



THE FUTURE OF IT REPORT

IT's secret weapon to win the future



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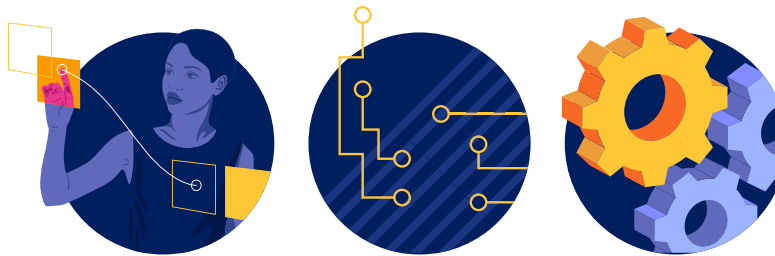
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EXECUTIVE SUMMARY

What will IT look like in the future?

Building on our [Future of work](#) report, which looked at the evolving role of technology in the workplace, our Future of IT report takes a closer look at how technology will shake up the IT function in the next three to five years. **The stage is set for a radical transformation of the IT role** – as intelligent automation, low-code platforms, and artificial intelligence (AI) continue to help more organizations streamline their operational and IT complexity as well as free employees from manual admin tasks.



Today, COVID-19 has disrupted how we work by fast-tracking tech adoption and forcing companies to implement and scale technologies they weren't planning to deploy for several years. Technology's ability to keep organizations running during the pandemic made many business leaders see IT not just as a cost center, but as a strategic business function warranting greater influence at the decision-making table.

In this survey, we wanted to look beyond the immediate impact of the pandemic on IT. Our Future of IT survey was designed to help us better understand how IT executives and managers expect digital transformation to shift the IT function in the coming years.

This report unpacks how digital transformation will impact key aspects of IT, including organizational structures, workflow, the competencies needed to succeed, workplace satisfaction, workloads, and IT's relative power within the enterprise. The result is a dynamic snapshot of what's important now and how the coming changes will see IT roles evolve globally, by seniority and sector.

Key takeaways

Thanks to rapid innovation and automation, the IT function will look very different in the coming years.

Less time will be spent maintaining system architecture and more time will be spent solving business problems.

The end of a lot of hands-on IT work (e.g., network monitoring, data management, recoding) is just one shift. Our survey findings show that both IT and the types of professionals who thrive in the field will evolve significantly. Those hoping to excel must be prepared to grow in proportion to the coming changes:

Diversity, equity, and inclusion will be critical.

Hiring and retention with an eye toward building diversity, equity, and inclusion will pose critical challenges. Compensation will likely need to increase to attract and retain the best IT leaders.

Digital transformation will be stalled unless IT's insufficient budgets are addressed.

To meet business objectives, IT budgets will need to be decentralized and integrated into other departments, or funds must be allocated from other business functions.

The industry-specific IT professional will play a crucial role.

The decentralization and dispersion of IT tasks will see IT more integrated across enterprises, requiring deeper knowledge of the business. Those who understand their industry best and can lead it into the digital future will rise to the top.

Tech work will look and feel different.

Work will be less manual and time-consuming, with many applications allowing managers and executives to create reusable elements that can be deployed into future projects. However, workloads will also increase, and for good reason: IT leaders will become the primary drivers leading large-scale digital transformation or implementing simpler, more connected experiences.

IT executives will become even more valued.

IT executives will gain more power as digital innovation becomes increasingly critical to the bottom line over other functions. Meanwhile, IT managers' jobs will shift dramatically as they're freed from IT management tasks like database and network maintenance. Those who reskill and adapt the quickest will thrive.

Hands-on IT management skills will become less important.

Things like recoding, IT management, and data management will be automated or outsourced to the cloud in many circumstances.

IT will be more fulfilling.


Expect more collaboration and more creativity. As low-code platforms streamline the design of applications, skills like leadership and problem solving will become more important than technical competencies.

PART I

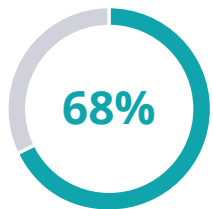
From the inside out

The IT field is about to undergo a radical transformation as enterprises integrate the technologies set to drive their business in the next three to five years into their organization's culture, power structures, and workflows.

A comprehensive view of these changes will be necessary for anyone seeking to navigate them successfully. We'll see IT work becoming simpler, faster, and easier – with automation greatly simplifying or eliminating many IT tasks, low-code options allowing collaboration with businesses and more control over business app development, and myriad other advances. Here are some other ways it will shift:

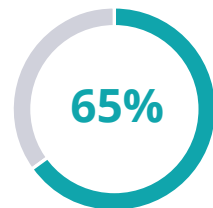


In relation to your current role over the past two years, which of the following changes have technology and digital transformation experienced?



Dispersion

Mainly pushed responsibility for delivery outwards to other functions



Centralization

Mainly pushed responsibility for delivery upwards



Decentralization

Mainly delegated power and responsibility downwards

Automation and collaboration

Digital transformation has allowed **68% of IT leaders to disperse responsibility to other functions** and decentralize responsibility by delegating it downward.

This dispersion is fueled by technologies like low-code platforms, intelligent automation, and business process management, which allow people across the business to do work previously done by IT. Departments will also be reorganized to integrate IT workers – so that they can help other functions use the power of digital technology to meet business goals. Increasingly, the distinction between IT and the rest of the business will become blurred.

Meanwhile, decentralization is fueled by technologies like workflow and performance management software that allow teams to work more collaboratively. These changes extend the reach of IT and make collaboration across functions simpler – allowing IT to contribute more value.

People skills and strategy will dominate job descriptions

As a business function, IT is often seen as playing a supportive role by supplying the technical know-how that helps other business functions achieve their vision. That's about to be tipped upside down. Increasingly, IT will be asked to find digital solutions within areas like operations, sales, and marketing, and to **focus more on leadership, problem solving, and social skills – rather than hard tech skills.**

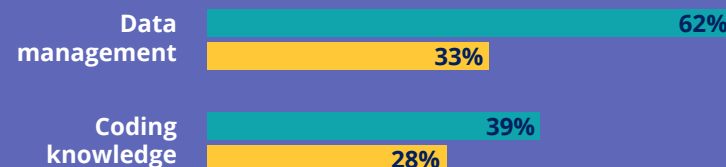
As one CTO we interviewed explained, "As we prove our competence at improving the efficiency of the business, we are given more latitude. It's the difference between somebody saying, 'Hey! You're the people who build interfaces! Make this button purple,' and saying, 'Hey! You're the people who build interfaces. This interface isn't converting well, make it convert better.'"

And with cloud solutions, intelligent automation, and low-code platforms simplifying processes, current top skills like coding will be less critical.

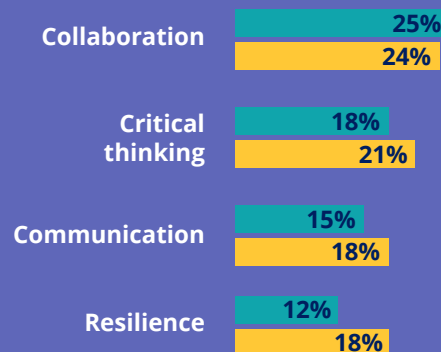
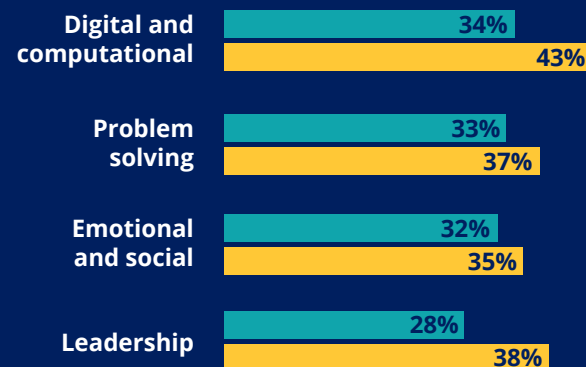
Our respondents said that the key competencies of leadership skills, problem solving, and emotional and social skills will matter far more in three to five years – with digital and computational skills also gaining in importance.



Of the following competencies, which three are currently most important to you now, and which three will be most important to you over the next two years?



GAINING IMPORTANCE



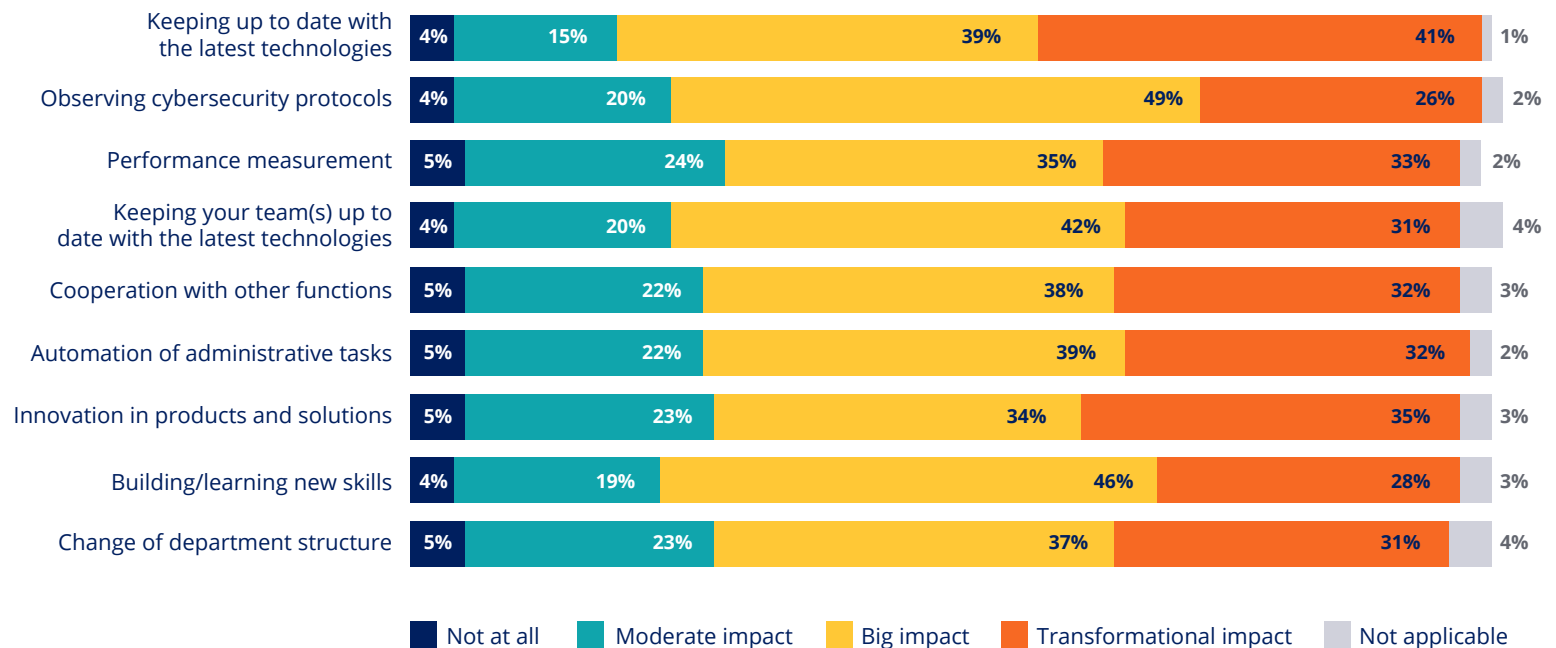
Currently
In two years


Make room in the C-suite

In the next three to five years, we can expect to see CIOs and CTOs become even more prevalent in the C-suite. They will gain more responsibility and power, as innovation and business operations rely increasingly on digital problem solving and technology execution.

For almost 40% of respondents, cooperation with other business functions is already having a big impact. This shift could change decision processes significantly, with technology and operations planning becoming more intertwined. This level of integration will help legacy organizations keep pace with digital native start-ups trying to disrupt their industries.

Compared to two years ago, how has your role as an executive evolved as a result of digital transformation and technology in the following areas?





Which of the following are challenges for your business function?

- 43% Data security
- 35% Data privacy
- 34% Rate of technical change
- 33% Talent retention
- 30% Diversity, equity, and inclusion
- 29% Budgets compared to requirements
- 28% Hiring talent
- 26% Speed of processes for external stakeholders
- 26% Speed of processes for internal stakeholders
- 25% Ability to pivot organizationally in response to change
- 25% Climate change/sustainability
- 23% Scaling across other departments
- 18% Departmental silos
- 17% Lack of business focus

33% of tech workers believe talent retention is a stumbling block, while 28% believe that hiring is an obstacle to success

Diversity, equity, and inclusion will continue to be critical to success

The struggle to find and retain the right talent will increase in the future – with IT becoming more essential to business operations and the focus shifting from technical to more business and human skills. This will likely improve compensation for the hardest-to-hire positions, but it might also make some decide to hire and train non-technologists who possess problem solving and people skills.

For instance, a CTO we interviewed in Retail Insurance said that his company runs its own coding bootcamp for new hires. Another CIO said he doesn't believe that IT executives will have to be technologists in the future – since the role is becoming more focused on business competencies.

Diversity, equity, and inclusion (DEI) will also be critical for certain industry sectors and regions in the next three to five years. While only 30% of respondents overall highlighted it as a future challenge, IT executives and managers in high-value, high-risk industries like Healthcare (35%), Financial Services (33%), and Retail Insurance (37%) will find DEI the most challenging – according to our survey.

In Financial Services and Insurance, technologies such as AI and machine learning are permeating key aspects of business decision-making, such as underwriting and credit and loan candidate identification. **Having an IT workforce that is more diversified, in terms of race, gender, disability, sexuality, and other marginalized groups, will help these sectors apply a layer of human knowledge and business logic** – all so they can provide more accurate and unbiased recommendations. Increasing disability representation in IT will become especially important as organizations grapple with stricter accessibility requirements. Our survey also found that DEI was critical for IT workers in particular regions – notably the United States and France, where approximately 40% said it would be key.

Organizations will need to use different strategies to attract more women and other marginalized identities to IT. However, an increased focus on problem solving and emotional and social skills, as well as the growing use of intelligent automation and low-code platforms, could also reduce barriers to entry.

Once workers are hired, performance management will be easier and more visible. More than 70% of respondents said that digital transformation made their own performance and their subordinates' more transparent. Collaboration software will allow managers to track performance more easily, helping optimize staff time.





How will digital transformation affect your role?

Ditch the busywork and get creative

There's a big dichotomy in digital transformation for the IT function. Technology will relieve IT workers of a lot of the routine admin tasks they do today – requiring less redoing, recoding, and rearchitecting, and allowing for more reuse of past work. Yet 67% of IT workers also believe it is likely to significantly increase their workloads.

Nonetheless, more than 60% expect that digital transformation will result in more streamlined work, which will allow them to be more creative, cooperate more with other departments, and spend less time on administrative tasks.

Many different technology trends, including intelligent automation and data analytics, are fueling a reduction in workload. Time saved will be used to make a bigger impact through strategic deployment of tech to solve business problems.

But even as software takes on more of the tasks IT departments currently perform, IT will spend more time keeping up to date with the latest technologies, observing cybersecurity protocols, and building new skills. However, changes to the nature of their work mean jobs will still feel easier and more streamlined.

74%
allows me to
be more creative

71%
allows me to
cooperate more
with other
departments

71%
allows me to
spend less time
on administrative
tasks

PART II

The evolution of the IT leader

This evolution will impact senior workers differently.

Not everyone within the IT function will be impacted equally by digital transformation. What your IT job looks like in three to five years will depend on where you sit on the corporate ladder.

Survey responses showed that different narratives are emerging for two distinct groups:

EXECUTIVE LEADERSHIP



MANAGEMENT



Wanted: Executive skills

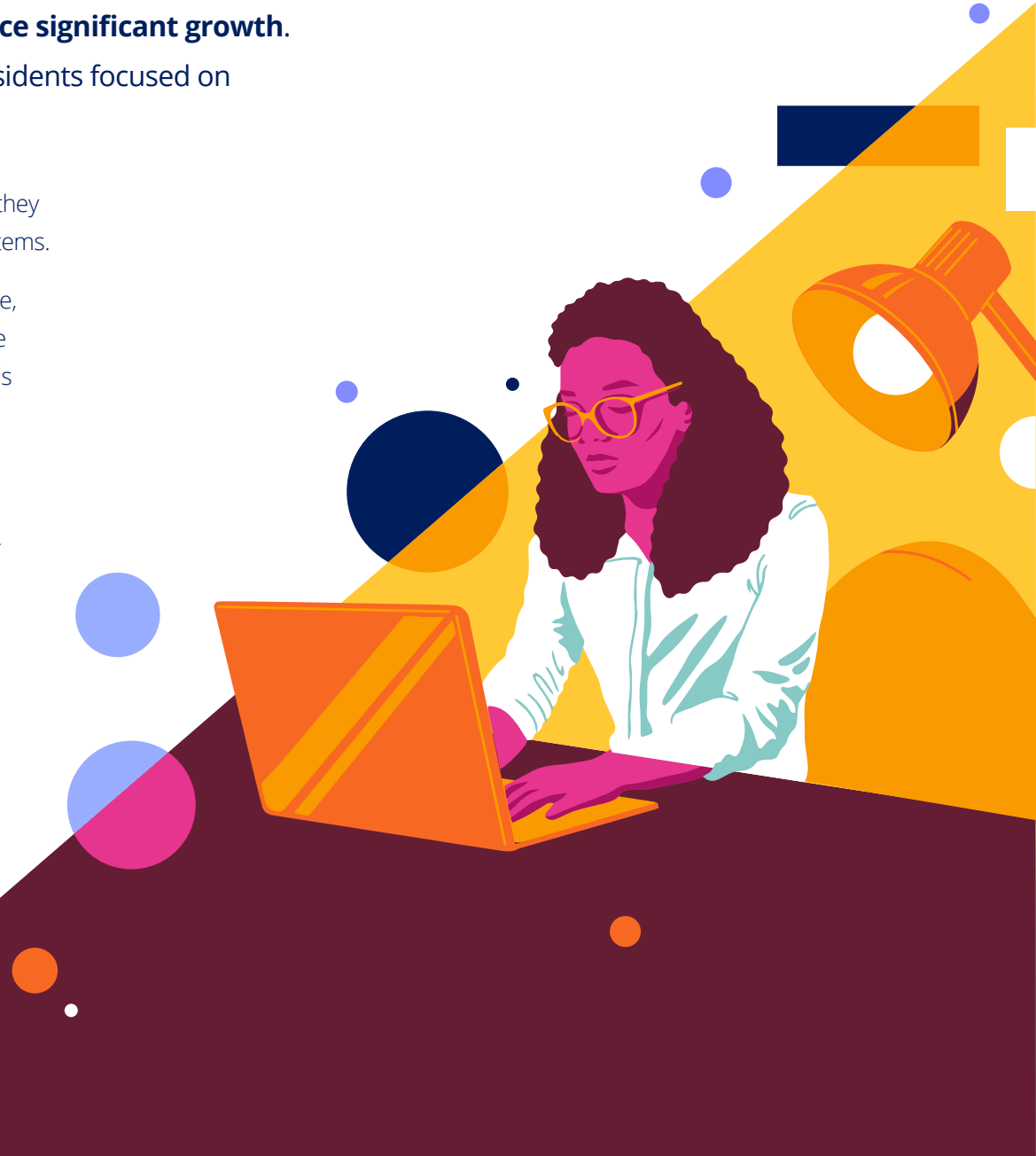
When it comes to leadership skills, **executives will experience significant growth.**

This trend will be particularly pronounced for senior vice presidents focused on stewarding digital strategy for their organizations.

And problem solving skills will be especially important to senior directors as they grapple with how to implement new technologies within complex legacy systems.

Less time will be spent on routine admin tasks that do not add strategic value, such as IT systems support and maintenance. Emerging opportunities to use technology to solve complex business problems and address business needs will result in work that overtly promotes business objectives.

More executive leaders than managers said that digital transformation has increased their contribution to their organization. Therefore, executives will cultivate more dynamic skill sets than managers, potentially making it harder for managers to rise through the ranks.



54%
SVP/EVP

44%
Sr. director

41%
Manager/
Assist.
manager

38%
General/Sr.
manager

38%
VP/AVP

35%
Director



Compared to the last two years, did you experience a transformational change in your role from having to keep up with the latest technologies?

Complexity will be executives' nemesis

More than 50% of senior vice presidents indicated that keeping up to date with the latest technologies was transformational. They are likely to see an increase in the number of projects they're managing, as well as in the frequency of product releases.

That increased pace will also benefit executives by allowing IT to release upgrades to software iteratively – all with the help of low-code platforms so they can collect customer feedback to inform future builds.

"If I release every three months, I've got to build really big things and I've got to cross my fingers and hope," a Retail Insurance CTO explained. "If I can release multiple times a day, I can build really small things and see what happens."

But the biggest challenge that 36% of IT leaders – specifically senior VPs and executive VPs – are facing is the struggle to match budgets with IT requirements. And that's going to require allocating budget from other functions or decentralizing the IT budget.

Automation: IT management's final destination

With so many tasks being automated or outsourced to the cloud, IT management as a competency will either disappear or become less relevant – according to more than 40% of IT workers we surveyed.

One CTO explained,

“As you move to managed services, there are companies that do those IT management tasks for you. There’s no reason to run a lot of these things that are infrastructure.”

Outsourcing IT management could lead to resource redeployment and require reskilling managers who were previously involved with network monitoring and maintenance work. This could explain why lower management had more reservations than executives about IT being a force for positive change. Lower management was also less inclined to feel increasingly valued as a result of digital transformation within their organizations. However, the overall increase in IT workload could see middle managers thrive if they can be retrained.



Automation: Free yourself up to keep learning

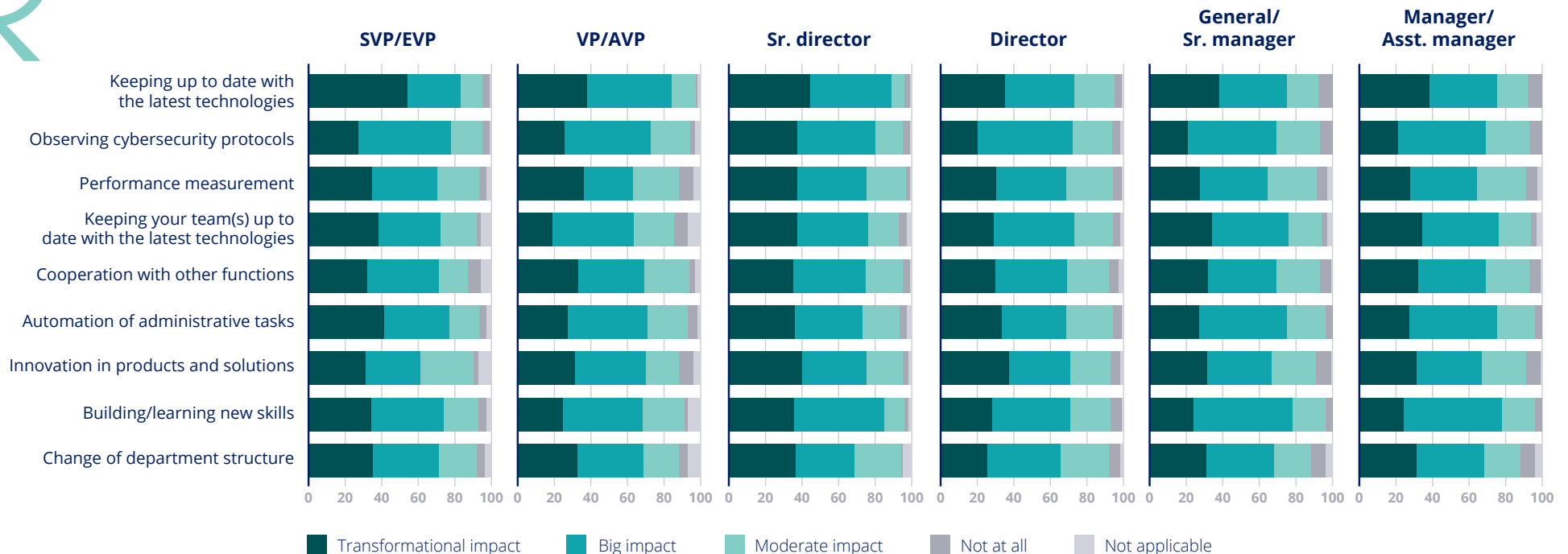
Digital transformation foreshadows the end of IT managers who specialize in one technology area their whole career.

More than **70% of managers** said that building and learning new skills will have the biggest impact on their jobs.

One Public Sector CTO explained his staff reskilling challenges: “They understand networking and databases when in our data center, but it works differently in the cloud. I have smart people and they are dedicated. But they’re just not as strong because they’ve done it in our data center for 15 years, and they’ve done it in the cloud for 15 months.”

Despite the pressure to constantly reskill in the next three to five years, IT managers do expect to enjoy their roles more. Intelligent automation and the cloud mean that the work they do will be more dynamic and creative.

Compared to two years ago, how has your role as an executive evolved as a result of digital transformation and technology in the following areas?



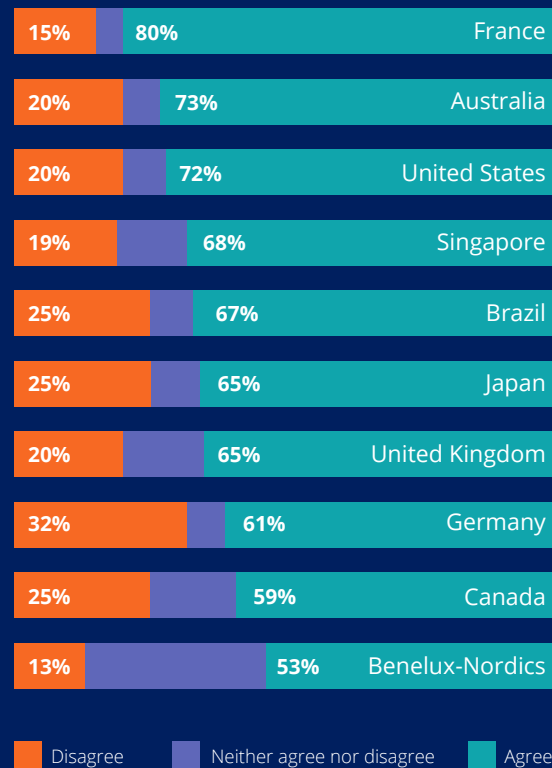
PART III

The rise of the regional IT function

There are some distinct regional differences in the impacts of digital transformation on the IT function, as well as the skills that will be necessary to succeed in the next three to five years.



Will digital transformation
make your job easier in future?



Asian countries will be more likely to prioritize hands-on tech skills: Japan will look to develop its IT function's data management skills, digital and computational skills, and coding knowledge, while Singapore will prioritize its sector's digital and computational skills, problem solving, and coding knowledge.

This is in stark contrast to countries like Canada and the U.S., where leadership, problem solving, and emotional and social skills make up their top three priorities. Other countries will see a need for a mix of both hands-on tech skills and strategic and people skills.

As countries progress in their digital transformation journey, they will focus less on IT management or digital migration and more on adding strategic value to their operations with technology, which requires a different skill set to succeed.

Ultimately, the skills an IT professional will need to be successful in the next three to five years will depend on where they live. Moving between regions may be more challenging for those wanting to make a job change, since skill sets could end up being regionally specific.



A two-speed digital transformation

IT workers from France, Australia, and the U.S. were significantly more likely than workers from other regions to say that their jobs would feel easier in the future – as it seems that Western countries may be further along in the digital transformation process. Therefore, they're able to take advantage of reductions in manual work a lot sooner. Meanwhile, other parts of the world may spend additional time navigating the complexities of more intensive data migration and technology adoption.

But that doesn't mean non-Western countries are lagging in their digital transformation. In fact, they could eventually leapfrog the West as countries like Japan and Singapore prioritize investment in automation, real-time data, and decision management software, which will help them be more strategic and lean in their operations.

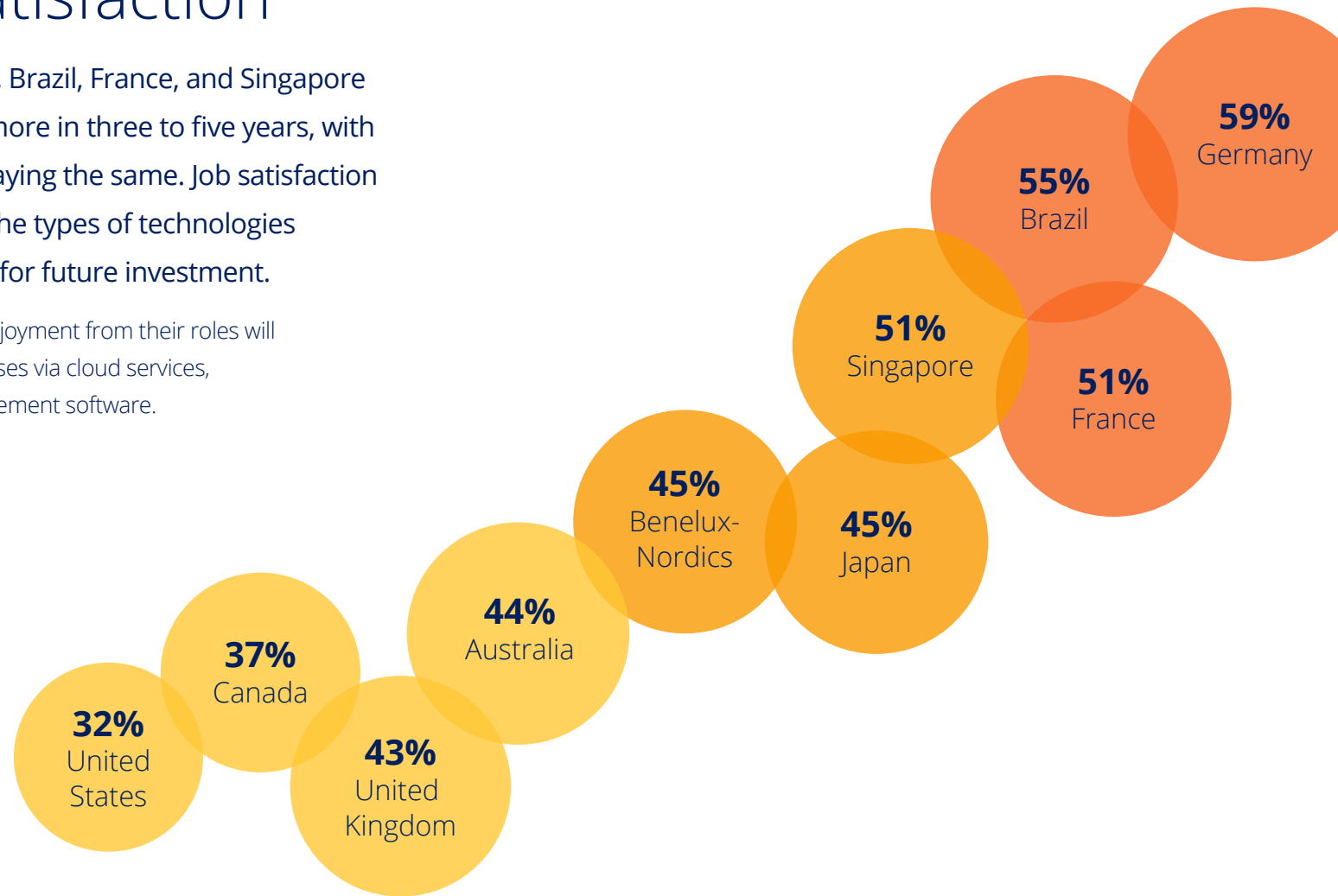
Invest in tech, increase job satisfaction

More respondents from Germany, Brazil, France, and Singapore said they would enjoy their roles more in three to five years, with fewer from the U.S. and Canada saying the same. Job satisfaction and enjoyment are connected to the types of technologies different countries are prioritizing for future investment.

Many of the countries that expect more enjoyment from their roles will simplify IT work by streamlining key processes via cloud services, customer self-service, and decision management software.



Do you feel more
technology will help
you add value by
freeing up your time?



Conclusion

In the next three to five years, the role of IT will look, feel, and function differently. The pandemic has accelerated the pace of digital transformation, forcing IT managers and executives to pack years of technical advancement into a shorter space of time. The many anticipated positives for IT professionals are dependent on their willingness to learn, reskill, and adapt.

IT jobs will be easier, but more complex

– less about how a technology works and more about human skills. Workers will be freed to bring creativity and problem-solving skills to their organizations.

The work IT executives do will be valued even more, giving them increased power and influence within the organization.

IT managers will devote themselves to **lifelong learning**.

IT executives who succeed in the future will be those who have **a deep understanding of their industry** and how tech can help business operations.

As IT drives business results and unlocks strategic value, expect to see more IT professionals **integrated within or collaborating with other functions**.

Expect to see more **decentralized and distributed IT management structures**, along with shifting job descriptions.

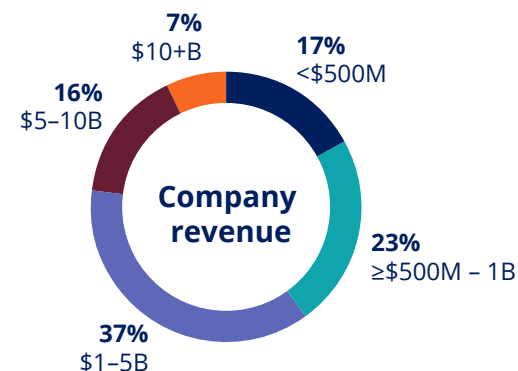
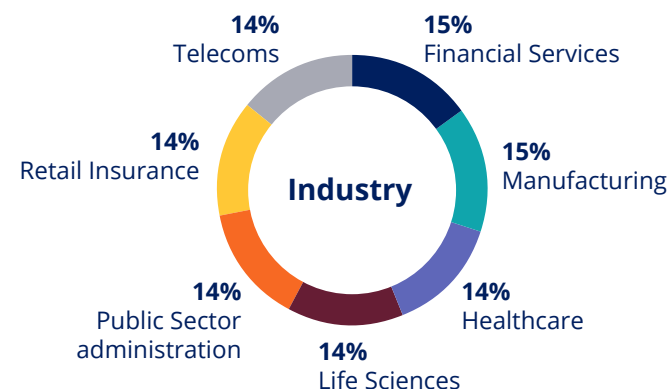
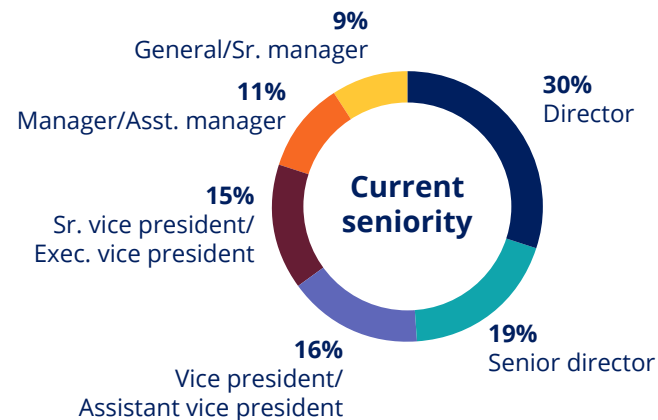
The future is bright but challenging. To crush tomorrow's complexity,

IT professionals will have to use the right technologies and cultivate new skills.

Survey scope and methodology

To understand how IT managers and leaders' roles are being shaped in response to digital transformation, we surveyed 750 IT senior vice presidents, vice presidents, senior directors, directors, senior managers, and managers across key sectors, including Financial Services, Life Sciences, Healthcare, Retail Insurance, Manufacturing, Telecoms, and the Public Sector.

Respondents answered 20 multiple choice questions, which delved into what the IT function looks like now, and how it is likely to evolve in the next three to five years. We also conducted qualitative interviews with IT executives within Healthcare, the Public Sector, and Retail Insurance.





About Pegasystems

Pega delivers innovative software that crushes business complexity. From maximizing customer lifetime value to streamlining service to boosting efficiency, we help the world's leading brands solve problems fast and transform for tomorrow. Pega clients make better decisions and get work done with real-time AI and intelligent automation. And, since 1983, we've built our scalable architecture and low-code platform to stay ahead of rapid change. Our solutions save people time, so our clients' employees and customers can get back to what matters most.

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