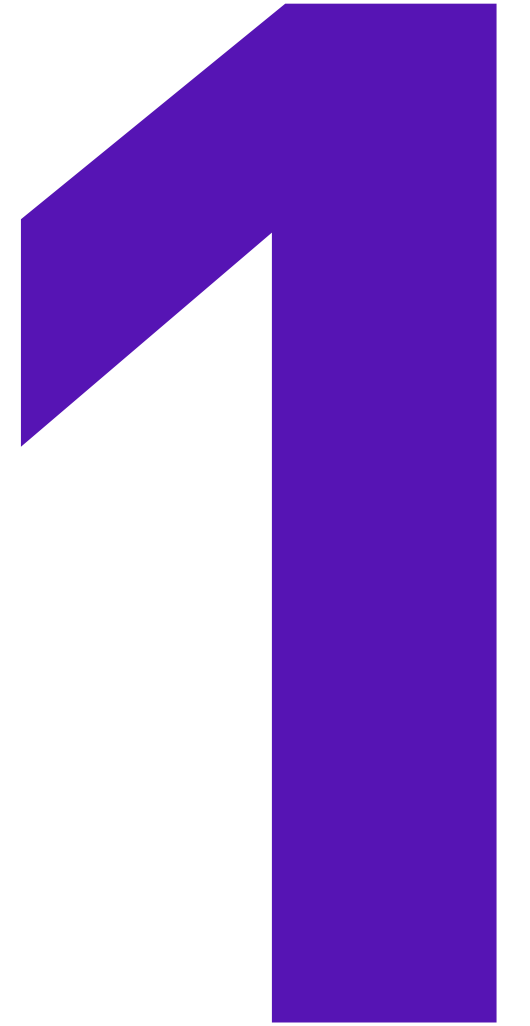# The Future in 2020

Hype technologies

Why UK businesses should embrace the new tech they've heard of – and the tech they haven't

Research conducted by **YouGov**

Introduction

1

Some new technologies get a lot of attention. Many people have heard of artificial intelligence (AI), blockchain, 5G, 3D printing and virtual reality (VR). But other, lesser-known tools – like edge computing and SD-WAN – can fuel innovation, efficiency and flexibility. Businesses should be thinking about both types of tech.

We worked with YouGov to survey 1,006 business leaders from across the country.

Specifically, we asked about 14 emerging technologies (see full list on page 17) that can change the way businesses operate. Which of these do they use? Which might they use? And how will they decide?

We found that business leaders are more aware of these so-called hype technologies, and more likely to adopt them. In some cases though, companies struggle to figure out how to maximise their potential, which is huge.

AI can help businesses analyse their operations, spot inefficiencies and suggest improvements. By providing faster connection speeds, 5G makes remote working easier. And VR can revolutionise customer experience by immersing them in new environments. Hype technologies generate headlines for good reason.

But the lesser-known technologies have huge potential too. Hyperconverged infrastructure sounds intimidating. It means bringing together different parts of your IT system on software that simplifies your set-up, increases efficiency and reduces cost. SD-WAN, or Software Defined Networking, is a smart way of managing your network. It's great for large, distributed companies that want to communicate more effectively.

The key is understanding. These technologies can help deliver all of UK plc's main business goals, if companies know which tools to use and how best to use them. Some are better-known than others, but they all deserve serious consideration.
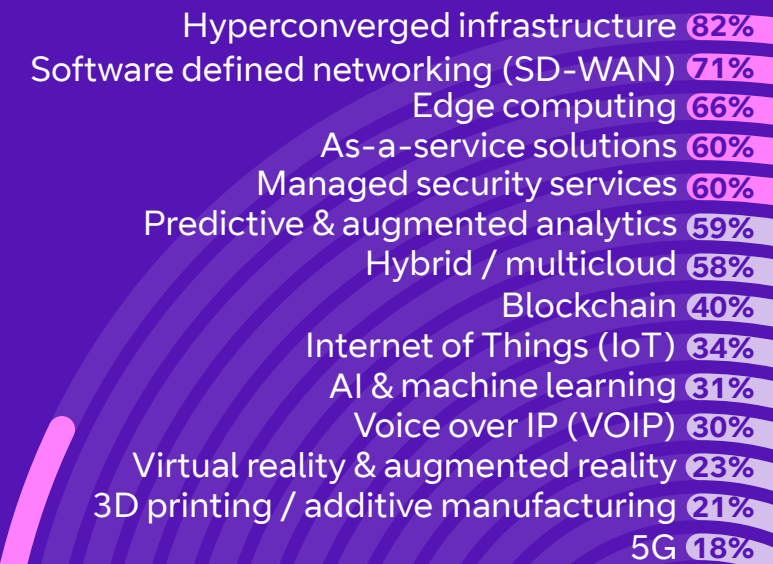
Leaders lack awareness

2

We asked respondents which of these emerging technologies they had heard of before taking the survey.

At the top end, as expected, the vast majority had heard of 5G, 3D printing, and virtual and augmented reality (VR and AR). But only 18% of those we spoke to had heard of hyperconverged infrastructure. More surprisingly, 4 in 10 didn't know about managed security services or as-a-service solutions (services hosted in the cloud and accessed via subscription). More than 50% of our panel said they had never heard of half of the technologies listed.

We also looked at how awareness differed between C-Suite leaders like CIOs and 'at-the-coalface' business heads. 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.

Sometimes the gap between the two groups was significant. 24% of C-Suite leaders hadn't heard of 5G, while only 11% of business heads said the same.

If businesses are to make use of this emerging technology, they need to understand what it is and what it can do. This should start at the top, with C-Suite leaders thinking about tech as part of their overall strategy.

Hyperconverged infrastructure 82%
Software defined networking (SD-WAN) 71%
Edge computing 66%
As-a-service solutions 60%
Managed security services 60%
Predictive & augmented analytics 59%
Hybrid / multicloud 58%
Blockchain 40%
Internet of Things (IoT) 34%
AI & machine learning 31%
Voice over IP (VOIP) 30%
Virtual reality & augmented reality 23%
3D printing / additive manufacturing 21%
5G 18%

Leaders who said they hadn't heard of the technologies

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

What tech are companies actually using?

3

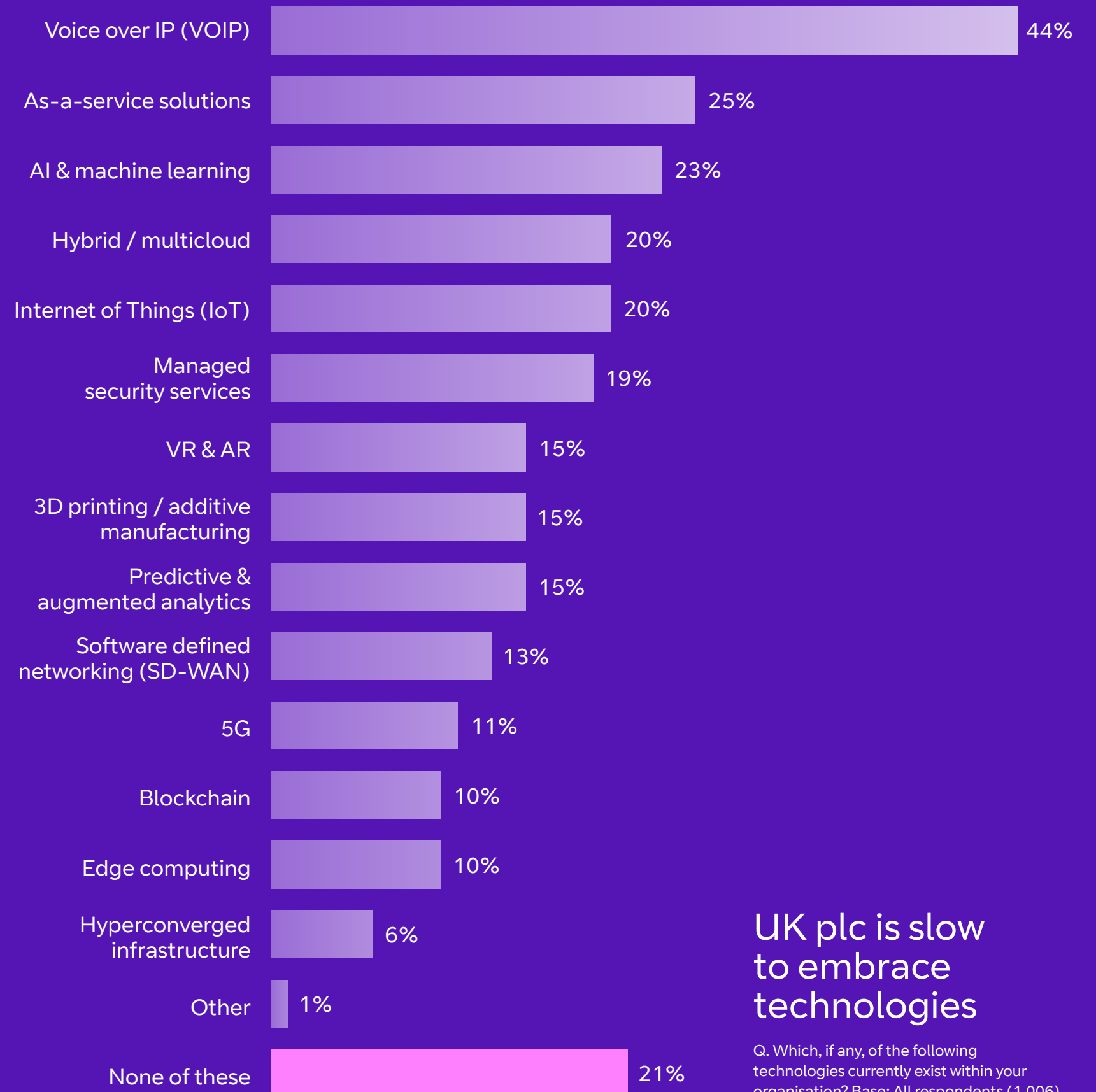## Awareness doesn't necessarily mean adoption, our survey found.

Only two of the five best-known technologies are among the five most used – AI and VOIP (using the internet for voice communications, rather than a phone line), which is way out in front with 44% uptake.

For 5G, the hype is about anticipation. 82% of business leaders have heard of it, but only 11% of businesses we spoke to currently use it. Its rollout has been hampered by coronavirus, so it will take some time to become widely available. When it does, Nokia predicts 5G could add $8 trillion to global GDP by 2030.

It's the opposite story for as-a-service solutions. Only 38% of the businesses had heard of it, but it's the second most used technology, with 25% adoption. Clearly some valuable technologies fly under the radar.

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.

We also asked businesses if they felt they were using the technologies they had adopted to their full potential. We found that up to 40% of companies that have invested in some of the most-talked-about tech – like 5G, VR and AR – are worried it's not being successfully used.

Technology	%
Voice over IP (VOIP)	44%
As-a-service solutions	25%
AI & machine learning	23%
Hybrid / multicloud	20%
Internet of Things (IoT)	20%
Managed security services	19%
VR & AR	15%
3D printing / additive manufacturing	15%
Predictive & augmented analytics	15%
Software defined networking (SD-WAN)	13%
5G	11%
Blockchain	10%
Edge computing	10%
Hyperconverged infrastructure	6%
Other	1%
None of these	21%

UK plc is slow to embrace technologies

Q. Which, if any, of the following technologies currently exist within your organisation? Base: All respondents (1,006)

Plans for the future

4

We asked businesses how emerging technologies might fit into their future plans.

30% of companies not yet using 5G plan to acquire it in the next five years. That may sound encouraging, but still leaves 7 in 10 who don't see 5G as part of their future plans, despite its significant potential to make remote working much easier.

Almost the same number – 29% – don't plan to adopt any of this new tech in that time. Broadly the lesser-known tech fared worse, with just 3% of companies planning to bring in hyperconverged infrastructure.

We also asked which of these technologies will be critical to helping businesses achieve their ambitions and stay competitive in the next five years. The better-known tech like AI and machine learning, 5G and VOIP topped the list, but with modest scores. 21% said none of these technologies would be crucial.

Knowing a technology could be crucial and planning to acquire it is not the same thing. There are many reasons why a business might not be able to invest in a tool they know could help them achieve their goals. But some technologies are struggling to gain traction, and businesses may be missing out on their potential benefits.

Plans to adopt tech in the 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)
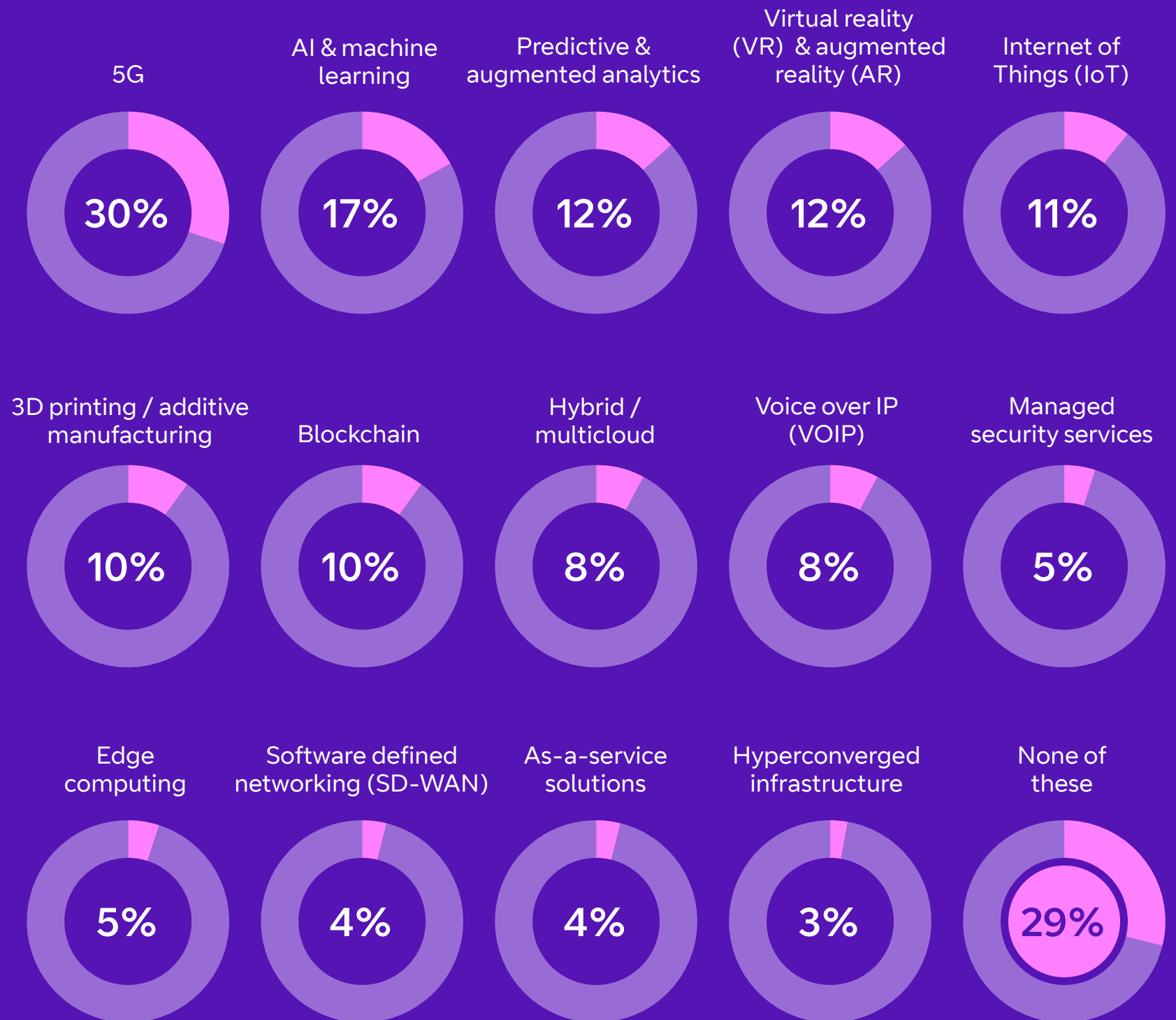
5G	AI & machine learning	Predictive & augmented analytics	Virtual reality (VR) & augmented reality (AR)	Internet of Things (IoT)
30%	17%	12%	12%	11%

3D printing / additive manufacturing	Blockchain	Hybrid / multicloud	Voice over IP (VOIP)	Managed security services
10%	10%	8%	8%	5%

Edge computing	Software defined networking (SD-WAN)	As-a-service solutions	Hyperconverged infrastructure	None of these
5%	4%	4%	3%	29%

Connecting the dots between tech and goals

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We asked business leaders what their main objectives are. The top answers were increasing revenue, reducing operational costs and boosting productivity.
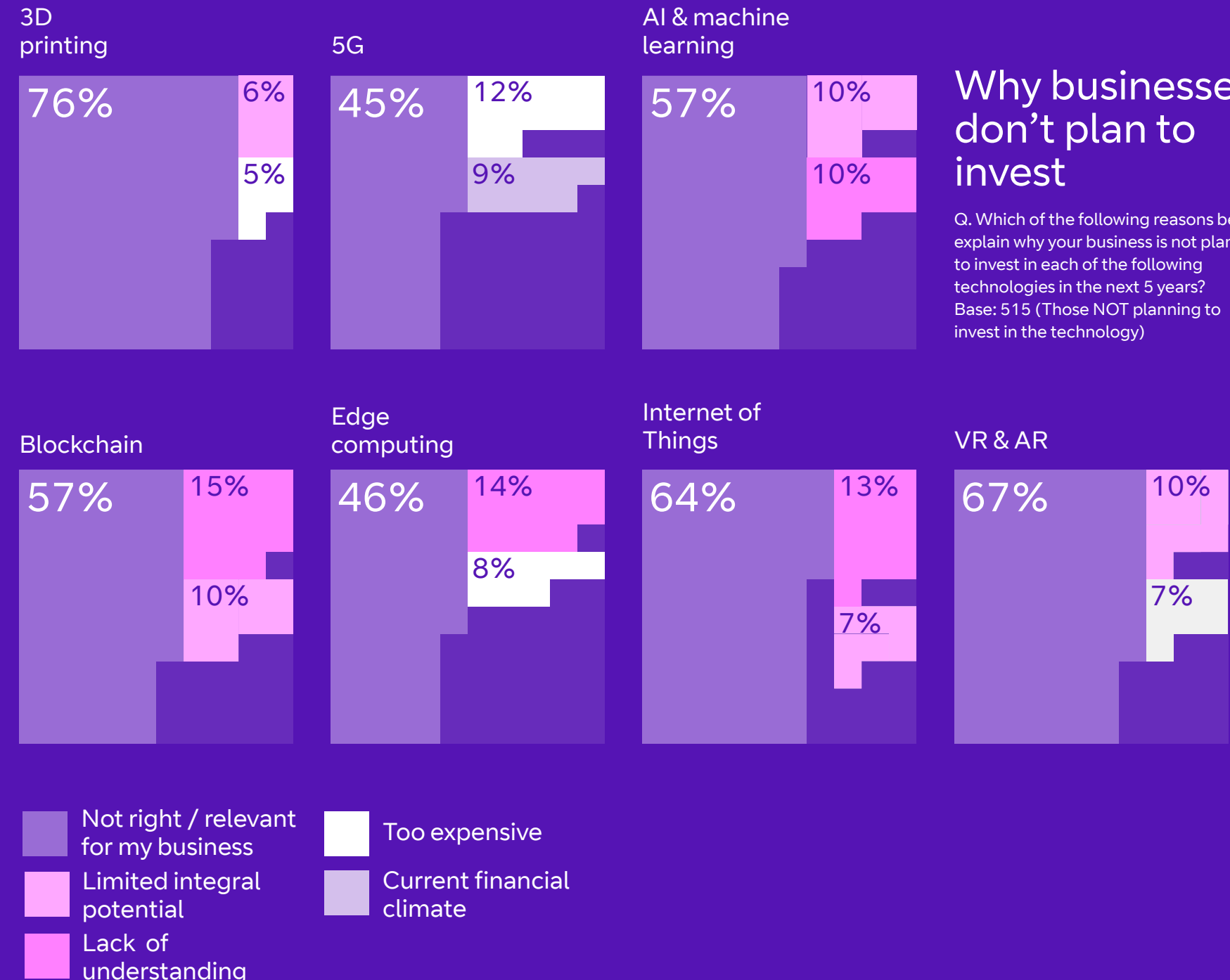
The next most common responses include optimising customer experience, enabling flexible work, and performance data and analysis.

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.

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.

There needs to be a concerted effort to connect the dots between this new tech and UK plc's main business goals. This applies to well-known and lesser-known technologies alike.

3D printing

76% 6% 5%

5G

45% 12% 9%

AI & machine learning

57% 10% 10%

Blockchain

57% 15% 10%

Edge computing

46% 14% 8%

Internet of Things

64% 13% 7%

VR & AR

67% 10% 7%

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)

Legend:
- Not right / relevant for my business
- Limited integral potential
- Lack of understanding
- Too expensive
- Current financial climate

Most companies are worried about security

6

Security is one of the most prominent challenges facing businesses looking to adopt emerging tech.

Most companies – 61% – said their cybersecurity threat had increased in the last year. 56% said their security-related workload had increased. When buying new tech solutions, security is the second most common consideration, behind only cost.

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.

For the most part, business leaders know which technologies will help them better manage their cybersecurity. But some technologies are not yet fully appreciated. Fewer than 1 in 10 businesses believe SD–WAN could help them address cybersecurity threats. In fact SD–WAN helps organisations manage their data much more securely, so businesses need help to see how lesser-known tech can contribute to this increasingly urgent issue.

Expanding UK plc's knowledge beyond hype technology

7

Emerging technologies have the power to transform your business. Look into the hype technologies and you'll see the hype is justified. But it's also worth exploring the lesser-known technologies that have enormous potential.

So what happens now? Based on our vast experience of working with businesses of all shapes and sizes, here are a few pointers to kick start the conversation at your company.

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.

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.

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.

Always start with security

Bake security into any future plans from the outset. Identify your challenges and find the partners and services that can help.

Connecting the dots is crucial

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

Emerging technologies are not a fad – they can directly contribute to your most important business objectives. Building a sustainable long-term business model should start straight away.

We can help

Choosing trusted partners is a vital part of your digital transformation journey. Our experts can help you understand which emerging technologies are right for you, and show you how to maximise their potential.

Useful links and further reading

10 ways to digitally transform your business

5G myths debunked

Productivity in the modern workplace (2020 and beyond)

5 key artificial intelligence trends

How London's Royal Hospital for Neuro-Disability automates routine checks with IoT devices

How Belfast Harbour uses Augmented Reality headsets to carry out safety checks

How we're helping to build a world-leading 'living lab' for Scotland with 5G

Tips from trailblazing businesses who are shaping the future

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 virtualises conventional 'hardware-define' systems. E.g. virtualises computing, software-defined storage and virtualised 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

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