



# The future of work

**New perspectives on disruption  
& transformation**

— A 2020 research study on the  
changing role of technology in the workplace —



# Introduction

**The future of work isn't just a far-off thought – it's here. Years of global economic and political upheaval have already changed the way we live and work.**

The global financial crisis of 2008 paved the way for sharing and gig economies. Today, the COVID-19 pandemic has forced all types of organizations to overhaul their day-to-day operations with little notice or preparation. And technology has played a key role in facilitating this change.

This report is a follow-up to our 2017 study. Just three years on, it's clear the way organizations function and ask their people to work has changed even faster than we anticipated. Many organizations have the same long-term goals today as they did three years ago – but with a new perspective on the future of work, influenced by changes in our society and culture, as well as advances in technology.



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We surveyed over 3,000 senior managers and frontline IT staff on how work is changing. From their insights, we've learned that:

COVID-19 played a big part in motivating organizations to invest in **digital transformation**.

**Intelligent automation** is a key investment for businesses looking to guard against future disruptions.

Many organizations are missing out on the benefits of **low-code application development**.

Technology decision making will move **from top-down to consensus**.



## SECTION 1



# What's changing about the way we work

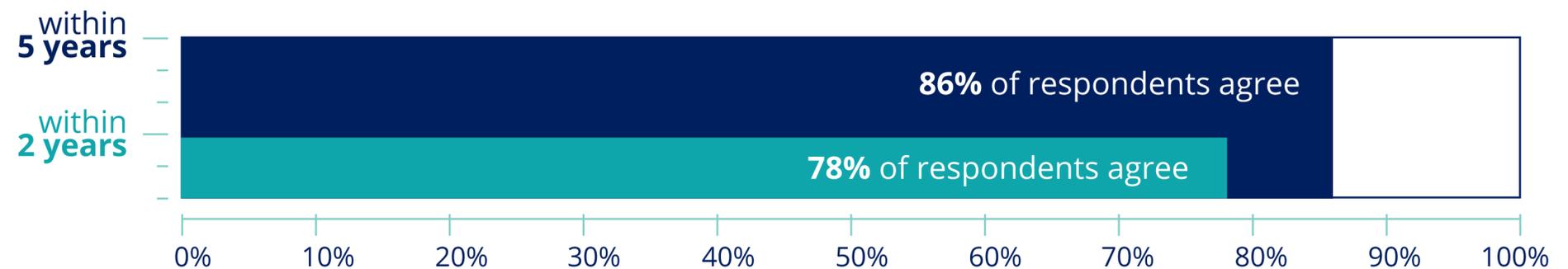
Technology, and the way it has been adopted, has changed considerably in 2020. For example, moderately used tools such as Zoom and Google Meet exploded in popularity during the global pandemic. Millions of people, from teachers and engineers to physicians and mental health workers, have embraced these tools out of necessity in a world that became virtual overnight.

Organizations across the globe have experienced many disruptive periods over the years. New disruptions will take shape in the future, and society will have to continually adapt to new ways of living and working. Will the pace of change we are seeing today continue?

**Seventy-eight percent of our respondents expect technology to change the way we work “quite a lot” or “significantly” over the next two years. And 86% of respondents believe this change will occur within the next five years.**

These results align with the accelerated technology adoption seen during the COVID-19 pandemic.

## Technology will change the way we work ‘significantly’ or ‘quite a lot’





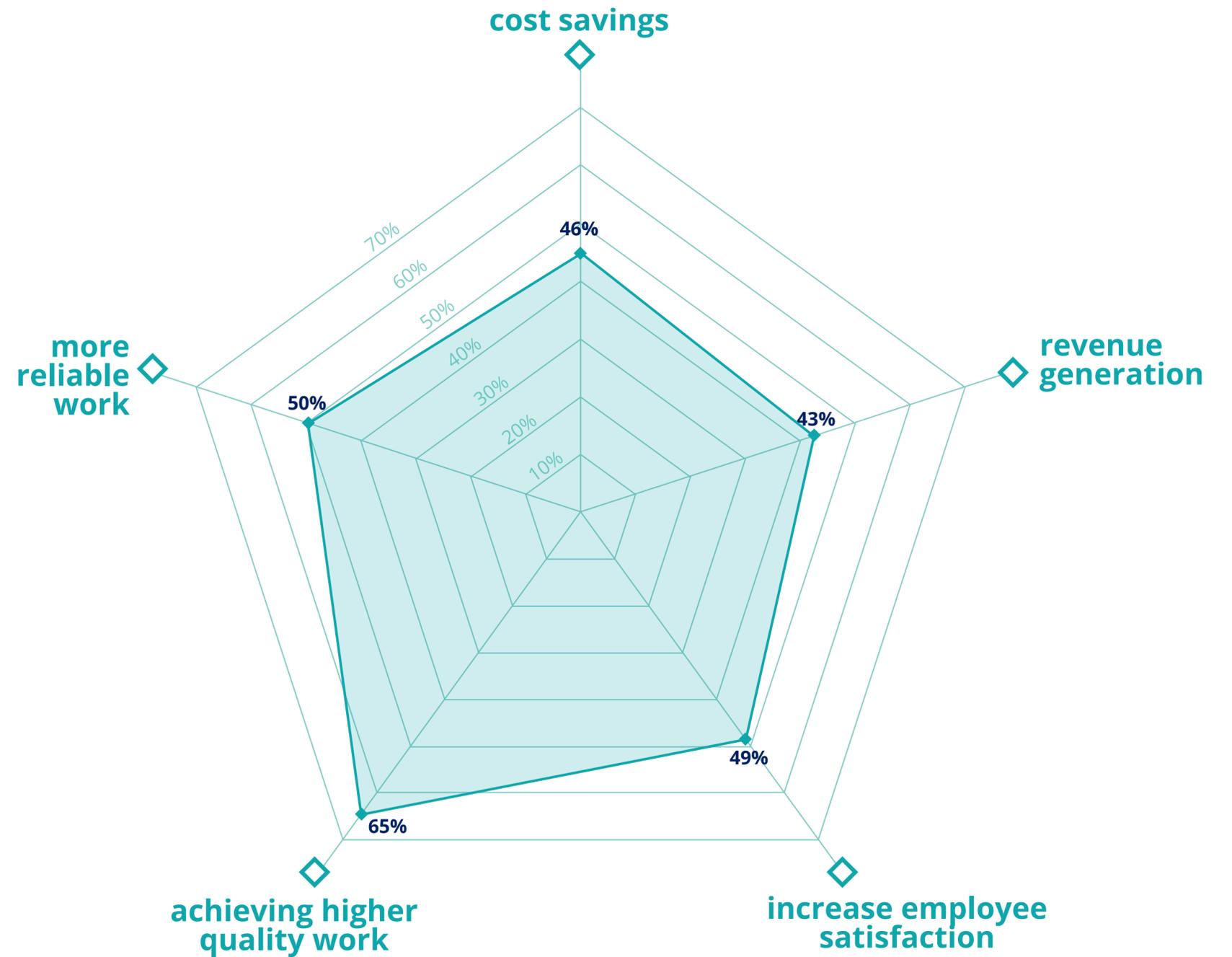
**Rapid technology adoption will only continue to accelerate as its benefits become more evident.**

# From leaders to employees, everyone wants better tech

Leadership and frontline IT staff agree on the role technology plays in changing the way we work.

Leaders are less concerned about using technology to increase profits, with **46%** citing cost savings and **43%** citing revenue generation as changes they are trying to achieve. Instead, **65%** of leaders see it as an avenue to achieving higher quality work. **Fifty percent** of the leaders surveyed also believe technology will create more reliable work. **Forty-nine percent** even see it as a way to increase employee satisfaction. Likewise, employees see technology positively – as a means to achieve more flexible and stimulating work.

Leaders and employees alike are driving the change for better technology in the workplace. **Seventy-two percent** of respondents say IT leadership is taking the lead, while **59%** say business leadership is. Frontline employees are also taking a large part in the push for better technology, but only at some organizations, according to **35%** of respondents.





## NEXT STEPS FOR SUCCESS

# Future-proof your tech – and be ready for anything

What's your goal for digital transformation? Is it modernizing your existing systems? Or finding ways to support internal and external customers in the future?

Future-proofing technology investments requires both speed and scalability. The customer context is constantly changing, and you need to be ready to provide products and services that are relevant in the moment. You also need to help customers achieve their goals quickly and easily. Use the technology you have, automate new processes, and reorient your business architecture around your customers to support this new way of operating.

## SECTION 2



# How COVID-19 shocked the system

Sometimes an external event can accelerate a change in technology. We found new uses for the modern internet infrastructure developed during the dot-com boom. We saw how the sharing and gig economies grew after the 2008 financial crisis. The COVID-19 pandemic is just the latest event to bring about a shift.

**This global public health emergency has changed how hundreds of millions (if not billions) of people work.**

Businesses in China have modeled to the rest of the world how to make a suddenly remote work force work on a massive scale. They've also demonstrated how to thrive during a time of uncertainty, by partnering with large digital firms and utilizing automation technology.<sup>1</sup>

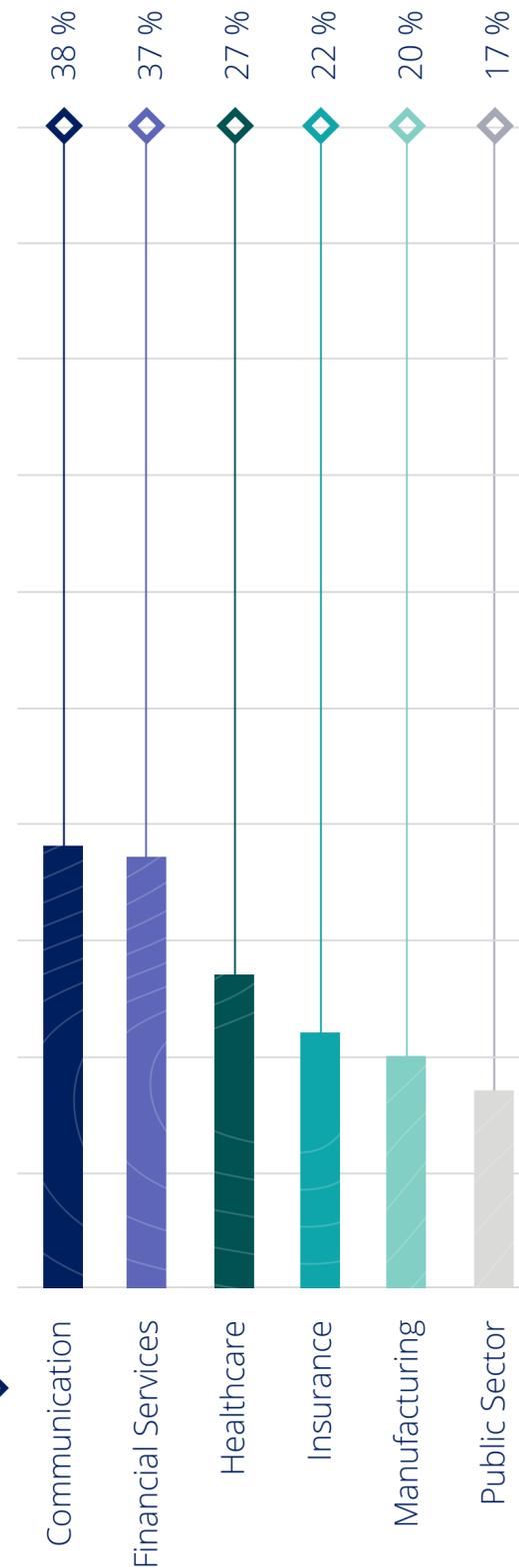
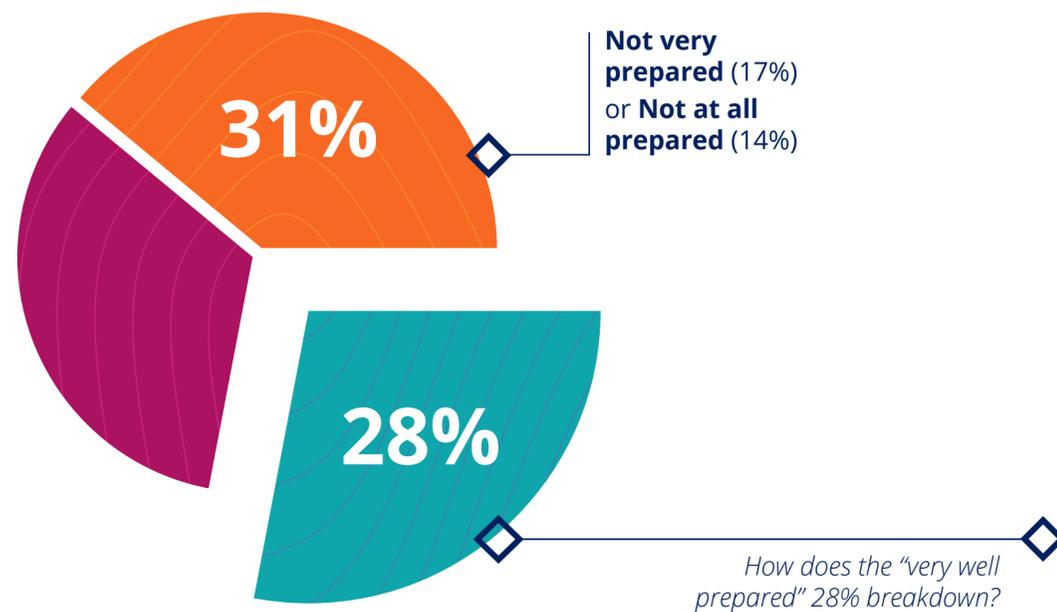
<sup>1</sup> *How Chinese Companies Successfully Adapted to COVID-19*. Gartner. June 16, 2020. <https://www.gartner.com/smarterwithgartner/how-successful-chinese-companies-adapted-to-covid-19/>



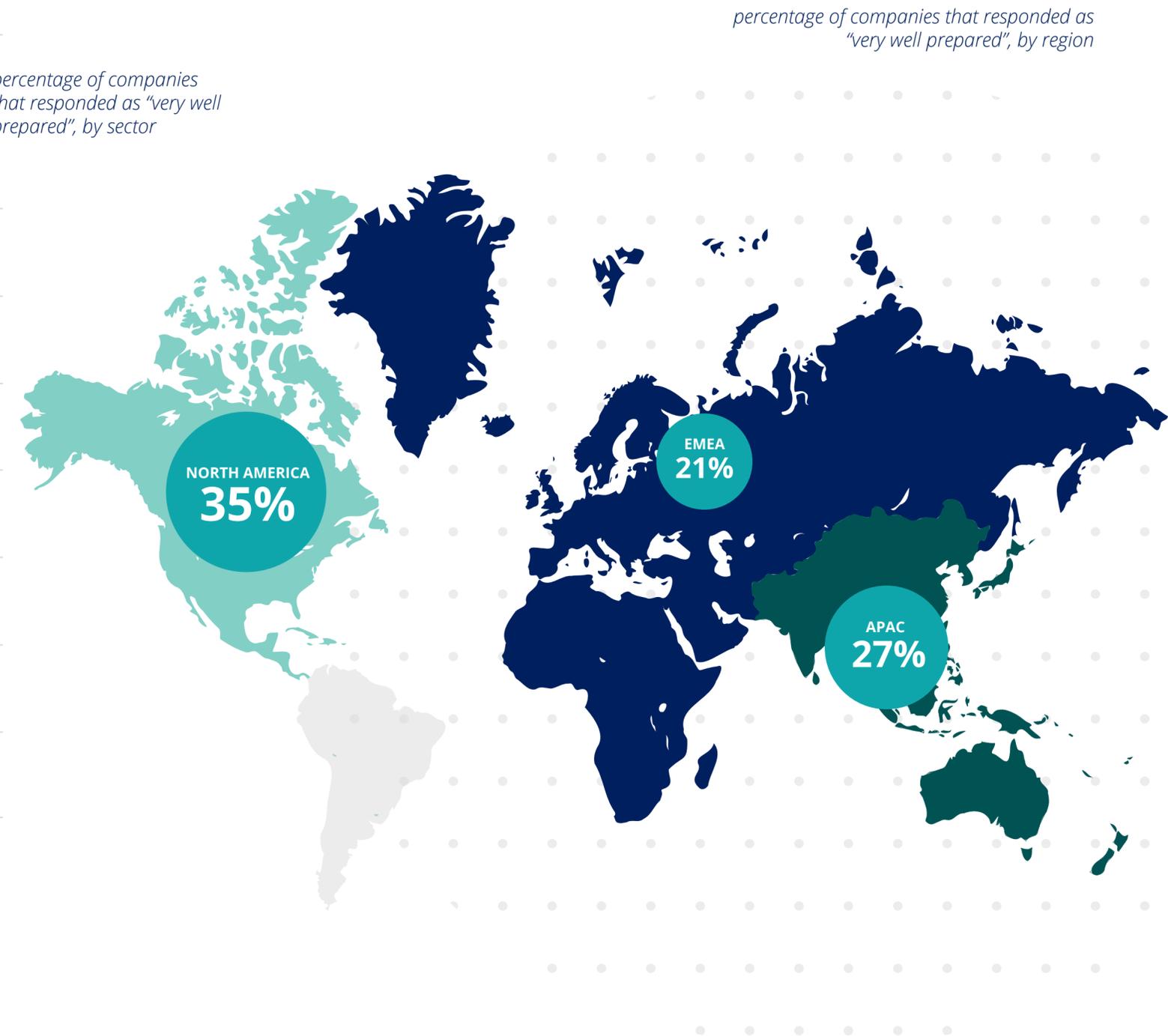
# Most businesses were unprepared

At the start of the pandemic, organizations like Amazon, Facebook, and Google were praised for their quick switch to remote work. However, these organizations have proven to be outliers.

Only 28% of our respondents said their companies were “very well prepared” to deal with the COVID-19 pandemic. And one-third said they were “Not very” or “Not at all” prepared.



## Who makes up the “very well prepared” 28%?



## Organizations are investing more in technology

Preparing for future crises now tops the agenda for governments and businesses.<sup>2</sup>  
Public health experts suggest the COVID-19 outbreak won't be the last pandemic.<sup>3</sup>

The majority of our respondents have a similar view of the future:

**84%** said  
“Improving  
preparedness  
against any  
future or similar  
pandemics” is a  
“high priority” for  
their organizations.

<sup>2</sup> 9 Work Trends Post COVID-19. Gartner. June 8, 2020. <https://www.gartner.com/smarterwithgartner/9-future-of-work-trends-post-covid-19/>

<sup>3</sup> COVID-19 Won't Be the Last Pandemic. Here's What We Can Do to Protect Ourselves. TIME. April 15, 2020. <https://time.com/5820607/nathan-wolfe-coronavirus-future-pandemic/>

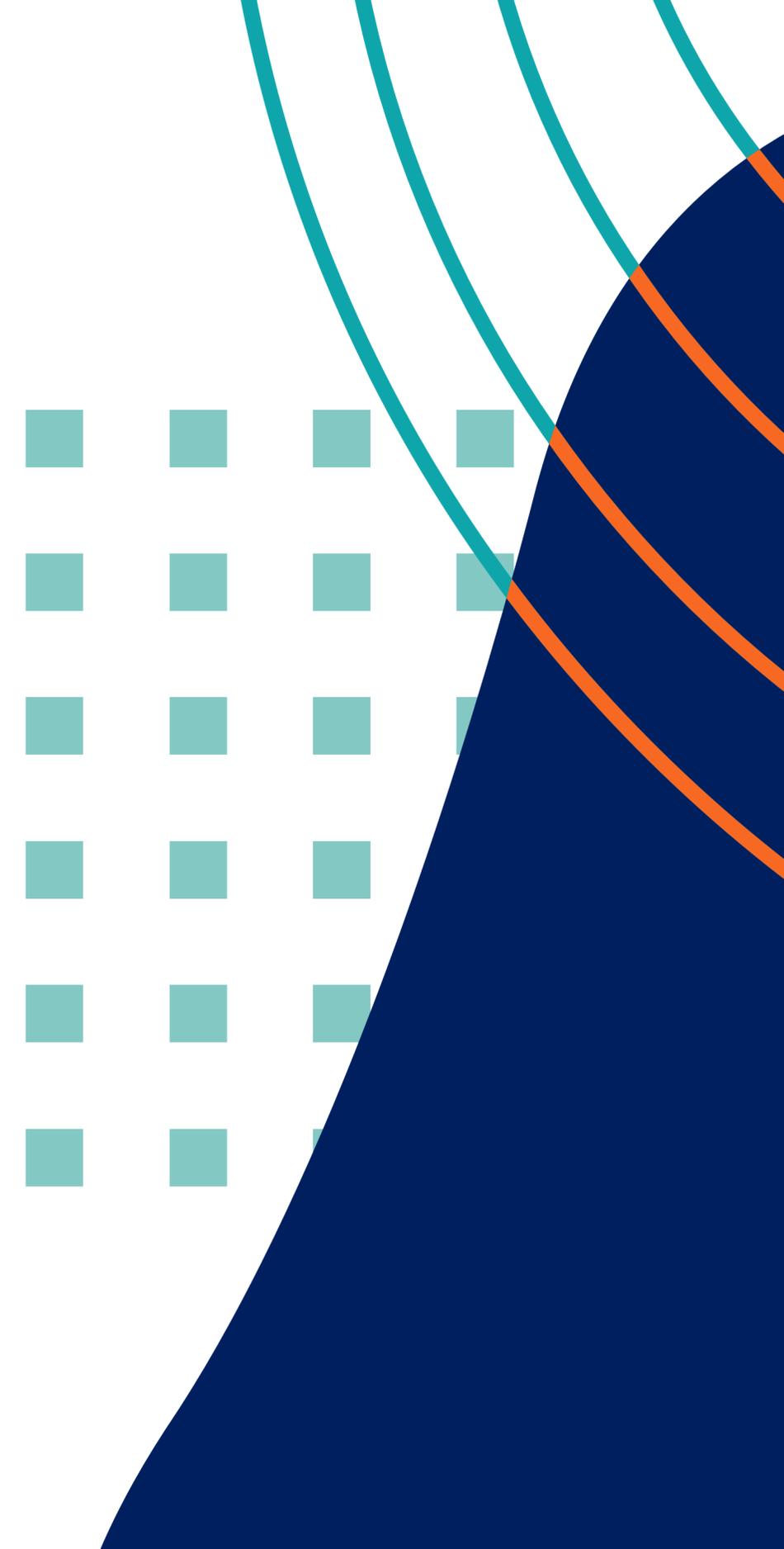
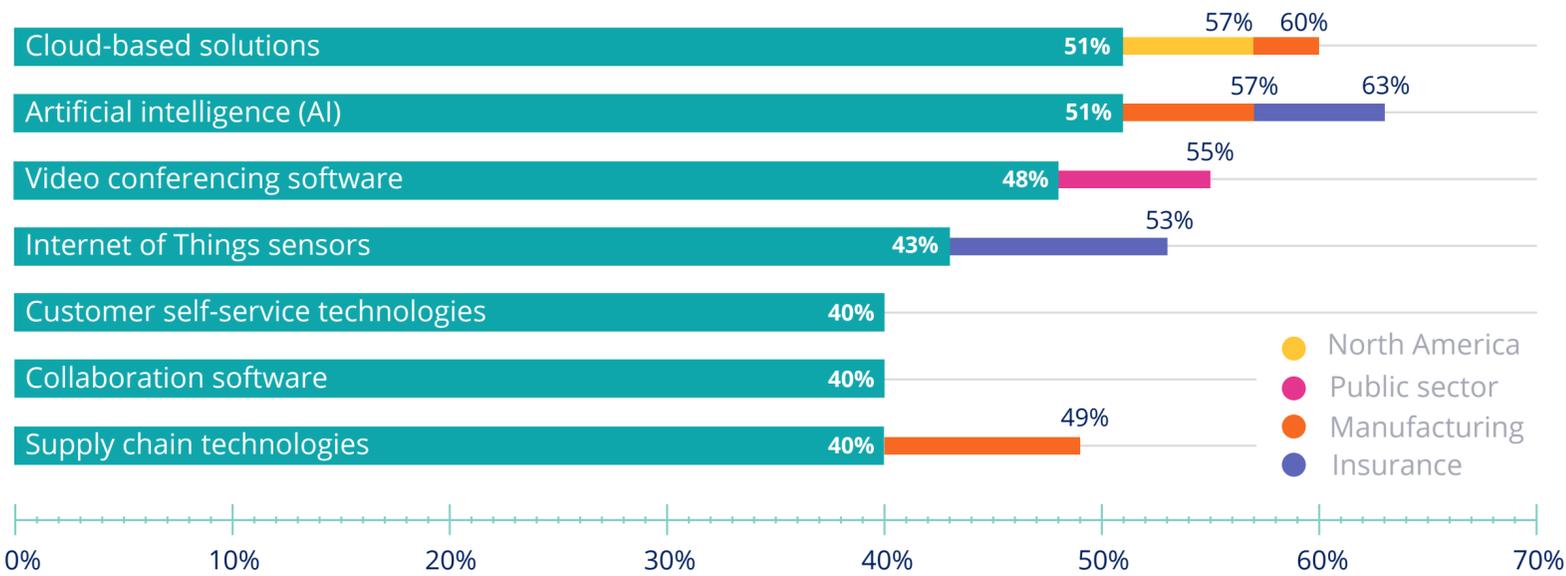
## Organizations are preparing for a changed world by introducing a few key technologies:

Intelligent automation, Artificial intelligence (AI), & Cloud-based solutions

See **page 25** for definitions of these terms.

**Fifty-one percent** of respondents say their organizations would invest in **Cloud-based solutions** or **AI**.

Just **1%** of respondents say their organizations would invest in **None** of these technologies.

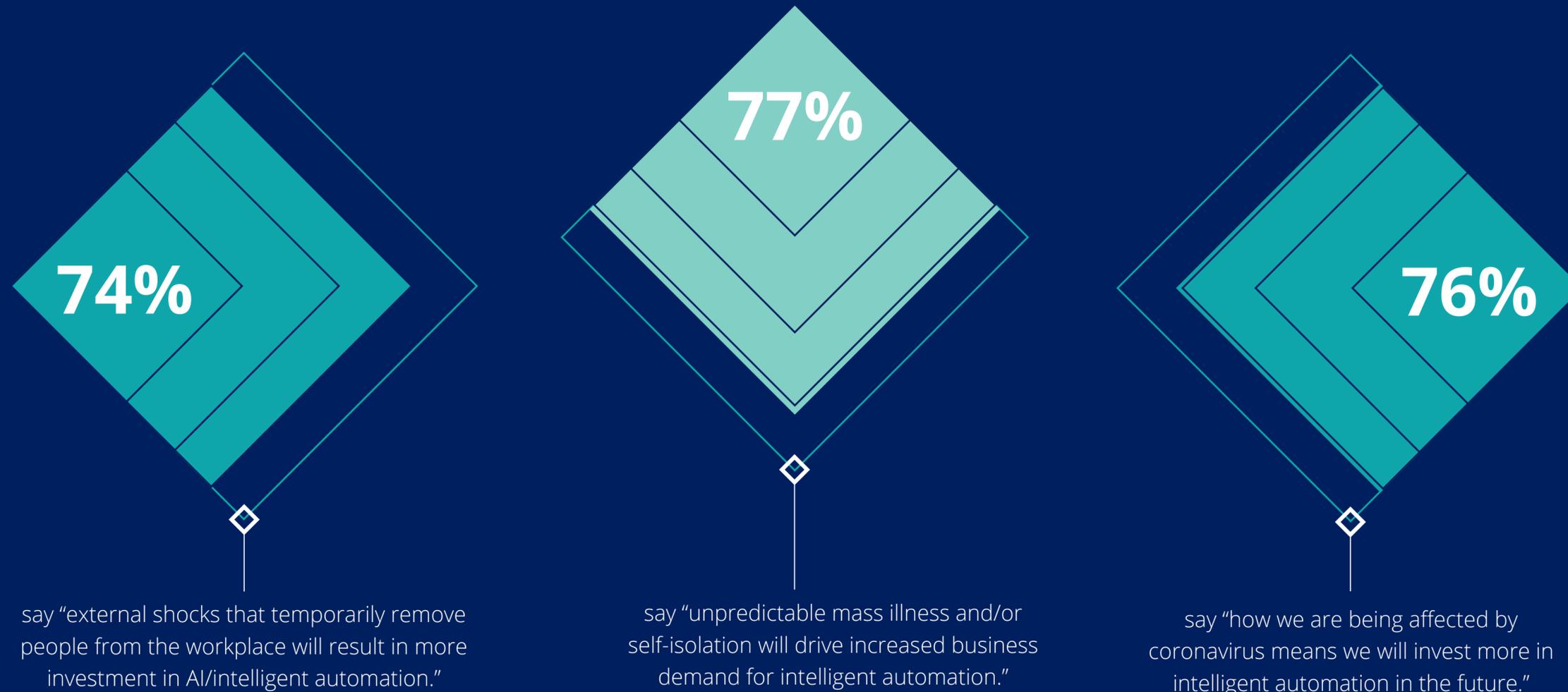


## Additional study: The effect of COVID-19 on digital transformation

The COVID-19 pandemic has had such a drastic effect on the workplace that we explored the topic more in depth with a separate study. The study can be found at <https://www.pega.com/digital-transformation-covid-19>.

We learned that the crisis exposed more IT gaps than expected, according to **74%** of respondents. As a result, organizations are investing more heavily in AI tools that help them meet the needs of their customers.

The majority of our respondents agree that intelligent automation is a necessary investment for their organizations:



## NEXT STEPS FOR SUCCESS

# Scale and adapt with intelligent automation

Work has not stopped even though physical offices may have closed. Employees still need tools to help them stay productive. Customers still expect businesses to answer their calls. Businesses must meet the growing and changing needs of their employees and customers. To do so, they must increase the use of and investment in:

**AI that fuels better decisions**

**Intelligent automation that can put real-time insights to work**

**Cloud solutions that enable quick and collaborative application development**

These changes will allow businesses to rapidly scale and adapt to the changing context of customers and employees.



SECTION 3

# From disruption to transformation

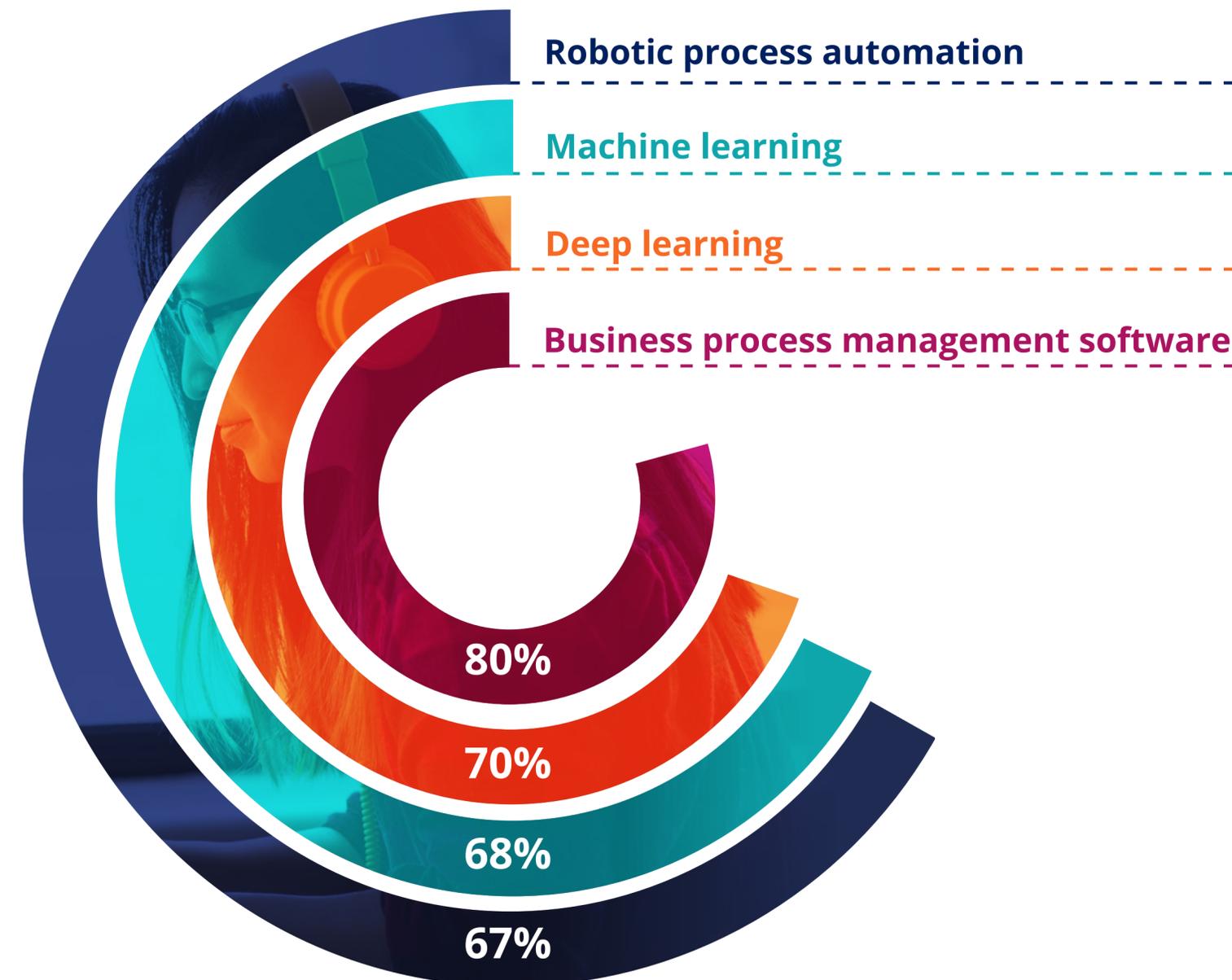
Today's investments in technology aim to improve efficiency, reduce costs, and benefit employees. Two-thirds of our respondents say employees are asking for better technology to improve how they work.

To meet this need, companies are investing in a range of technologies, including the following:

- Business process management (BPM) software
- Deep learning
- Machine learning
- Robotic process automation (RPA)

See **page 25** for definitions of these terms.

What percentage of companies are investing in these technologies?



# Opening up new opportunities with intelligent automation

**Despite the common perception that automation is just a way to reduce the human workforce, it actually creates and improves jobs.**

Growing research says automation may make certain jobs obsolete, but it will also create new ones that will allow employees to use their time better.<sup>4</sup> Our respondents agreed that intelligent automation has a number of positive effects:

**74% say intelligent automation is increasing customer satisfaction**

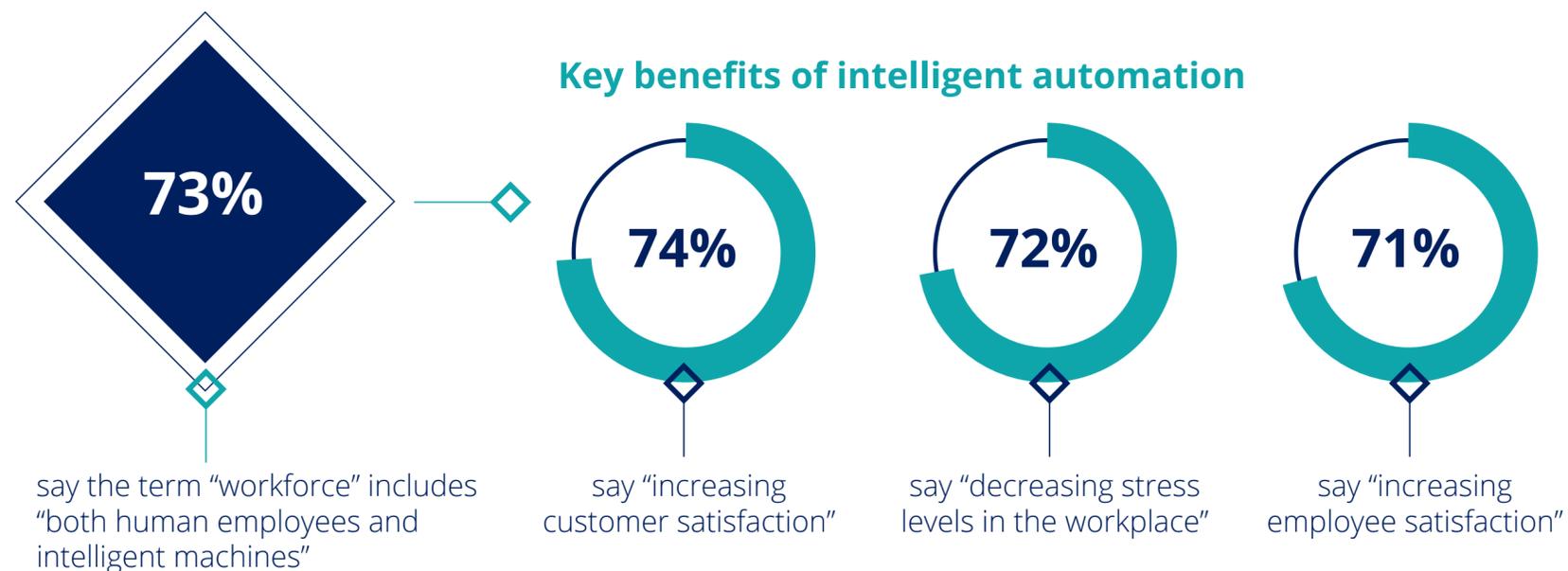
**72% say intelligent automation is decreasing stress levels in the workplace**

**71% say intelligent automation is increasing employee satisfaction**

The value of intelligent automation is also changing how individuals define the term “workforce.”

**Seventy-three percent** of respondents say the term includes both human employees and intelligent machines.

Workers have come to understand the role of automation and how it fits into a larger organization.



<sup>4</sup> Robots kill jobs. But they create jobs, too. Brookings. March 18, 2019. <https://www.brookings.edu/blog/up-front/2019/03/18/robots-kill-jobs-but-they-create-jobs-too/>



## What could you do with **four extra hours** each week?

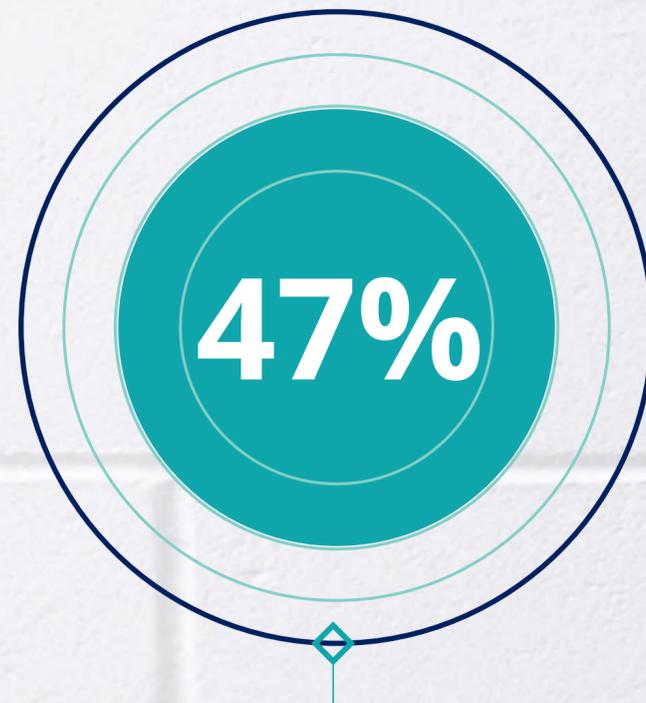
**Eighty-one percent** of respondents think automation saves at least four working person hours per week.

Employees are taking advantage of this extra time:

**Fifty-one percent** are taking the opportunity to learn a new technology, while **47%** are engaging in creative activities.



are "learning a new technology"



are "engaging in creative activities"



# Changing the workforce with AI



## AI already plays a major role in the workplace.

This is evident in the widespread deployment of AI technologies, with **70%** of organizations deploying deep learning and **68%** deploying machine learning. **Sixty-seven percent** of organizations are also using AI to support decision making and **64%** are using AI to reach decisions without human input.

Some further questions our study explored include:

### How are business leaders responding to AI?

Business leaders are eager to explore the opportunities that AI can deliver, but they still have a lot to learn. **Fifty-one percent** of respondents think senior leaders need to improve their understanding of how AI changes processes and affects jobs. And **50%** of respondents think senior leaders need to improve their understanding of the business resources and set-up needed to make new technology work well.

### How will AI affect frontline staff?

Ultimately, all employees will need to become more familiar with AI solutions. **Sixty-four percent** of respondents think the majority of employees will need to know how to use AI within the next five years. **Fifty-six percent** think they will also need to learn how to train AI.

### How do employees feel about AI managers?

Intelligent machines are increasingly being used for managing tasks and supervising productivity. **Eighty-four percent** of workers say they're comfortable working alongside intelligent machines. However, being managed by them is another story.

**Seventy-five percent** of C-suite leaders think workers would be "quite" or "completely" comfortable being managed by a machine. Frontline employees, however, don't share this view. We asked employees this question in our 2017 study. **Four out of five** respondents said they would not be comfortable with an intelligent machine managing them.<sup>5</sup>

## NEXT STEPS FOR SUCCESS

# Let intelligent automation support your workflows

Intelligent automation creates better experiences for everyone – customers and employees alike. And there are many different types of intelligent automation.

Robotic desktop automation (RDA) partners bots with humans to get work done faster and with more precision – delivering great customer outcomes.

Robotic process automation (RPA) lets bots do the heavy lifting by bridging systems, user interfaces (UI), and data integration gaps to keep back-end processes from getting in the way of new customer experiences and digital transformation.

And AI helps automation evolve by combining machine learning, predictive and adaptive models, and natural language processing (NLP) with operational insights – putting the right intelligence into action for every process and interaction.

**Connecting customers and employees to the outcomes they want – while also delivering consistent and relevant experiences – requires managing intelligent automation from end-to-end, across channels, devices, and interfaces.**



SECTION 4

# Collaboration matters more than ever

IT teams have been the primary force driving new technology investments in the workplace. That's all starting to change.

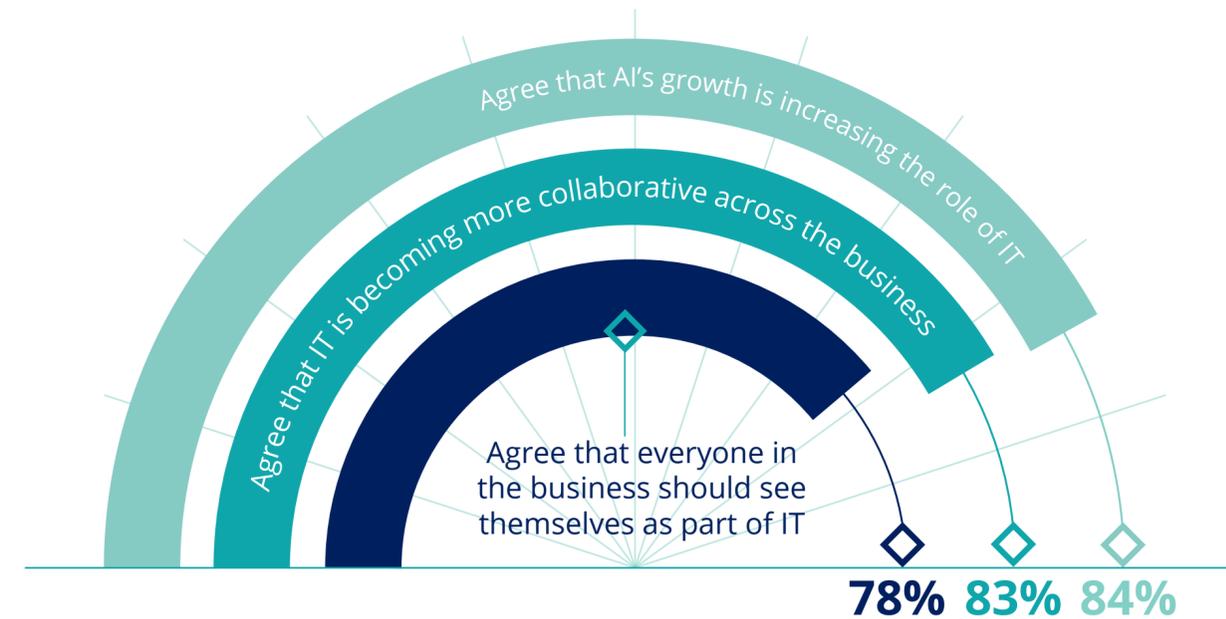
Everyone in an organization – from business leaders to employees – must take a more active, collaborative role to ensure success in digital transformation. According to our survey results:

84% of respondents agree that AI's growth in importance is increasing the role of IT in the business.

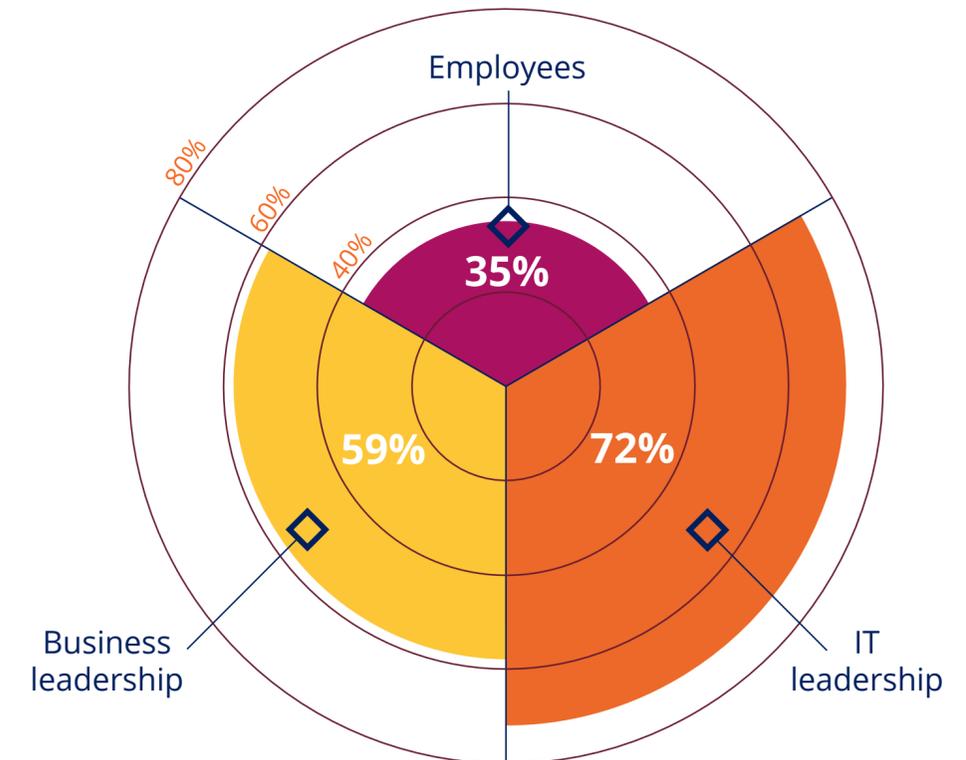
83% of respondents agree that the IT function is becoming more collaborative with colleagues across the business.

78% of respondents agree that everyone in the business should see themselves as part of IT.

## The changing face of IT



## Who is driving the change to better technology?



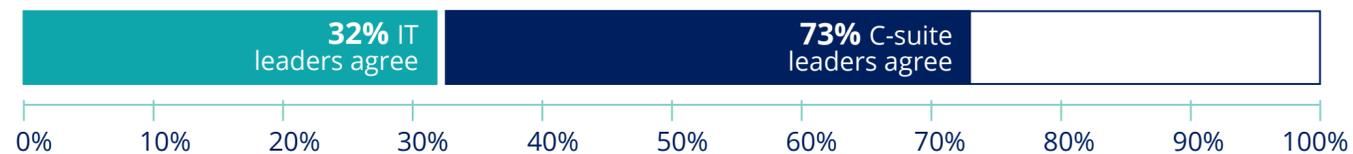
# Growing needs, missed opportunities

## There is some disconnect between business and IT leaders in what it means to deploy low-code technology.

**Fifty-seven percent** of our respondents say they have deployed low-code technology at their organizations; this is the lowest percentage of any tool we mentioned in the survey. Yet **73%** of C-suite leaders said they had deployed low code, while only **32%** of IT leaders said the same.

See **page 25**  
for definitions  
of these terms.

### Has your organization deployed low code?

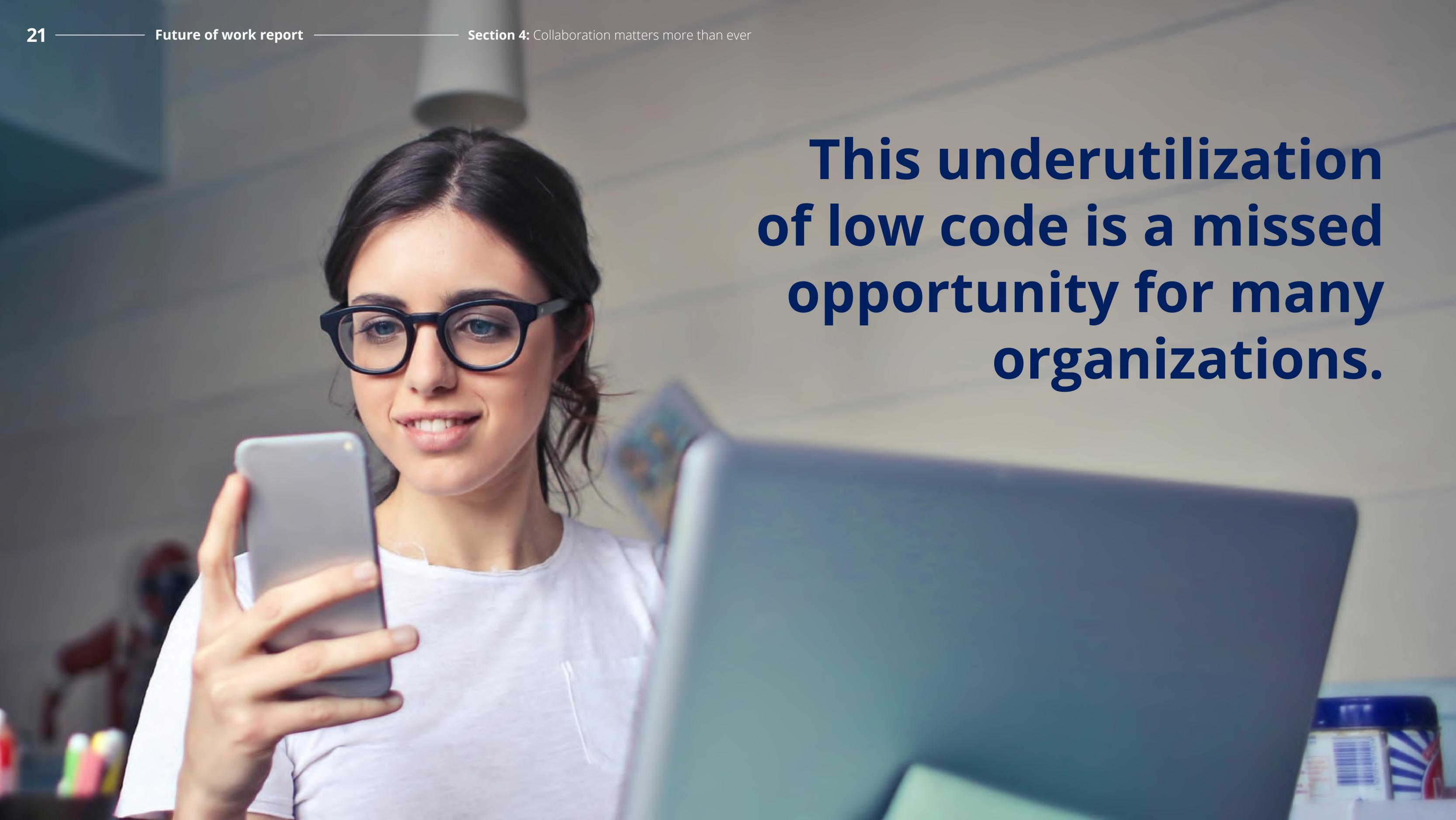


Low code is also the least widely known technology, with **13%** of respondents saying they are unfamiliar with it. To compare, the next two least-known technologies were process mining and natural language processing (NLP), with **8%** and **7%**, respectively, of respondents saying they were unfamiliar with them.

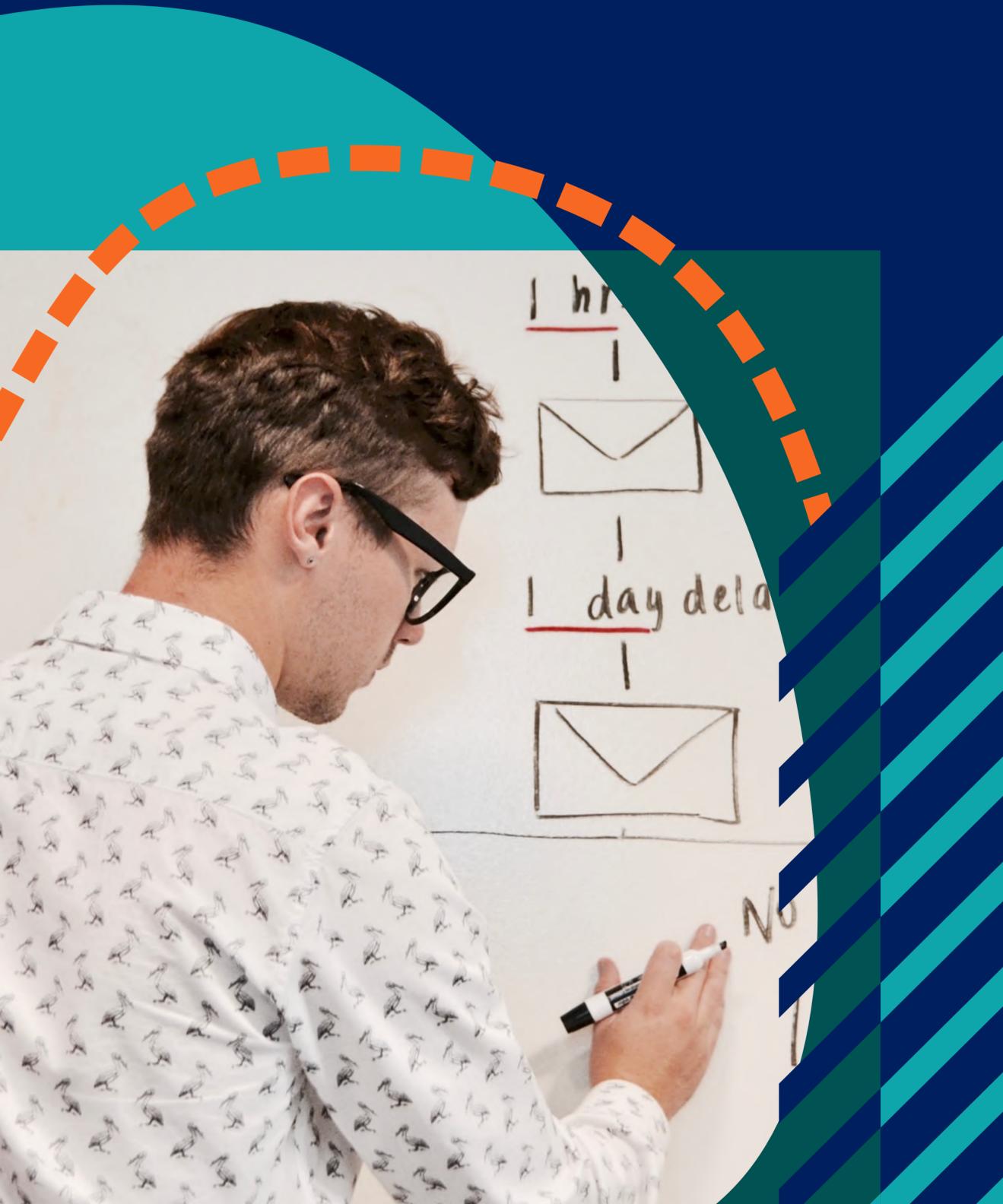
This underutilization of low code is a missed opportunity for many organizations.

**We discovered that 82% of our respondents believe “IT should provide platforms and systems that allow employees to build and implement their own technology solutions.”**

Our respondents are looking for low-code solutions, even if they are unfamiliar with the term.



**This underutilization of low code is a missed opportunity for many organizations.**



## NEXT STEPS FOR SUCCESS

# Bring business and IT together with low-code solutions

Code is a major obstacle for IT and business collaboration. Organizations exclude business users from the development process when they hard code all of their applications. These are often applications that business users need to do their jobs.

**Low-code tools empower business partners to take ownership of their applications, while IT guides them on best practices, security, and compliance.**

The process of creating applications should have balanced input from all stakeholders. Organizations should implement design thinking – a method of solving problems centered on the human user of the solution – to start the collaboration process.

Business team members can focus on a user's desired outcome and journey, instead of worrying about which tools are most likely to achieve the outcome. IT can provide additional insight into how to solve a problem, working with business partners on innovating and quickly deploying new solutions using low-code tools.

## Conclusion

We're in an uncertain time. Recent events in the world have shown us that while many organizations adapted quickly, many others were caught unawares and were wholly unprepared for the impact that a period of disruption would have on their business. Our research shows that while some organizations were completely unprepared for workplace upheaval, they don't want to get caught off guard again.

Can organizations keep up this pace of technology adoption once the period of disruption has passed? The enthusiasm around technology investments like intelligent automation is a sign that they can. Businesses are seeing the necessity in the ability to adapt to the needs of customers and employees during unexpected events.

**The state of the world has motivated organizations to adopt new technology and reflect on how they can better serve their customers and employees. Organizations are growing and adapting during the pandemic – so they can take on whatever comes tomorrow.**



# Methodology

In April 2020, Savanta surveyed 3,158 senior managers and frontline IT staff working globally in Financial Services, Healthcare, Insurance, Manufacturing, Communications, and Public Sector.

### Organization size

- o Under 250 employees: 1163, **36.8%**
- o 250 – 999: 1046, **33.1%**
- o 1000+: 949, **30.1%**

### Organization region

- o North America: 1053, **33.3%**
- o EMEA: 1020, **32.3%**
- o APAC: 1085, **34.4%**

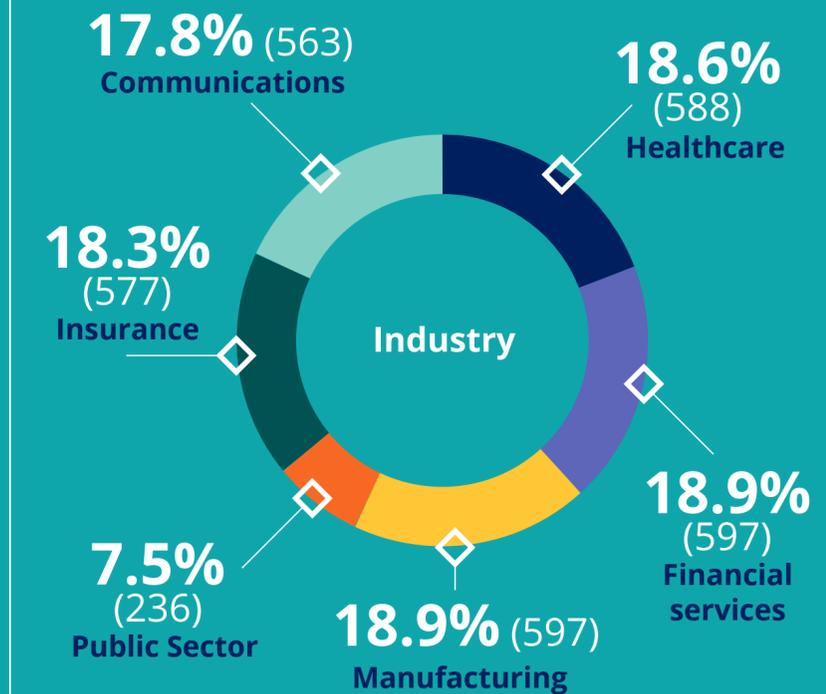
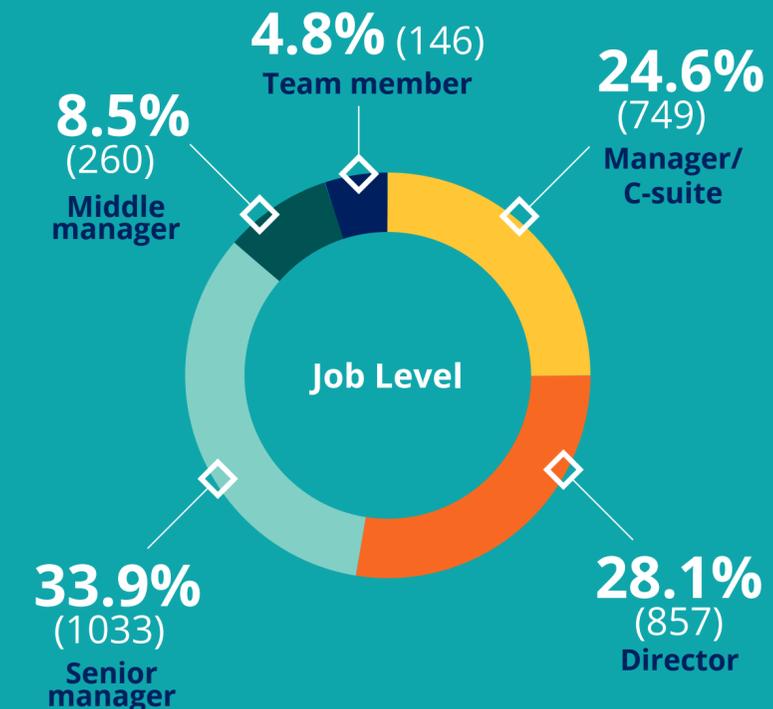
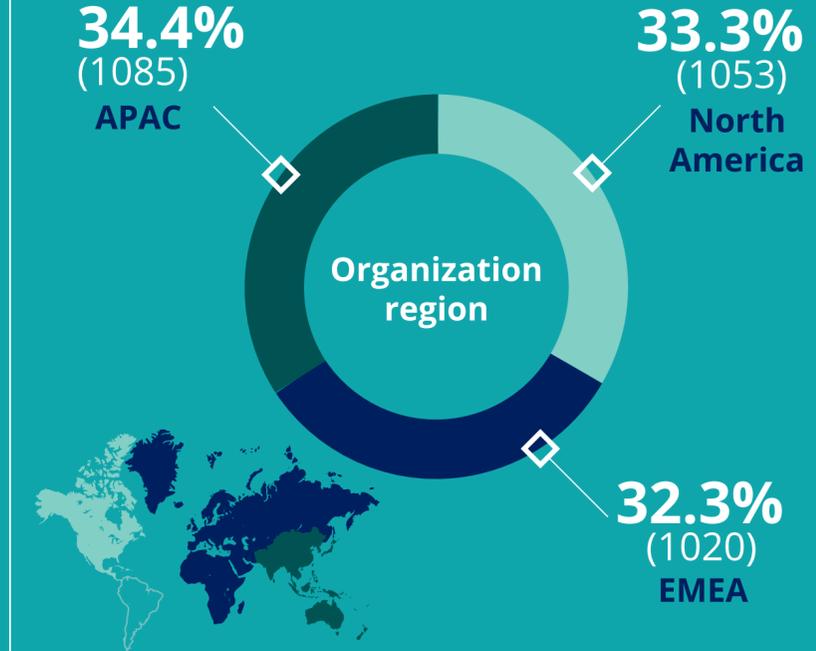
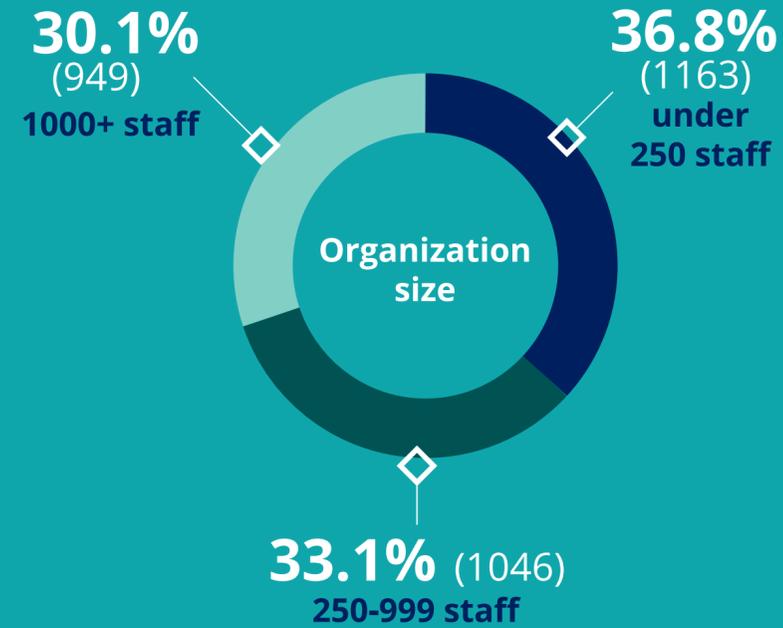
### Job level

- o Manager/C-suite: 749, **24.6%**
- o Director: 857, **28.1%**
- o Senior manager: 1033, **33.9%**
- o Middle manager: 260, **8.5%**
- o Team member: 146, **4.8%**

### Industry

- o Financial Services: 597, **18.9%**
- o Healthcare: 588, **18.6%**
- o Manufacturing: 597, **18.9%**
- o Public Sector: 236, **7.5%**
- o Insurance: 577, **18.3%**
- o Communications: 563, **17.8%**

# The visual breakdown



# Definitions

## Artificial intelligence (AI)

is a broad term that covers many sub-fields of computer science, which aim to build machines that can perform tasks that require intelligence when done by humans.

## Business process management (BPM)

is a methodology to manage processes and workflows in an organization. The goal of BPM is to increase efficiency, performance, and agility in the day-to-day operations of a business.

## Intelligent automation

is the use of technology to conduct work tasks. This can be any technology solution, including AI, robotic automation, and visual recognition technology.

## Low code

is a simple approach to application development for non-technical workers. Low code often has drag-and-drop functionality and visual design tools.

## Machine learning

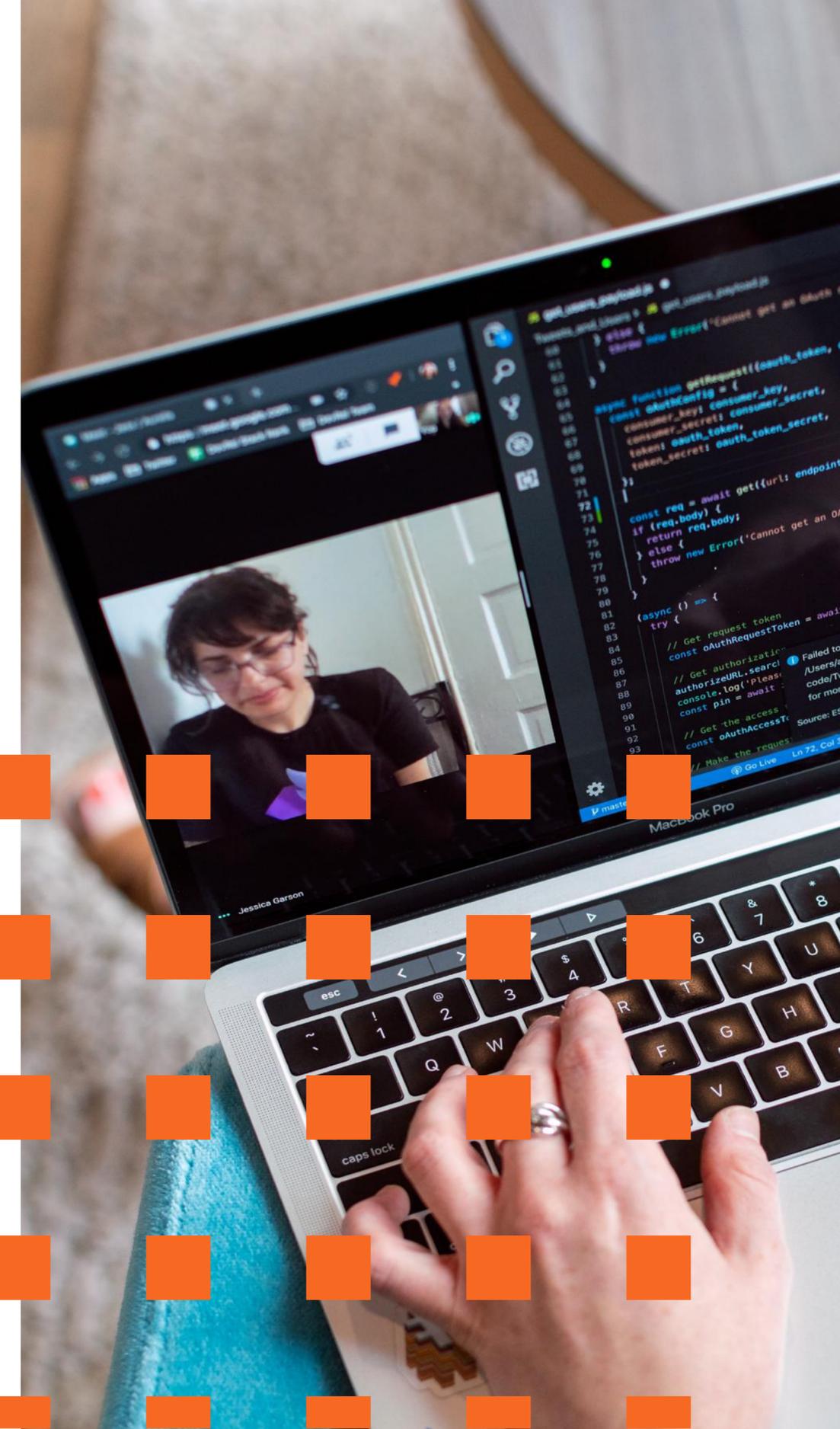
is the ability of computer systems to improve their performance by exposure to data – without the need to follow explicitly programmed instructions. Machine learning is the process of automatically spotting patterns in large amounts of data that can then be used to make predictions.

## Robotic process automation (RPA)

is a computer software that is configured to automatically capture and interpret existing applications for processing a transaction, manipulating data, triggering responses, and communicating with other digital systems.

## Deep learning

is a technique that involves a family of algorithms that processes information in deep “neural” networks where the output from one layer becomes the input for the next one.





## About Pegasystems

Pega is the leader in cloud software for customer engagement and operational excellence. The world's most recognized and successful brands rely on Pega's AI-powered software to optimize every customer interaction on any channel while ensuring their brand promises are kept. Pega's low-code application development platform allows enterprises to quickly build and evolve apps to meet their customer and employee needs and drive digital transformation on a global scale. For more than 35 years, Pega has enabled higher customer satisfaction, lower costs, and increased customer lifetime value.

For more information, please visit us at [pega.com](https://pega.com)

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