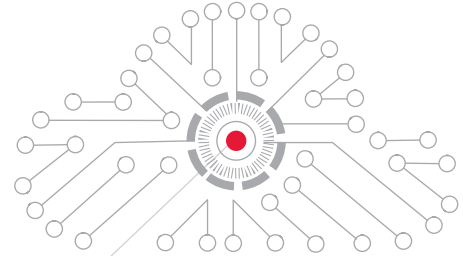


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GLOBAL LEADERS

**Tech  
Mahindra**



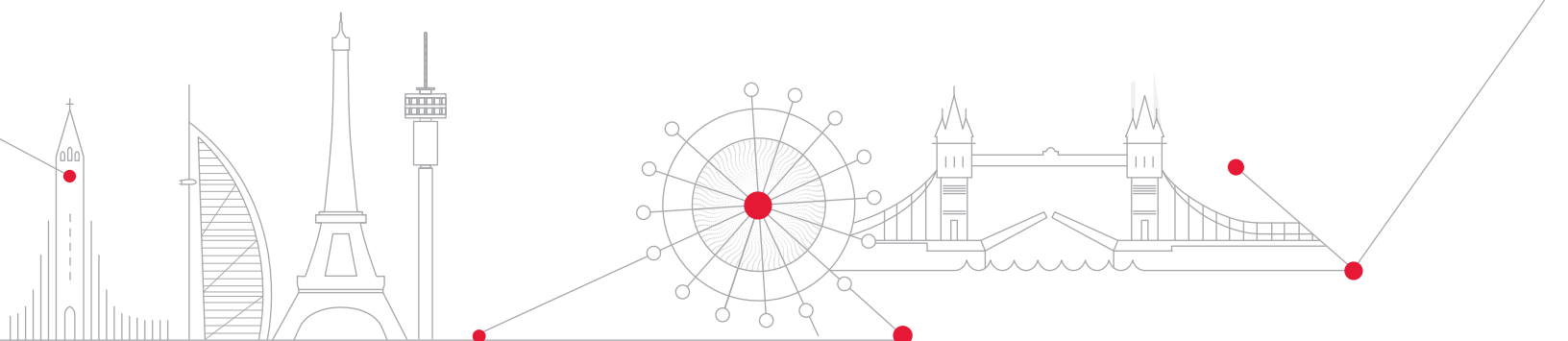
EMEA Edition | 2022-23

# TECHMSCAPE

A Tech Mahindra Exclusive Thought Leadership Journal



**NXT.NOW™**  
Experience the future. Now.



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**NXT.NOW™**

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## **CP Gurnani**

*Managing Director and Chief Executive Officer,  
Tech Mahindra*

As we move further and dig deeper into the digitalized age, we will continue to see increasing demands for smart and efficient product and service, production, and performance across the globe, which can deliver seamless human-centred experiences. At Tech Mahindra, we help our customers solve business challenges prevalent today and anticipated for tomorrow – by harnessing new technologies that ensure transparency, customer-centricity, and flexibility. Today's new world offers new challenges and opportunities. Innovation is inevitable, and perhaps, is the only way to create a progressive world. With our digital and technical prowess, we help enterprises pursue innovation and technological excellence. This journal attests our efforts towards putting our customer requirements on a high pedestal while leveraging, transforming and expanding our tech horizon. Digital transformation is the way forward and we are looking at further strengthening capabilities for our customers in the European market on their journeys, both at service as well as process level. A strong focus area for us is sustainability and we are looking at integrating the same in our digital transformation roadmap for the Europe, Middle East and Africa markets. We aim to deliver human-centric experiences to our customers through NXT.NOW™, and create value, proactively through reimagining and understanding key business drivers and priorities.



In this inaugural edition of **TechMscape**, Tech Mahindra's Europe, the Middle East, and Africa (EMEA) exclusive thought leadership journal, we the leaders of tomorrow, bring to you, a series of exciting and inspiring read on how continued focus on customer-centricity can propel businesses to excel even in tough times such as the pandemic. In our bid to do things differently and sustainably, this journal highlights our priority to understand the problem areas, business processes and strategic business direction of our customers.



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A special note of thanks to David and Justin for their contribution in this journal and sharing their valuable insights on how they successfully drove digital transformation in their respective organizations.



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**Vikram Nair**

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## Introduction



## *Harnessing Change to Unlock Customer Centricity*

“The best time to prepare for change is before it starts. Even better? Start it yourself.”

In a year that demonstrated sheer speed and scale of change, one abiding lesson is not to idly predict the future but instead, build an organizational capability that prepares for the many possible futures that could unfold. And how?

As the President of EMEA at Tech Mahindra, my role derives its core from how well we read the cognitive plane perpetually emerging through the intersecting industry insights, technology trends, market measures, and societal structures. Most change-makers see their jobs as fraught with risks and bearers of rewards. I do too. The limitless possibilities and the relentless responsibility they bring, make my Mondays more meaningful.

### **‘FOMO’ Makes Sapiens Chase an Illusion of Control**

By itself, change is a neutral entity. After all, we love the changes we opt for – a new home, a new hobby – and we resist the ones we can’t control – a health scare or a regulatory change. Stress is our response to a situational threat and anxiety is our response to a future fear. Neither of them is entirely useless. In fact, for the planning function it triggers in us, psychologists refer to anxiety as the ‘shadow function of intelligence.’

So, when change hits, as opposed to feeling unhinged, what do the perceptive leaders amongst us do? We don’t chase control; we pursue clarity. Because when we don’t rush to ‘manage’ change, rather bring stillness to our thoughts, we ladder down to a sanctum of simplicity and move deeper into the mindset. The future as we see it in the ‘here and now’ state feels promisingly fluid, and hence is easily malleable.



## Minds Matter, More Than Matter Itself

Thought leaders recognize the mindset layer as valuable where creativity and collaborative leadership flourish but also tricky where the biggest blocks to successful transformations are found. A mindset's levers are invisible but their impacts are very tangible. Haven't we frustratingly encountered situations where despite the incentives, smart and persevering team members fail to embrace change and continue with old ways of working?

Given this context then, astute captains of the industry do not place the cart – technology or even, strategy – before the horse, the mindsets. They know it is an easy mistake to slip into, and a costly one to recover from. Mindsets being intrinsically linked to change at an individual level means they also determine where enterprises end up on the 'growth continuum.' This is the primary reason why institutions should unabashedly examine their current mindsets.

## NXT.NOW™

Our pursuit of change through NXT.NOW™ is built on a mindset rooted in clarity. Our priorities are shaped by the unprecedented changes brought on by epic current events, and mankind's spirited response. We believe the best way to seize change is to first imagine a range of next possibilities, and then craft pragmatic solutions that can be delivered now, so that our clients gain competitive dominance, not just parity or advantage.

If TechM's promise – NXT.NOW™ – needed one pre-condition, it would have to be the key organizational attribute of customer-centricity. While most contemporary conversations on customer-centricity focus on B2C organizations, it needn't be a limiting factor.

## Change is Personal – For Us and For the Customer

Today, leading enterprises are acutely aware that the deeper their teams prepare for embracing change, the more creative they get in focusing on the needs of their customers. After all, the currency required in accepting, spreading, or leading change – empathy – is common. In fact, along with a curious mind, don't the greatest innovations have their humble beginnings in an empathetic heart?

Having explored elements of change, the underlying mindsets, the obvious question at this point is: how do organizations keep ascending the spirals of customer-centricity? And what role do leaders play in that journey?

### A 'Journal' Ahead

I want to share our perspective and approach of Change through seven narratives that follow in this journal. I hope the narrative gives our esteemed readers a good perspective on how Tech Mahindra delivers the top three objectives of the CEO of any organisation - run better, change faster, and grow greater – through collaborative disruption with hundred plus new-age technology partners, start-ups, and global academia.

I believe the most important actions leaders can take to change mindsets and drive customer-centricity is presenting compelling ideas. This journal is my way of sharing a few ideas that should trigger some positive outcomes. We have stories from across industries, technologies, and themes such as sustainability and relationships.

Tracing contextual technology and trends, not only do the stories articulate the current customer pulse, but they are also evidence of TechM's vast expertise. At its heart, however, this journal highlights the need for change ahead of time in the unique NXT.NOW™ way through customer-centricity. Be enthused.



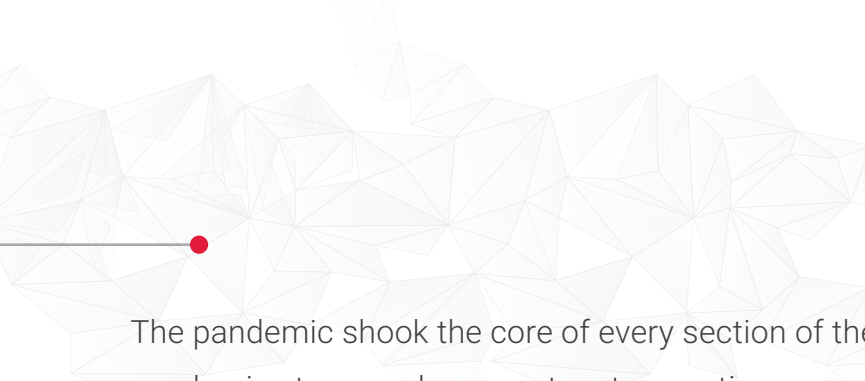
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## The Digital Road Ahead Across an Organization's Entire Ecosystem



The pandemic shook the core of every section of the global economy and society. From academics to everyday monetary transactions, care delivery, and supply chain orchestration, some things have changed for good. Discerning business leaders viewed this as an agent of change – a harbinger of enterprise agility and simplification led by faster adoption of digital technologies. This transformation towards cloud-native, data-driven enterprises, leveraging smart networks and technologies like 5G, AI/ML, AR/VR, etc., will amplify the touchpoints between a business and its customers. As this reliance on technology scales up, human-centric experiences will become the defining parameter of business success for both B2B and B2C enterprises.

## So, What Changed?

Organizations across the board faced the need to transform on two fronts – how they engage with their customers, suppliers, partners, as well as with their employees. Given the severe restrictions placed by the pandemic on physical contact and trading, one of the biggest changes that every organization made was to increase its ability to trade digitally. This goes beyond launching websites and mobile apps; a complete rethinking of the products and services they offer and how they work toward delivering it to their customers became crucial.

Emergence of video communication is another major shift in the way we connect with internal and external stakeholders. Group video communication platforms that integrate both instant messaging and document sharing seamlessly and allow access from any device, will continue to be in huge demand. With supply chains across the globe going through a massive strain, yet another key investment area for businesses would be to build a smart and dynamic ecosystem. Lastly, digital technologies are inherently more environment friendly, and hence, business transformation with sustainability at the core makes great business sense.

In this climate, companies must use this opportunity to upgrade their technology stack.





Small- and-medium businesses (SMBs) and large enterprises are adopting different approaches to address this:

**SMBs:** For SMBs, reducing the cost of maintenance and upkeep tops the agenda, as they look for a less complex operating footprint for their systems and applications. They must prioritize a core set of applications, which are ideally cloud-native, to accommodate the day-to-day processes such as communication, collaboration, productivity, and reporting. Open-source software has increasingly become the most popular choice. Hyper-personalization, rapid product launch, quick response to adverse events like social media feedback are becoming centerpieces of any product and service strategy. Being 'digitally savvy' helps SMBs dream of growth without spending a huge fortune on systems or marketing.

**Large enterprises:** These companies are more likely to seek solutions that will transform their legacy infrastructure and processes. Cloud-based, data-driven applications will be at the forefront of a business's digital transformation, with a particular focus on security and ESG parameters. Managing this change will be an important element to determine how new and hybrid working tools will operate efficiently. When it comes to industry-specific trends, smart manufacturing, digital healthcare, immersive customer experience, AR/VR-driven maintenance support, and even smart agriculture, have gained momentum with the new wave of digitalization. Organizations that can leverage the huge data at their disposal for fast and critical decision-making will take a leap against the competitors. Building a robust enterprise network as a backbone to a strong digital IT stack is therefore important. Most large organizations are yet to focus on the power of software-defined networks (SDN) or 5G.

## Building an Agile and Responsive Digital Enterprise

While companies focus on developing new digital business models, transforming the organization internally to be in tune with today's increasingly remote work culture, is of paramount importance.

Digital enterprises that are able to unlock employee potential through collaboration tools and modern work practices will be faster to scale up, going forward. The workforce of the future will be influenced by three trends:

**The Gig Economy:** The first is the rise of the gig economy, where businesses are now hiring employees for short-term and flexible work. Many global C-suite leaders today, aim at leveraging high-skill platforms to accommodate the rise of a flexible workforce.

**Reskilling:** With digital collaboration platforms already facilitating the new ways of working, in the coming years, such tools will play a major role in employee reskilling/upskilling. Down the line, as the digitally native workforce becomes mainstream, organizations will need to develop new ways of fostering continuous learning, while maintaining their core ethos and culture.

**Employee Wellness:** As the distinction between personal and professional life was put to test with hybrid working, employee health and wellness emerged as a priority for many businesses. While innovation in technologies like AI, cloud, and 5G are aiding in improving operational efficiencies, the need to reskill and work with new technologies can often be taxing and stressful. As such, health and wellness will be a top priority for many employers.

## The First Milestone of Many

There is no questioning the path-changing power of digital technologies, during times of global economic distress or otherwise. Digitalization is a mainstay to realize the needs of agile and responsive businesses. Interestingly, we have just begun to explore the full potential of digital technologies; with increasing acceptance of 5G around the corner, blockchain gaining momentum, and quantum computers becoming more practical, businesses need to embrace the next big change by investing in upgrading internal skills as well as building reliable partnerships. NXT.NOW™ strives to ensure organizations stay nimble and poised for continuous transformation, through an ecosystem of trusted partners who can bring strategy, technology, and service capabilities together.



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**Jinender Jain**

*Sr Vice President and Sales Head, UK and I at Tech Mahindra*

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## Solving The Tech Conundrum

## *How can relationships drive successful digital transformation*

Digital technologies have become more prevalent than ever, in their role as catalysts for disruption across diverse industries for businesses both big and small. Across the world, markets are evolving, and the change has only been accelerated by the global pandemic. In fact, more than 30% of UK business decision-makers are of the opinion that pandemic-related operational changes have led to drastically higher digital transformation budgets.<sup>1</sup> The focus now is on creating digital native businesses, ramping up the modernization of core tech, and transforming critical business processes. Since March 2020, over 50% of UK firms have successfully adopted one or more new digital technologies, and that number is only going to grow in the years to come.<sup>2</sup>

There is, however, a catch. Research on digital transformations has shown that less than 30% succeed, and that includes digitally savvy industries like high tech, media, and telecom.<sup>3</sup> While there are numerous reasons behind the failures of most digital transformation initiatives, there is one primary factor that plays a pivotal role – a lack of understanding of people and technology. And that's where tech advisors like TechM come in. By working closely with organizations and building lasting relationships, tech advisors align digital transformation efforts with business goals, ensuring success in a highly competitive environment. Based on how tech advisors help businesses make key decisions, these relationships can be segregated into three distinct categories.

### **Paternalistic Relationship**

This is the oldest and most traditional type of company-advisor relationship. Here, the tech advisors are in charge of making key decisions. Being authorities in the field of digital transformation, they take responsibility for making the right choices with the company's best interests in mind. Options are not necessary. For example, if there's a choice between a 'red pill' and a 'blue pill', in a paternalistic relationship the advisor might directly ask the client to opt for the red pill. In this scenario, the blue pill won't even be discussed because the advisor has determined that the red pill is the right option for the company's business goals. This model



relies heavily upon tech advisors having a very clear idea about their clients' businesses, sometimes even more than the clients themselves. Although often denounced in a world that favors a more collaborative approach, paternalistic relationships are still quite common in the enterprise space.

## Informative Relationship

In some ways, an informative relationship is the opposite of the paternalistic model. This type of relationship is characterized by the tech advisor sharing details, key facts, and figures so that the client can make an informed decision. Going back to the 'red pill, blue pill' example, in an informative relationship, the advisor would first describe the red pill and blue pill in detail and then ask the client to choose. This is akin to a retail relationship where the advisor plays the role of the technical expert and clients are consumers. The advisor's job is to supply up-to-date knowledge regarding market trends and digital solutions and then allow the client to make the final decision based on the information provided. To make this model work, the tech advisor needs in-depth knowledge about the relevant products and services, but knowledge regarding the client can be far more limited. This type of relationship works well when choices are clear, trade-offs straightforward, and clients have specific preferences. The fact is, clients don't truly desire either of the relationship models discussed so far. They want information and guidance, but they want control as well. In other words, what they want is the best of both worlds. And that is where the third relationship category comes in.

## Interpretive Relationship

The focus of an interpretive relationship is to gain a deeper understanding of the primary objectives that drive a business and the problems that need to be solved to get there. When that becomes clear, the advisor provides the client with detailed information about all available options. Adhering to the ongoing theme means explaining the pros, cons, and applications of both the 'red pill' and the 'blue pill', before sharing the expert opinion on which option will help in achieving the client's business goals. Moreover, solutions like this are

becoming a part of the business as they provide critical insights for data-driven decision-making as legacy data may no longer be a good indicator for predictions, especially in the post-pandemic scenario. Sometimes it might even be necessary for tech and IT advisors to go beyond just interpreting the objectives. Clients who choose to proceed with the interpretive relationship model often appreciate it when the advisor prevents them from making short-sighted decisions. In this context, it is always preferable for tech advisors to engage in detailed discussions with clients regarding their larger and long-time goals, and to even challenge them to re-think ill-considered priorities.

Interestingly, it is much easier to adopt an informative approach compared to the interpretive route. But it is a favorable trade-off if it ensures better decision-making. For example, business decisions regarding public cloud need careful consideration of network security architecture or edge computing needs, balanced with compliance and data privacy concerns. In a scenario like this, an informative approach would not yield desired outcomes, as it is unlikely that the client will possess the expertise to make the right decision, even with all the relevant information.

## In Conclusion

Needless to say, adopting cloud services, industry frameworks, and best practices can go a long way in ensuring success. However, a one-size-fits-all approach is never ideal when it comes to digital transformation. Needs, objectives, and technology infrastructure are unique to every business. So, it makes sense to have a transformation program and organizational model that is tailored to those specific goals. At TechM, we aim to be as interpretive as possible in all interactions with our client base in the UK and I region, along with a clear goal of taking the time to understand and align with the people behind the business. We know that advisors and clients who invest the effort in building an interpretive relationship often find success at the end of their digital transformation journey.





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## Envisioning Telcos through the Lens of Next-Gen Technologies



## *Imagining the future of telcos using customer-centric tech solutions*

The emergence of blockchain is solid bedrock of distributed systems that validates and records third party transactions. It is revolutionizing the way we share information and carry transactions online. The European Union (EU) is paving the way towards a strong framework that follows a structured approach to become a leader in the way blockchain technology is further innovated.

While Asia has been hosting notable blockchain and metaverse events in the recent past European countries have been busy focusing on its regulation and innovation, aiming to showcase themselves as the 'blockchain nation' of the world, hosting several significant blockchain companies and metaverse platforms. With everyone trying to succeed in this digital era, countries like France, are currently seeking a change in the way technology is perceived and adopted in organizations, to digitally transform and modernize industries, especially the small and medium ones. With metaverse platforms aiming to touch base various sectors, the focus has shifted towards incorporating and integrating sustainable and new resources, ecological mobility and transport of the future, data economy and digital trust, smart objects and sustainable cities, smart feeding, industry and medicine of the future and more to add to the value proposition.

Furthermore, the COVID -19 pandemic posed a new threat and forced many medium and small businesses to shut down entirely or change their business model to offer take-out or delivery options and migrate to a completely digital experience. As much as the tele-communications industry benefits from this sudden surge in digital adoption, they also face enormous amounts of pressure to support these businesses digitally. Telecom operators are in a race and are competing with each other to provide a better value to their existing and potential customers while trying to increase their profit margins. New-age technologies namely blockchain, non-fungible tokens (NFTs) and metaverse would be key for them in doing so.





## Focus Technologies of 2022

- At its core, **blockchain** has become more than just a buzzword. With its decentralized, transparent and secure digital data-flow nature, blockchain has an endless number of applications across almost every industry. This transparent ledger technology can be applied to track fraud in finance, securely share patient medical records between healthcare professionals and even create a parallel universe.
- A non-fungible token (**NFT**) is a unit of data on this digital ledger, with each NFT representing a unique digital item. It is a digital asset that represents real-world objects like art, music, in-game items, GIFs, collectibles & videos, which are bought and sold online, frequently with cryptocurrencies.
- Today's digital technology also, allows us to be present in shared virtual spaces, sharing the same experience as someone else across the globe. **Metaverse** – “a universe beyond” – is a digital domain that allows people to interact, cooperate, play games, conduct business, and socialize with other humans or digital (virtual) things. It also uses technologies such as VR, AR, mixed reality, digital form, and assisted reality that integrates the physical with the virtual world and puts together a variety of use-cases and domains, ranging from entertainment and production to sports and healthcare.

## Building a Virtual World without Limitations

Although Metaverse and blockchain are too different concepts, they cannot exist in isolation. Their true potential can be unlocked only when they are applied together. Because of the fact, that they all have many features and functions that complement each other, enabling them to converge is the way to make them indispensable. Metaverse being a virtual copy of the real, practical world, it would tempt any user to purchase digital versions of just about anything they can buy in the real world. This is where the blockchain technology comes in, it allows you to own digital goods in these virtual worlds, in form of crypto currencies and NFTs.

However, buying things is just the beginning of blockchain-based money in the metaverse. Decentralized Finance (De-Fi) perfectly operates within these virtual worlds, and is moving towards metaverse-based lending, borrowing, trading, and investing. In addition to this, different groups and players will build different virtual worlds, and in the future these worlds will be interoperable – forming a multiverse of its kind, where blockchain will authenticate proof of ownership of a user's digital goods in both virtual worlds.

Put together, one simple yet powerful business use case could be – creating a **multi-verse** that improves the ability to attend classes in metaverse universities that will change the face of education forever. Students can study the subjects of their choice, at their own pace and break away from traditional methodology and syllabus models to explore their own strengths. They can study in any part of the world, buy necessary books, laptops and more using NFTs and interact with global student communities, with no financial burden of visas and foreign education. Hiring can happen through virtual offices where employees can be present in any city, and companies can aim to get top talent across the world rather than be restricted by geographical barriers. Moreover, companies can re-energize their employees by giving them enhanced social experiences at work, attending meetings in 3D avatars and co-working in an immersive office setting, virtually, thereby reducing their attrition rate.

## Role of Tech in the Telco industry

From PC computers and mobile phones to VR/AR helmets, glasses and more, the basic connection between the users and the virtual world is 'Internet access'. This is where the telecom operators come into play. In today's world, 5G technology has played an important role in providing this internet access to masses and promoting the upgrade of consumer and industrial internet.

Moreover, in the metaverse era, virtual characters and digital avatars may be in multiple numbers as compared to the real-world population. Supporting this would require very high amounts of bandwidth, storage, computing and more. In a 3D environment, the storage of all 3D audio, video, and images requires a huge amount of storage space. At the same time,

any process in the 3D environment involves huge calculations. Telcos here can reinvent, position themselves as Metaverse infrastructure service providers in terms of bandwidth, storage, computing, high-speed low latency 5G networks and act as gateways to the metaverse. The emergence of 6G will also play a huge role in enhancing and supporting the vast metaverse use cases.

On the contrary, both Internet service providers and subscribers are still struggling with roaming, high fees, risk of fraud, privacy issues, and much more, despite the fact that the industry itself has changed a lot over the past years. Adopting these new-age revolutionary technologies across their processes would help the telcos to overcome many such existing issues in the telecom industry, and improve their operations in terms of efficiency, transparency, and security.

## **NXT.NOW™ Solutions Build Around These Technologies**

Our aim is to create value and build communities for our customers by being an early adopter and investing in these technologies. At TechM, we work on a holistic framework called 'block ecosystem' that comprises various levers; block studio, block engage, block talks, block geeks, block accelerate, block access and block value, which create industry-leading applications that are architected on innovation and human excellence to unlock significant value for all stakeholders.

We have recently launched **TechMVerse**, a metaverse practice to deliver interactive and immersive experiences in the metaverse for our customers. Our aim is to build B2B use cases across sectors and to transform customer experiences that deliver real business outcomes, leveraging our world-leading network and infrastructure capabilities along with our foundational technological capabilities. Few use cases of the same are DealerVerse, metaverse-based car dealership; Meta Bank, a virtual bank; and gaming center, which offers immersive digital and professional experience services around design and content.



We have also created **MiddleMist**, an Exclusive NFT marketplace to sell rare digital art of exclusive artists that are onboarded on the marketplace in partnership with the BORN group. The platform is plug and play, can be easily integrated, made with low code/no code and includes a host of features and offers many advantages including creation, monitoring and selling tokenized digital assets of artists at the click of a button, flexible options to add funds and make purchases, multiple wallet support, easy option to purchase, sell and auction NFTs, and a user-friendly interface.

## The Way Forward

With all being said, there is a lot of room for improvement and growth when it comes to these technologies as they are still in their nascent stage. Metaverse has a promising future in 2022 and beyond, given the potential business use cases it has, across every sector in which it is used and businesses can be benefited by reduction in human error, improvement in the diagnostic speed, and user privacy would be protected at all times, with blockchain being a key enabler for the metaverse technology. For the telecommunications industry, both big and small players would need to relook themselves as metaverse infrastructure service providers to stay ahead of the competition. Businesses need to invest in these technologies now, to unlock their full potential and make tomorrow's experiences better.



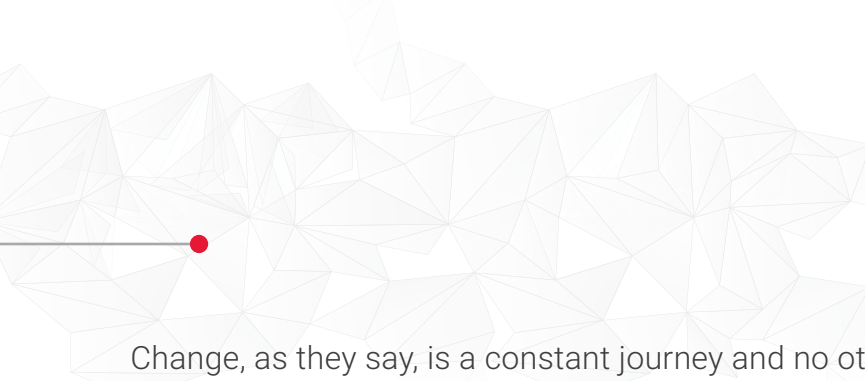
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David Hennessy

Chief Transformation Officer, 3 UK and 3 Ireland

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## A Technology-led Business Transformation: Delivering the Three Vision Across UK & Ireland



Change, as they say, is a constant journey and no other industry is a testament to this than the telecom operators. The industry has evolved in a rapid pace with the introduction of wireless cellular technology, to a timeline of innovation in the form of 3G, 4G, and 5G. The emergence of new digital only brands and over the top media (OTT) services offering innovative charging models means communications service providers must stay ahead of the curve to stay digitally relevant.

Telecom service providers (TSP) are undergoing massive transformation, and Three UK has been gaining ground in the journey which was first completed in Ireland and now well underway in the UK. Our transformation journey started with smaller but extremely competitive market in Ireland. The program faced some challenges which was expected, but by successfully completing the program, we understood the dynamics of transformation. Just adopting latest technology would not shift the needle for any business. We therefore built an integrated transformation program that was guided by clearly defined business objectives—implemented with the help of cutting-edge technology by upskilling and injecting right people skills in the organisation from partners.

These learnings have been helping us great deal as we transform our UK business. Being UK's fastest 5G network, Three UK is focused on world class experiences that exceed customers' expectations. Apart from driving internal efficiencies, our primary business goals were to increase overall customer value by cross selling and increase customer retention by superior experience across traditional and digital channels.

## **Aligning Transformation Objectives with Business Priority**

As a core principle, the future of the enterprise must drive the technology, and not the other way around; more so, in the case of mature, complex, and high-risk industries like telecom. Therefore, after setting clear business objectives, we quickly focussed on the blueprint for the program, which we named the Three Vision, and a delivery model to improve the business as a whole.





The Three Vision was thus set to enable a technology-led business transformation. We formed an integrated team consisting of stakeholders from business, customer care and technology. We freed these leaders from their day-to-day responsibilities to dedicate full attention to the program. These teams analysed existing processes closely to identify which processes need to be changed or eliminated. They also came out with new systems and processes to be implemented to be able to support the new products and services we want to offer like enterprise services. Lastly, they defined how our customer touchpoints need to be upgraded to increase the digital engagement and deliver significantly superior experience across retail stores as well as voice channels.

These cohesive teams, driven by common objectives and common measure of success, are most crucial to drive collaboration to solve the most difficult problems. Finding ways to working between business and technology is a learning experience. For every critical requirement, business articulates what they need and technology team demonstrates what is the art of the possible. This paves the way for quick compromise on any gaps between business ask and technology capabilities. This collaborative working is the biggest success factor in enabling transformation.

## **Making the Right Choice of Technology**

Our business plan brought out a pressing need to consolidate business support systems (BSS), while positioning the company in the market as a digitally relevant company. With intensifying competition from emerging digital-only brands and over-the-top (OTT) players, Three UK stepped up to re-design our products mix and our ability to launch them quickly in the market. We are focused on reducing the complexity and cost structure of legacy stack. In doing so, we are following a clear strategy in our technology choices.

Our main objective is to have a strong BSS system that is future-proof, efficient, and reliable. While there is pressing imperative to adopt latest technologies, we wanted to be a step ahead with simplified architecture that not only saves costs on operation and product maintenance, but also improves our time to market and customer experience. The way

customers engage with their service providers and their buying habits have significantly changed over past few years. Therefore, staying digitally relevant and adopting a digital mindset across the organisation is more important than ever.

As a service provider, we are end users and adopters of technology and not the creators. Therefore, we decided to go with best-of-suite approach using single integrated stack provider to provide majority applications rather than building our IT stack using the best solutions from diverse suppliers that are difficult to integrate coherently. It is also difficult to manage upgrade cycles for different products. This best-of-suite stack therefore offers better probability of success as the motivation for any technology provider. This approach makes integration more seamless and straightforward, thereby ushering in stability and security. A uniform user experience stemming from this approach reduces onboarding time and increases adaptability for restructured processes.

## Building the Right Team

Every transformation program needs experienced leaders in digital transformation, which gets fulfilled with effective hiring. At the same time, enterprises also require seasoned navigators who understand the existing operations and associated processes inside out. As a result, reskilling and upskilling the existing workforce has been yet another important part in driving the business transformation at Three. We spent a significant amount of time in bringing delivery models and teams – including IT experts, technology architects, business analysts, and more – on the same page and working closely with business leaders to create a bridge between the business and technology teams. The business transformation team is clear about the business drivers and what they want to achieve from the transformation. The technology team, on the other hand, can explain the challenges and opportunities associated with the solution. This helps eventual adoption of final solution into business with minimum friction.

Three UK has been voted the '*Uswitch Best Network for Data Winner 2021*' and is the fastest 5G network in the UK today. With the completion of next phase of the transformation, Three UK is all set for set new standards in the UK and Ireland.





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**Prabhjinder Bedi**

*Chief Growth Officer, BPS, Tech Mahindra*

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## Retail Reimagined for the Digital Age

## *Customer-centric experiences trump everything – even the product itself*

We live in the golden age of digital paraphernalia, where instant gratification and personalized choices have become the norm. With a wealth of knowledge at their fingertips, customers have more decision-making power than ever before, and delivering great products and services is no longer enough. The focus has shifted towards creating customer-centric experiences that stand apart from the crowd. That said, retail businesses must keep an ear to the ground and adapt to the volatile demands of digitally empowered consumers to ensure sustainable growth. When it comes to that, providing a seamless journey across physical and digital touchpoints, identifying new possibilities for personalization, and improving flexibility to stay ahead, top the agenda for retailers. We have explored some of the prevalent trends in the industry and ways of how retailers stand to benefit from the adoption of related technologies.

### **Data-Driven Retail Experiences**

Business success and differentiation depend on identifying what drives customer impulse, more so in the retail industry, and the best way to get there is through data and analytics. With digital solutions like master data management, customer relationship management, and inventory visibility, businesses can maintain detailed customer databases and gain valuable insights into consumer behavior, resulting in more individualized offerings and improved convenience through cross-channel optimization. For example, many shoppers buy online but prefer to pick up their orders from a nearby store to eliminate the waiting time till the delivery date. Such a 'click and collect' model is only possible when in-store personnel has access to real-time data regarding online purchases made by customers in their database. According to a research report, 17% of European customers would abandon a purchase if a click and collect option was not available,<sup>4</sup> hinting at the growing popularity of flexible buying journeys.



## The Omnichannel Experience

Omnichannel is no longer a futuristic idea, and many European retailers nowadays, sell through three or more channels. Omnichannel retail is about creating a seamless experience for customers, whether they are shopping from their smartphones, browsing on their laptops, or visiting a brick-and-mortar store. Additionally, an omnichannel approach also opens up promotion and marketing opportunities for cross-selling. This ranges from generating greater awareness about new products and services to achieving better visibility by reaching out to the target audience through multiple channels.

## Unified Commerce – The Next Step

The promise of omnichannel is enticing. But it cannot be achieved without a robust integration of all the digital solutions that today's retailers rely on. This is where unified commerce can be a real game-changer. While omnichannel is focused on selling across multiple channels and touchpoints, unified commerce is about simplifying the process by making all the channels work together in real-time, connected by the cloud. By consolidating disparate IT systems within a centralized platform, unified commerce can unlock the true potential of omnichannel retail. This means a convergence of e-commerce, m-commerce, order fulfillment, inventory management, CRM, and other critical business functions. Modern consumers want to be served when, where, and how they choose in a consistent and personalized way. Through a single source of truth, unified commerce allows retailers to cater to those demands and develop effective revenue-generating initiatives.

## Harnessing the Power of AI

Businesses have started to look for new ways of enabling organic and responsive customer interactions while eliminating operational inefficiencies. To that end, machine learning can be applied to streamline inventory management and shrink shipping timelines,

while artificial intelligence (AI)-powered chatbots can enable 24-hour support. Intelligent virtual assistants are making the shopping process more personal than ever before, and smart algorithms are automating tedious transactions. Reminder e-mails and push notifications regarding upcoming life events or refill of consumables are some examples of how AI and machine learning (ML) along with personalization can win customer loyalty.

## **Raising the Bar for Data security and Privacy**

With new vectors of cyberattacks emerging, collecting customer data can quickly become a double-edged sword. When a retailer loses customer data to hackers, the privacy of thousands of individuals goes for a toss, tarnishing the brand's reputation and customer confidence. Personalization, at any point, should not become a compromise on consumer privacy. Two-factor authentication on customer accounts, password encryption, and restrictions on third-party access to sensitive data can go a long way in achieving better data security. Retailers must pay heed to maintaining regulatory compliance and adherence to GDPR and other federal local policies. As customers continue to expect more individualized shopping experiences, finding the right balance between personalization and privacy will be priorities for retail businesses in the coming months.

## **To Conclude**

While digital solutions are sure to shape the evolution of retail, the basic tenets will remain the same. Customers will continue to look for the easiest and most convenient way of procuring a product or service. Whether they shop online or offline, they will seek assistance that isn't obtrusive. They will be attracted to experiences that are tailored to their personal tastes and preferences. And once in a while, they will expect shops to read their minds. While the ask seems daunting, retailers can onboard the NXT.NOW™ journey, where TechM can help chart a co-innovative approach to creating customer-centric experiences.



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**Ram Ramachandran**

*Sr. Vice President and Head,  
Middle East and Africa, Tech Mahindra*

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## Cloud Adoption in MEA – Clearing the Cloud of Uncertainty

*The time is ripe for cloud-based strategizing, but how to go about it?*

Every once in a while, a new technology, an old problem, and a big idea turn into an innovation. Nothing holds more sense to this adage as much as the concept of cloud. And yet again, everything about the cloud – from its very definition to what it means to businesses and users – has undergone a sea change in the past few decades. Today, cloud is no more a mere technology, but has become the de facto operating model for modern-day businesses that prioritize customer centricity. While the shift has been more dominant in the American continent as well as Europe, cloud adoption in organizations in the Middle East and Africa (MEA) have, for long, shown restraint in cloud adoption.

However, the coming years will mark a rapid boost of strategizing and transformation of businesses, underpinned by the cloud, in the MEA region. Across the board, companies of all sizes from B2B to B2C, with varying operating models and from different industry verticals are contemplating between the right choice of cloud and where to start – hyperscaler, multi-cloud, hybrid cloud, SaaS, or PaaS.

## Lay of the Land

By its own right, the MEA region has a diverse digital adoption pace across different countries. Keeping geographical diversity in mind, let us look at some of the growth drivers that are accelerating cloud deployment in the region:

**Availability:** Countries in the Middle East are on the cusp of a rapid transformation, with the availability of hyperscale providers increasing in the last three years. With AWS setting up in Bahrain in 2019 and a more recent announcement for the same in UAE, Microsoft in UAE, and Google's announcement to establish their footprints in Qatar, the region is marked for imminent growth. Around the same time, Azure and AWS entered the African continent and the more recent Google-Thales partnership is leveling the field for African enterprises. While on a global comparison, this may be late, the good news is that the companies in these regions don't carry the burdens of legacy architecture and this presents a case for a quick jumpstart.



**Regulations:** Every country – and in some cases, each state – has data sovereignty laws mandating an organization's data to reside in the same country/state of its operations are. Rigid statutory laws exist especially in the banking and financial services (BFSI), public services, healthcare, and telecom industries, and in the near future, a broad-stroke framework, similar to the GDPR in Europe can be expected for the region. UAE is already a step ahead with its Federal Law No.2 of 2019, which regulates healthcare data collection in the country. This mandate has created opportunities for UAE's Ministry of Health to capture, centralize, and analyze healthcare data and implement public health initiatives.

**Cybersecurity:** This overlaps, in part, with the data governance aspect, but also extends to the generic demand to thwart cyber attackers in order to safeguard the economy. Among other sectors, BFSI, city infrastructure (smart cities), and oil and gas are some of the most vulnerable to cyber threats. Here, the lack of a comprehensive cybersecurity framework could spell dangers for organizations as well as the country. But as this narrative is changing fast with the MEA countries investing significantly in information security and risk management; an estimated 10.7% increase in spending from 2021 to 2023 speaks to this.<sup>5</sup>

## The Journey Begins Here

With the opportunities and challenges laid out, allowing full play of the cloud will require organizations to strategize through a three-step approach – business, process, and tools.

**Business:** A vision roadmap that delineates the as-is state and the to-be state is where businesses must start. It is easy to get distracted by the technicalities of deployment that include the various tools and technologies. As opposed to such a tactical approach, organizations must begin with an objective-oriented approach. A cloud readiness assessment can help decide which applications can be onboarded to which variant of



cloud, based on the specific ask from the migration – be it scale, performance, flexibility, cost savings, or increased collaboration.

**Process:** With the destination decided upon, organizations can then choose between the process, approach, timeline, etc. Due considerations must go into selecting an application/ business function for the pilot project to be regarded as the minimum viable migration (MVM). From there on, experimenting smaller and in iterations will help tighten the feedback loop on expectations versus actuals.

**Tools:** Triangulating the precise business requirements based on the initial assessment will allow businesses to arrive at the best-fit tools and solution providers that are aligned with their goals and objectives. The outcomes and learnings from the pilot migration will also enable them to approach future iterations with better clarity.

## Ready at Every Turn

One of the most crucial determinants of cloud success is that organizations must follow their own school of thought and choose what is best for their unique operation model, organization culture, and industry segment. When it comes to the cloud, there is no one-size-fits-all, no right answers, nor wrong answers. The wealth of expertise that TechM has accrued over the years with respect to the region's distinct nature, prowess in cloud technologies, and local presence allows us to support organizations in this journey. Through NXT.NOW™, we can empower companies in the MEA region to turn their customer-centric visions into action and be ready for the next big tech revolution when it comes.





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Redefining Customer Experience in the  
Banking and Insurance Industry: Leveraging  
Digital Transformation to Deliver  
Business Outcomes


The banking and financial services industry is at the brink of a highly inclusive transformation episode, propelled by the flexibility and accessibility demands of digital-native consumers. On one hand, today's digital landscape has lowered the barriers to entry for new players in the industry, making it much easier for them to offer competitive products and financial services. On the other hand, new technologies and digital-first platforms that deliver on future needs are helping traditional banks and insurers to undertake transformation at speed and continue to stay relevant in their customers' day-to-day lives. When it comes to Europe in particular, the region witnessed an accelerated shift towards digital banking and payments, where countries like Sweden reduced physical payments from 39% in 2010 to 9% in 2020.<sup>6</sup>

## Emerging Trends in Banking and Fintech

In the face of ever-changing demands from modern consumers, traditional banks and fintech institutions are making individual or collaborative efforts to meet the same; here are some of the trends largely observed.

**The decline of brick-and-mortar retail:** Traditional banks have been redefining their strategies with a top-down culture shift by adopting digital technologies to become virtual and enhance customer experiences. Low-code no-code development platforms are gradually gaining mainstream attraction among banks, where enterprises and citizen developers are able to create mobile or web applications rapidly. Service providers that offer advanced self-service capabilities, conversational AI integration with voice assistants, e-signatures, and IoT-based payments reserve a sweet spot among consumers.

**Core banking transformation:** Transformation in core banking is a complex decision to make due to one of the biggest deterrents – cost of implementation – as banks attempt to add new-age products, customer channels, risk management techniques, etc. Here, in order to optimize savings, an effective cost-out strategy with the right kind of SaaS adoption and partner can help.



Moreover, the cost-savings derived from SaaS can be passed on as affordable services by inclusive banks, helping allocate funds towards creating personalized and responsive services to customers.

**Gaining visibility into back-office operations:** Fintech startups will need to forge a new technology-led backend in order to ascend in the financial services industry. The otherwise scattered and information-intensive back-office operations need a format adoption consensus when it comes to regulatory mandates. Here, automation of any residual operations or paper-heavy fields through RPA is being prioritized first in order to standardize the back-end.

**Ecosystem thinking:** Solutions made available on the cloud allow banks to enter a collaborative ecosystem with a quicker go-to-market approach. The challenge is to integrate various platforms without compromising on data privacy, and this is where a hybrid cloud architecture can help support an effective single ecosystem. It not only supports immediate scalability in business functions but also helps to recover returns quickly from experimenting with new competitive tactics through market agility.

**The evolution of open banking:** Banks are now turning to open banking where third-party APIs can be plugged in to allow scope for cross-selling, up-selling, better delivery, enhanced customer services, and feature-rich products. By quickly adopting consumer-facing fintech innovation using mandated API standards, banks are also building a network-agnostic payment technology system in order to meet the growing market need.

## Rethinking Insurance in Today's World

Consumers today are spoilt for choices – and very personalized ones at that; from e-commerce portals to OTT providers, brands are always a step ahead of their customers' needs. That said, policy buyers now demand personalized offers in their insurance products as well, wherein every detail from driving behavior to specific health needs are taken into account.

**Need for lower premiums:** Considering how expensive premiums have become, insurers are looking to reduce risk exposure and improve the pricing mechanism of policies. With AI/ML-led underwriting, analyzing customer information to detect risks efficiently and charging the right rates for each applicant is made easy. Policyholders' interest: As insurers, supervisors, and regulators navigate digital transformation, avoiding cyber-risks and risks stemming from prolonged low-yield environments is crucial. Here, blockchain technology can help file claims, prevent insurance fraud, reduce risk of error, and eliminate duplication. In addition to enabling banks to avoid fraudulent financial transactions, blockchain also paves the way for simplified and secure know your customer (KYC) and anti-money laundering (AML) procedures.

**Market consolidation:** With M&As on the rise, parties involved are constantly worried about contractual terms and its guarantees. Smart contracts, on pre-programmed terms and conditions can effectively govern and enable parties to respond in real-time to if-when-then conditions. Since the code and agreements exist across a distributed blockchain network, transactions between parties are made more transparent and irreversible, making it an ideal solution to improve contractual terms' performance.

**Front-office modernization:** Property and casualty and life insurers from the front-office perspective deal with older systems that hamper speed-to-market for new insurance products and more often, cannot support emerging customer distribution channels. By combining legacy modernization with redesigned business architecture, insurers can address the needs of millennial buyers, adhere to regulatory compliance, reduce time-consuming program upgrades, and manage competing priorities.

## Creating Tangible Value with the Right Mix of Expertise and Technology

Not limiting TechM's offerings to providing just parity or competitive advantage, we deliver the meaning and promise of NXT.NOW™ through our expertise in AI/ML-led solutions with specific algorithms, IoT accelerators, open banking APIs, legacy modernization solutions, and more across the Banking and Insurance sector. From sustainable banking to environmental, social, and governance (ESG) investments and analysis, we hold collective knowledge to deliver pragmatic solutions that help sustain for the future, now.



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**Sandeep Phadke**

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## Redefining the Digital Transformation Roadmap for Telecom Operators

## *Transformation versus rationalization – from business support systems to microservice architecture*

Transformation is not new to the telecom industry. Over the years, telecom service providers have been remodeling themselves to balance the eroding value of traditional services with new growth engines. In today's digital-first and sometimes digital-only world customer centricity has become the renewed cornerstone and telcos find themselves at strategic crossroads. They can either choose to be satisfied with incremental gains and risk business decline or reset their business DNA to reimagine their future.

### **Be 'Digital First' with the Right Mix of Transformation and Rationalization**

Digital transformation involves blending of digital technology into all aspects of a business. It is about changing the way a business interacts with customers and provides them a consistent experience anytime and anywhere. In tandem with this, adoption of zero-touch networks is inevitable. Zero-touch networks remove the complication of maintaining physical infrastructure and allow telcos to save resources and costs, with no complex systems in place, while concurrently enhancing customer experience vastly. Hence, telco operators should look at introducing the zero-touch network to enhance customer experience and enable end-to-end digital customer journeys.

For telcos, customer onboarding, growth, and value creation are primarily driven through the 'systems of engagement.' Traditionally, telcos invest in large complex transformation programs for their entire IT landscape. In a typical telco architecture today, customer intimacy and value creation are primarily driven through the 'systems of engagement'. So rather than invest in large and complex transformation of the entire IT stack, does it not make sense to adopt a dual approach to transform? Instead of embarking on large end-to-end transformations, telcos should focus on de-coupling IT systems and digitization. We recommend a two-pronged strategy to become digital-first – transform in parts and rationalize in other parts.

**Transform Systems of Engagement:** Applications for driving digital sales are the primary source of product innovation and higher margins. Telcos aiming to be 'digital-first' organizations also focus





on accelerating self-service and maximizing call deflection; not just decreasing your cost of sales but also your operating costs. Innovating at scale and iteratively requires a modular and decoupled architecture. This is achieved by building capabilities as micro-services and focusing on decoupling by ensuring everything built is exposed as an API.

**Rationalize System of Records:** A telco's digital dream can be realized through landscape simplification and reduction in the application cost of its system of records. This can be achieved through application rationalization that helps in identifying applications that must be retired, re-platformed, or retained to improve operations and reduce maintenance costs. Application rationalization is the first step in the cloud migration journey, one of the core levers that telcos can utilize to achieve their desired objective.

So, why are all telecom service providers betting on digital transformation? The reasons point to the three basic objectives of any business transformation program:

1. **Customer delight** – increase customer loyalty and stickiness by delivering an outstanding experience in any and all channels
2. **Revenue growth** – through digital sales and innovation in product and delivery, thereby capturing a greater customer wallet share.
3. **Higher margins** – as a larger percentage of overall sales is driven by digital sales, the cost of sales decreases, resulting in higher margins.
4. **Lower costs** – an effective digital channel will accelerate self-service adoption, deflecting calls to the contact center and driving down OPEX.

To achieve these, telcos can take a cue from OTT media and entertainment service providers to simplify their product portfolio radically, by making it completely digital, auto-provisioned, and driven by AI and ML. Rationalizing products should be one of the main objectives of telcos before initiating digital transformation initiatives. Similarly, a telco can function as a one-stop-shop for all types of communication and entertainment services by extending its portfolio to include OTT offering, enable peripherals and other multimedia services. Bundling services and devices can allow telcos to explore additional



possibilities of driving revenue from allied services. To deliver these capabilities, telcos need a more modular and flexible architecture that enables a rapid and agile delivery model. Here, microservices-based, cloud-native architecture can be the foundation for independent scaling and modularity. Tech Mahindra's digital transformation accelerator, BlueMarble, is a microservices-based framework with productized business services focusing on the transformation of existing IT systems towards digital customer experiences. It is based on a cloud-native, containerized deployment and runtime environment, with integrated support for the consistent development and deployment of microservices.

The BlueMarble repository contains a number of products that support the transition of business support systems (BSS) into a flexible microservices IT architecture. The components are designed with the specific requirements of a communication service provider in mind – from consolidating customer data to managing shopping carts and creating and managing orders.

## Exploring a World of Opportunities

The European telecom industry has witnessed several new players in France and Italy and Spain disrupting the markets in the recent past. Telecom service providers in India and Japan are also offering great examples of innovation. The success of telcos in the future will depend on their ability to adopt disruptive technologies, leverage data and advanced analytics, and deploy automation at scale to generate new revenue sources and drive growth. Leaders that embrace the immensity of changes, to take swift and convincing actions for reimagining business models and platforms in the new world, will be the trailblazers of customer-centric proposition.

To sum up, 2022 will see a transitional phase with 5G instigating metamorphosis of the industry, and digitalization of networks and service offerings continuing to drive revenue and subscriber growth. Telcos will have to accelerate this growth by implementing modern, next-gen applications and infrastructure, such as, leveraging the public cloud without compromising cybersecurity. With intelligent use technologies like artificial intelligence, IoT, automation, blockchain, cloud, and metaverse, we can enhance our human capabilities and sensitivities to improve the social, environmental, and economic fabric of the world and grow as never before.<sup>7</sup>



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Justin Shields

Director, Business Platforms and Solutions (CTO), Vodafone Enterprise

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## Digital Transformation and the Future of Connectivity: A Symbiotic Relationship



The last two years demonstrated how companies that have fully embraced digital working are more successful and resilient than those that have not. Our customers and their stakeholders expect on-demand services and a seamless user experience at work, as they have in their personal lives. Businesses have realized that if they don't transform to deliver on these requirements, they will become obsolete. At Vodafone Business, we believe this race to digitalization is accelerating across all business segments.

## Creating Networks of the Future

When it comes to digitalization, connectivity is a critical enabler; at Vodafone, our international mobile and fixed connectivity supports businesses of all shapes and sizes. Not stopping there, we are increasingly moving beyond connectivity in our pursuit of enabling customers realize their digital ambitions. As software becomes the control layer for networks, products like SD-WAN are accelerating digital transformation by bringing intelligence into networks. This, in conjunction with cloud services, can bring scalability to key business functions, thereby empowering them with dynamic scale up and down abilities.

In the area of internet of things (IoT), Vodafone has placed its bet on digital services. Our global IoT platform is now offered as a service with a fully open set of public APIs, as well as a cloud-based application development environment. This way, we can integrate our global IoT connectivity into third-party applications and devices to create an end-to-end digital service or new digital applications to fulfil a specific customer need.

## Customer Transformation Begins from Within

As we accelerate the deployment of 5G across Europe, the possibilities for digital transformation extend further. High-bandwidth and super low-latent mobile connectivity can bring the benefits of digital transformation to businesses that were previously constrained by their physical environments. Ports, mines, and large industrial facilities can now unlock the full benefits of digitalization through 5G delivered as either a dedicated network or a slice of the macro 5G public network. At Vodafone, we are shaping this market with a rich product set in mobile private networks (MPN) combined with our IoT capability, integrated applications – like Safe Worker and Connected Video – and edge computing. Companies like Centrica and Ford are now transforming their business with our MPN product.

Internally, we continue to transform, so as to ensure Vodafone is ‘fit for the future.’ We have already moved more than half our core network functions to the cloud in Europe and we support voice core, data core, and service platforms on over 1,300 virtual network functions. In Europe, we now operate a single digital network architecture across all markets, enabling the design, build, test and deployment of next-generation core network functions more securely, faster, and at a lower cost.

## Digital Transformation and Preparedness

As our studies show, many businesses, both small and large, are not ready for digital transformation, and this creates a great opportunity for Vodafone and other telcos to support customers transform. What we see is telcos becoming more than just connectivity partners and moving into adjacencies. New intersection markets such as EdTech and HealthTech are being driven by digitization, and this is enabled by both the necessity for the society in addressing challenges in these areas and the fact that public funding is available to institutions such as Vodafone.

As we continue in a period of uncertainty, it is clear that one key business priority for becoming 'fit for the future' is to embark on a digital transformation journey. At Vodafone, we are taking a new approach to help customers beyond that of the traditional telco – an approach that centers around connectivity and infrastructure without which any progress in new emerging markets negates values derived from digital transformation. This evolution of our strategy ensures we are best positioned to enable our customers, our customers' customers, and the society at large, to become truly digital.

Find out more in our ***Vodafone Business Fit for the Future Report***.



**Bhushan Patil**

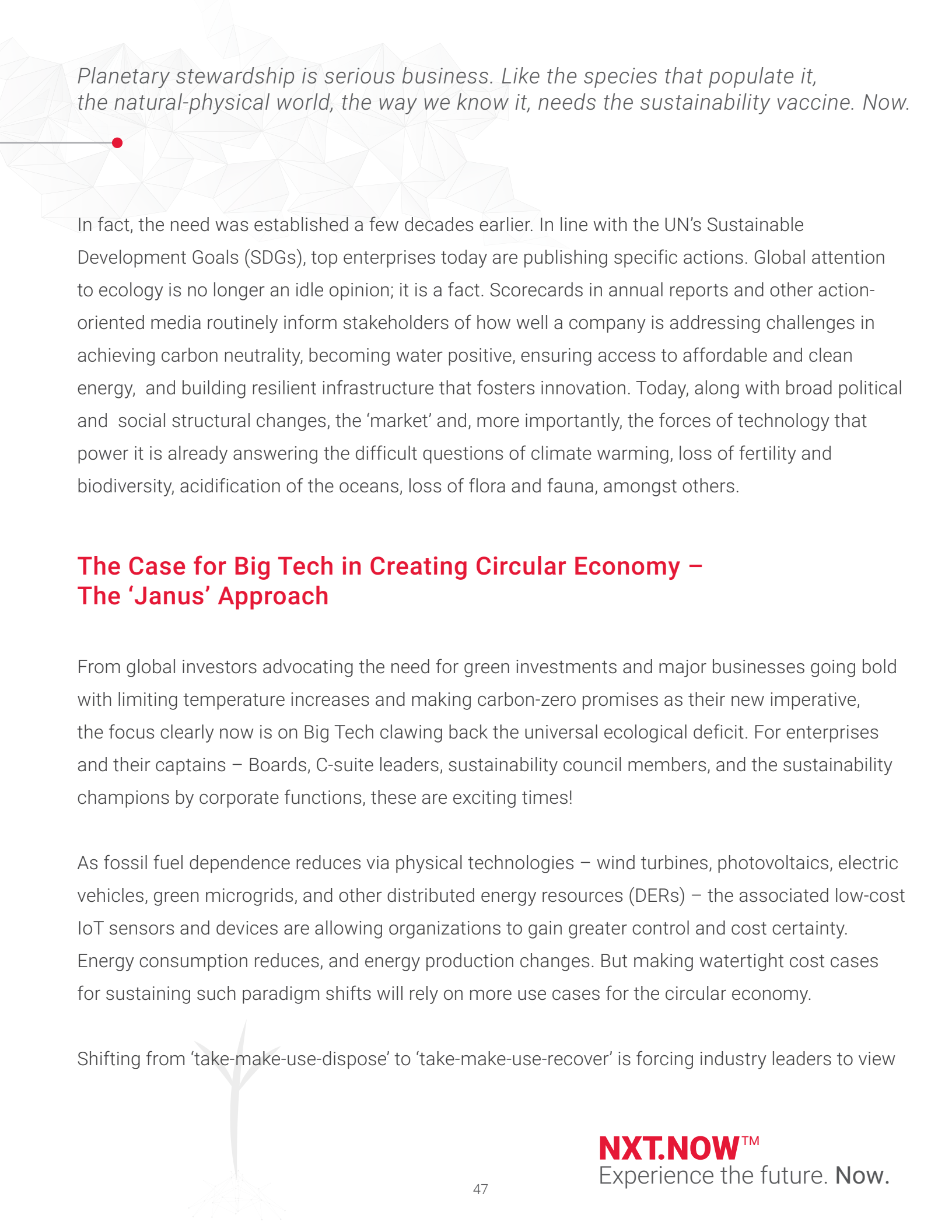
*Chief Growth Officer - Network Services,  
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**Sandeep Chandna**

*Chief Sustainability Officer,  
at Tech Mahindra*

Don't Protect The Environment.  
Create a World Where it Doesn't  
Need Protection



*Planetary stewardship is serious business. Like the species that populate it, the natural-physical world, the way we know it, needs the sustainability vaccine. Now.*

In fact, the need was established a few decades earlier. In line with the UN's Sustainable Development Goals (SDGs), top enterprises today are publishing specific actions. Global attention to ecology is no longer an idle opinion; it is a fact. Scorecards in annual reports and other action-oriented media routinely inform stakeholders of how well a company is addressing challenges in achieving carbon neutrality, becoming water positive, ensuring access to affordable and clean energy, and building resilient infrastructure that fosters innovation. Today, along with broad political and social structural changes, the 'market' and, more importantly, the forces of technology that power it is already answering the difficult questions of climate warming, loss of fertility and biodiversity, acidification of the oceans, loss of flora and fauna, amongst others.

## **The Case for Big Tech in Creating Circular Economy – The 'Janus' Approach**

From global investors advocating the need for green investments and major businesses going bold with limiting temperature increases and making carbon-zero promises as their new imperative, the focus clearly now is on Big Tech clawing back the universal ecological deficit. For enterprises and their captains – Boards, C-suite leaders, sustainability council members, and the sustainability champions by corporate functions, these are exciting times!

As fossil fuel dependence reduces via physical technologies – wind turbines, photovoltaics, electric vehicles, green microgrids, and other distributed energy resources (DERs) – the associated low-cost IoT sensors and devices are allowing organizations to gain greater control and cost certainty. Energy consumption reduces, and energy production changes. But making watertight cost cases for sustaining such paradigm shifts will rely on more use cases for the circular economy.

Shifting from 'take-make-use-dispose' to 'take-make-use-recover' is forcing industry leaders to view





emerging technologies with a 'Janus' approach. The two-faced Roman god of transitions is depicted as looking out in opposite directions – the past and the future. Consider 5G, for instance.

More than just a connectivity upgrade, 5G and its applied technology such as smart grids and autonomous vehicles will make us greener! Forecasts show that, with 5G, the UK may save up to 269 megatons of CO<sub>2</sub> by 2035, almost equivalent to England's total emissions in 2018 (280 megatons).<sup>8</sup> But this - the 'Janus-step' – will only be possible when 5G is deployed intelligently. And how exactly? - By using dynamic AI-enabled processes that turn off base stations when idle or allocate network resources only when needed. The result: Using these dedicated virtual slices will help mobile network operators (MNOs) meet their commitment to the UN SDG's industry goal of net-zero emissions by 2050.

## **Gold Standard of Corporate Sustainability – Enabling Local Resilience amid Global Distress**

Talking about AI's criticality to sustainability missions is proof that sustainable economies and their leading corporates need to decode the future of everything – from deglobalization to customer experience. For instance, TechM's COVID response, as cited by WEF, materialized to highlight stakeholder capitalism (people, planet, profits) at its best. The team, through mathematical modeling, worked on increased mathematical predictability and then matched it to city-wise severity levels. During the second wave, AI-enabled research on molecular docking approach that explained the virus' high transmission rates was carried out. By hunting for therapeutically potent drugs and molecules in real-time, the system examined 8,000 FDA-approved drugs and distilled that list to one viable product.

Contributing to the network made of Gavi (the vaccine alliance) and UNICEF innovation, among others, TechM brought a plug-n-play platform to address the massive plan of delivering vaccines and life-saving drugs in a compliant and cost-efficient way. The delivery outcome achieved a staggering 9x ROI for the vaccine supply chain.

Along with promoting supply chain sustainability, one true measure of their sustainability intent is understood by what an enterprise does beyond its business.

## **Sustainability as a Future Business – Smart Farming and Smart Cities**

Essential to this context is not only answering the 'sustainability' question but also its intimately linked adjacent subject – 'mass-scale development,' especially for growing economies. The question becomes: How does TechM leverage its technology passion for balancing purpose with profits?

A glimpse of that narrative is available through TechM's initiative, 'Unified Smart Farm Solution.' The 5G-enabled precision farming technology ecosystem connects farmers, labor contractors, farm experts, transport logistics, and retail. It starts when powered by TechM sensors soil is tested and prepared for right-condition sowing. Thereafter, agri IoT and analytics assess weather conditions, crop quality parameters, pesticide controls, and forecast the harvest times. Finally, post-harvest, sensor modules in combination with cloud-based gateways ensure that grain temperature and humidity levels are monitored while in silo storage. This precision farming initiative is a tangible use case that helps farmers reduce adverse impacts due to temperature rise or pest onslaught. Additionally, it bolsters our collective ability to produce more food efficiently in line with UNDP's research on achieving food security by 2030.

Next, through its ESG framework and actions, TechM strives to bring a ground-level difference to India's distant corners. In this context, a paradigm-shifting initiative is creating smart cities. Today, notably across cities like Jaipur, Nashik, Kanpur, Gandhinagar, Pimpri-Chinchwad, Lucknow, Delhi, and Jabalpur, various elements of smart city offerings are in use. An amalgamation of networks, mobility, analytics, cloud, security, social, and sensors prepares TechM's platforms and solutions to bring turnkey solutions for modern-day essentials of green smart grids, connected citizen services, health care optimization, intelligent solutions for homes, education, traffic, water, and waste management.



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## The NXT Road Ahead



# Imagine.Build.Run

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Customer-centric strategies, once a B2C mainstay, are being vigorously adopted in the complex landscapes of B2B relationships too. Being present in the right markets, offering superior products and services, or being the lowest-cost provider was enough to win in the B2B arena, but not any longer. These advantages, while important, are under threat as new competitors fluent in digital tools move into the B2B space.

Undoubtedly a powerful tool to leapfrog over competitors, digitalization calls for specific program management, including a swath of initiatives that address issues in performance management, leadership mindsets, organizational behaviors, and skill gaps. These elements notwithstanding, enterprises rushing into digital transformation journeys – as a point of view in this journal elaborates – should spend time to first ‘know your collaborator’ (KYC). After all, a technology partner that knows, show, and more importantly, grows trust through aligned interests is more than a dependable ally.

With an abundance of decision-ready information, customers today are far better prepared. Take the example of retail. It isn’t an exaggeration to say the pace of change retail has experienced in the past two years surpasses the last 20. Making sense of how customer journeys have moved beyond the omnichannel and are now embracing AI enabled ‘unified commerce’, forms the heart of another point of view.

Customer-centricity (consumers want to be served when, where, and how they choose in a personalized way) isn’t limited to retail. In fact, the digital ecosystems that characterize the modern-day BFSI sector veritably depend on how quickly customer mindsets are interpreted so that transformation efforts can be directed successfully. But how does one combine technology prowess with domain expertise to achieve that effect? Our point of view on BFSI elaborates on that.

While changing consumer interests acts as a springboard to unlock customer-centricity (look no further than Netflix and Amazon Prime), B2B customer journeys are longer, more complex, with



higher stakes and relationships that go deeper. What then are the pitfalls? In an apt point of view dedicated to bringing out the dependencies between transformation and rationalization, the author cautions - don't miss the forest for the trees!

The elephant in every enterprise board room today is the failure rate of digital transformation. While crafting a clear integrated strategy, putting the right talent in key roles, and adopting an agile governance mindset tick many of the boxes, there is an essential new-age nuance the next point of view examines: Businesses that win more are the ones whose service to their end-customers is an extension of how they manage their own employees.

Again, be it, employees, paying customers, or shareholders, a tenet that influences how brands are perceived today is its commitment to sustainability. Threading together Tech Mahindra's ground level initiatives – smart cities, smart farming, and vaccine development – our point of view on sustainability breaks down how investments in a circular economy can reconcile profits with purpose.

The one dynamic that binds all the seven transformation point of view's is: "Imagine-Build-Run". Redefining the fast-approaching future, constructing systems that seize it, and capitalizing the advantage through industry-leading practices, from the TechM promise - NXT.NOW™.

How NXT.NOW™ is actualized on ground is understood in the point of view centred on cloud adoption. Regardless of the fast-changing geo-dynamics, or a region's unique growth drivers, it is this set of harmonizing principles that delivers without breaking the cardinal rule of customer-centricity – one size doesn't fit all.

Finally, as new developments – AI, 5G, blockchain, NFTs, metaverse and cyber security – shape the enterprise world oftomorrow, the future is NOW. Staying at the forefront of the digital evolution means returning to the message this journal started with. The best time to prepare for change is before it starts.

# References

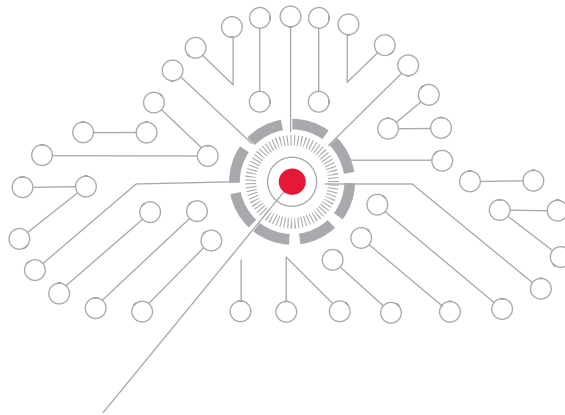
- 1) Bar Am, Jordan; Furstenthal, Laura; Jorge, Felicitas and Roth, Erik. (2020, June 17). Innovation in a crisis: Why it is more critical than ever. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/innovation-in-a-crisis-why-it-is-more-critical-than-ever>
- 2) Baig, Aamer; Hall, Bryce; Jenkins, Paul; Lamarre, Eric and McCarthy, Brian. (2020, May 14). The COVID-19 recovery will be digital: A plan for the first 90 days. <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-covid-19-recovery-will-be-digital-a-plan-for-the-first-90-days>
- 3) de la Boutetière, Hortense; Montagner, Alberto and Reich, Angelika. (2018, October 29). Unlocking success in digital transformations. <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/unlocking-success-in-digital-transformations>
- 4) Hubbox, Click and Collect , Ecommerce. (2018, May 03). 5 Reasons Click & Collect has taken retail by storm. <https://www.hub-box.com/blog/five-reasons-click-and-collect-has-taken-retail-by-storm/>
- 5) Gartner® Press Release, Gartner Forecasts MENA End-User Spending on Security and Risk Management to Grow 11.2% in 2022, February 14, 2022. (GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.)
- 6) Botta, Alessio; Bruno Phil; Chaudhuri Reet; Nadeau Marie-Claude; Tayar Gustavo and Trascasa Carlos. (2020, October). The 2020 McKinsey Global Payments Report. <https://www.mckinsey.com/~media/mckinsey/industries/financial%20services/our%20insights/accelerating%20winds%20of%20change%20in%20global%20payments/2020-mckinsey-global-payments-report-vf.pdf>
- 7) Chandiramani, Rajesh. (2022, January 13). Tech trends to watch out for this year. <https://www.entrepreneur.com/article/412948>
- 8) Evans, Mark and Martineau, Steve . (2020, August 12). O2 reveals vision for a greener, connected future: 5G to play key role in building a greener economy. <https://news.o2.co.uk/press-release/o2-reveals-vision-for-a-greener-connected-future-5g-to-play-key-role-in-building-a-greener-economy/>



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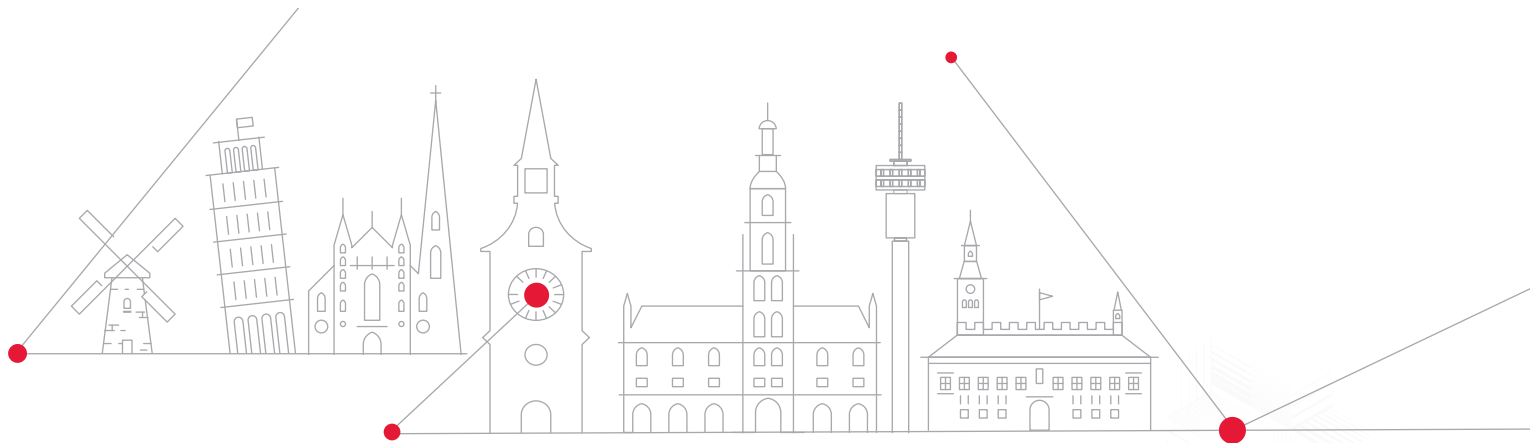




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