



The Future in 2020

The definitive review of how UK businesses
are working with emerging technology.

Research conducted by **YouGov**

Foreword

We produced this report to capture how UK plc views emerging technology. Working with YouGov, we spoke to 1,000 business leaders across the country, about their current set-up and their future plans.

Foreword

By Fotis Karonis, CTIO of BT's Enterprise unit



What does the future of your business look like? That's almost certainly a more complicated question than it was at the beginning of this year. Coronavirus has created uncertainty for every company, but one thing is clear – technology will play a vital role in what comes next.

We found that UK businesses are struggling to see how these technologies can help them. Adoption rates are low, and almost a third of businesses don't intend to adopt any new emerging technologies in the next five years. It's clear from our research that the UK's tech readiness lags well behind other developed countries, risking our digital future.

This is a missed opportunity. New technologies can contribute towards all business leaders' main goals, from increasing revenue to boosting productivity. But this message isn't getting through. Our survey identified clear gaps in awareness and understanding. When adopted in the right way, technologies like 5G and Artificial Intelligence (AI) can save time, boost productivity, unlock innovation and create a sustainable future.

We want to help business leaders see that emerging technologies are not just relevant, but transformative. Technology is an investment in your future, not a cost or a burden.

We have seen this first-hand, having partnered with organisations of all shapes and sizes on new tech-driven initiatives. What's really astonishing is the sheer pace of innovation that we've seen across industry, particularly during the peak of coronavirus. We introduced Internet of Things (IoT) devices into London's Royal Hospital for Neuro-Disability, automating routine checks and freeing up staff to focus on their patients.

We worked with Belfast Harbour to trial the use of Augmented Reality (AR) headsets to help maintenance staff carry out safety checks. We helped the University of Stirling create a state-of-the-art 'living laboratory' for central Scotland, built on EE's 5G network.

And perhaps the most poignant reminder of how technology can truly benefit businesses and the community is our collaboration with University Hospitals Birmingham. During the pandemic we launched a Remote Diagnostic solution to help transform the way the Trust delivers care to patients, by removing the contagion risk of face-to-face consultations.

These examples reinforce the profoundly positive impact that emerging technology has on the way we live, work and consume public services. Working with our customers, we're witnessing first-hand how technology can deliver better outcomes for patients, speed up production lines, transform the learning experience and make our cities cleaner, safer and more sustainable. We believe this is just the start, and if businesses can harness the power of emerging technology today, we will completely reimagine the future tomorrow.

We hope you find the report insightful and inspiring. Above all, we hope it makes you think about how emerging technology can help your business take its next steps.

Introduction

UK plc risks falling behind other developed nations because companies are not embracing transformational technologies.

But there is a huge opportunity if businesses realise how these digital tools can power their commercial performance. These are the headline findings from ***The Future in 2020***, our definitive annual review of how UK businesses are working with emerging technology.

In partnership with YouGov, we surveyed 1,006 business leaders from across the country. We asked about their current digital capabilities and their future plans. Specifically, we asked about 14 intelligent technologies (see full list on page 37) that have significant potential to change the way businesses operate. These ranged from much-talked-about tech like 5G and AI to lesser-known examples like edge computing and Software defined networking (SD-WAN).

From talking with many organisations, we know they look to tech to deliver more efficiency, flexibility, security and to feel better supported. This survey suggests they don't yet see which technologies can help them with these goals. Many perhaps don't have time, or know where to turn, to find out.

The survey was conducted in the midst of the coronavirus crisis and the difficult financial climate clearly shapes many of our findings. But it appears the pandemic has intensified rather than created the uncertainty around new technologies.

Key Findings

- Almost a third of businesses do not intend to adopt any new emerging technology over the next five years.
- Beyond VOIP (using the internet for voice communications, rather than a phone line) no technology has more than 30% penetration, except AI in very large businesses.
- There is a clear digital divide, with large organisations (1,000+ employees) much more likely to be using transformational technology than small companies (10-49 employees).
- 20% of businesses seem totally unconvinced by new technology, despite its potential to fuel growth, productivity and efficiency.
- More than 50% of our panel said they had never heard of half of the technologies listed.
- The most common reason given for not adopting new technology was a belief that it is “not relevant to my business.” But emerging technology can contribute to all of UK plc's main business objectives.
- 40% of businesses that have adopted much-hyped technologies like blockchain, 5G and virtual reality (VR) worry they have not done so successfully.
- IT/telecoms and financial services are the most forward-looking industries with the highest rates of adoption (and future adoption plans). Hospitality has the lowest rate of adoption, followed by medical, health and education.

We have
organised this
report into
six themes
that emerged
from the data

1.

The UK's Digital Immaturity

UK businesses have been slow to adopt emerging technology. Even when they do, they're not always working out how to maximise its potential. And it doesn't seem that adoption rates will change significantly in the next five years.

(p07)

2.

The Digital Divide

Different parts of UK plc approach new technology in different ways. There is a clear gap between large and small businesses, with smaller companies far less likely to adopt new technologies. There are also striking variations between sectors.

(p11)

3.

Unleashing Technology's Potential

Many businesses don't seem to realise how powerful these innovative technologies can be. Our survey suggests there are problems around both awareness and understanding – what these technologies are and their transformative potential.

(p16)

4.

Breaking Down Silos Between Tech and Strategy

Businesses don't always think about technology as part of their wider strategy. Many do not yet realise that transformational tech can enhance their ability to achieve their commercial goals.

(p20)

5.

The Transformation Struggle

Digital transformation is complicated and there are many reasons why businesses struggle to adopt new technologies. We found the most common obstacles are cost, skills shortages, resistance to change and dealing with legacy infrastructure.

(p25)

6.

Cybersecurity in the Privacy Age

Cybersecurity is an increasingly important issue for UK businesses. Customers expect their data to be secure and companies need to respect and address this – and meet stricter and more complex compliance rules. Emerging tech can help UK businesses live up to these expectations.

(p31)

The UK's digital immaturity

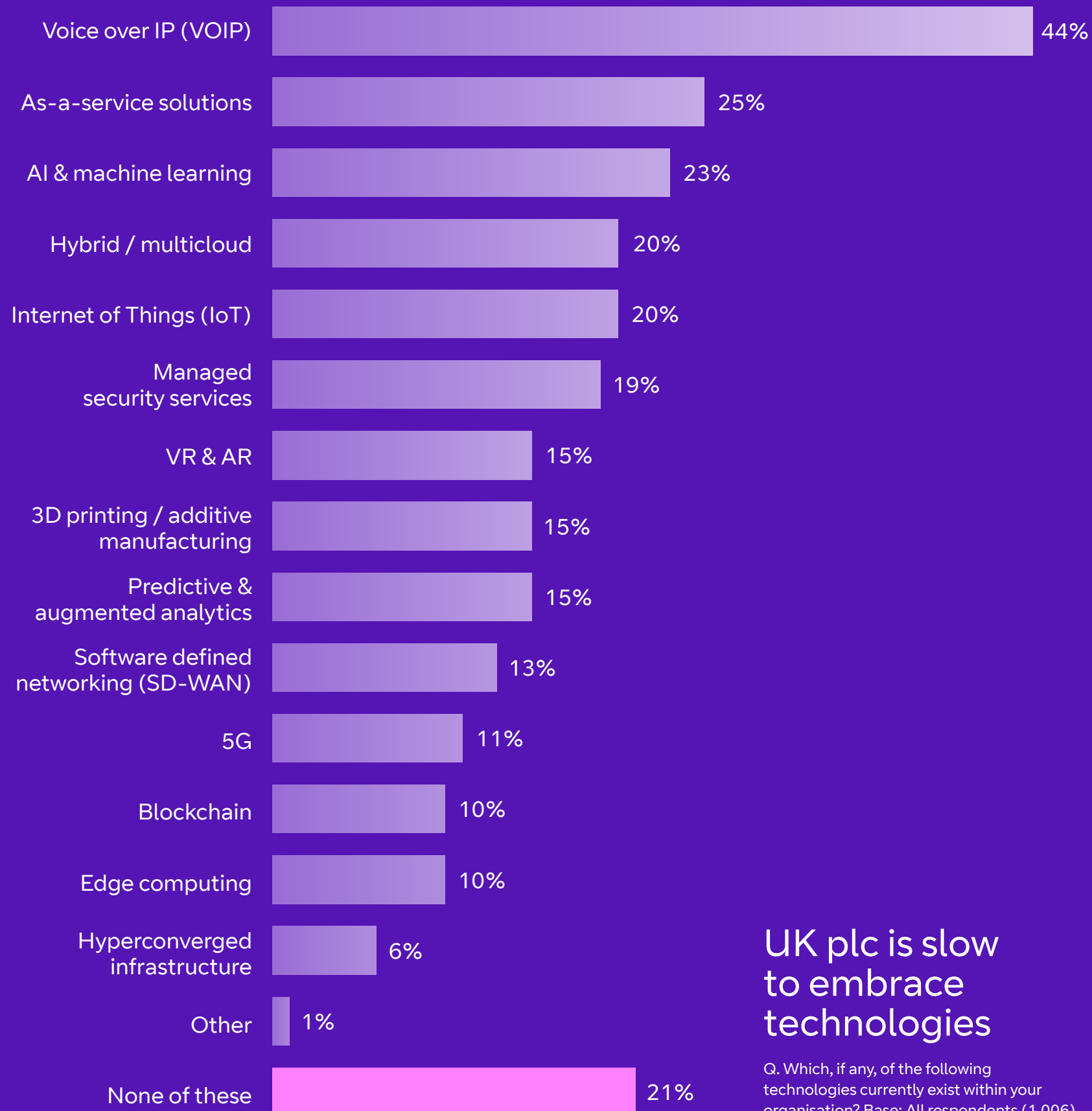


UK businesses have been slow to adopt emerging technology

Even when they do, they're not always figuring out how to maximise its potential. And it doesn't seem that adoption rates will change significantly in the next five years.

The digital future is already here. Technology has revolutionised every aspect of our lives and the pace of change is only going to increase. Globally, coronavirus has intensified the pressure to embrace digital transformation – almost overnight, organisations were forced to find new ways of working. And as the UK prepares to leave the European Union at the end of 2020, a lot of faith has been put pre-emptively in technology, to help us forge new relationships, create new opportunities and navigate new challenges.

But UK companies have been slow to adopt specific emerging technologies with very high potential. The exception is voice-over-internet-protocol (VOIP), which is used by 44% of the businesses we surveyed. This is not surprising. VOIP has matured into an accessible and cost-effective business tool. When coronavirus forced many more people to work from home, the need for reliable remote communication tools spiked.



Below VOIP, the picture is more concerning. None of the other technologies on our list have an uptake above 25%. Although its rollout has been hampered by the pandemic, only 11% of respondents are using 5G.

Just 6% have adopted hyperconverged infrastructure (IT systems which are made virtual by moving from hardware to software).

Perhaps most worryingly, 21% of the businesses we spoke to hadn't adopted any of these technologies. This number jumps up to 32% when you take out VOIP.

There is work to be done to encourage UK plc to acquire these new technologies. Interest in adopting them in the next five years is low. 5G tops the list, but still only 30% of businesses see it in their future plans, despite predictions that 5G could boost the UK economy by £15.7bn in the next five years.¹ Just 17% think they will adopt AI and machine learning.

¹ Barclays, 3 April 2019, 5G technology to boost UK economy by up to £15.7bn by 2025 <<https://home.barclays/news/press-releases/2019/04/5g-technology-boost-to-uk-economy/>>

Plans to adopt tech in next 5 years

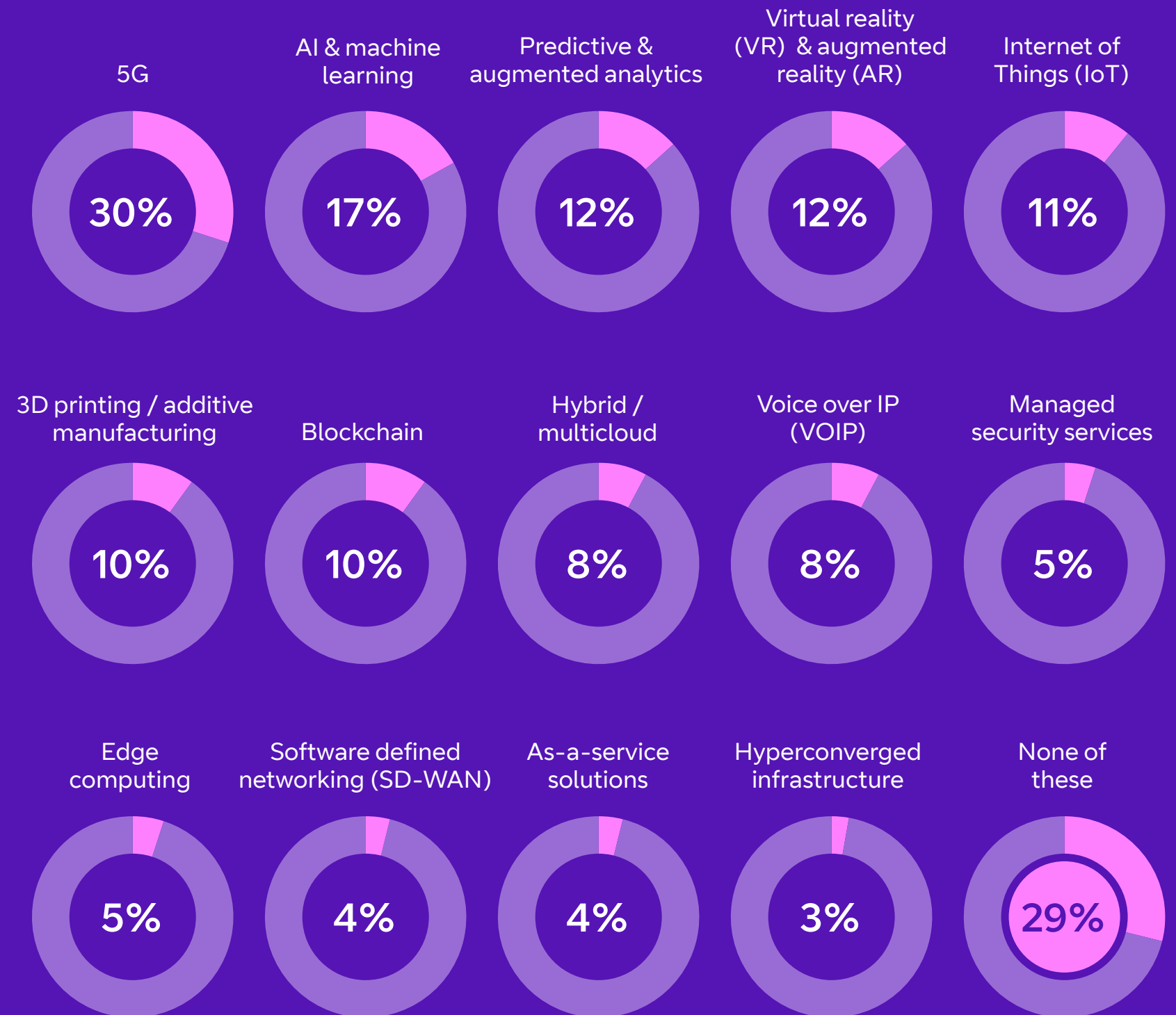
Q. Which, if any, of the following technologies that you do not currently use, do you plan to acquire/use in the next 5 years? Base: 937 (of the base 1,006 who selected that they were not currently using a technology)

Concerningly, 29% say they have no intention of adopting any of these innovative technologies.

Even factoring in coronavirus and the resulting recession, this looks like a significant missed opportunity. UK plcs seem to be struggling to grasp how technology can transform its future.

We also asked businesses that had adopted new technologies how well they were using them. Most businesses felt they had adopted new technology successfully. But there were concerns – 40% of companies using 5G, blockchain and virtual and augmented reality worry they are not using them to their full potential.

These hype technologies attract a lot of headlines. But it's clear that businesses need help not just understanding why they should adopt new technologies, but also how best to use them.



The
digital
divide

2

Different types of UK plc approach emerging technologies in different ways

There is a clear gap between large and small businesses, with smaller companies far less likely to adopt new technologies. There are also striking variations between sectors.

Small businesses are the beating heart of the UK economy. They account for 99% of businesses in this country, employ 16 million people and generate £2.2 trillion in annual revenue.² But running a small business is a precarious enterprise. Only 42% of small businesses survive for five years, and coronavirus has ramped up the financial pressures even further.

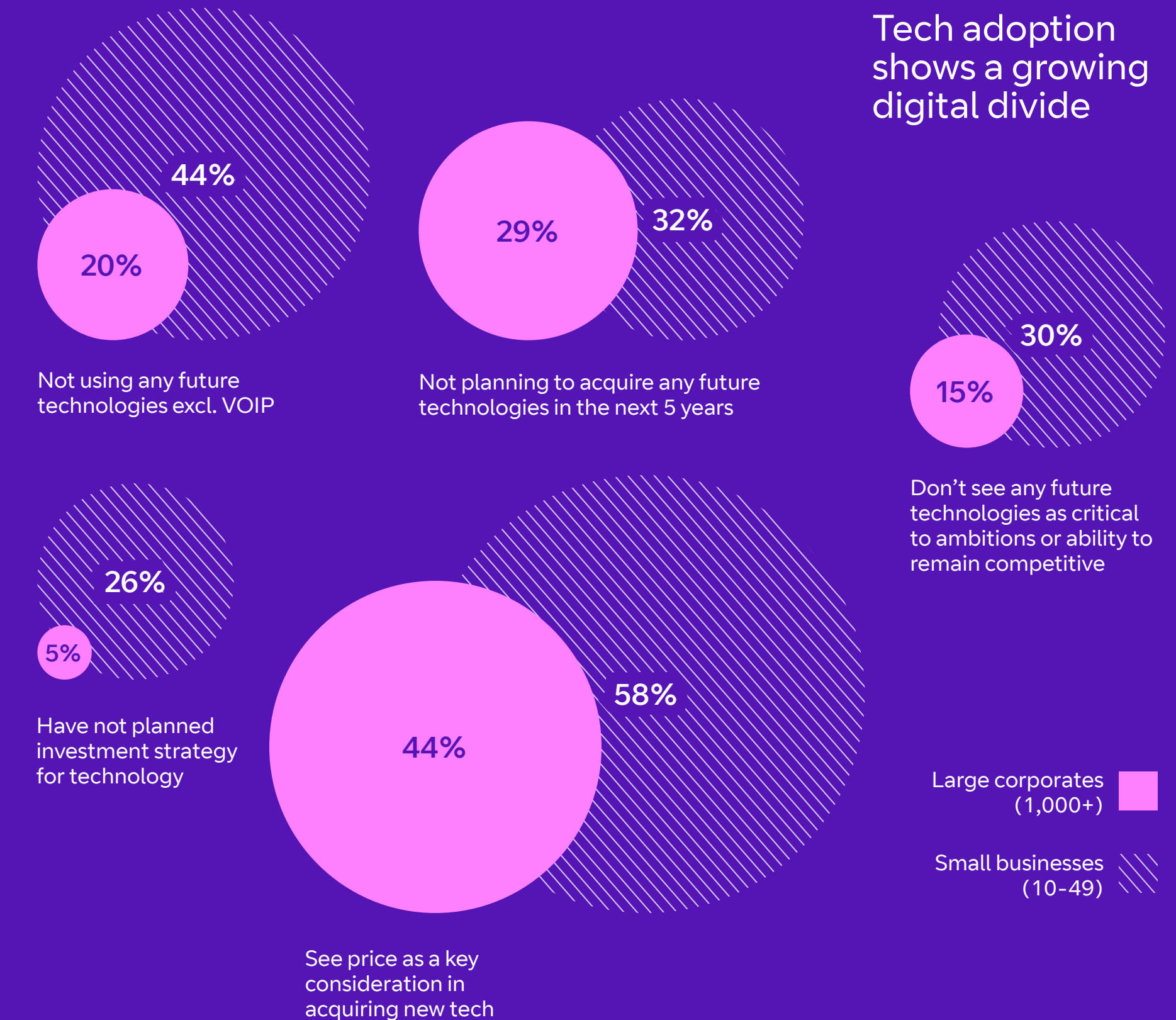
² Federation of Small Businesses/Department for Business, Innovation & Skills

The UK needs a thriving small business sector. But small businesses are much less likely to have adopted new tech, whether that's because they don't think it's relevant, they can't afford it or for other reasons.

Taking out VOIP, 44% of small businesses (10-49 employees) are not using any of the technologies we asked about, compared to just 20% of large businesses (1,000+ employees).

There are some obvious reasons for this. Technology can be expensive, and big companies are better placed to invest in their infrastructure. Also, some of the technologies on our list solve specific problems that big businesses face. For example, SD-WAN helps connect large distributed organisations, and would be less useful to a start-up.

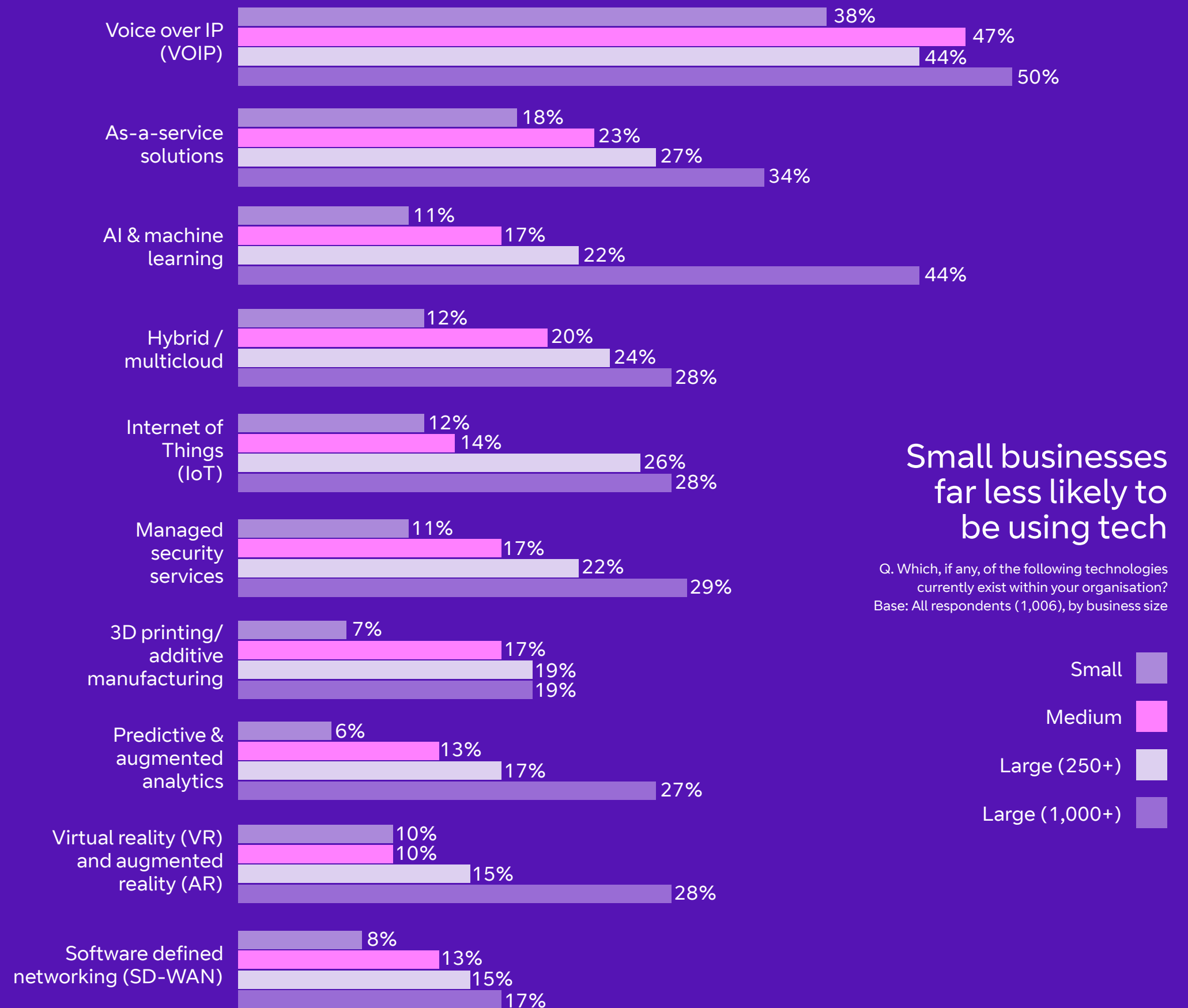
But this divide is still striking. 30% of the small businesses we spoke to do not believe these technologies are critical for their future plans – double the number of large businesses that said the same. And when it comes to planning future investments in technology 20% of small businesses have plans in place, compared to 39% of big companies.



We can trace the same pattern in a specific example with AI. Our survey found that a large business is four times more likely than a small business to be using AI and machine learning.

And this gap will widen – only 18% of small businesses see AI as critical to their plans for the next five years, compared to 47% of large businesses.

Microsoft CEO Satya Nadella calls AI “the defining technology of our times.” From understanding customers to streamlining operations, it helps businesses crunch the numbers and turn data into insight. Small companies don’t seem to see its potential.

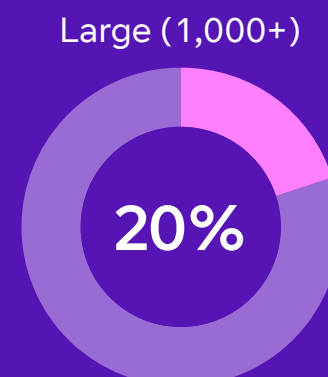
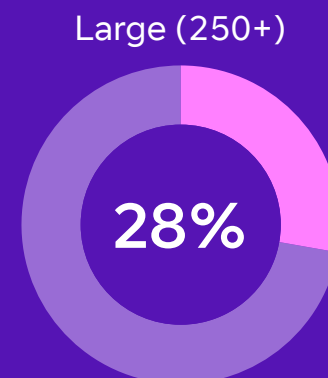
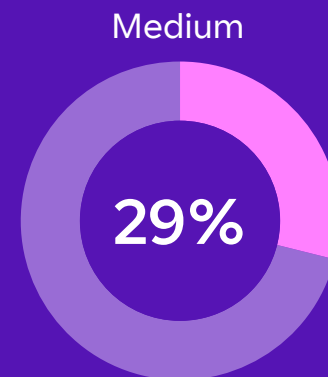
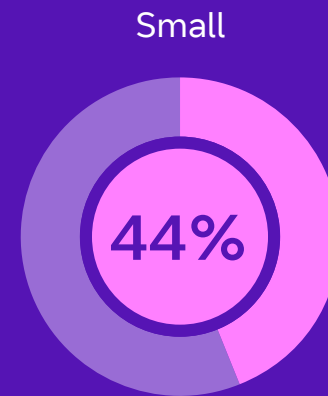


The Industry Angle

It's worth adding that the digital divide isn't just about size. We also found variations between different industries and sectors when it came to using these transformational technologies.

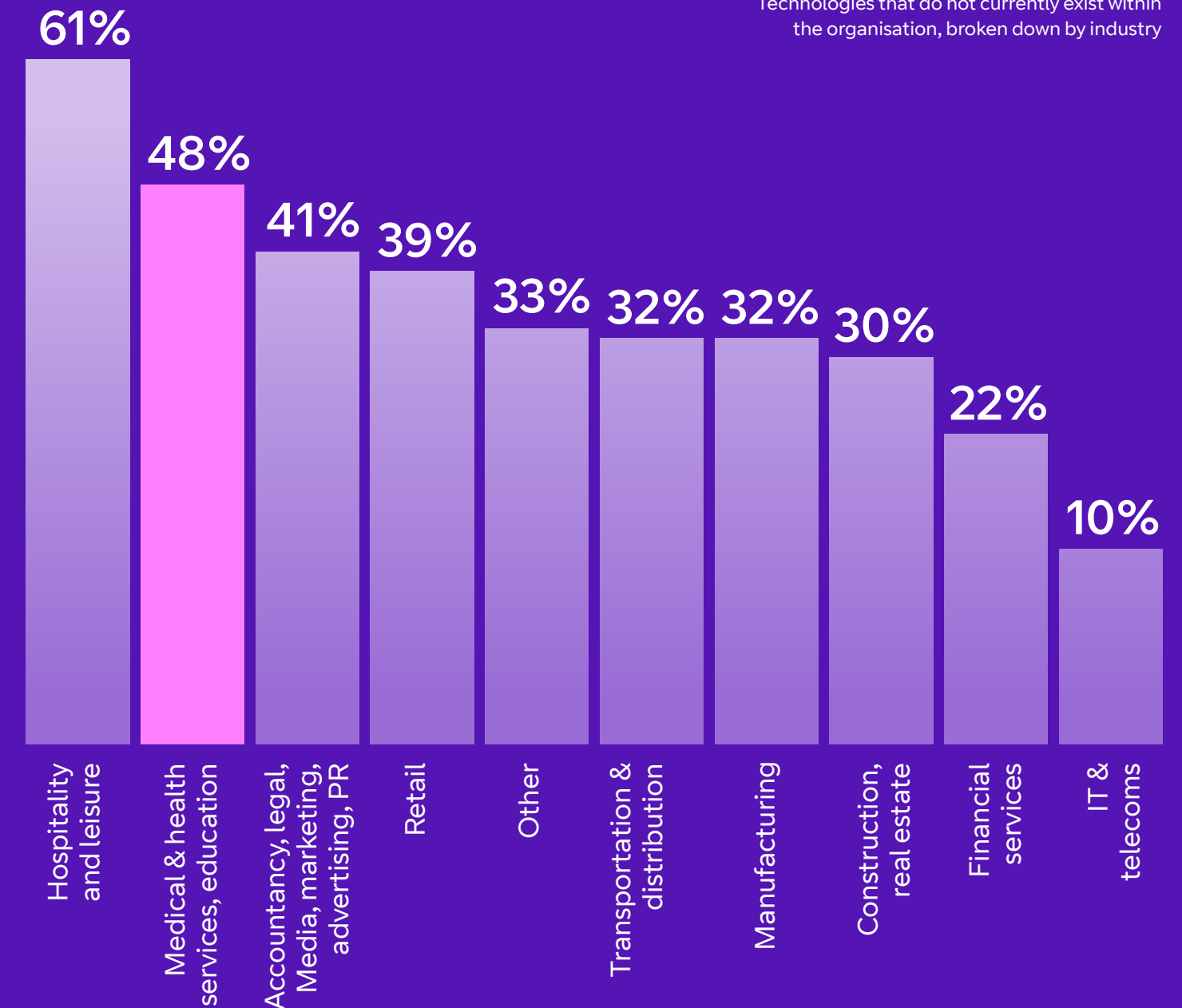
At the top end, unsurprisingly, we find IT and telecoms out in front. Financial services and manufacturing both have slightly higher than average adoption rates. Elsewhere, hospitality and leisure lags way behind, as does medical, health and education.

Excluding VOIP, nearly half (48%) of the medical, health and education respondents aren't using any of the technologies on our list. And 38% have no plans to adopt them in the next five years. Given the significant challenges created by coronavirus, these stats are alarming. The healthcare sector is under more pressure than ever, and technology should play a key role in making its work more efficient and effective. But our survey suggests these companies risk falling even further behind other sectors at a time when they are needed more than ever.



Rate of digital transformation varies by industry

Base: All respondents (1,006), excluding VOIP.
Technologies that do not currently exist within the organisation, broken down by industry



Unleashing
technology's
potential



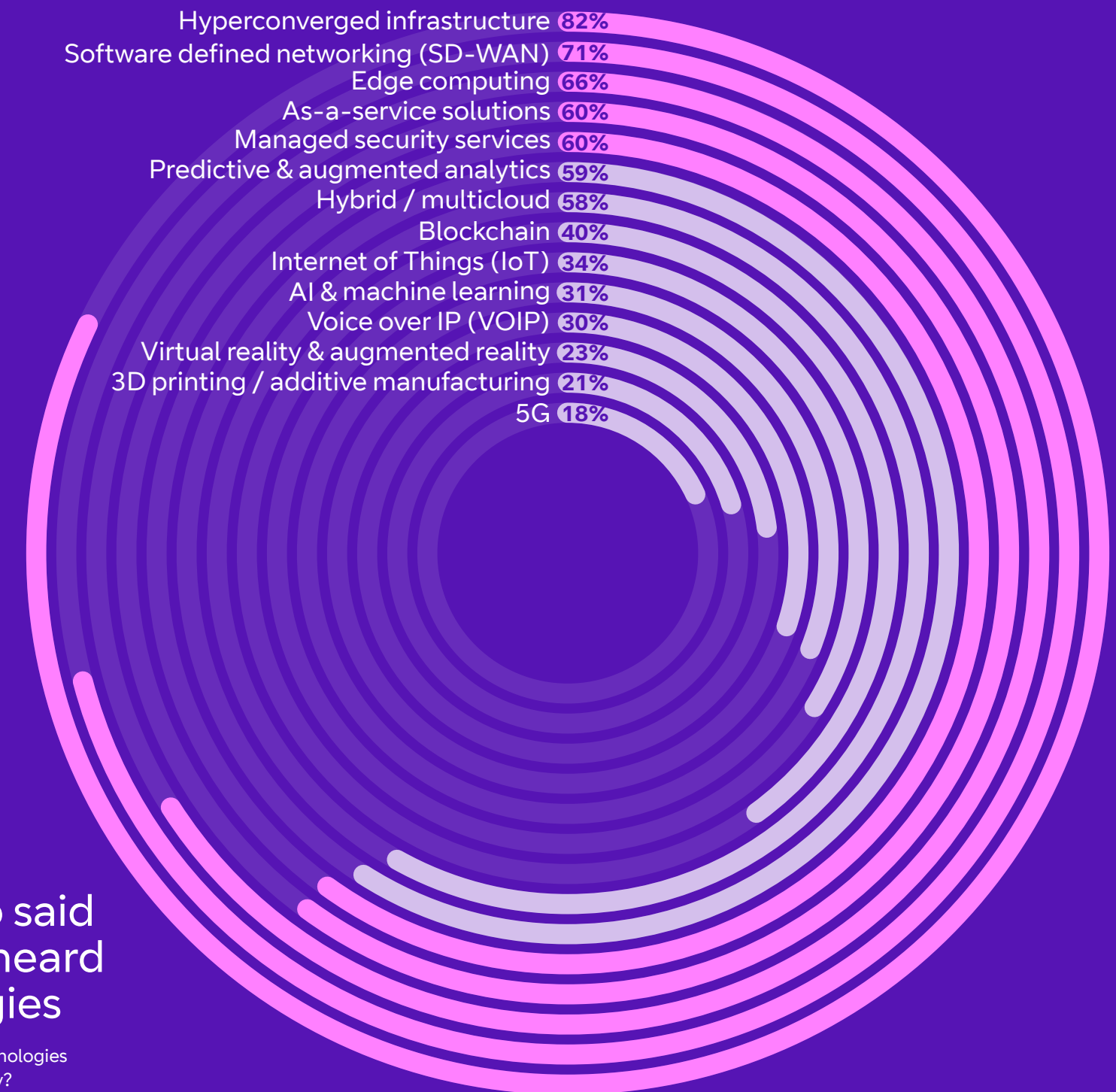
Many businesses don't seem to realise how powerful these innovative technologies can be

Our survey suggests there are problems around both awareness and understanding – what these technologies do and their transformative potential.

Our data suggests there is a tech awareness problem across UK businesses. More than 50% of business leaders said they had never heard of half of the technologies listed. It's important not to make assumptions, based on digitally-savvy outliers, that companies are familiar with technologies that others might imagine to be mainstream.

Leaders who said they hadn't heard of technologies

Q. Which of the following technologies have you heard of before today?
Base: All respondents (1,006)



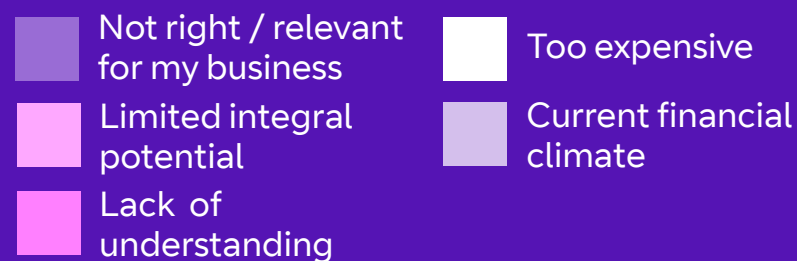
Our survey shows 18% had never heard of 5G. 31% weren't aware of AI. 60% weren't familiar with as-a-service solutions and managed security services

We also broke down these awareness stats to see how the answers differed between C-Suite leaders like CIOs and “at-the-coalface” business heads. Even among this informed audience, key technologies are struggling to gain traction. A significant majority of both groups were unaware of half of the technologies in the survey; 71% of both business heads and C-Suiters had never heard of SD-WAN for example.

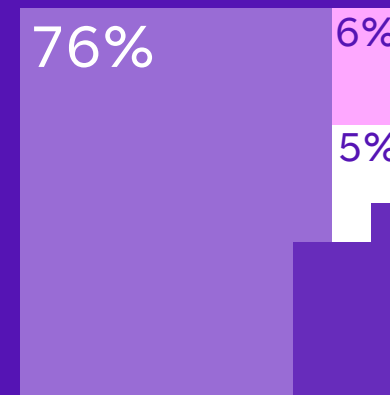
This awareness issue only tells half the story. We asked businesses why they weren't going to invest in each of these key technologies. Across the board, the most common response was that they simply weren't right or relevant for their business. For some technologies – 3D printing for example – this makes sense given its specific use cases. But for other technologies, it seems that businesses haven't yet grasped just how useful they can be. The danger is they might dismiss them as irrelevant without realising their potential.

Again, AI is a good example. 57% of those firms not planning to adopt it said it was irrelevant to them. And yet one study found that businesses which adopt AI and machine learning outperform those that don't by 11.5%.³

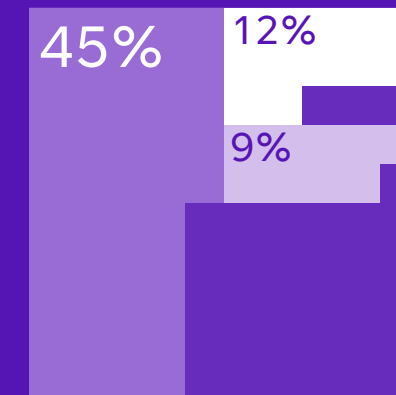
5G has a similar problem. Nearly half (45%) of the businesses not planning to adopt 5G said it isn't right for them. But 5G has huge power to unlock new business models and facilitate remote working – an increasingly important need after coronavirus upended global office culture. Again, this comes down to understanding. A Nokia study found that 80% of people want 5G when they understand what it can do, compared to 23% who aren't familiar with it.⁴



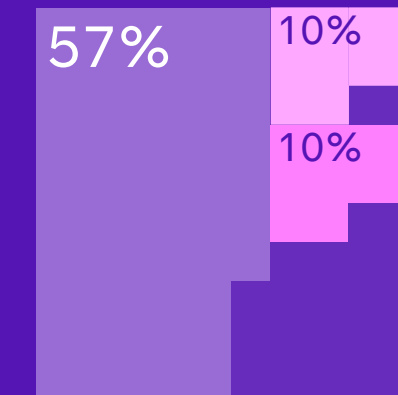
3D printing



5G



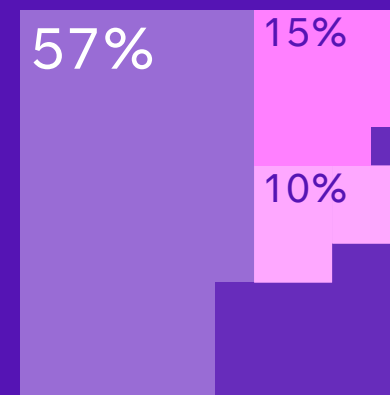
AI & machine learning



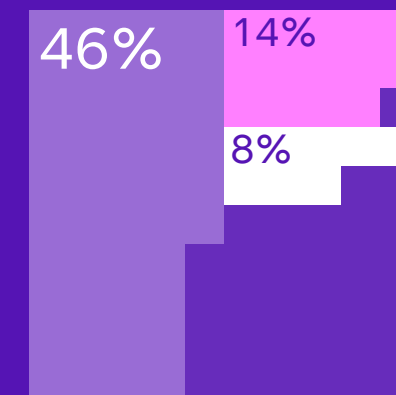
Why businesses don't plan to invest

Q. Which of the following reasons best explain why your business is not planning to invest in each of the following technologies in the next 5 years?
Base: 515 (Those NOT planning to invest in the technology)

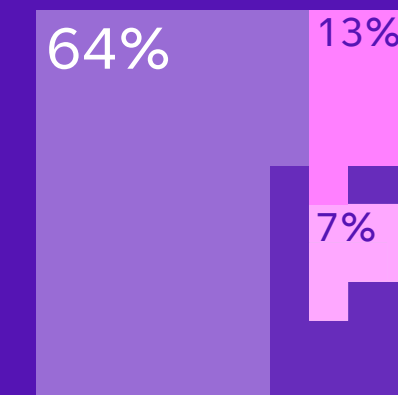
Blockchain



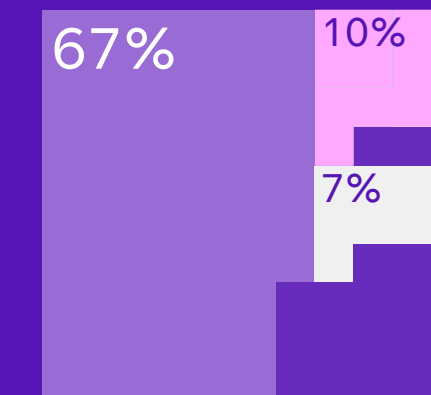
Edge computing



Internet of Things



VR & AR



³Microsoft, 1 October 2019, Accelerating competitive advantage with AI, accessed 25 September 2020, <<https://aka.ms/AcceleratingAI>>

⁴<https://www.nokia.com/networks/research/5g-consumer-market-research/>

Breaking
down silos
between tech
and strategy

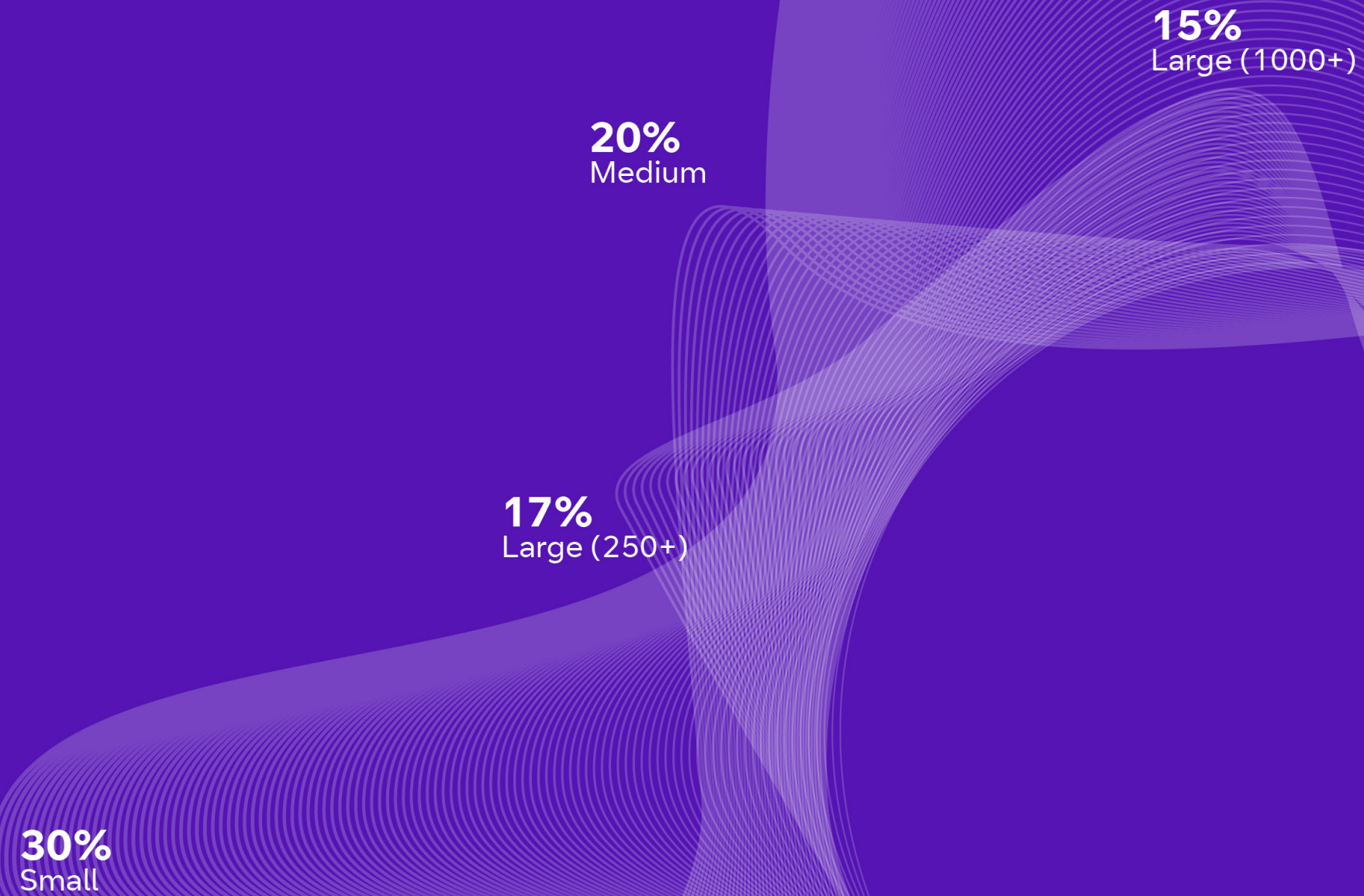
4

Businesses don't always think about technology as part of their wider strategy

Many do not yet realise that transformational tech can enhance their ability to achieve their commercial goals. Across the board, the business leaders we spoke to share the same core objectives – increasing revenue, reducing operational costs and boosting productivity. The next most common responses include optimising customer experience, enabling flexible work, and performance data and analysis.

Companies that said no emerging tech would be critical in next 5 years

Q. From your experience, which of these technologies, if any, will be critical in the next 5 years to enable your business to achieve its ambitions and stay competitive?
Base: All respondents (1,006)

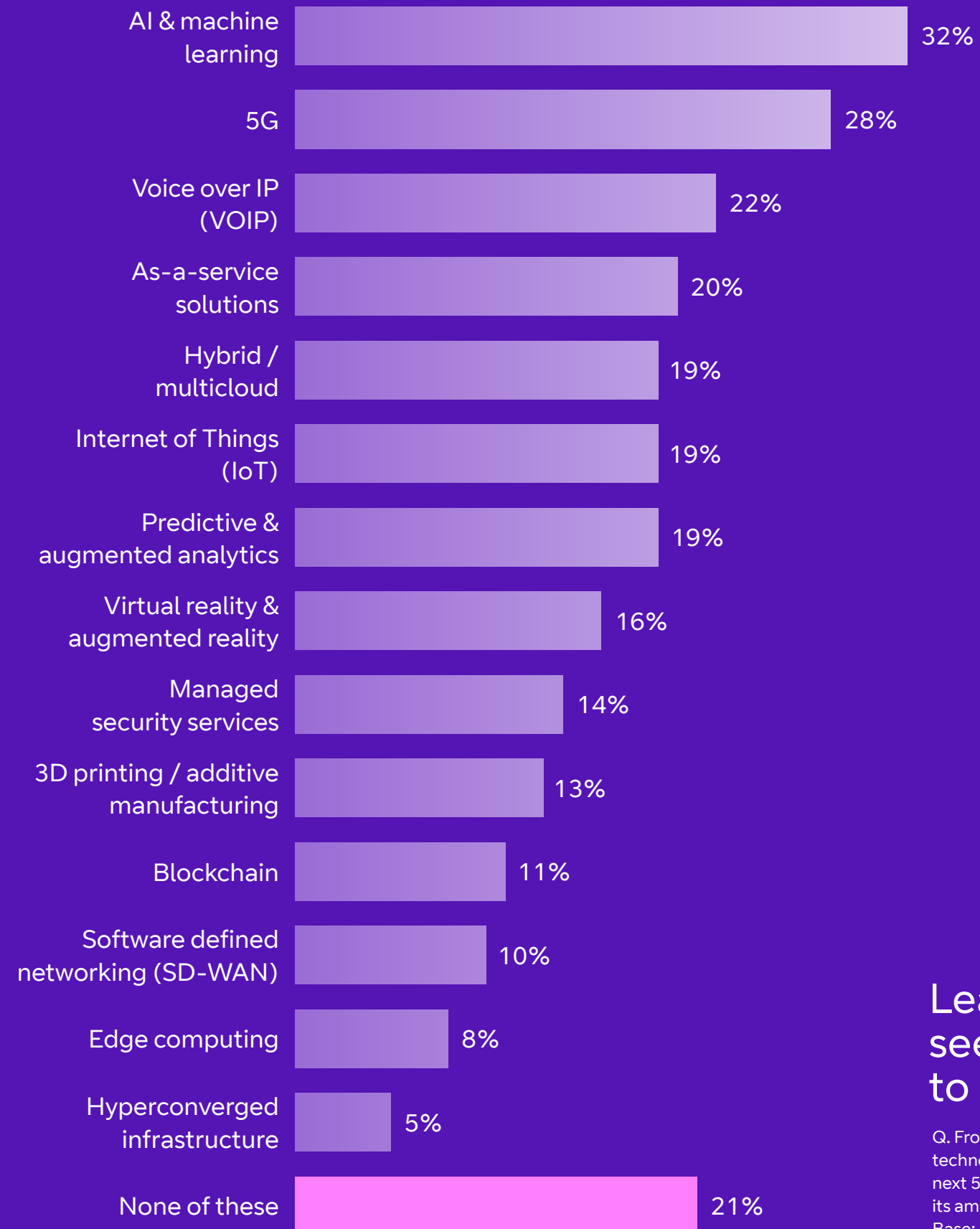


The good news is that transformational technology can help UK plc achieve all of these goals.

But this message is not always getting through. Predictive analytics, for example, can help businesses spot new opportunities and anticipate their customers' needs. AI can analyse how a business operates and suggest savings.

But among businesses looking to boost revenue, only 18% believe that predictive and augmented analytics might be able to help. Of the companies looking to reduce their operational costs, just 1 in 4 think AI and machine learning might be useful.

Even at the top end, the numbers are modest. Just 32% of businesses see AI and machine learning as vital to their future plans. And only 28% think 5G has an important part to play, despite Nokia predicting it will add \$8trillion to global GDP by 2030.



Leaders don't see tech as critical to ambitions

Q. From your experience, which of these technologies, if any, will be critical in the next 5 years to enable your business to achieve its ambitions and stay competitive?
Base: All respondents (1,006)

20% seem unconvinced by new tech

21% of the panel said none of the technologies in our list would be critical for their short-term plans.

There is a sense that 1 in 5 businesses are overlooking emerging tech's potential. The same figure – 21% – don't currently use any transformative technologies; 20% don't think any can help them achieve their business aims.

21%

said emerging technologies will not be critical to business ambitions and staying competitive in the next 5 years

21%

said none of the emerging technologies are currently used within their organization

20%

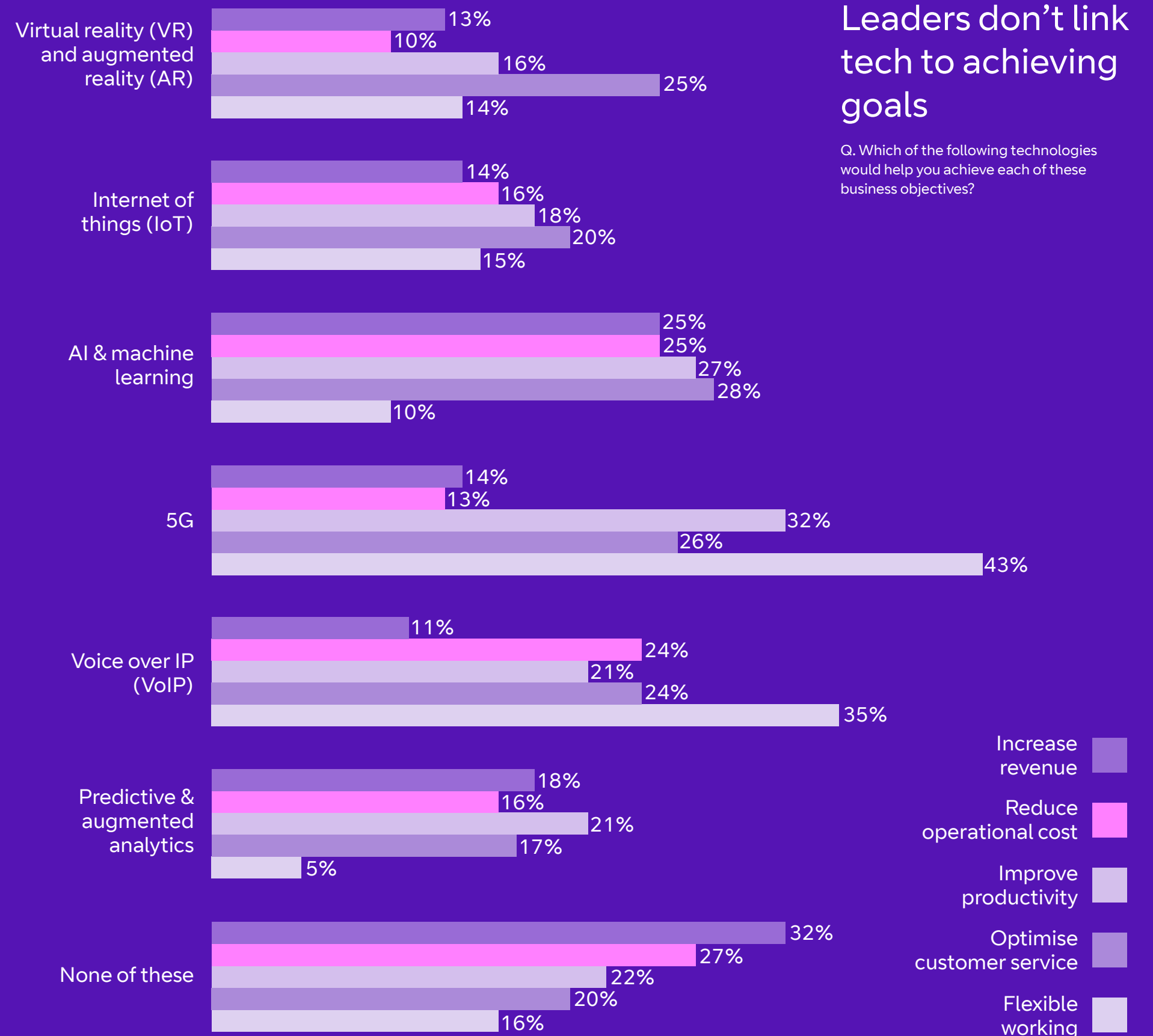
thought none of these technologies would help them to achieve their business objectives

21% (bottom left) Q. Which, if any, of the following technologies currently exist within your organisation?

21% (top middle) Q. From your experience, which of these technologies, if any, will be critical in the next 5 years to enable your business to achieve its ambitions and stay competitive? 20% (bottom right) Q. Which, if any of the following business objectives best describe your business priorities for the next year? Please select up to 3. Of those selecting business objectives: Q. And which of the following technologies would help you achieve each of these business objectives? Base: All respondents (1,006)

There is a big opportunity here

UK plc is not failing to adopt transformational technology because of a backwards or overly cautious attitude to the digital future. Rather, companies do not yet understand how these intelligent technologies can drive the performance of their business.



The transformation struggle



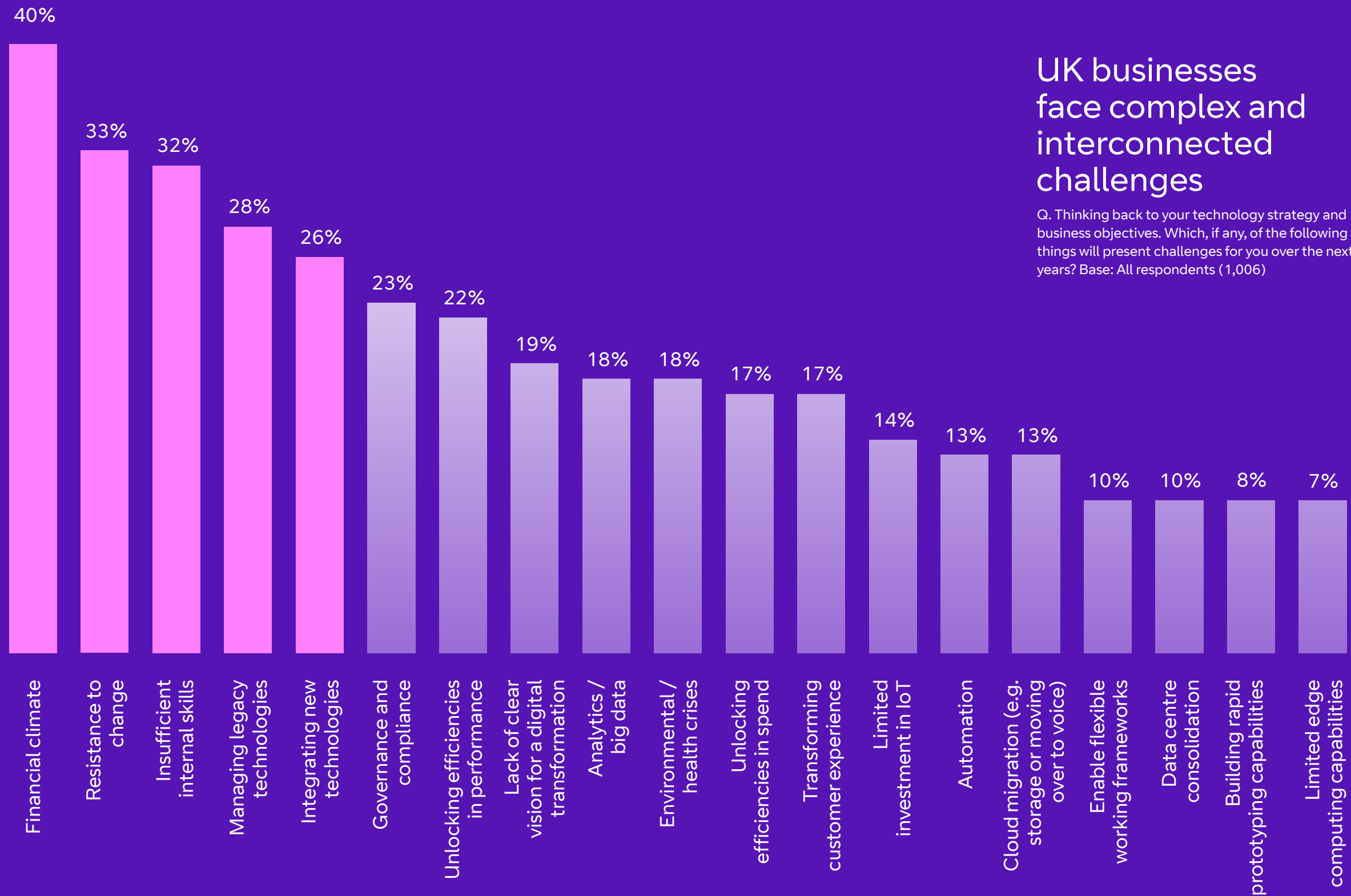
Digital transformation is complex

There is a clear link between commercial success and digital innovation. A 2019 McKinsey survey found that top performing businesses adopt digital strategies faster than their competitors, and they develop new digitally-led business opportunities more proactively.⁵

But real, long term-change is not easy. A separate McKinsey study found that 70% of all digital transformations fail.⁶ Here are the main challenges our respondents said could hinder their digital strategies over the next five years.

⁵ McKinsey: A Winning Operating Model for Digital Strategy, 23 January 2019 <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/a-winning-operating-model-for-digital-strategy#>

⁶ McKinsey: How to restart your stalled digital transformation, 6 March 2020 <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/how-to-restart-your-stalled-digital-transformation>

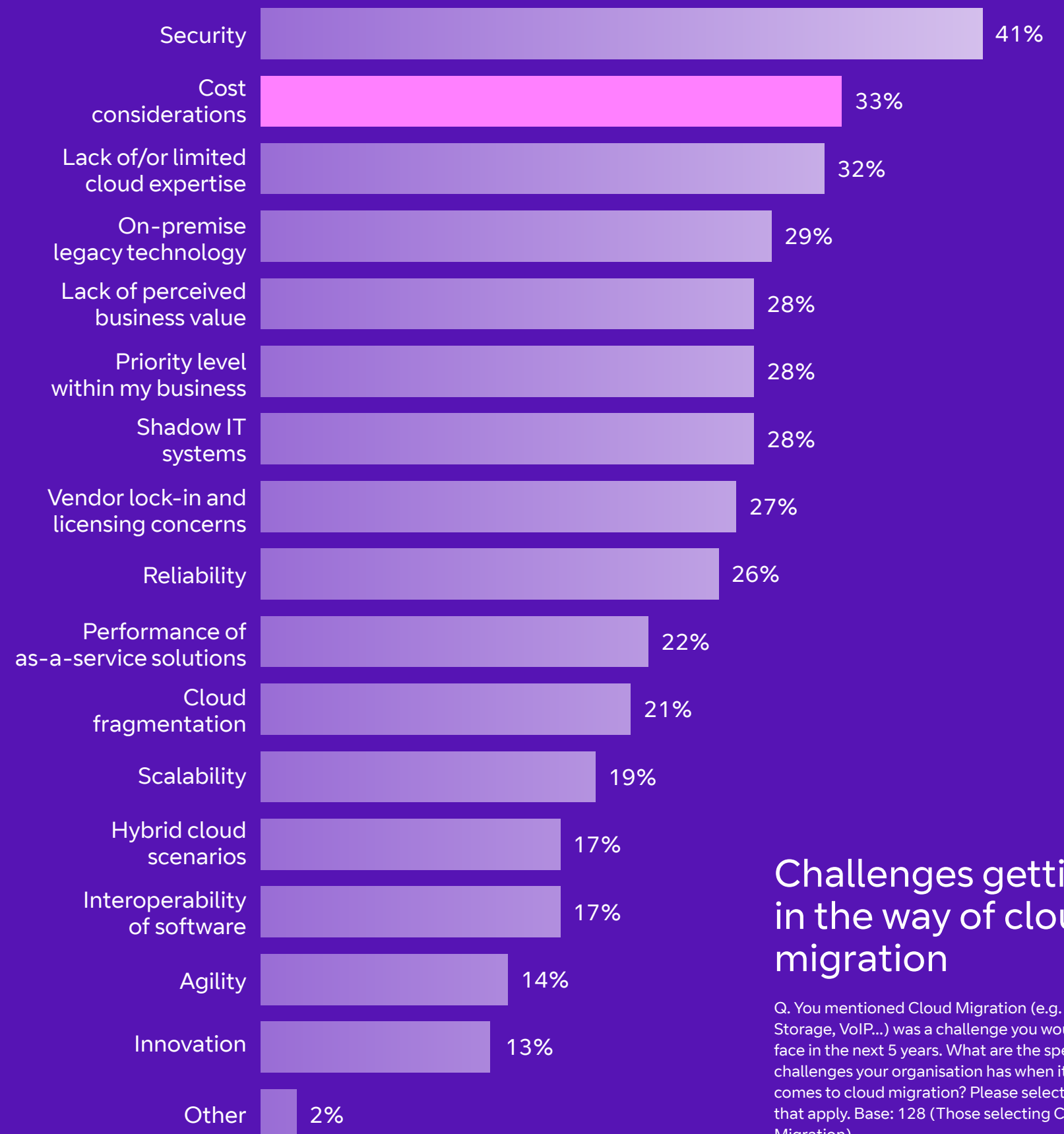


Financial climate

Coronavirus has plunged the global economy into a crisis. The International Monetary Fund predicts that UK GDP will fall 10% this year, so it's no surprise that companies are concerned about their bottom line.

40% of business leaders said the current financial climate would impact their tech strategy in the next five years, while 46% said pricing is a key consideration when it comes to buying new technology.

These financial implications are shaping very specific decisions that businesses are making – or not. Take cloud migration – a key step to unlocking digital potential and adapting to the new remote-first world. 1 in 3 respondents who see cloud migration as a challenge are concerned about the cost. The irony of coronavirus is that it has intensified pressure on companies to find new digital solutions, while making it more difficult to pay for them.



Challenges getting in the way of cloud migration

Q. You mentioned Cloud Migration (e.g. Storage, VoIP...) was a challenge you would face in the next 5 years. What are the specific challenges your organisation has when it comes to cloud migration? Please select all that apply. Base: 128 (Those selecting Cloud Migration)

Skill shortages

Many businesses are struggling to find the people with the right skills to carry out digital transformation.

1 in 3 businesses expect skills shortages to obstruct their plans. Even in the least-worried industries like IT and financial services, around a quarter believe skills shortages will pose challenges.

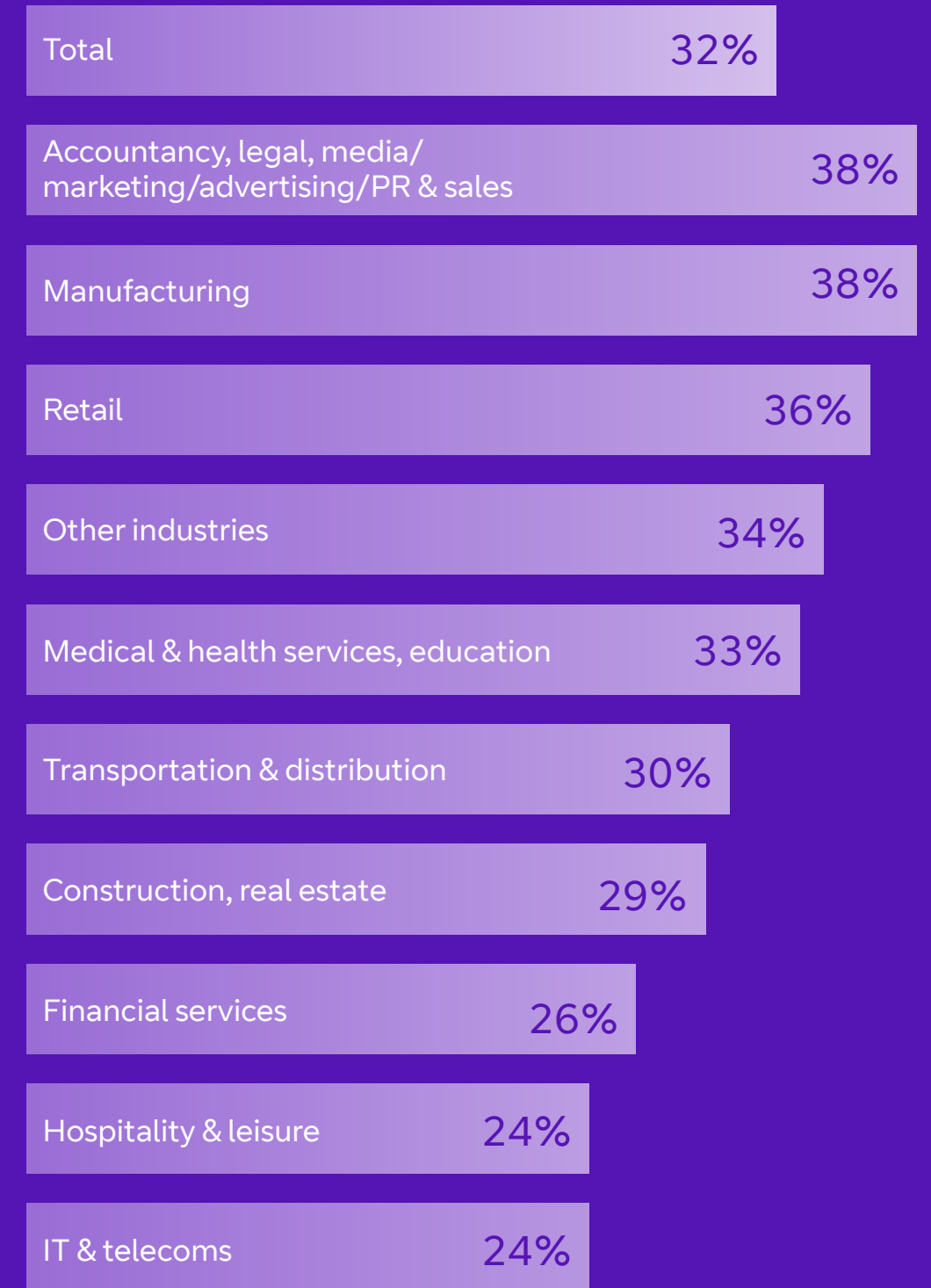
This is a major issue that UK plc will need to address, as a lack of tech skills could scupper adoption plans before they take off. According to Accenture, this digital skills gap could cost the UK economy £141.5 billion. “The economic promise of intelligent technologies is at risk if employers fail to prepare their workforces effectively,” says Accenture’s Diana Barea.⁷

Against a very uncertain backdrop, small businesses are likely to be hardest hit by these skills shortages. 59% of SMEs believe that a recession will negatively impact this issue, and 47% think Brexit will hinder their efforts to bring in the right skills.⁸

⁷ Accenture, 24 September 2018: <https://www.accenture.com/gb-en/company-news-release-g20-report-uk> ⁸ Robert Half UK, 2020 Salary Guide, 3 October 2019 <https://www.roberthalf.co.uk/press/uk-smes-face-ps145k-skills-gap-war-talent-endures>

Skills shortages is a concern across industries

Q. Thinking back to your technology strategy and business objectives. Which, if any, of the following things will present challenges for you over the next 5 years? Base: All respondents (1,006) (Those selecting insufficient internal skills)



Resistance to change

On its own, adopting new technology is not enough to create a digital transformation.

People and culture play a huge part in this process, from strong and visionary leaders through to enthused and empowered employees. We found 1 in 3 businesses think resistance to change will present a challenge to their tech strategy and business objectives over the next five years.

Here, the digital divide we saw previously is reversed. Small companies – with fewer stakeholders and simpler structures – are less concerned than large organisations, with complex processes and layers of decision-makers.

Integration

Bigger businesses also struggle more to integrate new technology alongside legacy infrastructure.

For larger companies, rolling back technology they have previously introduced can be very complex. Dealing with legacy tech was a concern raised by 18% of small companies, jumping to 39% for large organisations.

Cybersecurity in the privacy age

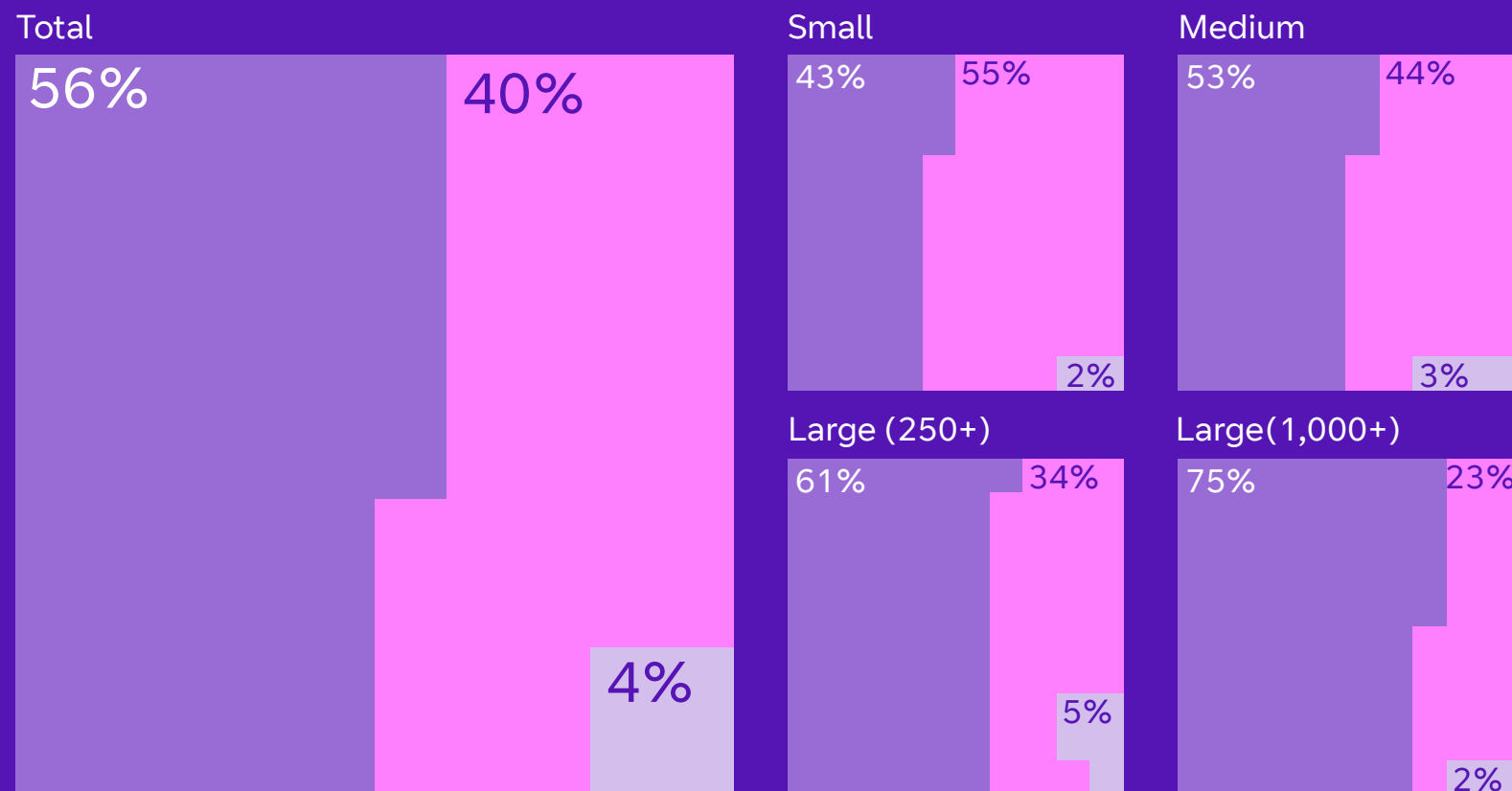


Cybersecurity is an increasingly important issue for UK businesses



The cyber security workload is increasing

Q. How has the cyber security-related workload increased in your company in the last year? Base: All respondents (1,006)



Customers expect their data to be secure and companies need to respect and address this – and meet stricter and more complex compliance rules. Emerging tech can help UK businesses live up to these expectations.

Organisations have always built relationships with customers and clients based on trust. But as cyberattacks become more sophisticated and public awareness increases, cybersecurity has never been more urgent.

Many of the new technologies on our list offer better security – helping companies keep sensitive information on the cloud, as opposed to physical servers for example. By embracing these new solutions, organisations can overhaul their cybersecurity measures and reassure customers.

Coronavirus brought a host of new challenges for businesses trying to manage cybersecurity. The rapid shift to employees working from home increased vulnerability. We found that most UK businesses see cybersecurity as a bigger threat than they did 12 months ago. The time they dedicate to cybersecurity has increased too, especially for the biggest companies.

Understandably, this is impacting decisions around whether to adopt new technology.

It’s the main concern for those businesses who see cloud migration as a challenge they will face in the next five years.

Compliance is another significant consideration. New privacy rules seem to be ever-more complex, and responsibilities differ from country to country. This creates real challenges in such an interconnected digital world.

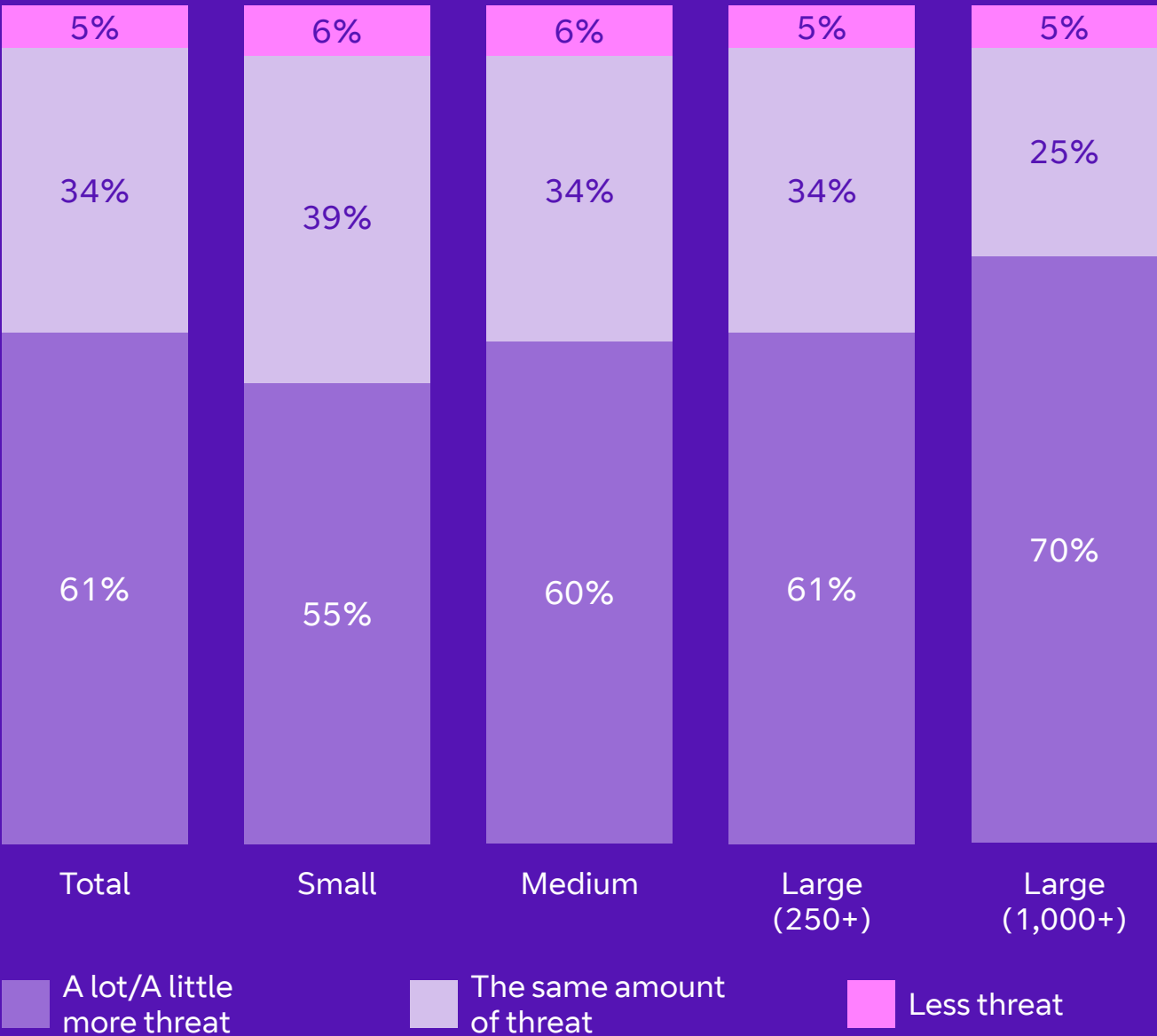
Businesses struggled to come to terms with the stringent General Data Protection Regulation (GDPR) rules introduced in 2018. One study found that nearly half (49%) of the UK’s security decision-makers don’t believe their firms fully comply with the regulation. Failure to do so can land companies with huge fines – €20 million, or 4% of annual global turnover, depending on which is higher.⁹

Given the scale and complexity of these security challenges and the increased public conversation around them, it is not surprising that many companies are seeking help. Most businesses (54%) see external vendors and partners playing a bigger role in managing their cybersecurity in the future.

⁹ Forrester Research, Shift From Privacy Readiness To Sustained Compliance, 6 February 2020

The cyber security threat level has grown

Q. How would you describe the cyber security threat level compared to 1 year ago? Base: All respondents (1,006)



Afterword

By Fotis Karonis, CTIO of BT's Enterprise unit

We started this report with a question – what does the future of your business look like? Let's end with a question too – what does this mean for your business? What now?

Every organisation is different, and there is no cut-and-paste approach to adopting new digital technologies. But from our vast experience of helping many types of business navigate their own digital journeys, here are a few pointers to kick-start the conversation at your company.

Afterword

It's good to listen

You don't need to start from scratch. Talk to your partners, suppliers and customers about their experiences with emerging tech. What new technologies have they embraced? How have they used them? What worked? What didn't? What surprised them?

The whole of the UK business landscape is working to understand and adopt new technology, and so there are plenty of lessons you can learn by asking the right questions.

It's about partnership

The solution is not in any one technology or any one partner. It's about bringing it all together. Your business will benefit the most from a network ecosystem to support your goals. You need the right technology solution for your business, coupled with a partner that can navigate the complexities for you end-to-end, and you want the digital skills to harness the technology and help you thrive in business. There is a world of resources to guide and support you – use them.

All eyes on 2025

In 2025 we are switching the UK over to fully digital networks. Businesses should think about how to make the most of the many opportunities this will create. Moving to our VOIP service is a seamless way to safeguard your communication network.

2025 is a good deadline to work towards a more holistic digital transformation. It's close enough to feel real, but it gives you enough time and space to think through your digital strategy.

Always start with security

Cybersecurity was already a big issue before coronavirus. But with more people working remotely, businesses need to be even more careful with data. We recommend that you bake security into any future plans from the outset. Identify your challenges and find the partners and services that can help.

Afterword

Connecting the dots is crucial

Businesses should be excited by the potential of new technologies like AI and 5G. But sometimes it can be hard to see how this tech can help your specific business.

Seek out real examples of how businesses like yours have embraced these technologies. Then think about your industry, your business model and how both might change.

There is no time like now

Amid the pressures of coronavirus, it may feel like the wrong time to be thinking about new technologies. Emerging technologies are not a fad – they can directly contribute to your most important business objectives. Building a sustainable long-term business model starts with using all the tools at your disposal.

We can help

Choosing trusted partners is a vital part of your digital transformation journey. As we've said, no two businesses are exactly the same. But having worked with so many companies on their digital plans, we have a huge amount of experience. Our experts can help you understand which emerging technologies are right for you, and show you how to maximise their potential.

Full list of technologies

Tech List	Description
Virtual Reality (VR) and Augmented Reality (AR)	Solutions that enable immersive experiences by creating an artificial environment (VR) or enhancing a real-world view (AR), usually experienced through a headset
Edge Computing	Computing and data storage closer to the location where it is needed, to improve response times and save bandwidth
Internet of Things (IOT)	Smart devices that collect data and connect to the internet, without the need for human input (e.g. smart energy meters, sensors, wearables)
AI & Machine Learning	Intelligent behaviour by machines, that work and react like humans (e.g. chatbots, voice assistants, robots) whilst having the ability to continuously improve
Software Defined Networking (SD-WAN)	A network architecture approach that enables the network to be intelligently and centrally controlled, using software applications. This helps operators manage the entire network consistently and holistically (e.g. SD-WAN, SD-LAN)
5G	The next evolution of the mobile network, providing faster speeds and lower latency
Voice over IP (VoIP)	Using the internet to carry voice communications, rather than a traditional phone line/system
As-a-service Solutions	Services hosted in the cloud by third parties, enabling businesses to access them on a subscription basis (e.g. Google Apps, Cisco WebEx, Microsoft Office 365)
Blockchain	A list of transactions that are linked using cryptography, meaning they cannot be modified
Predictive & Augmented Analytics	Intelligent data analysis solutions, making it easier to get actionable insights
Hyperconverged Infrastructure	A software-defined IT infrastructure that virtualizes conventional ‘hardware-define’ systems. E.g. virtualized computing, software-defined storage and virtualized networking.
Managed Security Services	Network security services that have been outsourced to a service provider
Hybrid-/ Multicloud	Using a mix of on-premises, private cloud and third-party, public cloud services with orchestration between the various platforms
3D Printing/ Additive Manufacturing	Construction of a three-dimensional object from a CAD model or a digital 3D model

Useful links and further reading

Skills for tomorrow: learn the tools and techniques you need for success

10 ways to digitally transform your business

5G myths debunked

Productivity in the modern workplace (2020 and beyond)

How to work from home effectively – a practical guide

5 key artificial intelligence trends



Research conducted by **YouGov**

YouGov completed 1,006 online interviews with C-Suite and business heads in small (305), medium (207) and large (494) UK businesses. Fieldwork was carried out between 21 August and 13 September 2020.