

Delivering digital reinvention

Are you ready to unleash the full potential from emerging technologies?

verizon

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Introduction: Why are firms failing to realise the full potential of their tech investments?



Technology has long ceased to be the preserve of the IT department, the CIO or the CFO. It is a business-critical enabler that should be high on the agenda for senior leadership teams, from the CEO down. Yet Verizon's 2022 Future of Work research has revealed that leadership teams seem to be struggling to align their technology investments with strategic priorities such as enhancing customer experience or improving their customer insights.

Closing the gap between strategic intent and execution has to be a leadership priority. And no business is untouched by the challenge: as business and technology specialist Bernard Marr puts it, "Organisations in every sector need to understand that they are now technology companies."

In this article we take a deeper dive into the challenges that creates – and what leaders can do to ensure their businesses have the technology capabilities required to be fit for the future of work.

23%

of executives say their leadership team takes an active role in technology adoption to a great extent



Accelerating change

Adam Koeppe, Verizon's Senior Vice President for Technology Strategy, Architecture and Planning, says that three major dynamics have been at play concurrently, which are accelerating tech adoption. The first has been evident across the economy. "Ways of working have changed pretty dramatically," says Koeppe. The use of "remote-working" technologies rocketed as countries locked down around the world, such as remote meeting and collaboration tools like BlueJeans by Verizon. Varied forms of hybrid work are likely to remain common as the pandemic fades, as organisations seek to retain the advantages of greater flexibility in where and when their people work.

At the same time, enterprises have been stepping up their interest in leveraging new technologies to deliver efficiencies, for example through process automation. And the third critical factor, says Koeppe, has been the emergence of new technologies, particularly 5G, at scale. It has enabled powerful technology solutions that were impossible to build given the limitations of the previous generation of WiFi networks.



"Ways of working have changed pretty dramatically"

Adam Koeppe
Verizon's Senior Vice President for Technology Strategy, Architecture and Planning



Time for a fresh mindset and seamless execution

With those three dynamics coming into play at once, it is perhaps no surprise that Verizon's Future of Work research has identified technology as one of the four key dimensions of future readiness, alongside leadership, new ways of working, and skills and behaviours. And it is one of the key differentiators for the "Accelerator" companies identified in that report – a cohort of 10% of businesses who are leading the way into the future.

Through a survey of 600 senior business leaders worldwide, the 2022 report finds that 62% of executives report that their leadership team has taken an active role in technology adoption over the past 12 months. Typically, technology investments are linked to businesses' number one strategic priority of improving customer experience. But the report also identified a disconnect between that strategic intent and practical implementation. Only 38% overall reported using data analytics to improve customer experience over the last 12 months, for instance. Only 34% overall had built more automation into how they serve customers – with an 11-point gap between Accelerators and the rest (44% vs 33%).

It's clear that many organisations are struggling to translate strategic intent into practical reality. How can they close the gap?

Digitisation vs digital transformation

Improving implementation requires clearer thinking about the different ways that the digital revolution is playing out.

Alan Brown, Professor in Digital Economy at the University of Exeter Business School, starts by pointing out the differences between digitisation and digital transformation. Digitising processes has meant, at its most basic, shifting analogue processes into the digital world, in an attempt to remove human elements. The trouble is, says Brown, that in many cases, "the digitising was a simple papering over of the cracks" – and when those solutions were subjected to real-world stresses, such as during the pandemic, "the cracks reappeared". As a result, many organisations had no option but to "muscle their way through", relying on human effort, says Brown.

However, those organisations that had previously invested more time in improving underlying processes found their approach paying off with greater robustness. One result is that there is now less organisational resistance to change than before the pandemic, says Brown. Many organisations have learned the hard way, realising that they need to solve problems differently. Setting the right foundation makes it possible for firms to shift to entirely new business models, for example enabling customers to pay for the amount they consume, or an experience they want. Enabled by technology, outcome-based contracts are increasingly common.

Beyond the vision – it's all about execution

But how can organisations adapt to these changes? The problem may not be one of imagination or vision – but of execution.

For a start, businesses are still dealing with the effects of the pandemic. Businesses are less likely to struggle with developing an aspirational five-year vision for a technology-enabled future, according to Alan Brown, than with implementing it. "It's all about execution: how are we going to get there?" he says. Businesses are still wrestling



33%

of executives say that a lack of digital skills is making it difficult for their organisation to achieve its strategic goals



"It's all about execution: how are we going to get there"

Alan Brown
Professor in Digital Economy
at the University of Exeter
Business School

with difficult problems and competing priorities. “In the very near term they need to get people onboarded, get people organised, deal with the health of individuals and teams, make sure the structures are right, make sure the technology is robust enough, and rethink what happened over the last two years to ensure they haven’t created new risks and vulnerabilities.”

For large organisations, says Brown, the problem is that different parts are moving at different speeds. As author William Gibson put it, the future is already here: it just isn’t evenly distributed. “It’s like a bungee cord between their advanced state-of-the-art stuff and the rest of the organisation,” says Brown. “As the gap grows, the cord gets tighter and tighter, and it builds tension in the organisation.” In large organisations, units that are responsible for legacy business models may find it hard to adopt new technology at the pace set by other more innovative parts of the organisation, leading to cultural differences as well as operational ones.

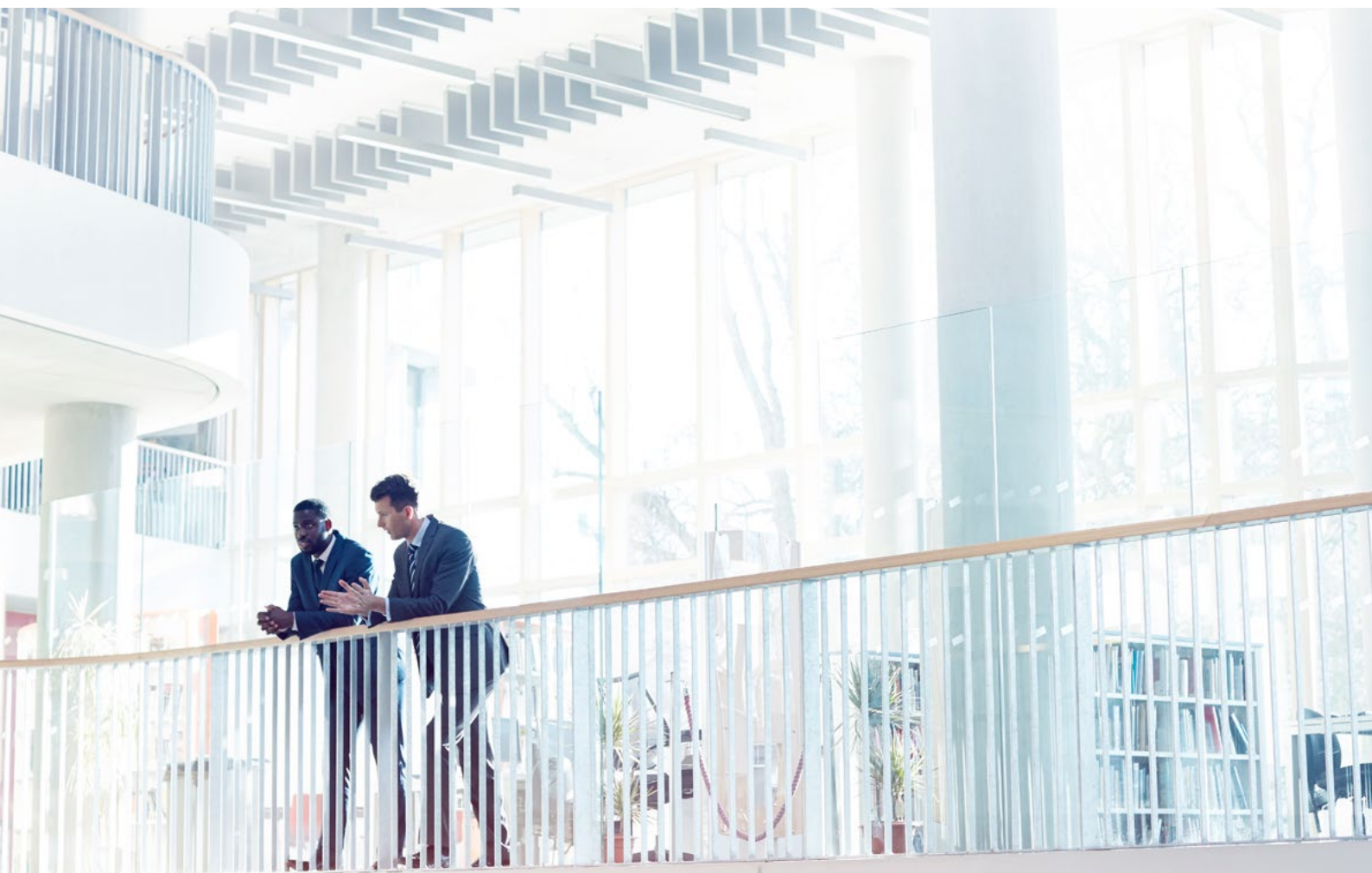
Organisations may opt to slow down change at the leading edge; help the back catch up; or, more radically, “cut the cord” and let different parts of their business move at different speeds, building different cultures around technology. “There’s no fast route to dealing with this in large heritage organisations,” says Brown. But many leaders are clear: they can’t hold back the more advanced parts of their businesses.

There is increasing recognition of the need to build partnerships and develop partner ecosystems based on common technology platforms. Our survey found 64% of leaders are looking to improve integration across supply-chain partners. That is one area where 5G excels, says Adam Koeppel, offering options for unprecedented integration underpinned by robust security (see Figure 1, page 6).



78%

of executives say it would benefit their business to be able to interact with all of the parties in their supply-chain ecosystem in a more integrated and automated way



Understanding the technologies that will shape the next five years

As they look to execute on their strategic aims, what are organisations' tech priorities?

Our research found many organisations looking to increase their technology investments in 2022-23.

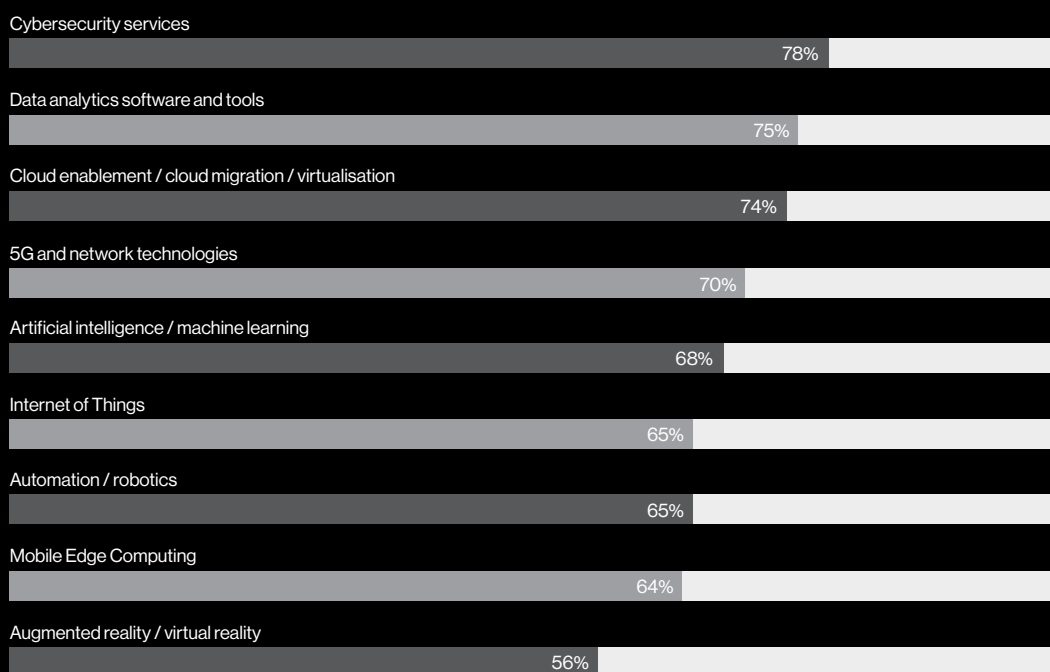


Figure 1: We plan to invest more in this technology in 2022 compared with 2021 (Base size: 600)

The question of which technologies will be most impactful in the coming years is highly dependent on the sector, and even on an individual organisation's business model. But at a macro level, there are three stand-out groups of technologies.

The first is AI with cloud. With cloud allowing for better integration of customer data, the opportunities for AI to interrogate data and provide insight is growing rapidly. Bernard Marr points to Netflix as one example of a firm using AI effectively, both to identify themes for commissioning new content, and to deliver better operations, for example by anticipating viewer demand for new shows in order to expand bandwidth, helping provide a quality customer experience.

Marr also highlights Shell, which is creating a "data lake" that uses cloud to pool data from across the organisation, "instead of having 50 different databases". It enables people across the business to access the data via common tools, giving rise to a new

level of insight. Combined with AI, such an approach has immense potential, says Marr. “Once you have data in the cloud, you can simply switch on new AI services when you need them and get additional benefit.”

The second group of key technologies is augmented reality and virtual reality (AR and VR), including the metaverse – the open digital worlds that are growing in popularity, and came to the forefront of many people’s minds when Facebook became Meta in 2021. “In the future, we’ll look at how we can leverage some of these technologies to deliver a superior customer experience,” says Marr. Businesses such as fashion brands are increasingly prominent in metaverse platforms and in creating digital versions of their items, based on non-fungible tokens (NFTs). Others are already using AR to improve customer experience: cosmetics firm L’Oréal is using AR to enable consumers to “try” its products digitally before they buy, for instance. VR has remained more limited to date but is at the heart of the vision for the future of the metaverse set out by Mark Zuckerberg and Meta; the opportunity for VR is likely to expand rapidly as a result. VR headsets and goggles could become as ubiquitous as mobile phones today.

But the third standout technology – one which will have a fundamental impact on artificial intelligence AR and VR – is the arrival of 5G, combined with Internet of Things devices and edge computing.



5G – the future is here

5G has incredible potential for businesses thanks to low latency, huge bandwidth, robust reliability and strong security, says Verizon's Adam Koeppe.

5G's inherent characteristics allow for solutions that simply were not possible with previous WiFi-based networks, points out Koeppe. In manufacturing, for example, 5G enables high-definition imaging to be used for checking products and identifying flaws. Deploying such a system has three requirements: pervasive wireless coverage, a high-throughput solution, and very low latency. "That set of requirements screams 5G private network with private edge computing," says Koeppe.

5G also enables a new level of ecosystem integration. In complex sites such as shipping ports, network-connected machinery can move containers incredibly efficiently, says Koeppe. With 5G private networks in place, ports can partner with suppliers that provide relevant solutions and integrate them into their networks. It is the type of model that Verizon is developing with Associated British Ports.

Koeppe is evangelistic about the potential for 5G and says that business is only beginning to explore its potential. "Once a business has the capability for a private 5G network with edge computing, they have almost infinite flexibility to tie in other parts of their operation, other partners, and other aspects of their workforce in a way that they've never had before," says Koeppe. "The enterprise has more programmability, more flexibility, more control, more reliability and more security compared to the things they were doing before."

That is likely to be just the start, says Koeppe. There is huge potential for ecosystem owners to foster further development once 5G networks are in place: "That's when the innovation piles on," says Koeppe, "because partners get excited about the opportunities. This incredible technology spurs innovation across the landscape."



Delivering digital reinvention: five key considerations

How can organisations accelerate their progress in using technology to succeed in the future of work?

Our research identifies five key steps.

1. Start with customers, not technology

To align technology with the strategic priority of improving customer experience, businesses need to have a clear view on how any technology actually benefits consumers. Take a leaf out of Amazon's book, advises Bernard Marr: "Jeff Bezos always said that you almost want to start with a press release saying, 'This is how we've made our customers' journey better.' Then you work backwards, saying, 'How can we now use technology to actually make this happen?' If you start with a customer, then you use the technology in the right way to deliver a superior experience." Missteps are common when the technology is not quite ready, or not appropriate for customers in a particular business's context – chatbots, for instance, regularly draw customers' ire. "If your company thinks, 'How can we use AI? How can we use 5G? How can we use AR?' these are not the right questions. The right questions are: 'What is the market doing? What do my customers actually want? How do I provide them with an amazing experience? How can I generate more revenue and profits? How do I optimize my business?' And then ask, 'How can technology help me do that?'" says Marr.

2. Experiment, play and share

While technology adoption should primarily be driven by customer and business needs, experimentation is still important. "There is still scope for business to play with new technology", says Bernard Marr. New technologies are emerging all the time – "so a little bit of this has to be experimental", he points out. Innovation hubs can help by bringing together those with different viewpoints on complex challenges – as companies such as ABInBev, Levi's and L'Oreal have discovered – and generating insights and applications for new technology that can be deployed across the business. "What is really important is that these innovation hubs are not little isolated bubbles", says Marr. "Bring people in and out from across your business to transfer some of this culture and knowledge."

3. Use technology to build capacity

The advantages of new technologies include the ability to provide additional capacity beyond today's immediate needs at relatively low cost – and in a world defined by volatility and uncertainty, that is important for giving firms greater flexibility, says Alan Brown. "We've transitioned from a decade or more of relative stability to a coming decade, potentially, of volatility, change and adaptability – in part because we're living through a digital revolution," he says. However, businesses have stripped out space capacity in the name of philosophies like lean: "We optimised for consistency as opposed to optimising for volatility." That now needs rebalancing. The ability to react quickly to new opportunities and new challenges requires additional headroom or spare capacity. Organisations should look to deploy technology in ways that can scale fast, on demand.

4. Build "Digital IQ" by investing in people, not just technology

Technology investments fall flat if organisations don't help people build the skills needed to use the technology to the fullest extent, says Bernard Marr. To avoid that trap, senior leadership needs to grasp technology's potential. Building that understanding is a key role for chief technology officers and tech advisors.

5. Deliver technology transformation innovation with trusted partners

Successful adoption of new, sophisticated technologies such as those enabled by 5G will rely on development of partnerships with key suppliers to deliver the benefits. Draw on partners' expertise to identify new opportunities enabled by new technology and begin innovating with ecosystem partners. As Adam Koeppel points out, when technology like 5G is up and running, its impact – and its potential – really come to life: "Partners get excited and there's an innovation cascade that really rolls upon itself. This incredible technology spurs collaborative innovation."

About the survey

The data presented in this report is based on a survey of 600 business leaders conducted on behalf of Verizon by Longitude, a Financial Times company, in January 2022. Respondents were drawn from across nine industries: energy and utilities, finance, insurance, legal, manufacturing, media, professional services, retail and supply chain.

■ EMEA
■ APAC
■ N. AMERICA

■ 1bn–4.99bn USD
■ 500m–999.99m USD
■ 5bn–10bn USD
■ More than 10bn USD

■ C-Suite 2
■ C-Suite
■ C-Suite 1

