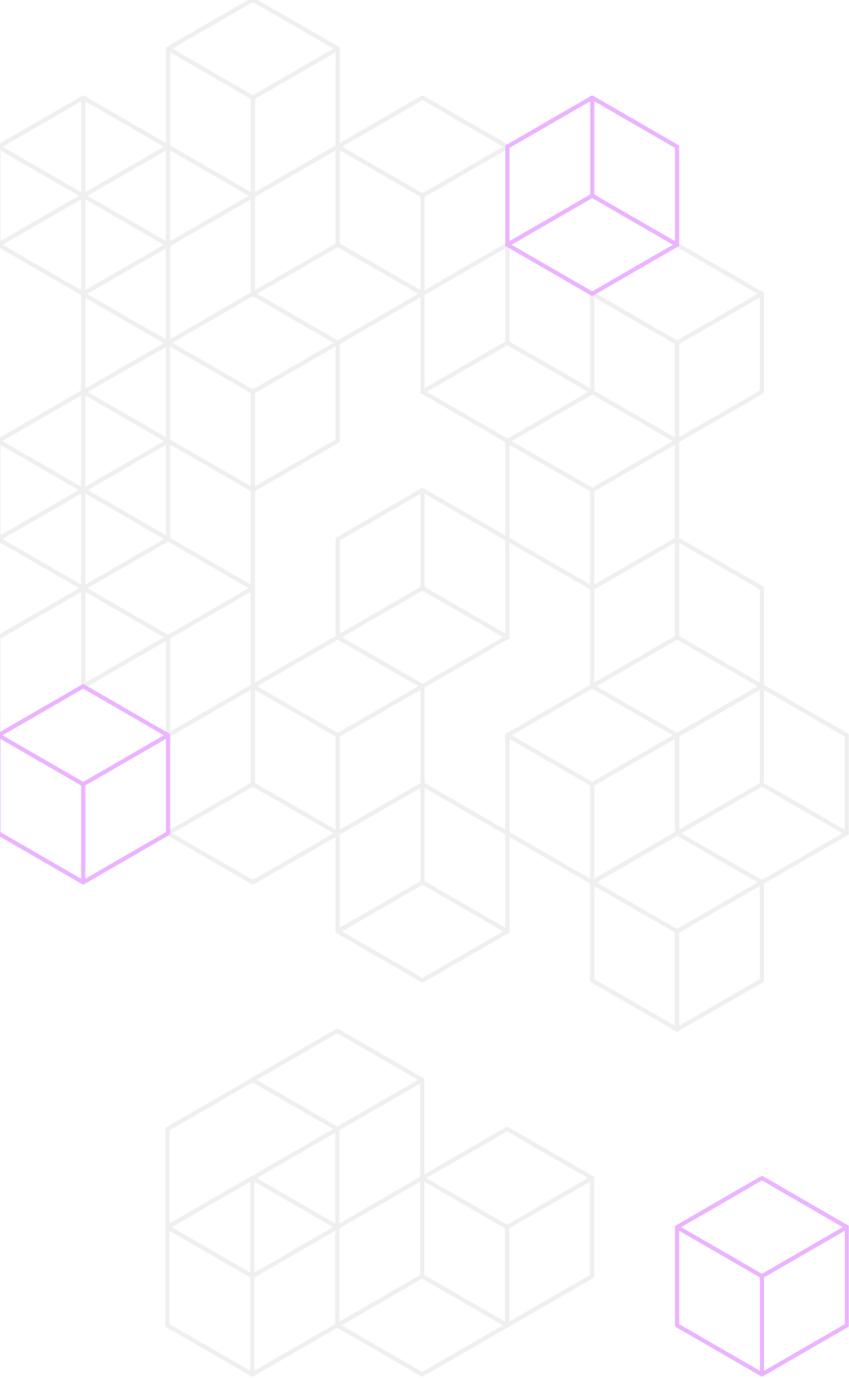




ACCELERATING THE 5G FUTURE OF BUSINESS

The possibilities sound endless – but what do businesses actually expect (and worry about) from next generation connectivity?





From the launch of the first 5G devices to trials of city hotspots, 2019 was the year 5G truly caught hold of the public’s attention. And over the next decade and beyond, we will continue to see consumers, business, the economy and society transformed by 5G’s capabilities.

As organizations around the world are already discovering, 5G will drastically alter how they operate and compete, unlocking entirely new use cases and business models across industry verticals. But the path to a 5G future is paved with many challenges. To lead the race, businesses in every industry need to get ready now for the coming 5G revolution.

So what are global businesses actually looking to see from 5G in the coming years – and how will they go about overcoming the difficulties they encounter? That’s what Accenture set out to discover in our latest research, building on our **2019 5G study**. From expectations and concerns, to plans for implementation, here’s what we unearthed.

1

GREAT EXPECTATIONS: ATTITUDES TO 5G

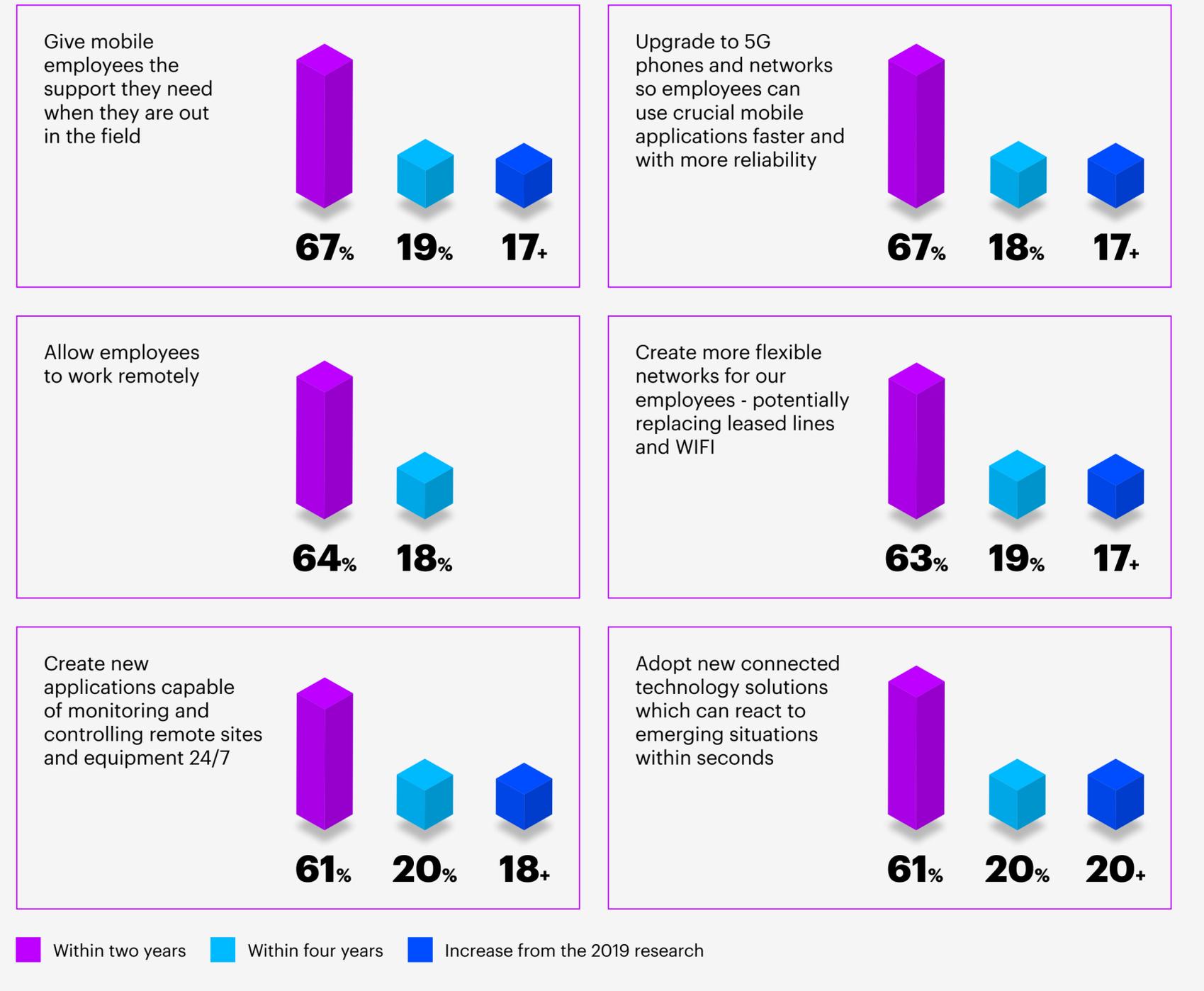


If there's one thing most decision makers can agree on, it's that 5G won't just change the game – it will create a more seismic impact than any wireless technology evolution to come before it. Eight in ten (79%) businesses believe that 5G will have a significant impact on their organization, of which 57% believe it will be 'revolutionary' – whereas less than a quarter (24%) felt the same about 4G.

And expectations around 5G aren't just high: they're also richly varied. Eight in ten (79%) agree that 5G will help them become more connected in what they do, while 78% believe it will create opportunities for new business. It's also expected to bring productivity gains (77%), benefits for society as a whole (76%), and improvements in operations, such as monitoring new areas of the business.

Meanwhile, in terms of tangible outputs from 5G, there's plenty to be excited about – and the majority of respondents believe these benefits will be seen within the next four years:

Percentage of businesses who expect the following to happen within the next four years

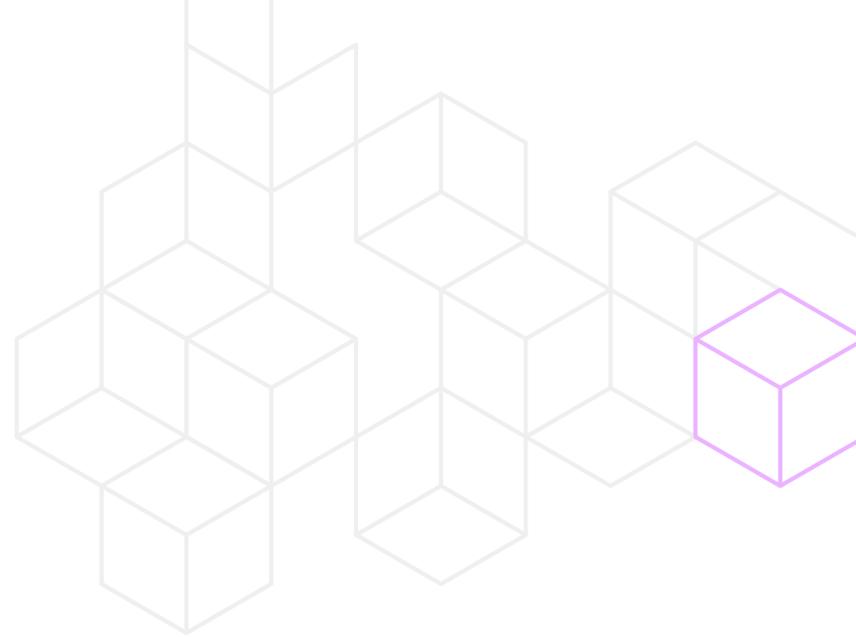


The early adopter impact

Despite the excitement – and increased belief in how soon all of this will happen – 5G adoption is still in its infancy. While over half (54%) of businesses are either testing or have part-deployed some level of 5G capability, a further 34% are yet to use it in any way. However, it's likely these figures will shift rapidly over the coming years.

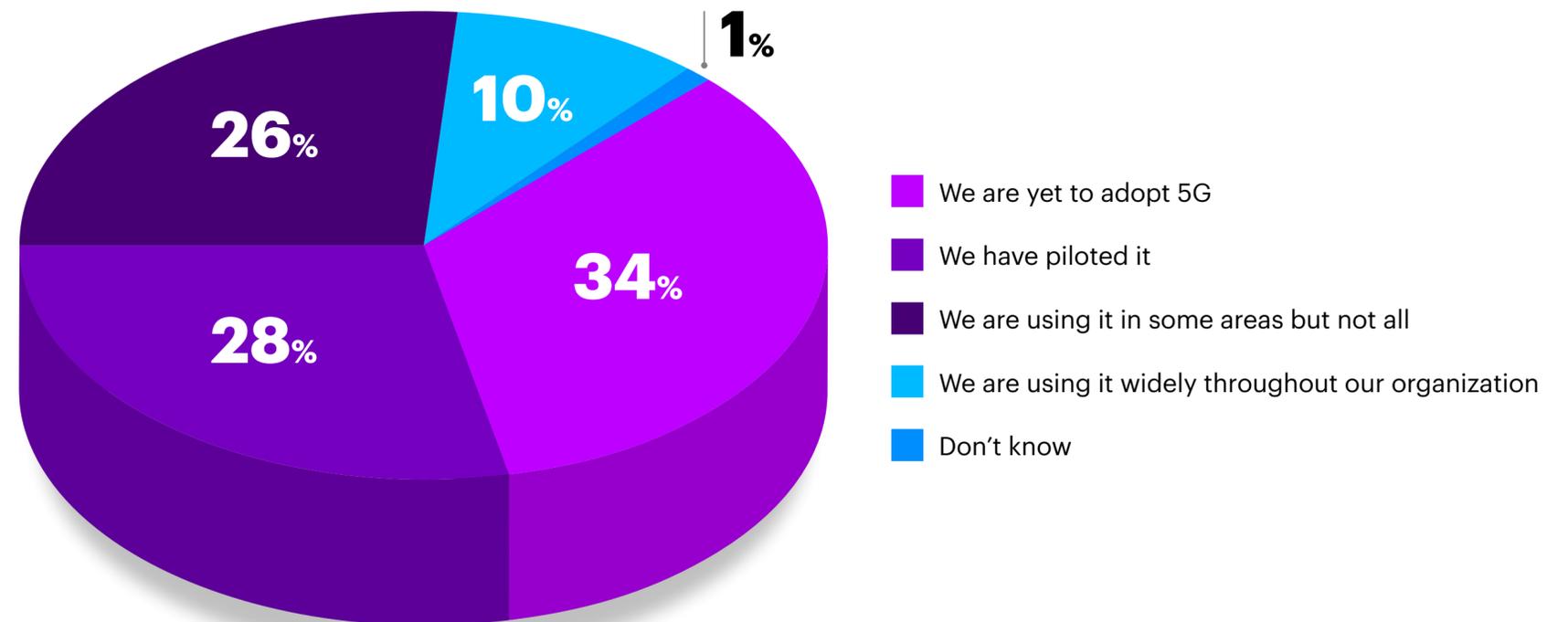
So far, only 10% of businesses report they are using 5G widely across the business. But as these respondents reveal, the more 'early experience' a business has with 5G, the more inclined they are to feel enthusiastic about its potential. Those already using it widely are almost twice as likely to feel it will have a revolutionary impact than those who are yet to adopt it.

The signs are positive. But as with all new technologies, mass-adoption won't be a straightforward process – with multiple challenges to tackle before 5G ambitions can be monetized and transformed into tangible business benefits.



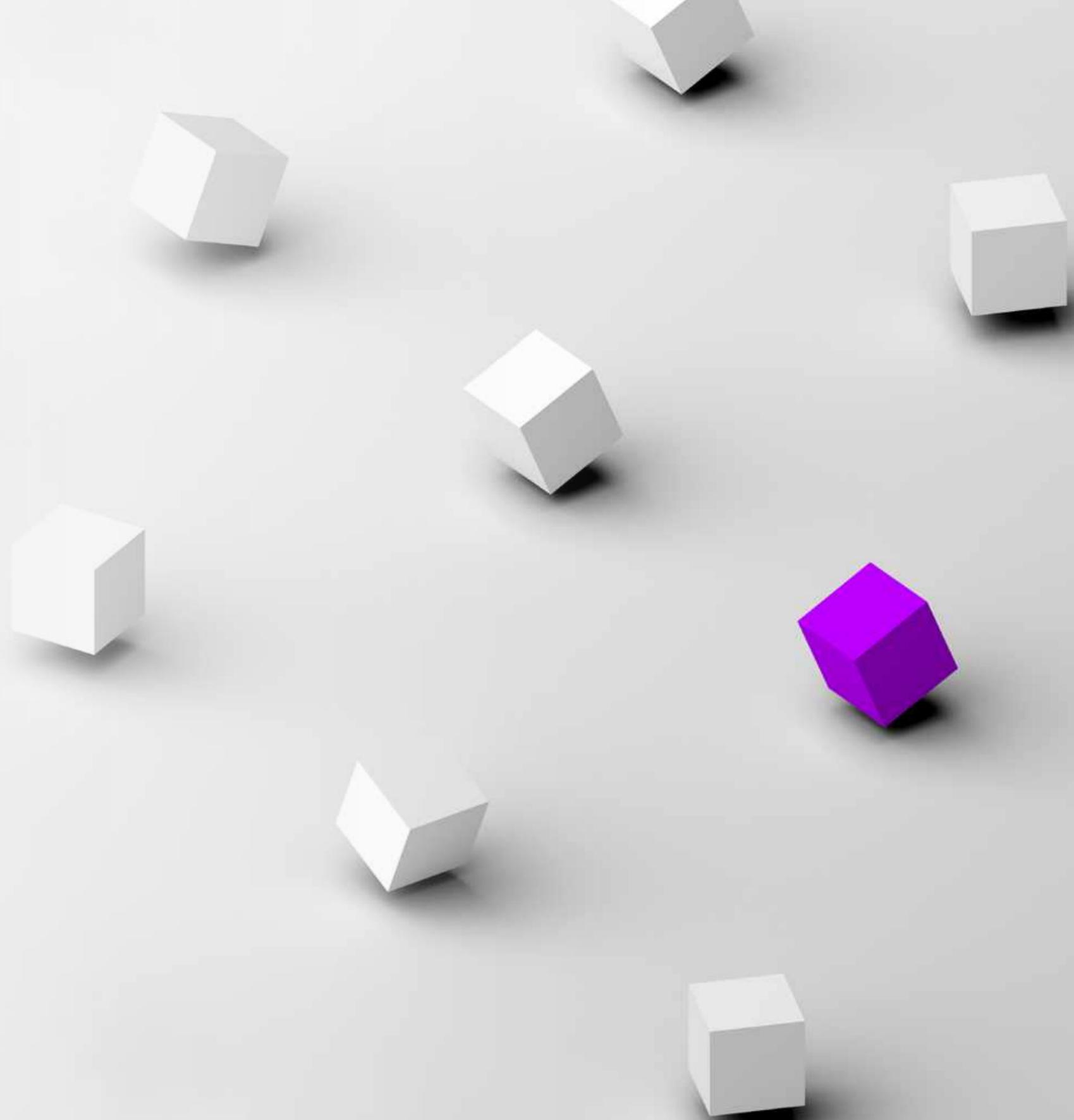
Government and the public sector are trailing behind the 5G curve, with 49% yet to adopt 5G in any form. The healthcare industry is leading the way: 16% say they're using it throughout the organization.

Extent to which 5G has been adopted



2

CHALLENGES AND CONCERNS

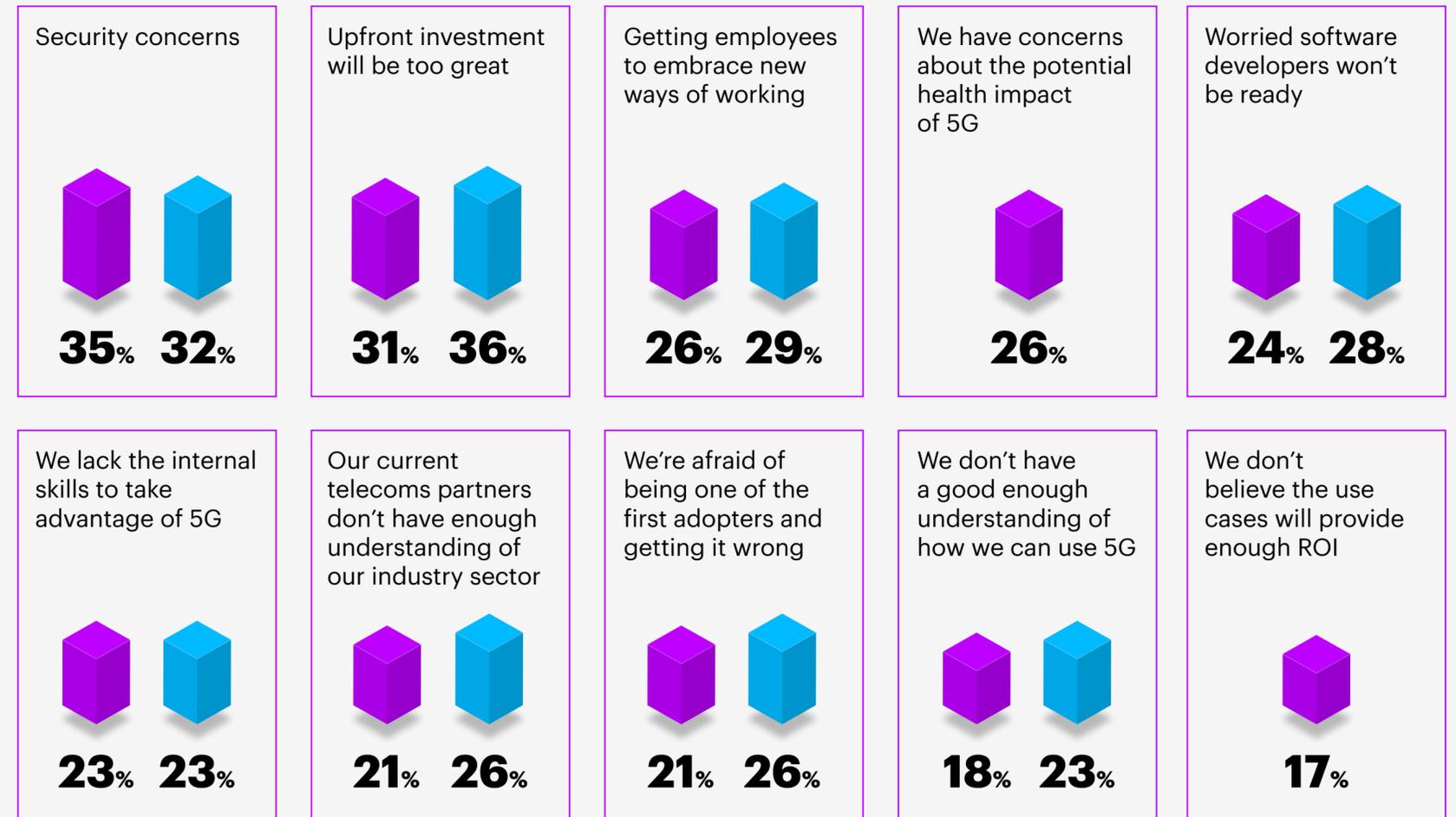


For all their enthusiasm, businesses aren't necessarily sure about the impact some of 5G's features will deliver: only two in five believe real-time data transfer, high capacity, and a faster service will revolutionize their industry over the next five years.

There are also a number of perceived barriers to adopting 5G applications and technology – although for the most part, these concerns have diminished from 2019 to 2020. From a lack of understanding or an internal skills gap, to changing employee behaviors and upfront costs, the nature of these concerns is varied.

The only concern to have grown over the last year is the threat 5G poses to security. And given how high this issue stands on most business' agenda, this urgently needs to be addressed.

Barriers to adopting applications and technology using 5G in the next three years



■ 2020 ■ 2019



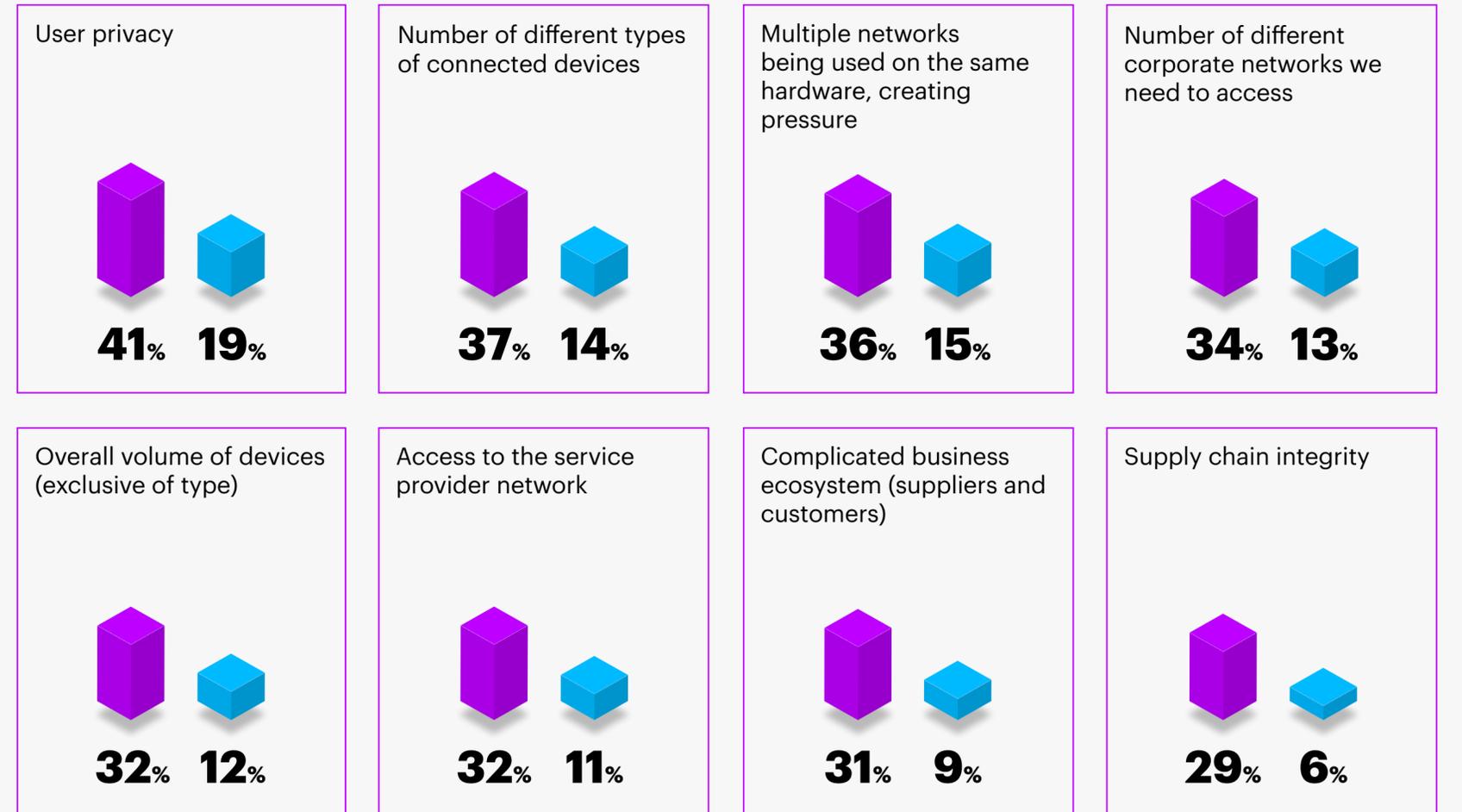
Security: A double-edged sword

The link between 5G and its perceived security risks is complex. Overall, businesses believe 5G will make their business more secure (68%). But there are security challenges inherent to 5G network architecture, including user privacy, number of connected devices, multiple networks, service access and supply chain integrity.

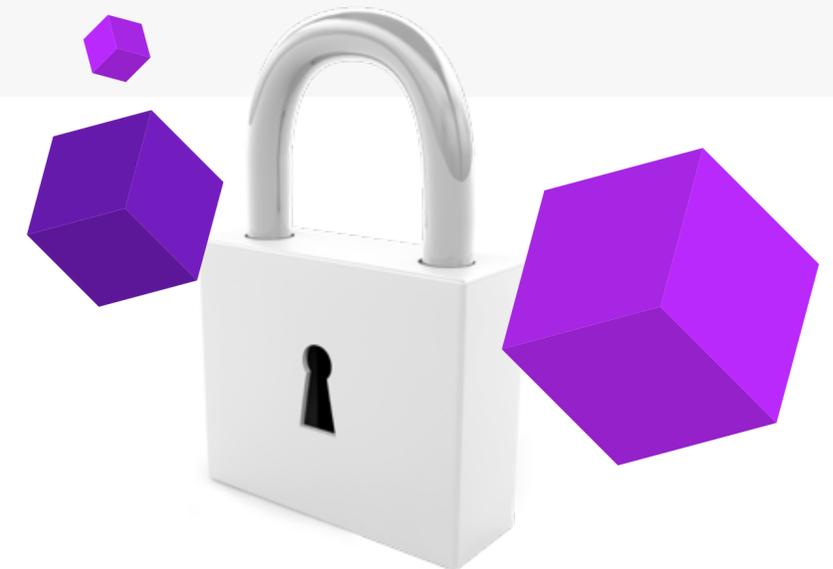
Overall, the risk is distributed across network, infrastructure and user environments. Devices and people pose the largest threat (53%), although this is only marginally more than the corporate network itself (52%). Meanwhile, 74% believe that having more connected, intelligent devices increases their risk of data breaches.

Controlling individual devices – and technology users themselves – is notoriously tricky. While there are many security products on offer to tackle network attacks, human threat (whether malicious or inadvertent) clearly poses a real risk. Businesses will need to invest in plenty of education and draw up clear policies for usage.

Biggest 5G security challenges for the organization



■ Challenging ■ Most challenging



Navigating complexity

With that in mind, it is little wonder that businesses are concerned about the additional complexity that 5G will create, and the steps required to navigate this challenge successfully. Three quarters (74%) believe 5G means they'll need to redefine many of their policies and procedures relating to security.

Two thirds (62%) are also worried that 5G will leave them more vulnerable to cyber-attacks than their existing networks, requiring greater vigilance and further security work. All of this extra work comes at a price – and there are other financial concerns around 5G, too.



Of those who are yet to adopt 5G, only 58% believe 5G will make their employees safer. But this rises to 81% for those already using 5G, showing that lived experience of 5G should lay security fears to rest.

3

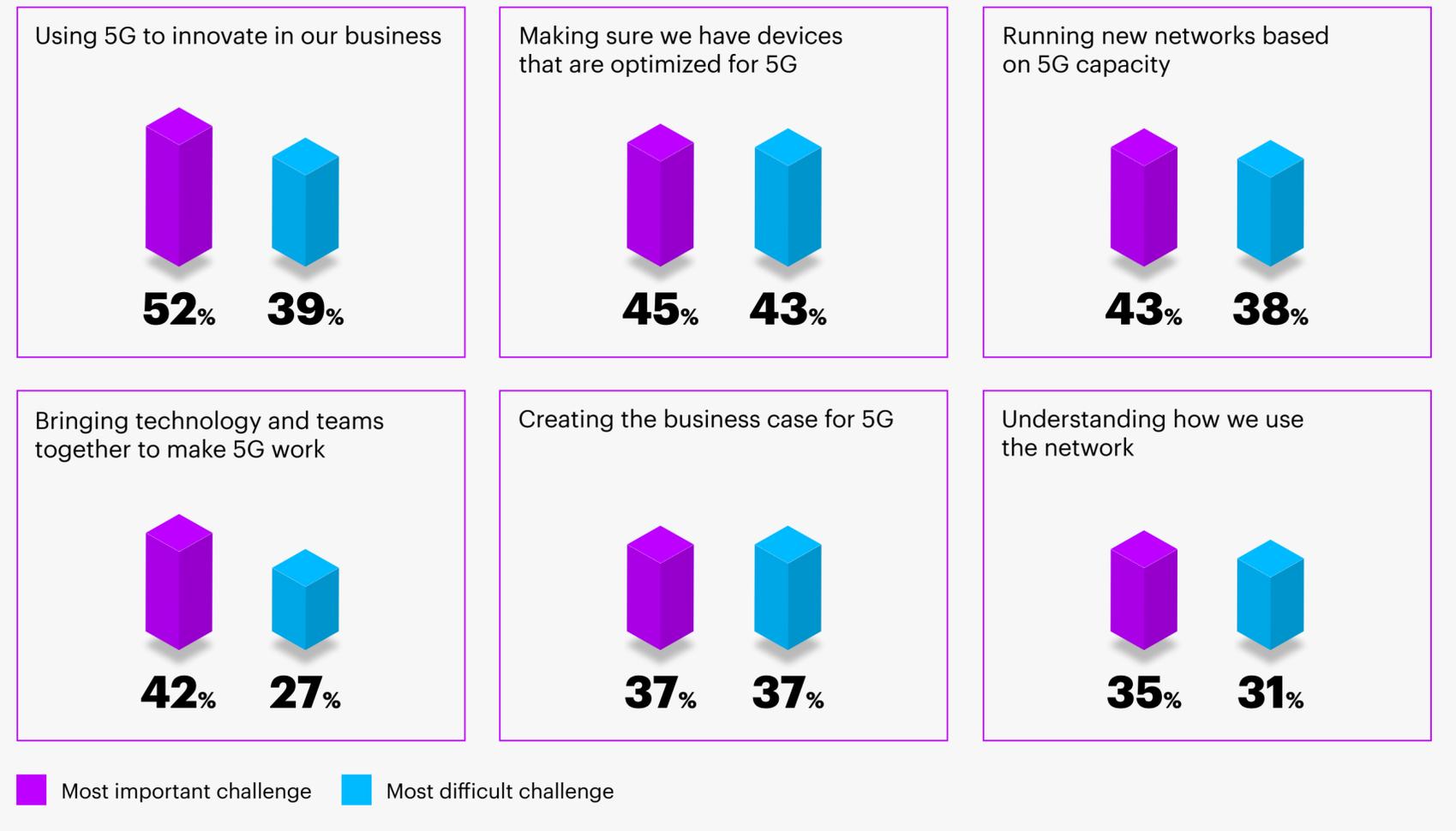
MAKING 5G PAY

It comes as no surprise that one of the biggest challenges businesses are facing with 5G is cost. The cost of operationalizing 5G has been widely discussed across industries – so despite its benefits, four in five respondents believe that the cost of managing their IT infrastructure and applications will increase.

Which isn't to say this isn't a price worth paying. But it does mean businesses will need to find ways to ensure they're getting a return on this investment. It's hardly surprising, therefore, that using 5G to innovate is seen as the most important challenge (52%). When it's time to build a use case, the ability to demonstrate that a business is setting itself apart through its 5G investment will be crucial.

The most difficult challenge, meanwhile, is ensuring devices are optimized for 5G – a problem which may well link to concerns around device security.

Most important challenges in relation to 5G



None of these challenges are insurmountable, particularly with the support of the right partners and expert advisers. After all, an impressive 90% of businesses believe they can ultimately identify the business opportunity 5G presents. The trick here is turning opportunity into tangible outputs, and identifying what needs to happen in order to achieve this goal.

Looking outwards to move forward

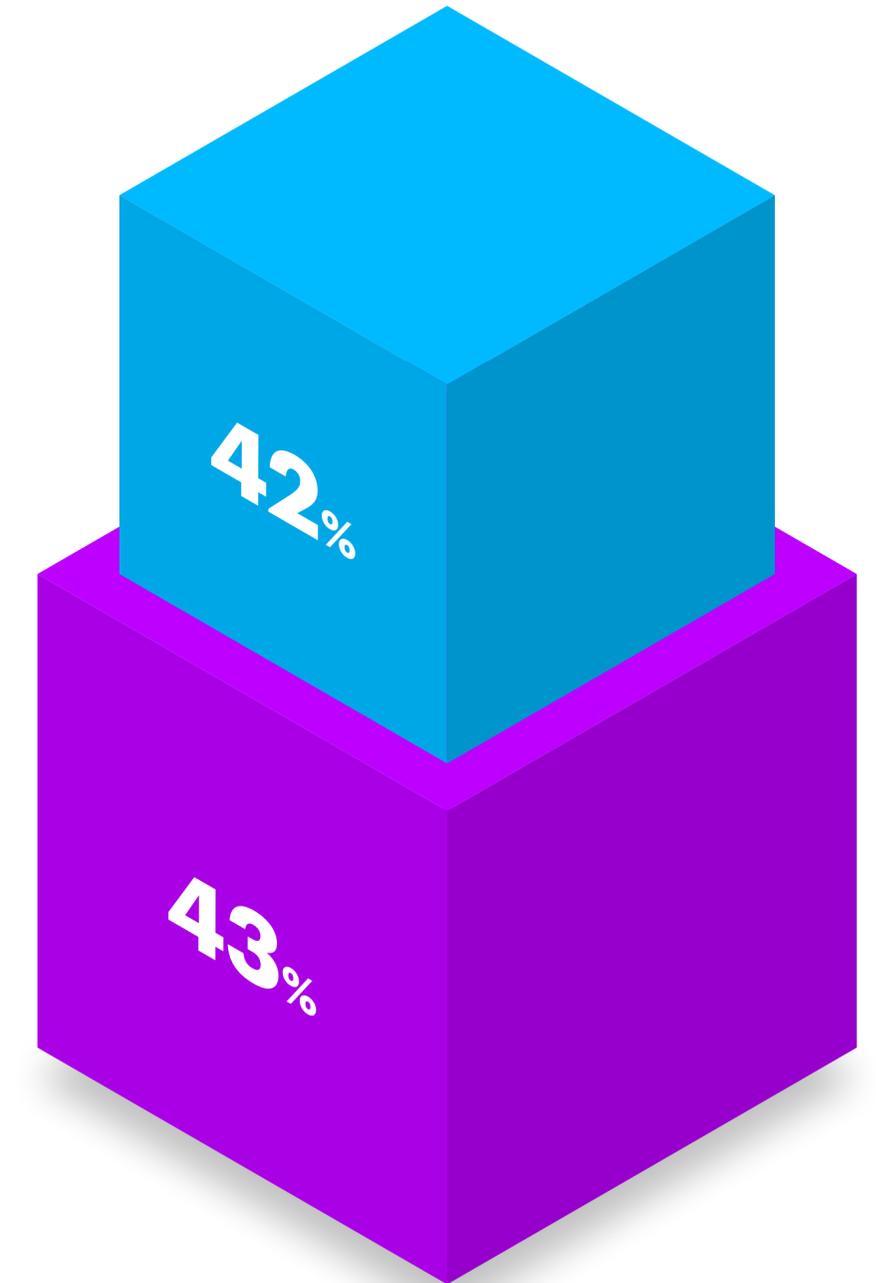
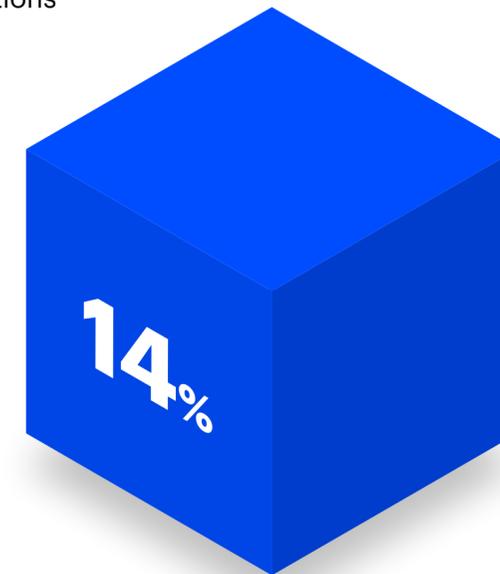
So – how can they go about this? For most businesses, this means seeking external help: 72% believe they need help to imagine the future possibilities for connected solutions with 5G.

And when developing custom solutions to unlock 5G's potential, the majority will look outside their own business to make this happen. Four in ten (42%) expect to access solutions in the market that are 5G-ready, while 43% plan to work with partners to develop custom solutions.



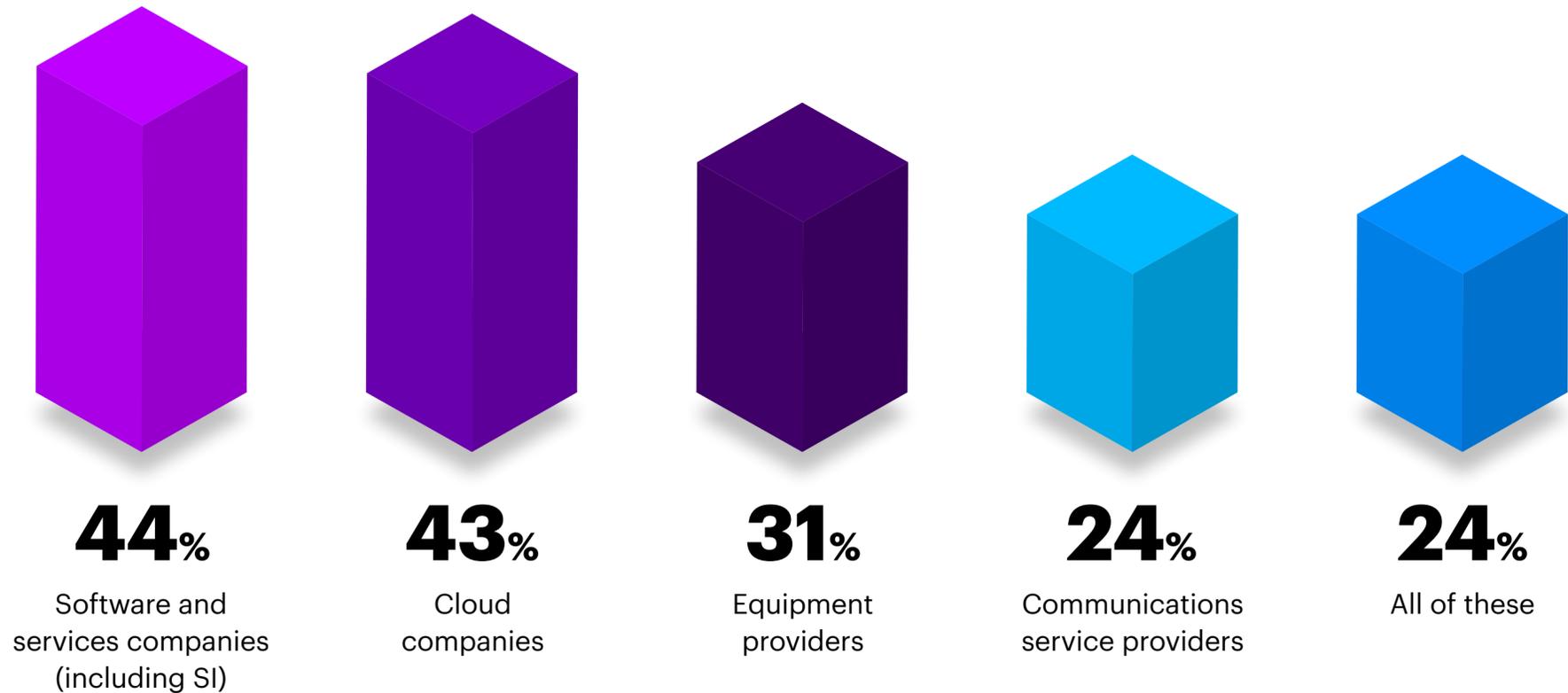
How businesses will develop applications reliant on 5G

-  We will work with partners to develop custom solutions
-  We will access solutions in the market that are 5G-ready
-  We will build our own in-house solutions



As to who those partners are, businesses are most inclined to work with software and services companies (44%). For service providers such as telcos, businesses say they are least likely to work with this group to develop new capabilities. That's despite how well placed this industry theoretically is to offer support in this area.

Partners that businesses are most likely to work with



With **their proven history of providing secure connectivity across diverse locations**, the advent of 5G offers telcos a clear opportunity to pivot from 'dumb pipe' operators to facilitators of 5G ecosystems, like the Internet of Things (IoT). Their expertise in building secure, high-speed infrastructure should put them in pole position to consult on creating and integrating IoT networks – but as this research shows, there's work to be done before businesses truly understand what telcos are capable of.

The background of the page is a dense field of 3D cubes. Most of the cubes are white with soft shadows, creating a sense of depth. Interspersed among these are several bright purple cubes, which stand out prominently. The overall effect is a modern, geometric, and futuristic aesthetic.

4

GEARING UP FOR THE 5G FUTURE

It's clear that global businesses recognize the huge potential of 5G, and many are ready and waiting to take advantage in the early years of the new decade.

But there are also barriers to jump (and complex issues to grapple with) before 5G can truly become a vehicle for business growth and innovation. And while early-adopters are showing positive signs, these hurdles loom all the larger for those not yet using 5G extensively.

Organizations that want to lead the 5G race have many decisions to make. From feasibility issues to priority use cases, new business models and device strategies, organizations must negotiate a world of operational complexity while keeping on top of costs. The right strategy – and indeed, strategic partnerships – will be vital. With this in place, businesses will be well primed to define their 5G vision... and then accelerate its journey to reality.



**To learn more about
Accenture 5G Acceleration
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[Accenture.com/
Accelerate5G](https://www.accenture.com/accelerate5g)**

Methodology

Through interviews with 2,623 business and technology decision makers, Accenture asked businesses across 12 industry sectors to share their understanding of 5G, how they have adopted it so far, and what they perceive its potential impact to be. Benchmarked against the same research completed in 2019, our 2020 research involved respondents from the United States, the United Kingdom, Spain, Germany, France, Italy, Japan, Singapore, the United Arab Emirates and Australia.

About Accenture

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