included recognition of the business transformation initiatives by the IT industry and the end user community. The categories of awards recognising transformation included the following:

Best Business Transformation Initiative: Path breaking initiative to rebuild existing sales and business models and refocus the organisation's employee roles and structures towards new business opportunities.

Best Business Transformation Solution: Vendor driven technology solution stack, horizontal and vertical, that enables businesses to redefine their sales and business models, moving towards enabling new customer segments and revenue opportunities.

Best Futuristic BT Solution: Best descriptive use case demonstrating futuristic business potential and ability to successfully build transformative organisations.

Over the years, the GEC Awards 2019 has emerged as one of the most pivotal recognition in the industry that felicitates the achievements of the IT solution and service providers in the Middle East and Africa region. This year the GEC Awards committee received over 246 nominations in 72 categories, out of which 64 companies emerged as winners.

The event, held in Bollywood theme, was a star-studded affair. The opening keynote was done by Haidi Nossair, Marketing Director MERAT followed by a market intelligence keynote by CONTEXT that was addressed by Timothy Davies and Guruvan. The sponsors and partners of the 2019 edition were; Dell Technologies, Veritas, Bulwark Technologies, A10 Networks, Finesse, Rittal, Kingston Technologies, Talariix and Context.

The gala night was also attended by dignitaries that included; Col. Saeed Al Hajri, Director of Cybercrime Dept of Dubai Police, Captain Abdullah Al Shehhi, Deputy Director of Cybercrime Department, Dubai Police; Hamad Khalifa, Head of Telecom Division, Infrastructure Department ; Ahmed Abdulsamad Al Hammadi, Director IT, Abu Dhabi Municipality; Dr.Esam AlFalasi, Director IT, Ministry of Economy amongst others.



BT Initiative, Enabling Partner: Emitac Enterprise Solutions



BT Initiative, Education: GEMS Education



BT Initiative, Logistics: Saiber Innovation & Constellation Marine



BT Initiative, Government: Abu Dhabi Municipality



BT Solution, Healthcare: Healthigo



BT Solution, Government: ServiceNow



BT Solution, Energy: SAP



BT Solution, Telecom: TPL Maps



BT Solution, AI Powered CDP: Exponea



BT Futuristic, Mobility: thyssenkrupp Elevator AG



BT Futuristic, Blockchain: DEX Holding



BT Futuristic, Cyber Security: Guardian One Technologies



BT Futuristic, Cloud: 2CRSI



BT Futuristic, Startup AI: Searchie



BT Futuristic, Automation: GAVS Technologies

Enabling Digital Transformation



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Veritas Aptare briefing continues into Doha, Kuwait attracting IT decision maker

The GEC Media Group and Veritas Aptare, executive briefings continued its engagement with leading CIOs in the GCC region. On 22 October, the executive briefing was held in Doha, Qatar with the continuing theme of how to manage IT data environments in a multi-vendor, multi-cloud infrastructure.

DOHA

The Doha executive briefing was led by Ian Wood, Head of EMEA Business Practice, Veritas. Also present at the briefing from Veritas were Donal Berry, Country Manager Qatar, and Mazen Adhamy, Regional Channel Manager, Qatar, Kuwait, Bahrain, Pakistan. The Doha Veritas Aptare executive briefing was supported by Qatar Computer Services, QCS.

The Doha executive briefing was attended by top IT decision makers from Qatar Airways, McDonald's, Qatar Plastic products, North Oil, Advanced Construction Technology, Gulf Drilling, Doha Bank, Qatar Insurance Group, Qatar National Cement, amongst others. The IT decision makers present at the Doha briefing, were keen to understand how Aptare IT Analytics could help them in their

day to day operational role.

Wood gave a short overview of the global storage landscape trends. Amongst other parameters, Wood justified introducing Aptare IT Analytics in the region on the basis of show back of unused storage in enterprises. CIOs can reclaim unused storage across diversified business groups, and save on purchase of additional storage as a possible basis of return on investment.

KUWAIT

On 03 November, the executive briefing was held in Kuwait with the continuing theme of how to manage IT data environments in a multi-vendor, multi-cloud infrastructure. The Kuwait executive briefing was led by Brett Samuel, Head of Technology, Middle East and South Africa, Veritas. Also present at the briefing was by Muawiya Abu Jubain, Chief Operating Officer, ITS, who made a presentation.

The roundtable discussion was coordinated by Roy Joseph, IT Director of Kuwait Hotel Companies. Close to 15 leading CIOs from Kuwait were in attendance at the executive roundtable briefing.

The presentation on Aptare IT

Analytics helped CIOs to appreciate that they can reclaim unused storage and save on purchase of additional storage as a possible basis of return on investment. It also helped explain the concept of data storage chargeback and show back that is facilitated by Aptare IT Analytics.

Using Aptare IT Analytics CIOs can compare performance of multivendor backup tools across the enterprises and trouble shoot high failure rates. CIOs can monitor distribution of data across a multi-cloud environment increasing the levels of compliance.

CIOs can compare performance of multivendor backup tools across the enterprises and trouble shoot high failure rates. By troubleshooting incidents of failure of backup across multiple vendors and multiple platforms such as private, hybrid, public and multi-cloud, CIOs can increase the levels of data compliance across the enterprise.

They can also closely monitor distribution of data across a cloud environment increasing the levels of compliance, when business takes the lead in adoption of cloud-based tools.

UAE based GEC Media Group are the publishers of Business Transformation, Enterprise Channels, The Titans, Cyber Sentinel. ■

DOHA



KUWAIT



Al Wasl dome, largest 360 projection surface in the world fitted at Expo2020

Months of planning have successfully led to the final piece of Al Wasl dome being lifted into place after an intricate and complex construction operation. The dome's huge steel crown was positioned at the top of the jewel of the Expo 2020 Dubai site in an inspiring feat of precision engineering. Enclosing a space of 724,000 cubic metres and standing 67.5 metres tall, higher than the Leaning Tower of Pisa, the 130-metre-wide domed steel trellis encircles Al Wasl Plaza, a structure that will be the heart of the Expo 2020 site and set to become Dubai's latest architectural landmark.

During Expo 2020, Al Wasl dome will be the largest 360-degree projection surface in the world, providing an unparalleled experience for millions of visitors. The crowning of the dome is a key milestone for Expo 2020, with all permanent Expo-led construction on track to be completed by the end of the year. When finished, Al Wasl dome will be transformed into a 360-degree projection surface with projections visible both from within and outside the dome, providing an unparalleled experience for visitors. In preparation for its pivotal role at Expo 2020, Al Wasl dome's steel structure will next be transformed into an immersive 360-degree projection surface, with projections visible both from within the dome, providing a unique visitor experience. Fitted with state-of-the-art projectors by audio-visual experts Christie, Expo 2020's Official Projection and Display Partner, the dome will host performances from A-list global performers and other major celebrations, on key international occasions such as New Year's Eve, Diwali and Chinese New Year.

Al Wasl dome encloses Al Wasl Plaza. The intricate trellis, which is a 3D visualisation of the Expo 2020 logo, comprises 13.6 kilometres of steel. It was originally divided into 1,162 individual sections that were then welded together into 600 elements in factories in Italy and Abu Dhabi. At 130 metres wide and 67.5 metres tall, the dome weighs a total of 2,544 tonnes, as much as 25 blue whales.



GCC requires \$1.6T over next five years to build infrastructures, Oliver Wyman



JEFF YOUSSEF,
Partner, Public Sector, Oliver Wyman.

With the GCC region continuing along its growth trajectory whilst simultaneously reducing oil dependency, there is now a requirement for more capital to flow into physical and social infrastructure. According to a new report launched by Oliver Wyman, a cumulative sum of \$1.6 trillion excluding mega projects in capital

is needed by the government and private sector combined for GCC countries to upgrade and build infrastructure in the next five years.

The private sector across the GCC emerges as a key player in contributing towards the resources required in an attempt to ease burden on governmental sectors. National governments need to bridge the gap with private sector's investment of \$600 billion.

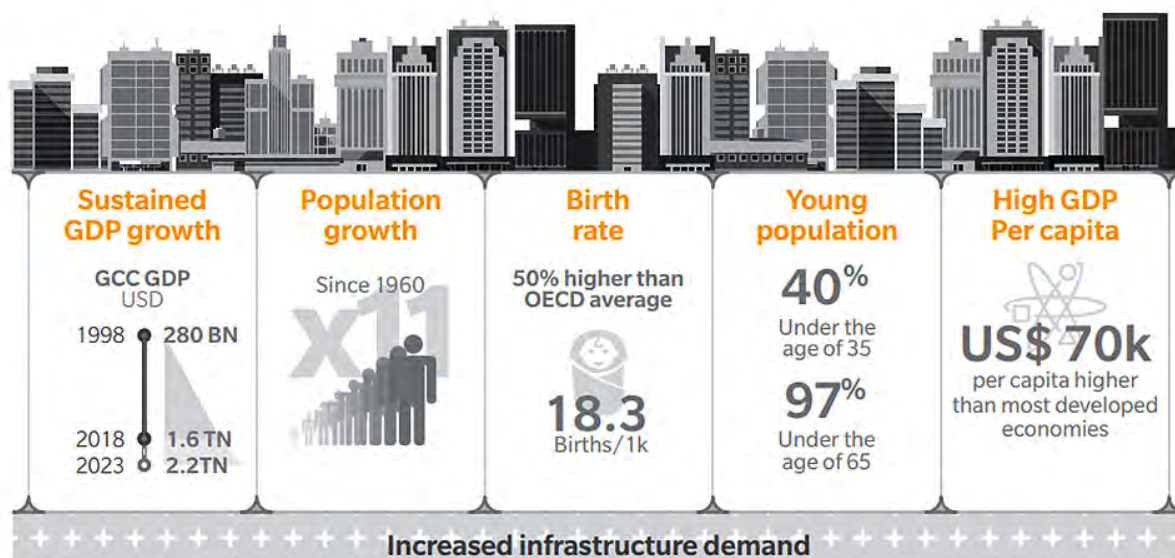
Infrastructure development is one of the key components of the various national development strategies announced by regional governments in facilitating diversification from oil. The report titled: Private investment is key to unlocking long-term capital for Gulf infrastructure, examines the trends driving the region's growth and the increased need for more and better infrastructure. It also outlines the extent of the funding gap, how the gap can be closed, and the hurdles that need to be cleared in doing so.

With the rapid increase in population, there is now an

immediate need to develop advanced infrastructure across all industries. According to the report, governments will need to attract an investment sum of \$400 million by the private sector to address the demands.

Steady economic growth, along with national development plans has enabled GCC economies to provide an ecosystem to foster an investor-friendly environment. With regulatory bodies now focused on introducing investment policies, it is apparent that Public and Private Partnerships can play a significant role in encouraging Gulf countries to meet their infrastructural requirements.

The number of PPP projects in the region have increased gradually as governments are now inclined towards the idea of enhancing greater private investment in the delivery of infrastructure services. The planned government projects pipeline is set for 2040, resulting in bringing PPPs into the limelight as the catalyst in raising the capital required. ■



ekar introduces Tesla electric vehicles for hire-share from Masdar

UAE-founded ekar has announced a strategic partnership with Masdar, a renewable energy company, to bring electric vehicle car-sharing to the Middle East by introducing five Tesla models S and X into its fleet. The vehicles are now available to hire from Masdar City in Abu Dhabi.

Demonstrating the company's wider commitment to advance commercial sustainable mobility, the announcement follows Masdar's £35 million investment into the Charging Infrastructure Investment Fund, which aims to expand the number of rapid charging points publicly available to electric vehicle owners in the United Kingdom. Masdar's partnership with ekar is further of its investment to promote low-carbon transport solutions in the UAE.

Users of the dedicated ekar app are now able to rent a Tesla Model S or Model X by the minute, meaning they can enjoy the benefits of driving an electric vehicle without actually buying one. After selecting the Tesla model of their choice, users collect the vehicle from an exclusive Masdar City charging station, before returning it to the nearest station for the next customer.

ekar uses state-of-the-art instant reservations and smart-access technology, providing a network of vehicles for on-demand rent in the UAE. ekar allows users to book cars via its mobile app and website, offering a pay-by-the-use pricing scheme that is a cost-effective alternative to daily and monthly renting. The driving license of UAE residents must be at least six months old to access ekar, while UAE visitors are only required to



submit a copy of their passport, visa page and foreign driver's licence.

"Masdar City installed the first rapid charging station for electric vehicles EV in the Middle East," said Yousef Baselaib, Executive Director

of Sustainable Real Estate at Masdar.

"We are honoured to have been selected as the strategic car-share partner of Masdar at Masdar City," said Vilhelm Hedberg, CEO of ekar Middle East. ■

Why transformation is less of forklift and more of coexistence with legacy

Over the years, for organisations, the relationship between business and IT has not changed. What has changed is the balance of importance across speed, risk and cost. Today, organisations are trying to digitise all manner of processes whether the front end or back end, and this has meant that transformation is taking many forms. While speed, risk and cost, are still fundamental outcomes that people are trying to achieve, but they need to do them in a different way.

Says Genefa Murphy, SVP and Chief Marketing Officer, Micro Focus, “So, the big thing that we see is how do you make more informed and quicker decisions to achieve speed, risk and cost, and I think the weighting of each of those is different.”

The challenge is to balance, the above-the-line mandate to drive transformation with the below-the-line mandate to manage the operations of the business, points out Genefa. “How do you balance the cost of transforming and running at the same time.”

As an organisation, Micro Focus helps businesses through four core areas of digital transformation – Enterprise DevOps, Hybrid IT Management, Predictive Analytics and Security, Risk and Governance. Micro Focus software provides critical tools needed to build, operate, secure, and analyse their enterprise.

According to Genefa, Micro Focus talks to various executives in the



GENEFA MURPHY,
SVP and Chief Marketing Officer, Micro
Focus.

top-suite including CIO, CISO, CMO, CTO, Chief Digital Officer, Chief Product Officer. And amongst its top global market segments are banking and finance, telecom, oil and gas, and the public sector. PwC and Deloitte are key global consulting channel partners who manage process transformation and change management along with Micro Focus.

The mainframe environment is a typical use case between the old and the new. Applications

and databases hosted in a mainframe environment, reach back into decades of years. Yet their continuity depends on being able to embrace modern digital platforms, while running the legacy applications and processes, supporting many global empires.

“To get off the mainframe is incredibly expensive. There are a ton of customers who would love to not have mainframe,” says Genefa. And that is the reason that Genefa stresses, “You need the ability to run on and transform.”

Many of today’s digital platforms have intuitive and easy to use, responsive front ends, that meet the criteria for exciting customer experience. But the question, Genefa asks, is whether they have the ability to connect to the legacy backends that continue to be prevalent in global organisations. “So, you need to be able to do both,” she stresses.

Another reason why transformation projects may fail is the overemphasis on technology and the defocus on process and legacy data. Any attempt to transform the legacy data and legacy processes is expensive and is therefore removed from the objectives of transformation – a fundamental mistake.

Most digital transformations fail right at the initial outset, is Genefa’s observation. “You have to respect how do you get access to all of that back-end data, that quite frankly is going to cost you too much money to transform.” ■

Only 5-8% of global industrial companies ready for transformation, AVEVA and ARC study

AVEVA, a global vendor in engineering and industrial software, has revealed validation of the business advantages from digital transformation projects. While finance, insurance, health and retail sectors have rapidly harnessed the Internet of Things, artificial intelligence and big data to meet the changing needs of their customers, the industrial world has been slower in adopting new technologies.

Recent research, conducted by ARC Advisory Group ARC, of 157 process manufacturers found that there were still barriers in organisational accountability, culture and employee change management that impeded transformation.

According to research conducted by ARC, although more than 80% of industrial process manufacturers are piloting advanced technology, only 5-8% of them are ready for digital transformation today. The main barriers to adoption, according to ARC, are organisational makeup and scalability of use cases and users while the biggest driver of digital transformation in the industrial sector is the need to address the business consequences of unplanned downtime.

The benefits of digital transformation in the industrial sector are many. Improved asset health will result in a reduction in unplanned downtime and better asset performance, while incident prediction capabilities have the power to lower operational risk and protect worker safety. Furthermore, cognitive learning can deliver digitised intelligence resulting in knowledge and experience being freely available throughout the



MOHAMAD AWAD,
Vice President Middle East, North Africa and Pakistan, AVEVA.

organisation.

AVEVA has outlined three key steps to accelerating the organisational digital transformational journey.

Firstly, organisations need to snap in a unified operating center to visualise the industrial data they already had. Secondly, organisations need to use data to free up the operating budget, build a knowledge graph about an asset as well as utilise machine learning and artificial intelligence to predict when it will fail before it fails. This process called Asset Performance Management, is a hot area that has moved very quickly with a lot of innovation. Finally, organisations should use their data to remove risk bringing simulation into engineering design and using the cloud to eliminate legacy workflows.

“It has never been easier to begin

a digital transformation programme, as cheap access to cloud computing, great connectivity, a merged edge and enterprise combined with analytics and machine learning, means that the ability to digitally drive productivity improvements into the industrial world is now unprecedented,” commented Mohamad Awad, Vice President Middle East, North Africa and Pakistan, AVEVA.

“Leaders driving the next wave of transformation know they must move quickly. AVEVA works as a partner to accelerate organisations on their digital journey, helping them accelerate the use of digital technology, realise the value of a digital twin and build a digital team.”

ARC Advisory Group is a technology research and advisory firm for industry, infrastructure, and cities. ■

Virgin Hyperloop to create 124,000 tech jobs, add to GDP growth in Saudi Arabia



JAY WALDER,
CEO Virgin Hyperloop One.

Virgin Hyperloop One, VHO, the world's leading hyperloop company, announced the results of a strategic study commissioned to build the world's first extended test and certification hyperloop track in Saudi Arabia. The study also set out plans for an R&D center and manufacturing facility to support the development of the groundbreaking hyperloop technology.

In line with Saudi Vision 2030, the Kingdom's diversification and development strategy, the VHO project is expected to significantly support a number of the economic and social pillars of the country's 2030 Vision, including the expansion of transportation, the development of urban infrastructure and the growth of a technology enabled modern economy.

The Virgin Hyperloop One Center of Excellence, CoE, if approved, could break ground in King Abdullah



Economic City, in 2020 and include an integrated test track, as well as explore the feasibility of creating a manufacturing center and operating facility that will propel the Kingdom to the forefront of hyperloop development worldwide.

The report also illustrated how the CoE will drive domestic value by adding to the creation of more than 124,000 high-tech local jobs, supporting the technology sector by incorporating advances in robotics and artificial intelligence and driving an estimated \$4 billion increase in Saudi Arabia's GDP by 2030.

Virgin Hyperloop One is the only company in the world that has built a fully operational hyperloop

system. Virgin Hyperloop One is backed by key investors including DP World, Caspian VC Partners, Virgin Group, Sherpa Capital, Abu Dhabi Capital Group, SNCF, GE Ventures, Formation 8, 137 Ventures, WTI, among others.

"This strategic partnership in Saudi Arabia is a result of a shared ambition to harness the power of technology to drive the next leap forward in transportation. It is a market that has shown a readiness to embrace transformative innovation to achieve the goal of sustainable, energy efficient travel that will have a huge impact on the economy and wider society," said Jay Walder, CEO Virgin Hyperloop One. ■

Only 15% EMEA companies likely to create mature digital ecosystems in next 5 years, Strategy& report



(Left to right) Sergey Yakimenko, Manager with Strategy& Middle East; Jad Hajj, Partner with Strategy& Middle East; Jean Salamat, Principal with Strategy& Middle East.

While the importance of digitisation in business is widely accepted and several corporate leaders believe that it can be a major boost to revenue as well as profitability, the outcomes of companies executing their digitisation strategy has varied greatly, according to a report by Strategy&, part of the PwC network.

Despite good intentions, few companies in the GCC have successfully implemented a digital transformation strategy. They need now to move from a conceptual appreciation of the importance of digitisation to a focus on execution, stated the latest Strategy& report. According to the Strategy& report, nearly two-thirds of global manufacturing companies have not seen any results from their digital transformation efforts.

This sentiment is also echoed in The Dell Technologies 2018 Digital Transformation Index, which highlights that more than 90% of businesses in Saudi Arabia and the United Arab Emirates are facing major obstacles in their efforts at digital transformation.

Furthermore, in Europe, Middle East, and African EMEA region, the Strategy& survey revealed that only 15% of companies plan to establish mature digital ecosystems in the next five years. In addition, just 5% of the companies in the EMEA region have implemented critical technologies that propel digitisation, such as integrated end-to-end supply chain planning, a smart environment using the Internet of Things IoT, or manufacturing execution systems.

More specifically, the report finds that some of the underlying reasons and challenges being faced by businesses include the following:

Firstly, the approach of many companies has focused exclusively on the technology itself. Instead, businesses should have defined the business challenge that digital transformation is supposed to tackle. Most industries cannot keep up with the rapid pace and development of digital technologies. This leaves companies asking if they should abandon their existing investment in a technology that has become outdated, or if they should

spend their money on a next-generation wave of solutions.

Second, organisations need to change their culture so that it becomes open to entrepreneurship and accepts more imaginative leadership styles, which encourage digitalisation. This means being flexible, capable of learning from failure and responding accordingly. In the same vein, organisations need to be careful that rigid hierarchies do not prevent successful digital transformation. It does not matter where an idea emanates from, as long as it promotes innovation and creativity, or facilitates rapid decision making and prudent budgeting, or boosts problem-solving capabilities within teams.

Third, companies have been more risk-averse when it comes to digital transformations. Companies in the region already face multiple business challenges that bring considerable uncertainty to daily operations; which leads senior leaders to have little appetite for additional risks associated with digital transformation. ■

Jaguar I-Pace demonstrates self-driving capability on the streets of Dubai



Jaguar honoured its role as the official Technology Partner of the 2019 Dubai World Congress for Self-Driving Transport with the showcase of an autonomous prototype Jaguar I-PACE, giving visitors a glimpse into the future of mobility in Dubai. Successfully tested on the streets of Dubai in preparation for its appearance at the Congress, the prototype model demonstrates the progress being made in the autonomous driving space globally, and Jaguar Land Rover's contribution to the Emirate's Self-Driving Transport Strategy.

The luxury automotive brand's commitment to an autonomous, connected, electric and shared ACES future is a cornerstone to delivering on its Destination Zero vision; the ambition to make societies safer and healthier, and the environment cleaner.

The all-electric, zero emissions

Jaguar I-PACE – current 2019 World Car of the Year and World Green Car of the Year – was chosen for this special project because of its strong sustainability credentials. The production Jaguar I-PACE was modified to include enhanced vehicle detection and avoidance capabilities through a combination of radar and cameras, alongside a traffic light detection system.

The vehicle's speed and steering, from stationary up to highway speed, was also controlled autonomously during test drives, with the system following routes from a detailed HD map showing route location and a detailed bird's-eye view of junctions.

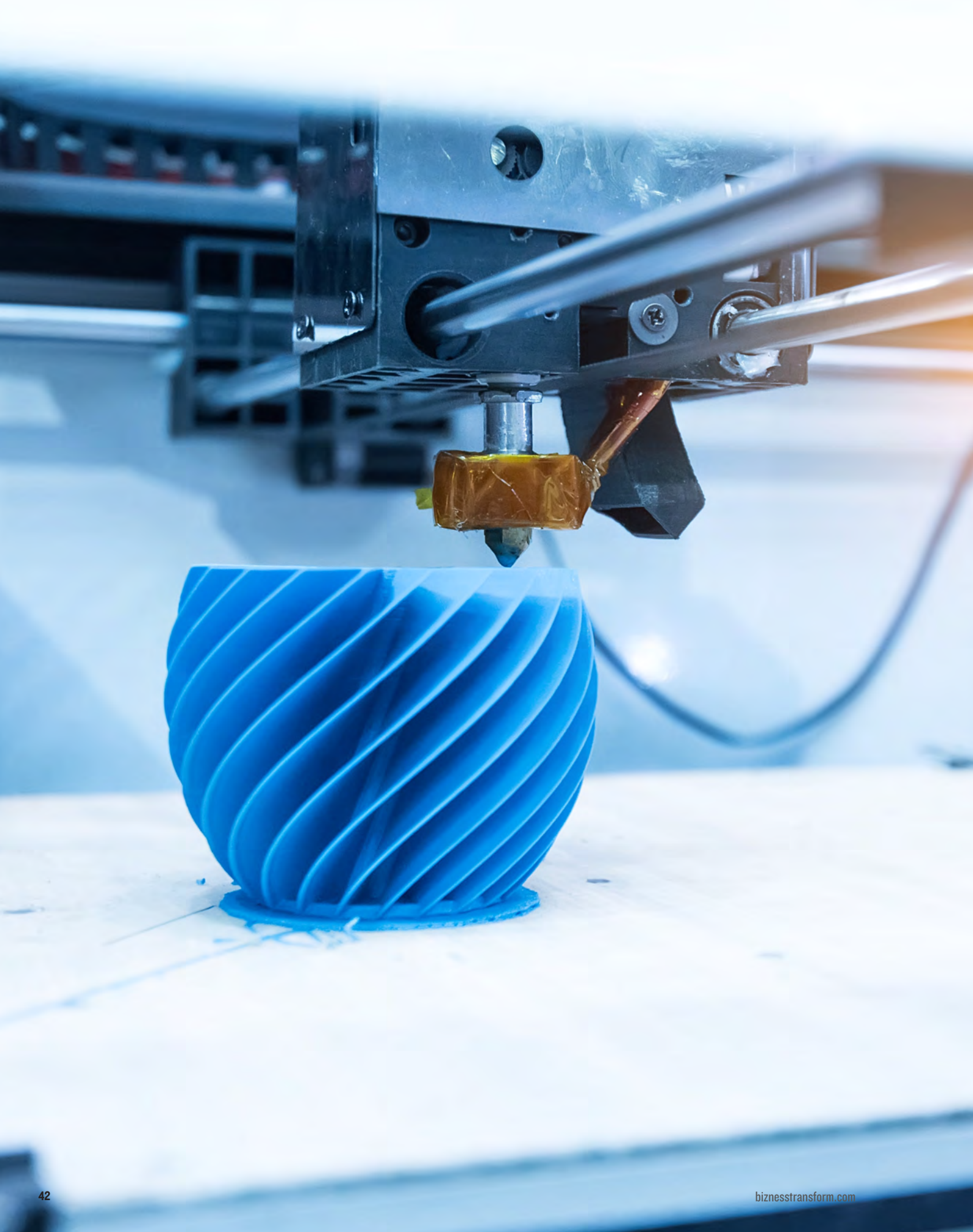
Jaguar Land Rover continues its drive for conscious innovation focusing on achieving its vision with Destination Zero – a future of zero emissions, zero accidents and zero congestion – across its

facilities, and through its products and services. Autonomous vehicle technology plays a major role in realising the strategy. To date, Jaguar Land Rover has successfully completed real-world testing of the technology on complicated inner-city roads in the UK and continues to collaborate with academia and industry to accelerate innovation.

I-PACE is the world's first premium all-electric performance SUV. It delivers all-wheel drive performance from its twin Jaguar-designed motors, with an output of 400PS and 696Nm of torque enabling 0-100 km/h in just 4.8 seconds. The state-of-the-art 90kWh Lithium-ion battery delivers up to 470km range WLTP. While a mid-sized SUV, I-PACE's cab-forward design and electric powertrain means the rear legroom of 890mm is comparable to luxury saloons. ■

Cloud Data

Backup for what's next



3D PRINTING BOOSTING REGIONAL DIGITAL FACTORIES

Adoption of 3D printing technologies using additive and subtractive technologies is boosting the emergence of digital factories in the country.

In April 2016, HH Sheikh Mohammed launched the Dubai 3D Printing Strategy. This initiative aims to exploit technology for the service of humanity and promote the status of the UAE and Dubai as a leading hub of 3D printing technology by the year 2030. The three key sectors of the strategy are: construction, medical products, consumer products. Dubai's key goal is to ensure that 25% of buildings in Dubai are based on 3D printing technology by 2030.

This vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of UAE and Ruler of Dubai, to make Dubai the world's 3D printing hub through the Dubai 3D Printing Strategy has stimulated the adoption of this technology in the UAE. The Dubai 3D printing Strategy will make Dubai the world's 3D printing hub. The strategy adopts an emerging technology that will help cut cost in many sectors, especially the medical and construction sector in Dubai. The technology will restructure economies and labour markets, and redefine productivity.

"This vision aims to encourage different sectors such as healthcare and construction to adopt 3D printing technology. The healthcare industry is one of the first adopters of 3D printing particularly in the production of



LATIK GUPTA,
Head of Enterprise, Jumbo
Group.

prosthetics and designing of more precise medical parts," says Latik Gupta, Head of Enterprise, Jumbo Group.

According to Ashish Panjabi, COO Jacky's, a key regional channel player in large format and 3D printing, the last couple of years has seen innovation in the area of substrates for 3D printing. "The way the industry had to evolve was in terms of materials and what the materials could do. A lot of focus has gone into that." Composites using ABS, carbon fibre, metal, fibre glass, are now available and have been the focus of innovation.

Another point of inflexion has been in the price point of 3D printers. Previously there would be only the entry level and the high-end industrial level space of printers, characterised by performance and price. "Now you have a middle ground that has been the growth area for the last three to four years, the



The Jumbo 3D Manufacturing's Application Development Centre offers a range of services including training, business consulting for young entrepreneurs, proof of concept development, product design assistance, financing options.





ASHISH PANJABI,
COO Jacky's.

commercial desktop. That is doing the production of industrial level printers of a few years ago," says Panjabi.

LOCAL INITIATIVES

One of the challenges in 3D printing is the lack of awareness and guidelines for non-experts to optimise product designs. There has also been a gap between the industry and academia resulting in difficulty in obtaining the necessary knowledge and therefore there are only few people with skills and expertise in 3D printing.

To ensure that the industry is able to tackle such challenges, Jumbo

3D Manufacturing's Application Development Centre, a state-of-the-art facility in Jebel Ali, serves as a proof of concept for early adopters as well as acts as an initiative to develop a community of collaborating professionals involved in 3D Manufacturing in the UAE. The objective is to pool knowledge, design capability, skills and resources to create an ecosystem for faster adoption of 3D Printing Technology in the country.

In 2025, based on Dubai Municipality's regulations, every new building in Dubai will be 25% 3D printed; this move will start from 2019, starting at 2% with a gradual increase towards the strategic goal. Dubai Health Authority has committed to regulating and setting the standards to the use of the technology in the health sector, and will explore the use of 3D printed prosthetic limbs, 3D printed teeth, and 3D printed hearing aids in public clinics and hospitals.

In the area of additive production, medical substrates for dental care has seen the fastest adoption, and is amongst the most visible, successful use cases. "Dental has been one of the quickest and one of the best. I do not think there is any dental lab today that does not heavily depend on additive manufacturing," says Jacky's Panjabi. Most of the dental care centres have 3D printers. To their advantage, as the adoption of this use case has grown, the price point of such 3D printers and has fallen, facilitating the growth of this sector.

The global market for 3D printing is expected to reach \$120 billion by 2020 and about \$300 billion by 2025, driven by research and product development activities and the increasing need for more creativity in the design process. 3D printing technology will ease the production process in various sectors, offering the prospects for major leaps in the world of industry.

Reports indicate that 3D printing

technology will cut construction costs by between 50% and 70%, and cut labour costs by 50% to 80%. In addition, the technology will help reduce waste produced in construction operations by up to 60%, which will reflect positively on the economic returns of the sector and contribute to sustainable development.

DIGITAL FACTORIES

"3D printing is not going to be the only solution. If you talk about digital manufacturing or digital fabrication, you need to have a combination of subtractive and additive manufacturing technologies put together. What we are seeing is advances in both," points out Jacky's Panjabi.

The successful growth of digital factories depends on a blend of two types of technologies on the shop floor. One is additive production and the other is subtractive production. Additive production is the process of systematically adding substrates following a 3D model of distribution. Subtractive production is the process of precision removal of substrate following a 3D model of distribution.

A successful digital factory blends in equipment using both these types of production techniques. 3D printing machines that use additive production are more useful for prototyping and development of new products, as well as for limited production scale. The use cases for additive production tend to shorten the development life cycles for new products.

Subtractive production is more suited for economies of scale and manufacturing. Manual cutting is getting automated and that is moving into production areas a lot faster. These production machines are fast replacing human workforces. These machines do not make mistakes, the output is of high quality, and are rapidly getting adopted into manufacturing shop processes. "The two are getting



The Office of the Future is the first 3D-printed building of its kind. The entire structure was printed using a giant cement printer, then assembled on site. Printing took 17 days and was installed onsite in 2 days. Subsequent work on the building took approximately 3 months.

closer and closer together. As you put the whole thing together you see the final digital factory,” reflects Panjabi.

Multiple industries in the region are using 3D printing not just for prototyping but for manufacturing as well. Over the years, 3D printing technology has continuously developed allowing 3D printing to

produce working prototypes with higher strength and improved functionality using Kevlar, carbon fibre, nylon, fibreglass, and metal among others. “Manufacturing on 3D printers has also lessened the time of printing objects as well as printing larger objects than before,” remarks Jumbo’s Gupta.

Additive manufacturing using

metal is contributing to the growth of industries adopting the technology. Its versatile manufacturing process and optimised product designs reduce environmental impact and generate less wastage compared to traditional manufacturing. Metal 3D printing has been adopted rapidly in the aviation, automotive and medical

ONE OF THE CHALLENGES IN 3D PRINTING IS LACK OF AWARENESS FOR NON-EXPERTS TO OPTIMISE PRODUCT DESIGNS

KEY TAKEAWAYS

- 3D printing machines that use additive production are useful for prototyping and development of new products.
- Use cases for additive production tend to shorten the development life cycles for new products.
- Subtractive production is more suited for economies of scale and manufacturing.
- Manual cutting is getting automated and is moving into production areas a lot faster.
- Subtractive production machines are fast replacing human workforces.
- In the area of additive production, medical substrates for dental care has seen the fastest adoption.
- Metal 3D printing has been adopted rapidly in aviation, aerospace, automotive and medical industry.
- Jumbo Group has partnered with Mobilis Medical Manufacturing for 3D printing of medical specialty items.

industry. Using metal 3D printing has also proved beneficial to the aerospace sector as airlines are able to print parts quickly at a lower cost.

3D printing is widely used in medical manufacturing and spare parts digitisation. In the healthcare and medical space, 3D manufacturing is especially simplifying the lives of patients by enabling faster work for doctors, shortening patients' theatre time and improving outcomes. The end result for patients is improved quality of care through 3D printed implants and prosthetics, lower cost and better patient output.

In Dubai, Jumbo Group has partnered with Mobilis Medical Manufacturing for 3D printing of prosthetic covers, orthosis, hand and leg splints, sockets, and other medical specialty devices. "So far, we have worked on over 30 cases with Mobilis, with just 12–16 hours spent on each case, which used to take at least 20–30 hours through traditional manufacturing," says Jumbo's Gupta.

Jumbo Group believes that 3D manufacturing has a promising commercial future in the GCC, especially when it comes to scalability. "This means that we could be looking at a future where medical equipment could be produced at large scale through 3D printing. Manufacturing in-house could even reduce the supply chain and lead to digitisation of the entire process, in addition to greater

flexibility and more customised designs," adds Gupta.

Jumbo Group has also successfully developed 3D printing solutions for oil and gas and local manufacturing companies. These solutions are helping them manufacture spare parts and products locally at reduced costs and with a faster turnaround time. Recently Jumbo Group has expanded the centre by adding a full colour 3D machine. "In the coming months, we will expand our range of 3D printers to include the latest technologies for metal and concrete to further enhance our leadership in 3D printing-based manufacturing in the region," says Gupta.

OFFICE OF THE FUTURE

In Dubai, the Office of the Future is the most advanced 3D printed building in the world. It is also the first fully functional, inhabited 3D printed building ever. It was inaugurated in May 2016 by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai.

The Office of the Future is the first 3D-printed building of its kind. A 3D-printer measuring 20 feet high, 120 feet long and 40 feet wide was used to print the building. The printer features an automated robotic arm to implement printing process. The entire structure was printed using a giant cement printer, then assembled on site. Printing took 17 days and was installed on in 2 days. Subsequent work on the building services, interiors, and landscape took approximately 3 months.

The labour involved in the printing process included one technician to monitor the function of the printer, a team of seven people to install the building components on site, as well as a team of 10 electricians and specialists to take care of the mechanical and electrical engineering. As a result, the labour cost was cut by more than 50%

KEY TAKEAWAYS

- Jumbo Group has partnered with Mohammed Bin Rashid Establishment for SME Development to provide members with ongoing training.
- Office of the Future is the most advanced 3D printed building in the world.
- Office of the Future is the first real building to be built at scale, that people can use on a daily basis.
- The country objective is to pool knowledge, design capability, skills to create an ecosystem for faster adoption of 3D printing.
- In 2025, based on Dubai Municipality's regulations, every new building in Dubai will be 25% 3D printed.
- The successful growth of digital factories depends on a blend of two types of technologies on the shop floor.

compared to conventional buildings of similar size.

Other projects have tested various elements of 3D printing before, but the Office is the first real building to be built at scale, with full services, that people can use on a daily basis. It is the first 3D printed office of its

kind and the first fully functional 3D printed building in the world.

The inauguration of the Office is part of a larger strategy called the Dubai Future Agenda, launched by the UAE to become a major incubator of innovation and future technology in the world. The Future Agenda reflects Dubai's deepening commitment to develop breakthrough projects and initiatives with partners around the world that can help shape the 21st century for the better. The Office of the Future, and the Dubai Future Foundation, are a step in this direction.

SKILLS DEVELOPMENT

Globally, there have also been policies and incentives to drive research and development and investments in 3D printing allowing SMEs to get into 3D printing at a minimal cost. In the UAE, the Jumbo Group has partnered with Mohammed Bin Rashid Establishment for SME Development to provide members with ongoing training and mentorship as well as access to Jumbo's 3D printing facility to manufacture parts and apply 3D printing technology across various sectors.

Over the coming months, the Jumbo Group will be conducting seminars and training courses to develop relevant talent in 3D manufacturing and technology in the UAE by partnering with the Dubai Institute of Design and Innovation. The training courses are available for both students and engineering and trade professionals who are interested in learning about 3D technology. These courses will be delivered by subject matter experts selected from top notch global institutions.

Practical and hands-on-training sessions are also available at the Jumbo 3D Manufacturing's Application Development Centre. As part of consultancy services, The Jumbo Group will also help people identify potential opportunities that

can be fulfilled through 3D printing and assist them in setting up the required systems and processes.

The Jumbo 3D Manufacturing's Application Development Centre offers a range of services including training, business consulting for young entrepreneurs, proof of concept development, product design assistance as well as financing options for developing a business around 3D manufacturing. It includes an HP 3D printing demo centre based on HP Multi Jet Fusion technology as well as several other 3D products aimed at dental, architectural and other applications.

The facility aims to pave the way for easy adoption of 3D printing technology for various entrepreneurs in the UAE who are interested in launching business ventures with this technology but are limited due to the lack of technical know-how, or business planning support in the start-up phase. The facility also houses equipment for post processing, finishing and painting of finished products.

The availability of 3D printing equipment in schools and colleges is helping to boost the awareness and availability of skills in this area. "It is something that is going to continue to evolve. What you are seeing is a lot of people have access to the technology in schools and colleges," adds Jacky's Panjabi.

The role of channel partners is important for 3D printing in the region as they create awareness about the variety of 3D printing machines and bring expertise in the process capabilities of each system to end users. They also offer guidance and mentorship to leverage 3D printing for any business looking to implement the technology and enhance productivity. "Channel partners also bridge the gap between key stakeholders and emerging technology and help partner with the world's leading technology providers across various business verticals," concludes Jumbo's Gupta. ■

Bringing IT together

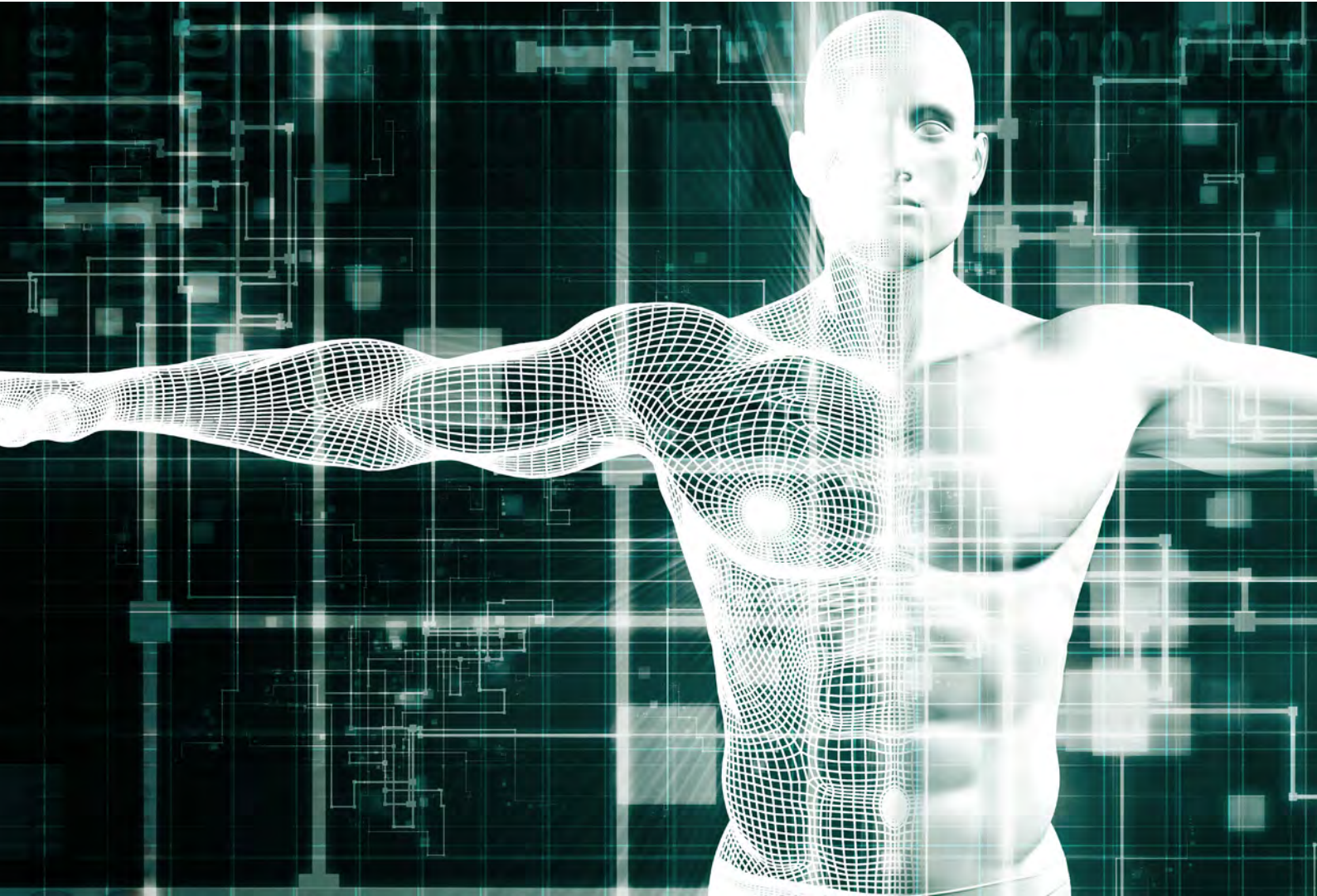
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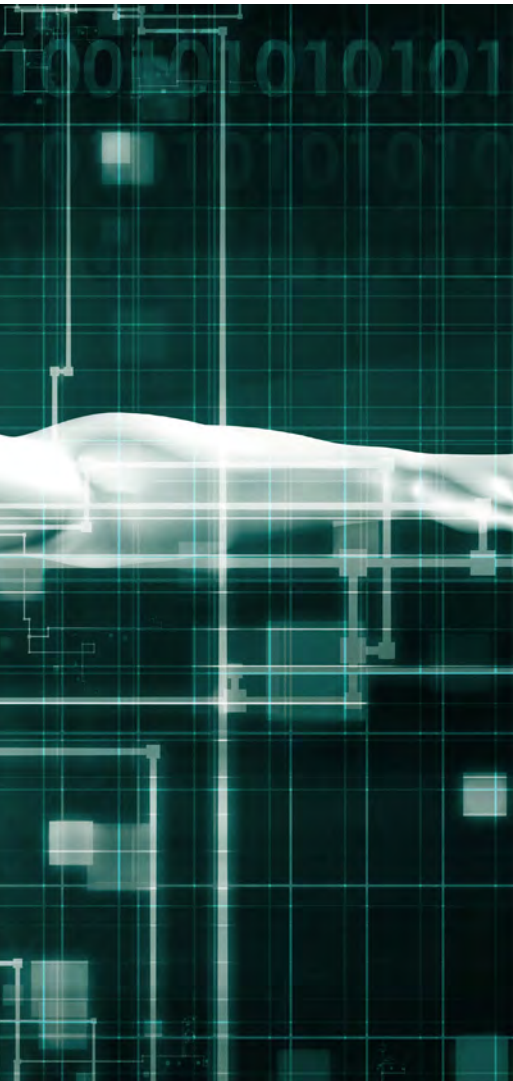
TRANSFORMING HUMAN AESTHETICS THROUGH NON-INVASIVE TREATMENTS

When Medica was launched non-invasive procedures were 15%, while today that number has reached 86%, meeting expectation of today's digital community.

As the Founder and CEO of Medica Group, Elias Chabtini has been guiding the company towards becoming an influential organisation in 18 markets across MENA and South

East Asia. Chabtini is well known for his leadership and expertise in non-invasive cosmetic surgery and has been placed as one of the 100 inspiring leaders in the Middle East. A digital transformation refers to

the adoption of digital processes and tools to achieve strategic business goals. It is a complex, multifaceted process that represents a massive cultural shift in the workplace and changes that affect every part of an



ELIAS CHABTINI,
Founder and CEO of Medica
Group.

organisation. We are living in the era of advanced technology where every part of our daily life is penetrated by it in some or the other way. But technology intervention is not just restricted to smartphones, GPS locators, smart watches. There is a lot more to explore in this space.

Technology is becoming increasingly important for all kinds of business. Chabtini wants it to be the core of the solution which will help simplify aesthetic medical procedures. Medica wants to continue to invest in technology in the areas of machine learning and artificial intelligence to further simplify the processes and provide value to clients. The company cares about it, because it is the future and because it is the main pillar in the company. "Although everyday things are changing, we try to keep up and change with it," says Chabtini.

Online is an important platform to communicate with doctors. Medica attempts to get the education out on its products and introduces new technologies and content. Additionally, the company is thinking to go online with its products and sales in the coming years. This needs a lot of good planning and strategy to suit the upcoming generations, market and their understandings. For B2B, Medica usually demonstrates to doctors and gets the sales rolling, so online will be its secondary step for this target.

Medica is definitely interested in the online business. But also wants doctors and patients to be more proactive on the rating side and on the results, so that doctors have a different grading than the others. There are a lot of excellent and experienced doctors out there who are not on social media and other doctors who are famous on social media. Today it is important that a doctor has to be on social media to show that they are good.

In the near future, three years from now, Medica expects to be far ahead as a distribution company, because it is innovating to meet doctor and patient needs.

"We also want to project to people today, that we are doing so many treatments and that those procedures are a piece of art. So, people need to do

feel they are okay to do the treatments they want, with the doctor they feel comfortable with and trust. Doctors are better of course to advise on the right procedures that suits best, and selecting a doctor goes back to the patient," explains Chabtini.

In today's world, looking good is not an option anymore, and it is a way of living. Consumers today are making aesthetic decisions and making it an overall lifestyle and Medica understands that treatments are not an essential part of their life. This drives the company to seek new methods of non-invasive treatments for its diverse clientele who deserve the best.

By harnessing the latest technology, channel marketing, customer-centric practices and continuous education and training for employees, Chabtini provides the medical aesthetic markets with safer, more effective, non-invasive treatments.

With plans to further expand its partnerships and influence within the South African and South Asian markets over the coming decade, Chabtini operates with the core values and business acumen that clients are partners. His educated and service-oriented team, comprised of 250 multi-cultural employees, also mirrors Chabtini's principles and values.

Guided by Chabtini and propelled by word-of-mouth and social media initiatives, Medica's presence and influence continues to grow, surmounting the company's challenge of gaining awareness and establishing its reputation in the non-invasive medical aesthetic industries. When the company was first founded, only 15% of procedures were non-invasive, whereas today the number has increased to around 86%.

While Chabtini continues to eye future business ventures, he also believes in extending his insights and experience by offering training and educational programs to the next generation of entrepreneurs. Today, he is a member of YPO, the Premier Leadership Organisation of Chief Executives in the world and be it an active board member of multiple investment funds, he seeks to continue the entrepreneurial mindset to different business ventures. ■

Visitors explore 10M deep aquarium at Atlantis

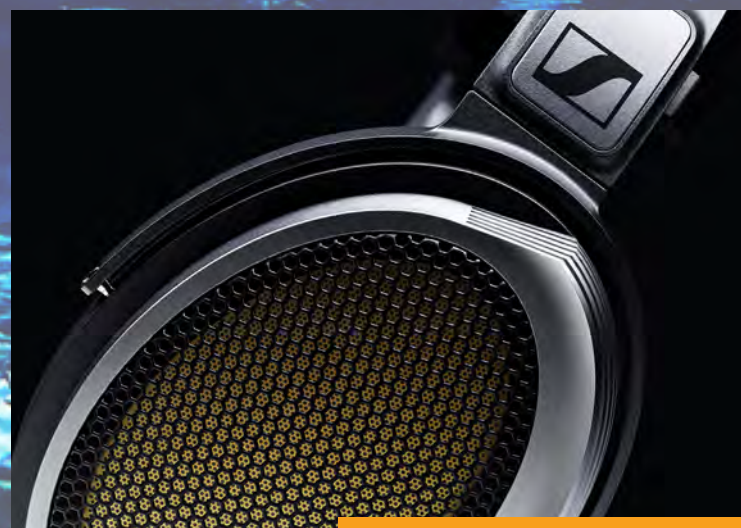
Atlantis, The Palm has launched Aquatrek Xtreme experience, which offer adventure lovers the chance to explore the depths of The Ambassador Lagoon and go deeper than ever before. Starting from AED720 per person, the latest state-of-the-art water thrill will see intrepid explorers descend a ladder 10 metres to the bottom of The Ambassador Lagoon, whilst wearing an Aquatrek helmet.

This helmet receives a continuous supply of air, three times more than normal, so that the entire head remains dry, including hair, glasses or prescription contacts. Once guests have reached the bottom, they will embark on a guided underwater walking tour of one of the biggest open-air aquariums in the world, coming face-to-face with over 65,000 marine animals including sharks, stingrays, and schools of multi-coloured fish.



6,000 parts in Sennheiser HE 1 headphone

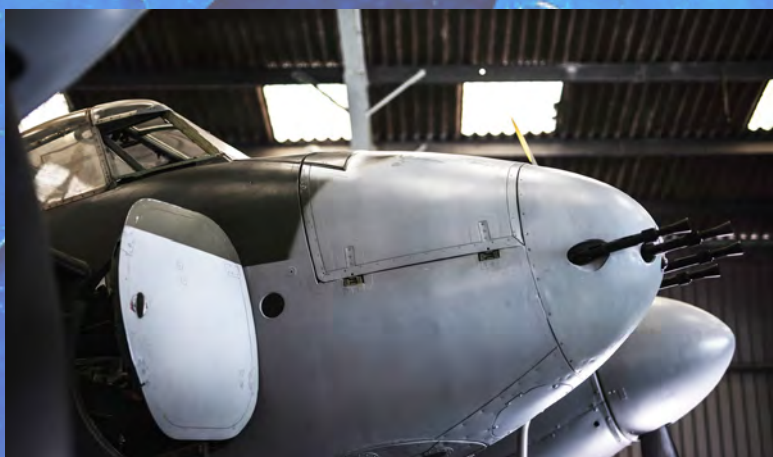
With the Sennheiser HE 1, Sennheiser has created another milestone in the search for the ultimate sound experience. Sennheiser set out on this search for the perfect sound under the motto reshaping audio excellence. Each of the 6,000 individual parts in the headphones is the product of manufacturing excellence, selected and processed by hand. The headphones cover an ultra-wide frequency range of between 4Hz and 100kHz. The headphones use gold-vaporised ceramic transducers to guarantee outstanding electrical and acoustic performance. The vacuum tubes are wrapped in high-quality quartz bulbs to prevent any sonic influence. The 99.9% silver-plated copper cables ensure there is no loss in quality. The core team of 30 Sennheiser employees worked on this new model for over six years.



Breitling launches Aviator 8 Mosquito watch

Breitling has created the watch to honor the de Havilland Mosquito, a British aircraft whose lightweight wooden construction made it one of the fastest planes in the skies in the early 1940s. With its new Aviator 8 Mosquito watch, Breitling has drawn on the design of the onboard clocks designed by its Huit Aviation in the 1930s and 1940s and from its renowned reference 765 AVI, Co-Pilot.

The Aviator 8 Mosquito honors a plane constructed almost entirely of wood, the de Havilland Mosquito. Its speed and maneuverability contributed to its incredible success and improbable range of roles, including unarmed light bomber, day fighter, night fighter, and even photographic reconnaissance aircraft. This extraordinary aircraft played a key role in the history of aviation, and Breitling is proud to commemorate a true legend of flight.



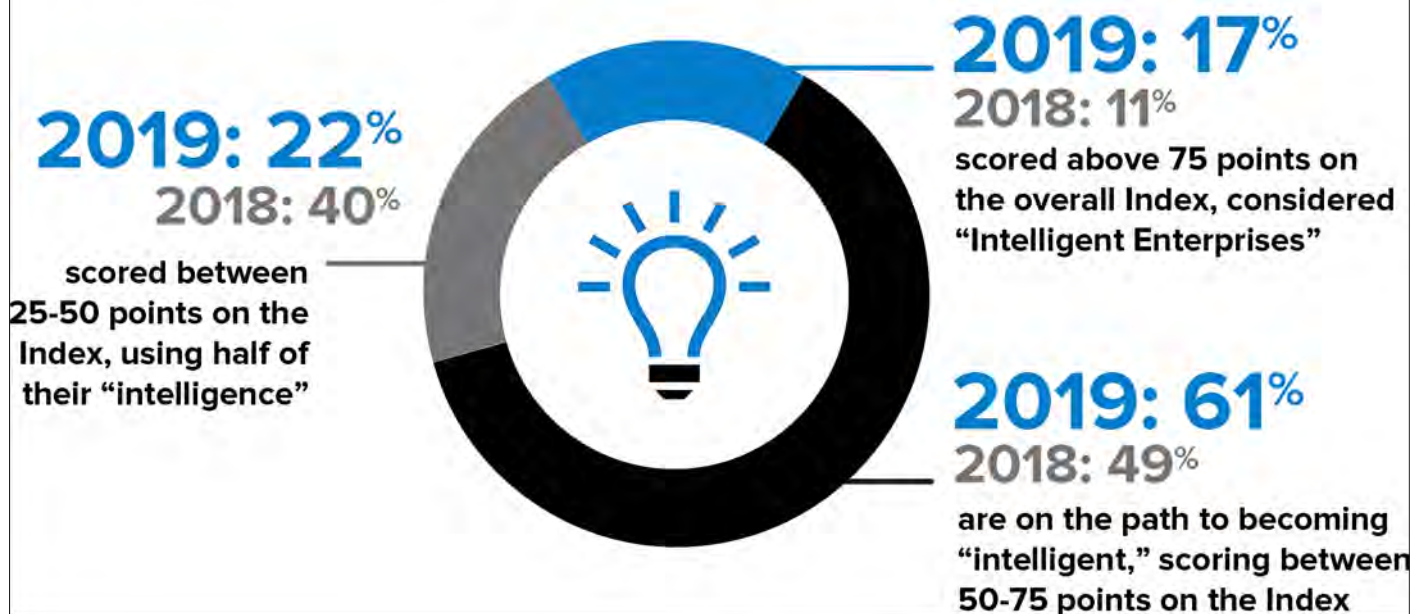
Gulf Craft launches all electric, 37M Majesty superyacht



With the Majesty 120, everything except for the engines and generators are electrically powered. From the fin stabilisers to the thrusters and steering, from the balconies to the passerelle, all services onboard will not require any use of hydraulics. Measuring 37 metres, with a beam of 8.10 metres, 26' and a draft of 2.00 metres 7', the Majesty 120 is constructed using advanced composites such as GRP and carbon fibre. Gulf Craft's in-house design studio is responsible for her naval architecture and exterior design, while the Italian studio of Cristiano Gatto Design Team undertook her interior design. The Gulf Craft team undertook months of rigorous development to ensure ultimate space optimisation. As a result, the new Majesty 120 boasts 30% larger outdoor entertainment areas compared to other yachts in its class.

HOW INTELLIGENT IS YOUR ENTERPRISE

The Intelligent Enterprise Index



IoT VISION



39% Increase in average annual spend on IoT from 2018 to **\$6.4 million**

86% expect that number to increase in the next **1-2 years**

Half expect their IoT investment to increase by **21-50%**



62% have an IoT vision and are currently executing their IoT plans

46% currently have company-wide deployments

67% of remaining companies plan to deploy IoT company-wide in the future

Source: Third Annual Intelligent Enterprise Index

HOW INTELLIGENT IS YOUR ENTERPRISE

Security

2019: 97% monitor their IoT security and employ standards to ensure integrity and privacy
2018: 95%



Constantly
2019: 62%
2018: 58%



Routinely
2019: 35%
2018: 37%



2019: 67%
2018: 69%

have some sort of proactive approach to IT security and network management

Technology Partner



2019: 36%
2018: 43%
 work with strategic partners as a team to implement their IoT plans



2019: 49%
2018: 40%
 use strategic partners to manage the entire IoT solution

Source: Third Annual Intelligent Enterprise Index

Zebra Technologies, announced the results of its third annual Intelligent Enterprise Index, which indicates a record 61% of enterprises worldwide are on the path to becoming intelligent, compared to only 49% in 2018. This global survey analyses the extent to which companies connect the physical and digital worlds to drive innovation through real-time guidance, data-powered environments and collaborative mobile workflows.

Their Intelligent Enterprise Index scores are calculated using 11 criteria that include Internet of Things vision, adoption, data management, intelligent analysis and more. The framework of an Intelligent Enterprise is based on technology solutions that integrate cloud computing, mobility, and the Internet of Things to automatically sense information from enterprise assets.

Based on these criteria and driven by an overwhelming pressure to improve the customer experience, retail organisations have gained the most momentum in the last 12 months. In total, 950 IT decision makers from nine countries were interviewed, including the US, UK, Great Britain, France, Germany, Mexico, Brazil, China, India, and Japan.



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