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# A practical guide to GCC corporate digitization

**Beyond strategies  
and road maps**

# Contacts

## Dubai

Jad Hajj  
Partner  
+971-4-436-3000  
jad.hajj  
@strategyand.ae.pwc.com

Jean Salamat  
Principal  
+971-4-436-3000  
jean.salamat  
@strategyand.ae.pwc.com

Sergey Yakimenko  
Manager  
+971-4-436-3000  
sergey.yakimenko  
@strategyand.ae.pwc.com

## About the authors

**Jad Hajj** is a partner with Strategy& Middle East, part of the PwC network, based in Dubai. He is a member of the telecommunications, media, technology, and digital practice in the Middle East. He specializes in helping telecom operators develop winning strategies and build distinctive capabilities. He has particular expertise in corporate strategy, business-to-business services, and digitization and innovation.

**Jean Salamat** is based in Dubai and he drives the digital and technology agenda across a number of practice areas. He specializes in strategy formulation, national digital agendas, digital transformations, digital blueprint development, and smart performance management. His work focuses on the energy, utilities, and transportation sectors, and he has worked with clients in Canada, Europe, the Middle East, and the United States.

**Sergey Yakimenko** is a manager with Strategy& Middle East based in Dubai. He is a member of the telecommunications, media, technology, and digital practice in the Middle East. He specializes in developing corporate strategies, detailing operating models, and identifying and detailing business development strategies. He has particular expertise in digitization, innovation, and organizational transformations.

Samer Doudar also contributed to this report.



## EXECUTIVE SUMMARY

**Despite good intentions, few companies in the Gulf Cooperation Council<sup>1</sup> countries have successfully implemented a digital transformation strategy. They need now to move from a conceptual appreciation of the importance of digitization to a focus on execution.**

Several obstacles or misjudgments have hindered progress. Rather than concentrating on the commercial goal of the digital transformation, too many companies have fixated on the technology itself, which soon becomes obsolete in a fast-moving environment. Moreover, the prevailing corporate culture has often worked against fundamental change, being incapable of generating and supporting new ideas. For their part, leaders have typically shied away from the inevitable risks associated with digital transformation.

There are five ways in which companies can catalyze the successful execution of a digital transformation strategy.

First, companies need to define precisely what they are trying to achieve from their investment in digital technologies. Their attention should be directed to one specific area for development, while defining which financial measure the investment is intended to improve.

Second, they need to introduce a performance management system that bases investment decisions on objective criteria rather than on self-interested motives, previous commitments, or the fear of failure.

Third, companies should identify who is in charge of the transformation program and ensure that all projects ultimately serve the chosen objective. Unclear lines of authority lead to inertia, while initiating disparate projects without an overarching purpose creates confusion. Senior management should either make the execution of the digital transformation part of their daily work, or appoint a dedicated chief digital officer (CDO).

Fourth, companies must have the right capabilities within their organizations. They should establish appropriate training programs and incentive schemes, while also recruiting and retaining people with the necessary skills.

Lastly, companies should engage in partnerships with external organizations to access invaluable expertise, knowledge, or experience.

## THE SLOW PACE OF DIGITIZATION IN THE GCC COUNTRIES

The importance of digitization in business is now widely accepted. Corporate leaders believe that digitization can be a major boost to revenue and profitability. How companies have responded, however, has varied greatly, with some disappointing results.

Some companies have implemented effective plans for digitization that fit their own commercial ambitions. These efforts have taken various forms. A number have introduced a comprehensive business-wide digital transformation, involving a fundamental overhaul of the company's business models. One example is how the logistics company C.H. Robinson ventured into customer service in the supply chain. The company has developed a smart platform, which allows its customers to take full control of their supply chain. Customers can transport goods around the world with more precision, collaborating efficiently with internal teams and their own clients, and making swift decisions based on real-time data. Using this platform, companies can anticipate challenges and opportunities in their supply chain.

However, the corporate approach to digitization has often not been so far-reaching. Some companies have embraced only a tactical adoption of digital technologies to target specific business needs. Indeed, the execution of digital transformation programs often fails completely. In some cases, very specific approaches to digitization have fallen out of fashion even as they were being developed, victims of the ferocious speed of change.

This misfiring is a global phenomenon, with companies in the GCC countries equally affected. We have observed major weaknesses in the execution of digitization, and little realization of value from multi-year investments. A 2018 Strategy& survey<sup>2</sup> showed that GCC executives acknowledge the importance of digitization, and have sought to transform their operations accordingly. However, despite significant investment, year after year, few clear-cut success stories have emerged. According to The Dell Technologies 2018 Digital Transformation Index, more than 90 percent of businesses in Saudi Arabia and the United Arab Emirates (UAE) are facing major obstacles in their efforts to undertake a digital transformation.<sup>3</sup>

The 2018 Strategy& survey of executives at global manufacturing companies revealed that digital transformation has been on every board's agenda for a number of years. However, nearly two-thirds of global manufacturing companies have not seen any results from their digital transformation efforts. In Europe, the Middle East, and Africa, only 15 percent of companies in the survey plan to establish mature digital ecosystems in the next five years. Furthermore, just 5 percent of companies in this region have implemented critical technologies that propel digitization, such as integrated end-to-end supply chain planning, a smart environment using the Internet of Things (IoT), or manufacturing execution systems.

There are a number of underlying reasons why these plans have not lived up to hopes and expectations.

First, the approach of many companies has been misguided, focusing exclusively on the technology itself. Instead, they should have been defining the business challenge that the digital transformation is supposed to tackle. Most industries cannot keep up with the rapid pace of development of digital technologies. Consequently, companies need to ask if they should abandon their existing investment in a technology that has become outdated, and instead spend their money on a next-generation wave of solutions. As such, they often have no clear idea of what digital means, nor of the potential economic benefits from digitization.

Second, digital transformations often encounter difficulties because of an unhelpful corporate culture. Organizations need to change their culture so that it becomes open to entrepreneurship and accepts more imaginative leadership styles. This culture needs to be flexible, capable of learning from failure and responding accordingly. In the same vein, organizations 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 tended to be risk-averse when it comes to digital transformations. Companies in the region already face multiple business challenges that bring considerable uncertainty to daily operations. As such, senior leaders have had little appetite for the additional risks associated with digital transformation.



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Most industries cannot keep up with the rapid pace of development of digital technologies

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## FIVE WAYS TO CATALYZE DIGITAL TRANSFORMATION

There are five ways in which companies can catalyze digital transformation, and extract themselves from this impasse:

**1**

### **Precise focus on the objective**

Companies need a precise focus for digital investment, targeting a particular business area for development and spelling out exactly which financial metric the investment seeks to improve. The precise focus allows a company to allocate resources and manpower in a timely and efficient way.

**2**

### **A new performance management model**

Performance management is an ongoing process that seeks to ensure that investment decisions are based on only objective criteria. Companies need an objective performance management system before embarking on any investment.

**3**

### **Proper ownership of transformation**

Major digital transformations require commitment and leadership from senior executives with the authority to act. This strong sponsorship could involve senior management taking control of digital transformation within their daily agenda.

**4**

### **Change management**

Companies should improve their internal capabilities through extensive internal training, and recruiting and retaining staff with appropriate skills. Improved capabilities facilitate innovation within the organization, with employees as the originators and driving force.

**5**

### **Collaboration and partnerships**

Companies need to collaborate and form partnerships with external organizations to gain access to specialist experience, information, or knowledge that may not be immediately available internally. The pace of digital change means that companies cannot depend entirely on the capabilities and ideas of their own employees.

## 1. Precise focus on the objective

Companies need a precise focus for digital investment, targeting a particular business area for development and spelling out exactly which financial metric the investment seeks to improve. The precise focus allows a company to allocate resources and manpower in a timely and efficient way.

These focused digital investments could target the following areas of the corporate value chain:

### **New digital offerings**

Development of new digital products or services can create additional value for the customer

### **Digitized sales channels and marketing**

Investment in the digitization of sales and marketing can improve the customer experience, thereby increasing the overall return on investment from these areas of the business

### **Digitized supply chain**

A supply chain equipped with sophisticated digital solutions can reduce the amount of time a product takes to reach the marketplace. This development can in turn increase the company's asset turnover ratio — its revenue relative to the value of its assets — and its market share.

### **Digitized corporate processes**

More streamlined internal operations rationalize the cost structure of the company, enabling it to become more profitable and competitive (see *"Building the digital enterprise,"* page 6). As important, companies must determine at the outset which financial measure the investment is seeking to improve. Companies can measure the economic profit of their investments through economic value added (EVA). Unlike accounting profit, economic profit takes into account the opportunity cost of the invested capital over a period of time.

There are a number of approaches to measure the EVA of an investment: growth in revenue, improvement in operating margins, or increase in the asset turnover ratio. The impact of each one of these measures on the total economic profit of the company depends on the characteristics of the business and its industry. Rather than simply seeking to improve an ill-defined notion of general performance, any investment in digitization should focus on boosting the particular EVA metric that would have the greatest influence on the company's overall economic profit.

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# Building the digital enterprise

Siemens has a state-of-the-art facility at Amberg in Germany. The purpose of the plant is to streamline internal processes along the whole value chain.<sup>4</sup> The factory, an example of the Siemens concept of a digital enterprise, produces programmable logic controls. These items automate machines such as ski-lifts and the on-board systems of cruise ships. The factory manufactures one product every second. The Amberg plant has made production more efficient and has used digitization to improve product design, planning, engineering, and execution. The factory has also reduced its environmental impact.<sup>5</sup>

Siemens is able to change product design faster and be more flexible with its production process, and it has more product variants (the factory makes 120 variants each day). A Siemens product developer can change the software to alter a product and then transmit

this instruction to the production line. The factory has faster production planning as digitization allows for accelerated product commissioning, reduced risks and costs, and better management of complexity. Production engineering is improved with higher quality and reliability, greater engineering and production efficiency, and increased automation that has reduced labor costs. The result is a 20 percent increase in the mean time between failures over 10 years.

The digitized factory's production execution is faster because of accelerated manufacturing engineering processes, higher shop floor quality, greater delivery reliability, and the availability of big and smart data. Manufacturing engineering is five to 10 times faster, and 99.5 percent of deliveries happen within 24 hours. The digitized factory is also greener with more efficient usage of carbon dioxide, power, and water.



## 2. A new performance management model

Performance management is an ongoing process that seeks to ensure that investment decisions are based on only objective criteria. Companies need an objective performance management system before embarking on any investment. This is to eliminate the distorting influence of human biases, corporate politics, and self-interested decision making.

Before setting a new performance model to foster a successful digital strategy, businesses must first understand and tackle the root causes of poor decision making in the digital space. The principal causes of sub-standard investment decisions have been the biases and internal politics that can skew executive perspective on crucial challenges.

One such bias involves the practice of anchoring, which refers to the tendency to use any number, even an irrelevant one, as an anchor for future choices. For example, the scale of last year's budget may serve as the anchor for next year's budget choices, even if the company's needs have changed substantially.

Another bias affecting decision making is loss aversion, the tendency to prefer avoiding losses to acquiring equivalent gains. One example is how the fear of losing money in an investment can take priority over the desire to profit from it. Venturing into the relatively unknown territory of digitization, and tackling the associated challenges, can sometimes appear too daunting. Some executives inevitably prefer to play it safe.

The existence of corporate politics, meanwhile, means that some business unit leaders prioritize the needs of their own department over the corporate entity as a whole. For example, if resources are diverted away from their own department toward a digitization plan that would benefit the entire company, ambitious leaders may choose to resist this development.

Decision-making processes should be founded on insights derived from a data-driven analysis. Instead of using a proxy as the basis for the allocation of expenditure, companies should work to create fact-based anchors, such as targets obtained from a study of general market growth or from using benchmarking analysis on operational results.<sup>6</sup> Companies also need to find a way of aligning the quantity of the investment with the eventual outcome and performance, with payments based strictly on the level of business benefit delivered (see *"Performance-based financing,"* page 8).

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# Performance-based financing

Companies embark on investments to gain business benefits such as improved productivity or enhanced efficiency. The emerging technique of performance-based financing, however, allows an organization to pay only once explicit business outcomes have been accomplished, rather than paying out regardless of what has been achieved. This financing method effectively transfers the investment risk of a digital investment from the purchasing company to the technology provider.

A recent investment by a global provider of automated industrial production and assembly solutions offers one example. The particular investment related to innovative

software and systems that would accelerate the company's product development by virtualizing the design process and by combining real and virtual environments to measure the impact of product changes.

Although acknowledging the system's perceived benefits, the company had already allocated its capital budget for the relevant period. It therefore structured a financing arrangement that tracked the predicted increase in earnings from the deployment of the software. Payment schedules were set according to pay-as-you-benefit time lines corresponding with the planned phases of the project.

### 3. Proper ownership of transformation

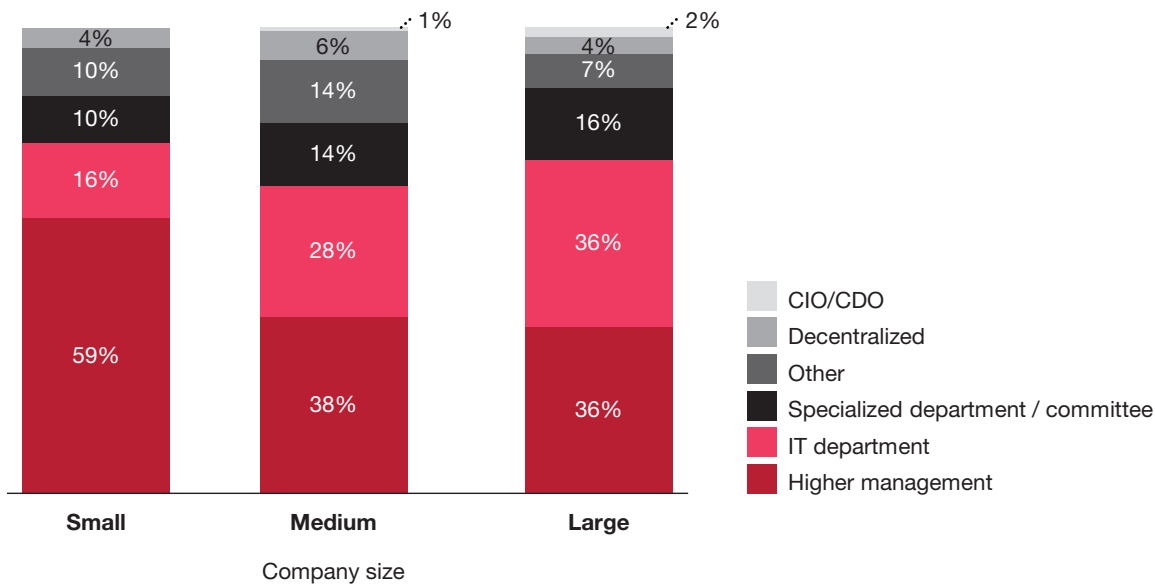
Major digital transformations require commitment and leadership from senior executives with the authority to act. This strong sponsorship could involve senior management taking control of the digital transformation within their daily agenda. However, according to a Siemens/Strategy& survey in 2016, senior management took responsibility for digitization initiatives in only around one in three large companies (see *Exhibit 1, page 10*). In a similar proportion of major companies, the IT department was reported to be in charge. Too often, a weak IT leadership is simply implementing haphazard or disjointed orders from on high without itself having any genuine decision-making powers or ownership. In these situations, the digital transformation can lack the necessary direction and purpose.

Alternatively, the company can select a chief digital officer (CDO) to champion the digitization strategy, which would lead to several major benefits (see *“The CDO model at BASF,” page 10*). Such a dedicated role would signal the importance of the various aspects of the digital transformation to the entire organization — the need for a holistic digital strategy, for digital ecosystems, for a new architectural stack to underpin platform-based business models, and for the agile and scalable delivery of digital services. In addition, the CDO can act as a neutral arbiter who fosters collaboration between business units without any self-interested political motives and for the benefit of the organization as a whole. Finally, the appointment of a CDO grants ownership of the digital transformation to one individual who can ensure consistency of direction and maintain focus on implementation. Ownership should not rest with various project teams that work on projects at the behest of senior management, which subsequently takes a back seat. An all-encompassing transformation cannot be accomplished through discrete and unconnected projects, or without strong leadership maintaining close coordination and a common ultimate objective.

Irrespective of the approach a company takes, the digital transformation requires patience and resilience. The process affects many different aspects of a company’s business model, and may reveal major flaws, such as poor data quality or ambiguous lines of authority. Meanwhile, the transformation will be effective only if the organization’s culture and processes undergo fundamental and sometimes unpopular change. At all stages, there are far-reaching decisions to be made and implemented with resolve and determination.

## EXHIBIT 1

Top management still plays a key role in promoting digitization in Qatar and the UAE



Note: Small = fewer than 50 employees, Medium = 50 to 1,000 employees, Large = more than 1,000 employees. CIO = Chief Information Officer. CDO = Chief Digital Officer.

Survey question: "Does your company have a position/body that bears central responsibility for these topics and makes decisions regarding a digital strategy?"

Source: Samer Bohsali, Rawia Abdel Samad, Sevag Papazian, Osama Eid, Benjamin Schroeder, and Katharina Hatz, "Preparing for the digital era: The state of digitization in GCC businesses," Strategy& 2016

# The CDO model at BASF

Digitization has been central to BASF's corporate strategy. Getting the right leadership was critical at the German chemical company. Given the size of the company and the number of operating and functional divisions, each with its own specific demands, BASF might have easily adopted the widespread approach of having many disparate project teams overseen in random fashion by senior managers preoccupied with other important tasks.

The company understood, however, that it needed an independent leader charged with sole responsibility for leading the digital transformation, a CDO who would report directly to the CEO. This was the most effective route toward BASF 4.0, a transformed organization that makes use of digital methods to achieve greater levels of efficiency and growth.

New offerings now have been made possible by digitization, and the company has heavily digitized its supply chain and industrial processes. Meanwhile, digital solutions have strengthened the company's research and development. For example, the company's high-performance computer, Curiosity, has the power to calculate the most promising polymer structure from thousands of possibilities.

Digital technologies have made the delivery process more reliable, more visible, and more informative for customers. The company itself benefits from improved insight into the performance of its supply chain. On the production side, BASF is using data to forecast maintenance requirements for plants, and to reduce the number of unexpected shutdowns.





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A talent strategy designed to effect change should first encompass an assertive retention and recruitment policy

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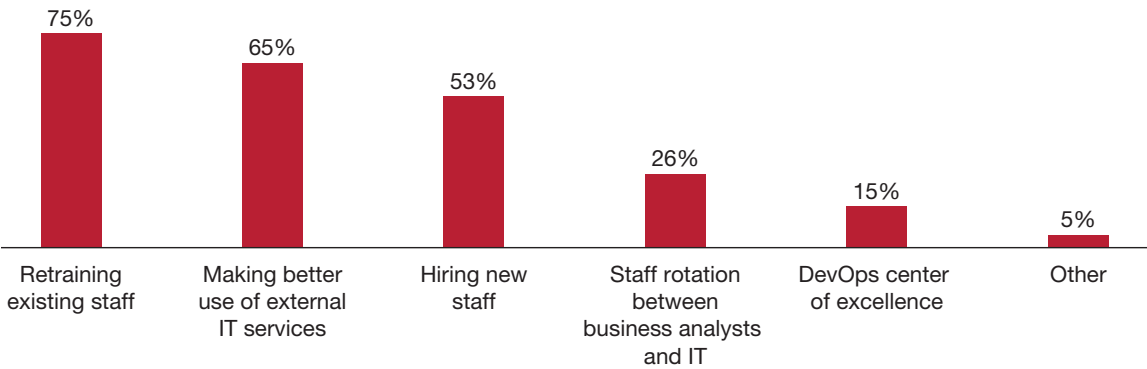
## 4. Change management

Companies should improve their internal capabilities through extensive internal training, and recruiting and retaining staff with appropriate skills. Improved capabilities facilitate innovation within the organization, with employees as the originators and driving force (see “Boosting digital innovation”).

The talent strategy should first encompass an assertive retention and recruitment policy. People with the necessary skills need to be motivated to remain within the organization, while a forward-thinking culture centered on innovation can attract suitable new recruits to plug any talent gaps. The employer brand, the way a company differentiates itself in the labor market to attract and retain talent, should be refined accordingly.

Another element of a change-oriented talent strategy is learning and development. Senior management in the GCC region understands the importance of equipping employees with the up-to-date skills that can enable each one of them to make their own personal contribution to the company’s digital innovation and transformation (see Exhibit 2).

**EXHIBIT 2**  
Providing the skills for digital transformation in GCC countries



Note: Based on 88 interviews.  
Source: IDC Middle East CIO Summit Survey, February 2018; reproduced with kind permission of IDC

Many companies in the region still rely too heavily on external IT providers for the skills they need in their digital transformations. This practice detracts from the process of embedding internal organizational change. Given the high costs involved, this is also an unsustainable course.

The right organizational mind-set must be established if employees are to be encouraged to take risks and come up with new digital ideas. It is not enough simply to recruit and retain the right people and train them in the right way. Organizations need to provide the people with incentives to generate new ideas. Gamification is one possible means of affecting cultural change because competition between team members can encourage innovative thinking.

# Boosting digital innovation

Utilities companies face continuous challenges, including natural resource depletion, the pressure to be more customer-focused, and most recently, the need to change their traditional way of working.

Strategy& worked with a European utilities provider as it sought to increase digital innovation. The company introduced an Innovation Center of Excellence (CoE) to stimulate and embed innovation in the organization, create proofs of concept and prototypes, and build the capabilities, processes, and culture required.

As a result, innovation became integral to the organization, with a clear process and agile

governance ensuring the sustainability of the initiative. The CoE could boast real achievements even in its first six months.

An employee productivity platform, built on Google technology, was designed and developed. It allowed 8,000 staff to manage their schedules, leading to significantly improved productivity. The CoE also developed a gamified data collection application to incentivize field engineers to collect asset data as they go about their work. The application improved the quality and completeness of asset data by 75 percent in just three months.

## 5. Collaboration and partnerships

Companies need to collaborate and form partnerships with external organizations to gain access to specialist experience, information, or knowledge that may not be immediately available internally. The pace of digital change means that companies cannot depend entirely on the capabilities and ideas of their own employees. Although it does not make commercial sense to pay continually for the services of external IT providers, it is too risky to wait for all the necessary capabilities to develop internally as key opportunities could be missed.

There are three types of partnership. The first is for a joint collaboration to create a combined offering. The second is a partnership based on the exchange of mutually beneficial information with the aim of prompting ideas for innovation. The third is with startup companies whose cutting-edge technology may support or accelerate the desired digital transformation (see *“Three-way partnership to produce 3D-printed aircraft parts,”* page 14).

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# Three-way partnership to produce 3D-printed aircraft parts

Siemens, along with the aero-structures manufacturing facility Strata and Etihad Airways Engineering, successfully designed and manufactured a part for inside an aircraft using 3D technology in 2017, the first such production in the Middle East.

The part in question is the plastic frame that surrounds the television screens inside aircraft. The project was able to make the part on demand, which means less production time and no need for shipping or storage. 3D printing alleviates the need to design and build

assorted tools for the manufacturing process. It allows for the virtual modeling and rapid printing of any design updates.

The three companies shared their capabilities. Siemens used its knowledge of industrial 3D printing to guide material selection, testing, and the development of the manufacturing processes. Etihad Airways Engineering was responsible for the design and its certification for use in aviation. Meanwhile, Strata carried out the 3D printing in its UAE-based factory.<sup>7</sup>



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## CONCLUSION

Companies need to define the focus area for their digital transformation program after careful and objective analysis of their particular business needs and goals. To increase the chances of success, they need clear lines of authority and enhanced capabilities within the organization. Collaboration and partnerships with third parties can compensate for any lack of internal expertise or information. Once these catalysts for progress are in place, companies can look forward to a purposeful and successful execution of their digital transformation strategy.

## ENDNOTES

1. The GCC countries are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.
2. Reinhard Geissbauer, Evelyn Lübben, Stefan Schrauf, and Steve Pillsbury, “Global Digital Operations Study 2018: Digital Champions,” Strategy& 2018 ([https://www.strategyand.pwc.com/media/file/Global-Digital-Operations-Study\\_Digital-Champions.pdf](https://www.strategyand.pwc.com/media/file/Global-Digital-Operations-Study_Digital-Champions.pdf)).
3. Sam Bridge, “90% of UAE, Saudi firms say facing digital challenges,” *Arabian Business*, October 25, 2018 (<https://www.arabianbusiness.com/technology/406797-90-of-uae-saudi-firms-say-facing-digital-challenges>).
4. Siemens, “Leading as the digital enterprise,” 2017 (<https://tinyurl.com/yxfgnkbb>).
5. “Embattled German Industrials Pursue the Factory of the Future,” *Industry Week* (licensed content from Bloomberg), June 9, 2017 (<https://www.industryweek.com/automation/embattled-german-industrials-pursue-factory-future>).
6. Dan Lovallo and Olivier Sibony, “Re-Anchor Your Next Budget Meeting,” *Harvard Business Review*, March 26, 2012 (<https://hbr.org/2012/03/can-you-re-anchor-your-next-bu>).
7. Siemens, “Strata, Etihad Airways Engineering and Siemens reveal the MENA’s first 3D-printed aircraft interior part,” 2017 (<https://tinyurl.com/y2lpucwf>).

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