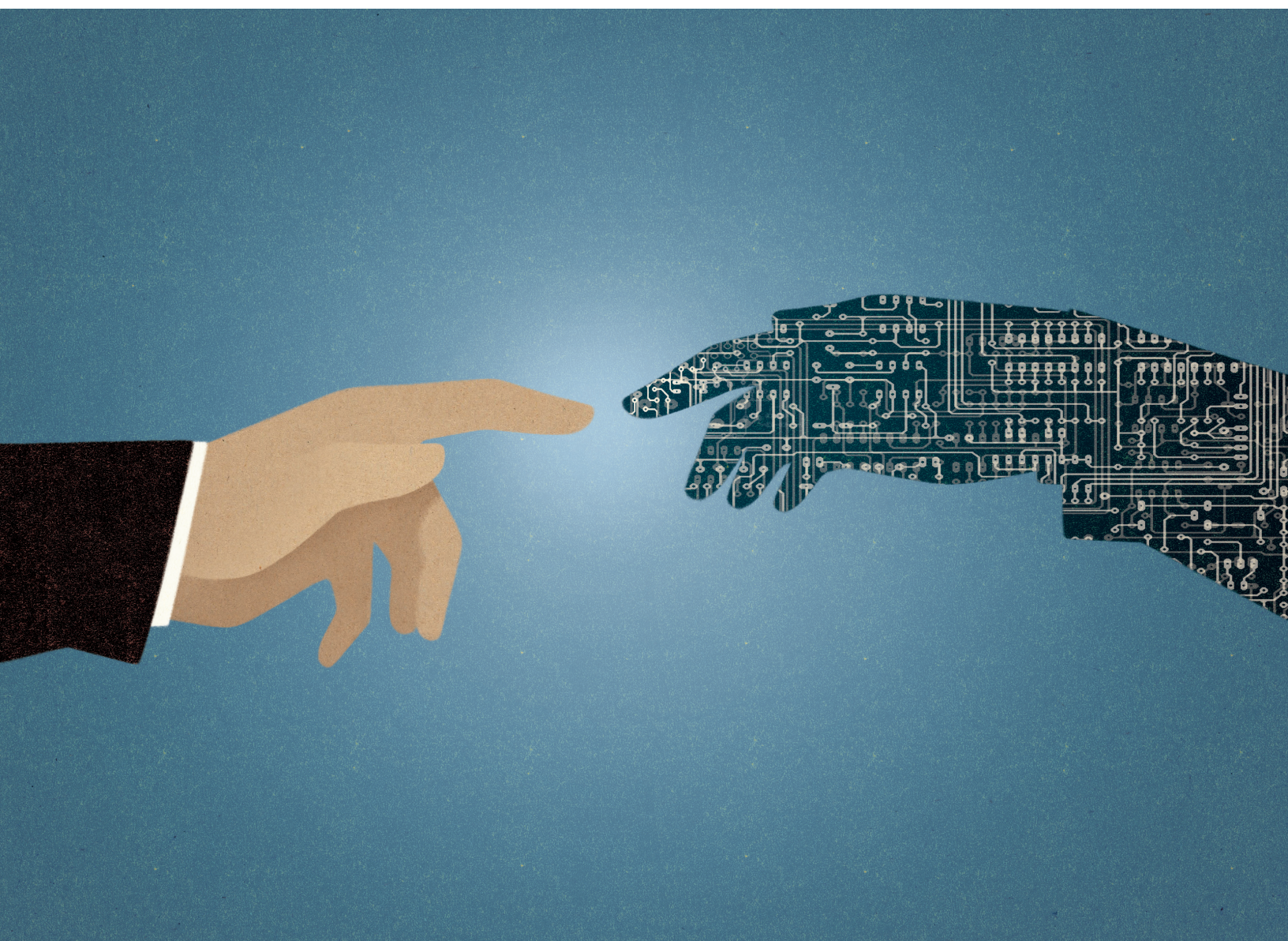


# Can IT rise to the digital challenge?

To keep up with core tasks and meet the demands of breakneck digital innovation, the IT function will have to step up and make meaningful changes, especially to its workforce, according to new survey findings.



Rapid advances in digitization are raising expectations for IT, and the results from the latest McKinsey Global Survey on the topic suggest that the function faces a challenging dual mandate.<sup>1</sup> IT organizations are asked to innovate at breakneck speed in support of their companies' ambitious digital aspirations (85 percent of respondents want their operating models to be mostly or fully digital, which only 18 percent currently have), and simultaneously execute the core IT tasks that keep the organization running—an area where effectiveness has been on the decline.

The survey responses confirm that strong performance on core IT tasks (for example, designing, delivering, and managing IT) is not only nice to have but also enables faster progress against a company's digital goals. At organizations with the best-performing IT functions, respondents say they are further along than their peers in their digitization efforts. They have leadership teams that are more committed to digitization, and they have embraced more of the technological and operating-model changes needed to support an increasingly digital organization. These changes include adopting agile practices within IT and across the business, expanding the suite of technology leaders, and focusing on talent management—a perennial and growing challenge for IT. Talent issues continue to rise in importance as a reason for IT's overall performance troubles, and most respondents, including the best IT performers, expect major workforce change ahead. On average, respondents expect 40 percent of their IT workforces will need to be fundamentally retrained or replaced in the coming years to close the skill gap and meet the IT organization's future needs.

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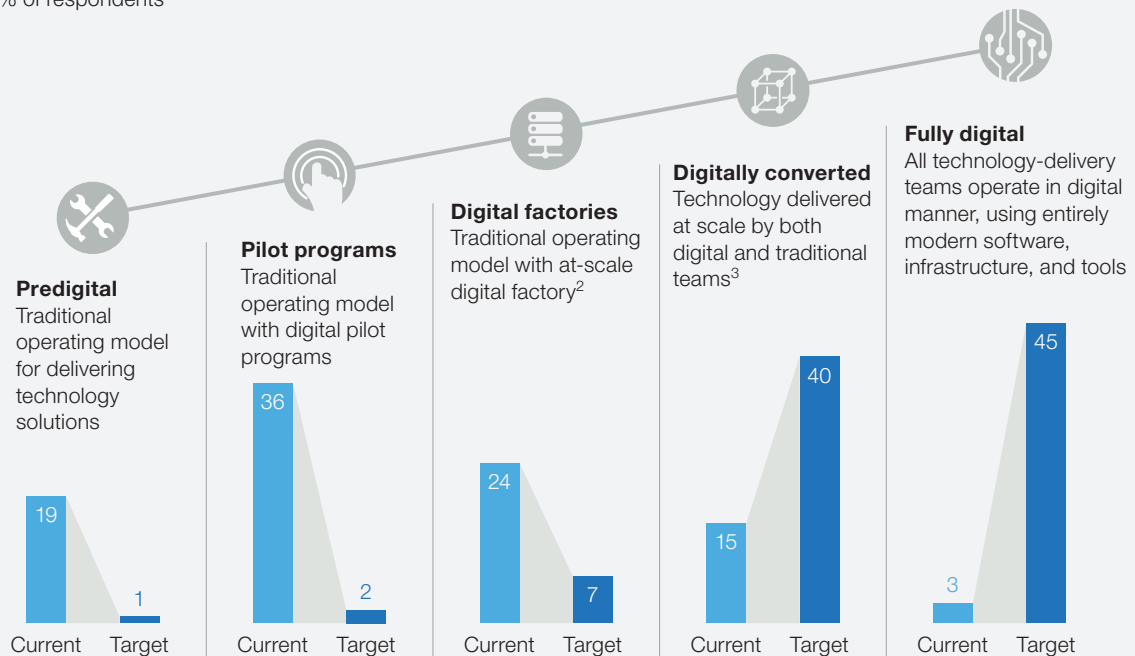
## IT's ongoing challenges

The most recent survey results confirm the persistence of two trends facing IT leaders: increasing demand for IT to support the organization's digital goals and the function's persistently ineffective performance on core IT tasks.<sup>2</sup> Ninety-three percent of respondents say their companies have pursued at least one technology-related transformation in the past two years, roughly the same share as said so in the previous survey. Companies' digital achievements may be nascent, but their aspirations are remarkably high. Among respondents whose organizations have pursued digitization, most report that they are working toward an integrated or fully digital operating model: 85 percent say they want their organizations to be digitally converted (that is, technology is delivered at scale by both digital and core IT teams that work under a single operating model) or fully digital.<sup>3</sup> But only 18 percent say they are there now (Exhibit 1).

Exhibit 1

### Most respondents want their organizations to be digitally converted or fully digital, but less than one-fifth say they are there now.

**Current and target state of organizations' digital operating models,<sup>1</sup>**  
% of respondents



<sup>1</sup> These questions were asked only of respondents who said their organizations had pursued digitization in the past 2 years, and those who answered "don't know" are not shown; n = 274.

<sup>2</sup> That is, a group of delivery teams is dedicated to building digital products and is largely separate from the traditional technology organization.

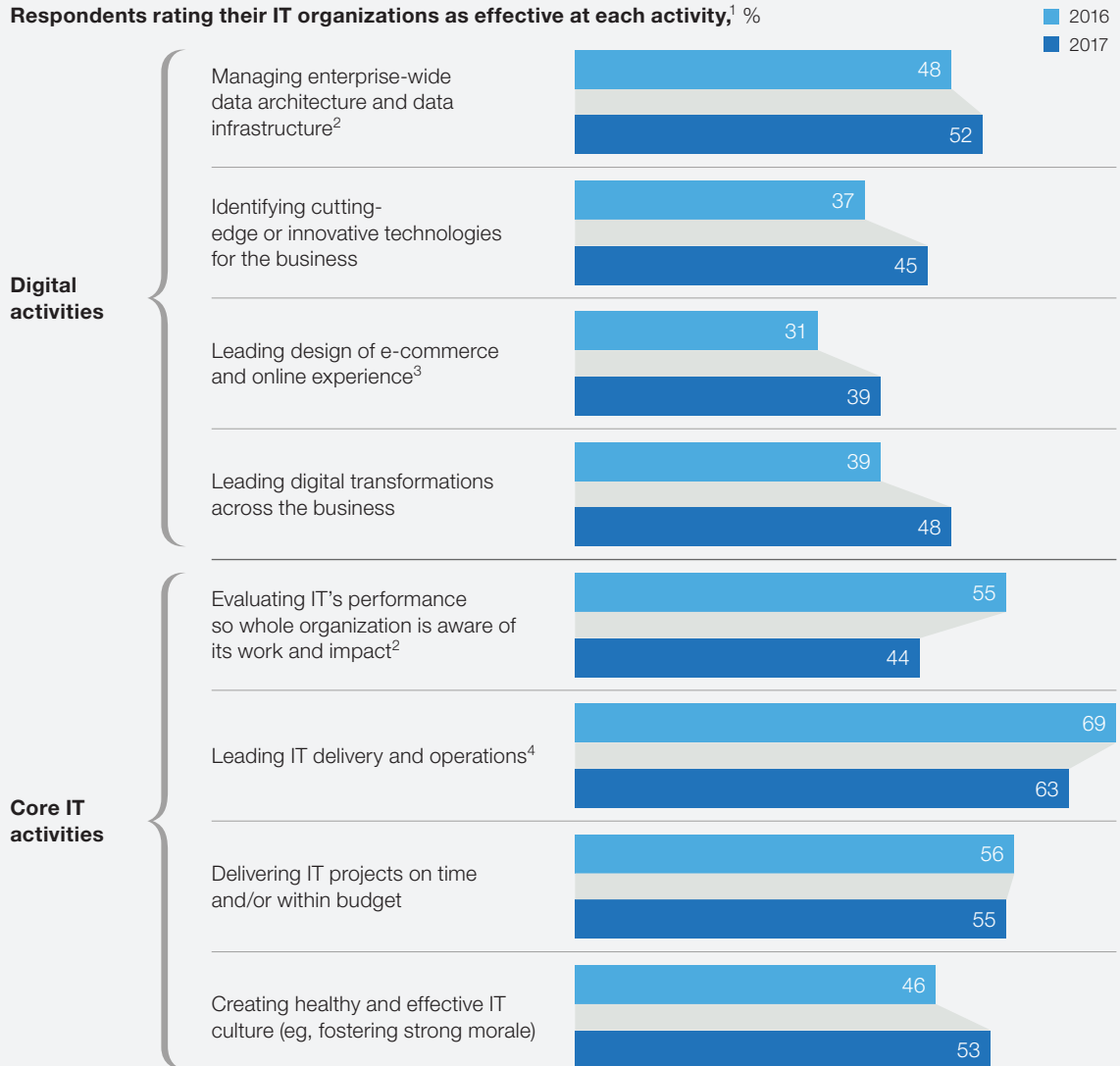
<sup>3</sup> Teams are not siloed or incubated and are governed by a single operating model.

With such lofty goals, the pressure is on IT to deliver more effectively than before. But while the results suggest that companies are doing better on many digital activities, such as e-commerce and analytics, they also indicate that IT functions are struggling to keep up with overall demand, particularly in the main areas of IT delivery (Exhibit 2).

Exhibit 2

## IT organizations are making digital gains but struggling to keep up with overall demand for their services.

Respondents rating their IT organizations as effective at each activity,<sup>1</sup> %



<sup>1</sup> Respondents who say their IT organizations are somewhat or very effective at each activity. In 2016, n = 709; in 2017, n = 567.

<sup>2</sup> In 2016, was only asked of respondents in the IT function; n = 387.

<sup>3</sup> For example, end-to-end customer or employee experience.

<sup>4</sup> For example, application maintenance, IT infrastructure and security, and end-user services such as laptops and email.

For example, just more than half of respondents rate their IT organizations as somewhat or very effective at delivering projects on time and within budget, roughly the same share as said so in the previous survey. And for leading IT delivery and operations—the activity that respondents most often rate as effective—the share of respondents reporting effectiveness declined since the previous survey. Another area of decline is evaluating IT’s performance. Only 44 percent say their IT organizations are effective at evaluating their own performance, down from 55 percent the year before.

### A recipe for success

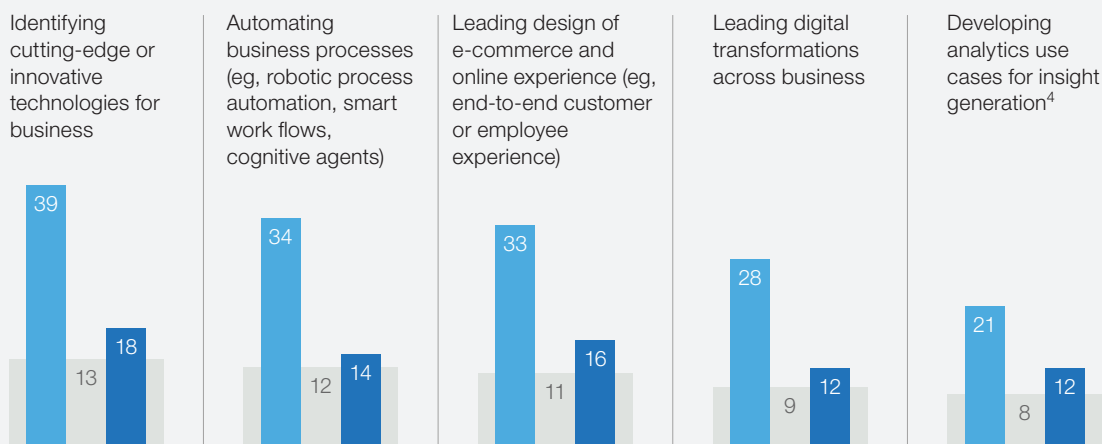
For all of the focus on digital-driven changes and IT’s role in those efforts, the results suggest that to meet their digital aspirations, companies need to do much better on IT practices overall. In fact, the companies that are best at core IT have made more progress in becoming fully digital than other companies—including our digitally successful organizations, where respondents report initial success with digital.<sup>4</sup> At the top-quartile core IT organizations,<sup>5</sup> 29 percent report an integrated or fully digital operating model. Only 12 percent of all others, and 22 percent of those at digitally successful organizations, say the same. What’s more, respondents at top-quartile organizations are more likely than the digitally successful group to report effectiveness at key digital activities (Exhibit 3).

Exhibit 3

## Success at core IT tasks correlates with effectiveness at key digital activities, even more so than does past success with digitization.

Respondents rating their IT organizations as very effective at each activity, %

■ At top-quartile core IT organizations<sup>1</sup> ■ At digitally successful organizations<sup>2</sup> ■ Overall average<sup>3</sup>



<sup>1</sup> Respondents who rate their IT organizations' average effectiveness score in the top 25% of the sample, based on the assessment of 12 key IT activities that were tested in the survey; n = 158.

<sup>2</sup> Respondents who say that their organizations have pursued digital transformations in the past 2 years that have been somewhat or very successful at both improving the organizations' performance and sustaining the improvements over time; n = 185.

<sup>3</sup> n = 567.

<sup>4</sup> For example, designing, building, and incorporating analytics insights for use in business decisions or processes.

So what are the best IT performers doing differently to support their digital aspirations? For one, they have been much more proactive in embracing changes to their technology and to the ways people work (Exhibit 4). They are more likely than others to say that in the past two years, they have pursued digitization transformations, redesigns to the IT organization or operating model, and changes to IT's delivery model.<sup>6</sup> Agile adoption, too, is much more common among top-quartile IT performers. They are at least twice as likely as their peers to say they have restructured business and IT to support agile delivery across the organization and that they've changed their underlying architecture to promote agility.

Leadership is another area where the top-quartile IT performers differ from the rest. Not only is the full leadership team more committed to digitization at the top-quartile core IT companies, but the ownership of individual digital activities is much clearer. When asked about six different activities, the top-quartile respondents are less likely than their peers to report no clear owner of each one. For example, just 9 percent of the best IT performers say there's no clear owner for the technical delivery of e-commerce; among other respondents, 19 percent say so.

The best IT performers also report a wider range of technology-leadership roles at their companies,<sup>7</sup> and they are more likely to say their CIOs are involved in shaping overall business strategy. And while top-quartile IT respondents—like the rest of respondents—typically cite the CIO as being the most influential technology leader at their companies, the chief technology officer (CTO) isn't far behind. Twenty-three percent of top-quartile respondents say their CTOs are the most influential leaders, compared with 13 percent of their peers. But regardless of the most influential leader's position, the top-quartile respondents more often attribute that individual's effectiveness to strategic thinking.

Finally, the best core IT performers are focusing more and performing better than others on talent management—a perennial challenge for IT organizations, based on our earlier work.<sup>8</sup> Larger shares of these respondents say that they have transformed their talent strategies in recent years (37 percent, compared with 23 percent of others) and that their organizations are effective at each part of the talent-management process, from workforce planning to engaging and retaining top talent.

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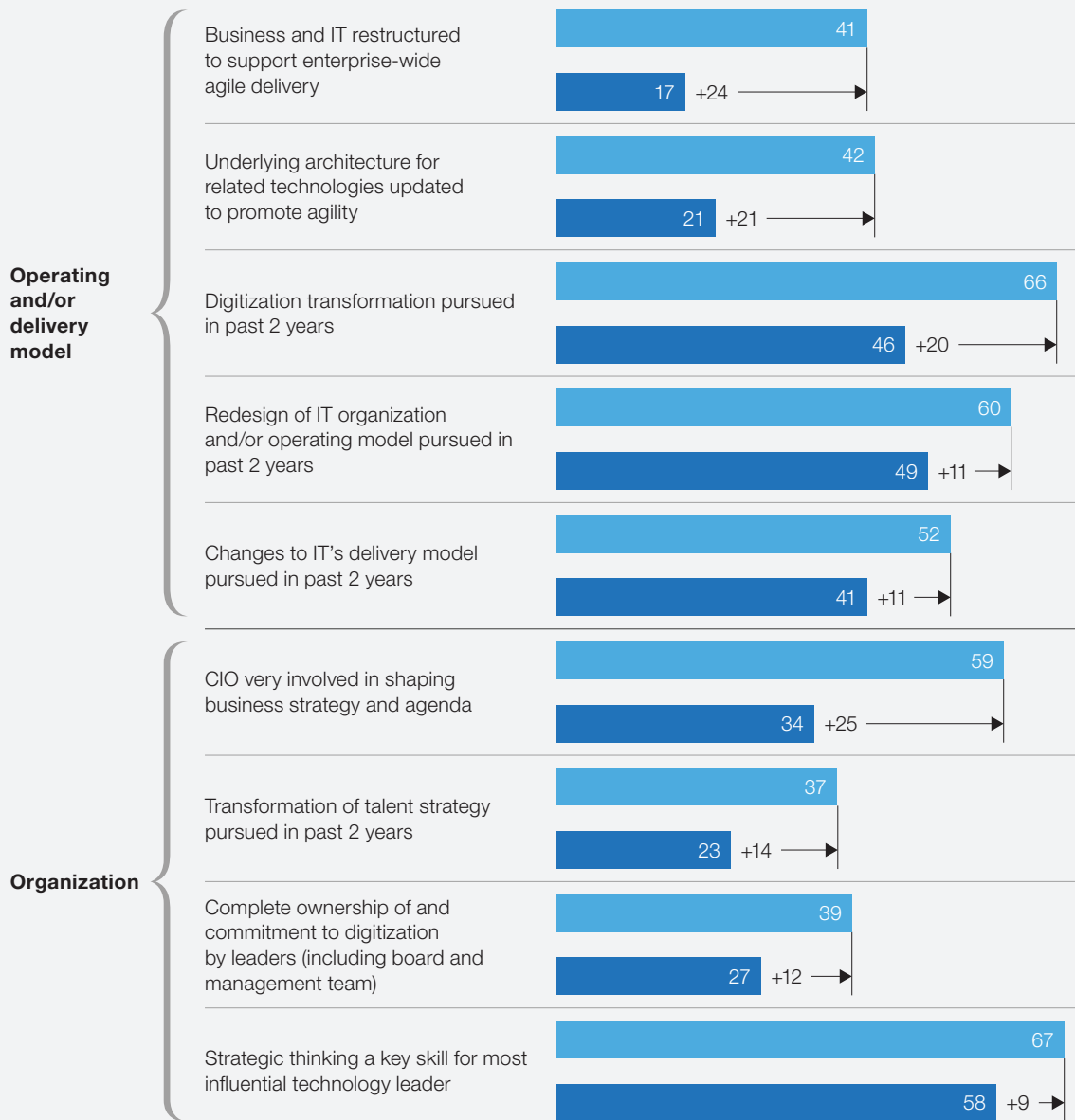
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Exhibit 4

## The best IT performers are proactive about embracing changes to technology and the ways people work.

Practices that are true of respondents' organizations,  
% of respondents<sup>1</sup>

■ At top-quartile core IT organizations<sup>2</sup>  
■ At all other organizations<sup>3</sup>  
→ Percentage-point difference



<sup>1</sup> Figures were recalculated after removing respondents who said "don't know" or "not applicable" for 12 IT activities tested in the survey.

<sup>2</sup> Respondents who rate their IT organizations' average effectiveness score in the top 25% of the sample, based on the assessment of 12 key IT activities that were tested in the survey; n = 158.

<sup>3</sup> n = 399.

### The need to rethink talent

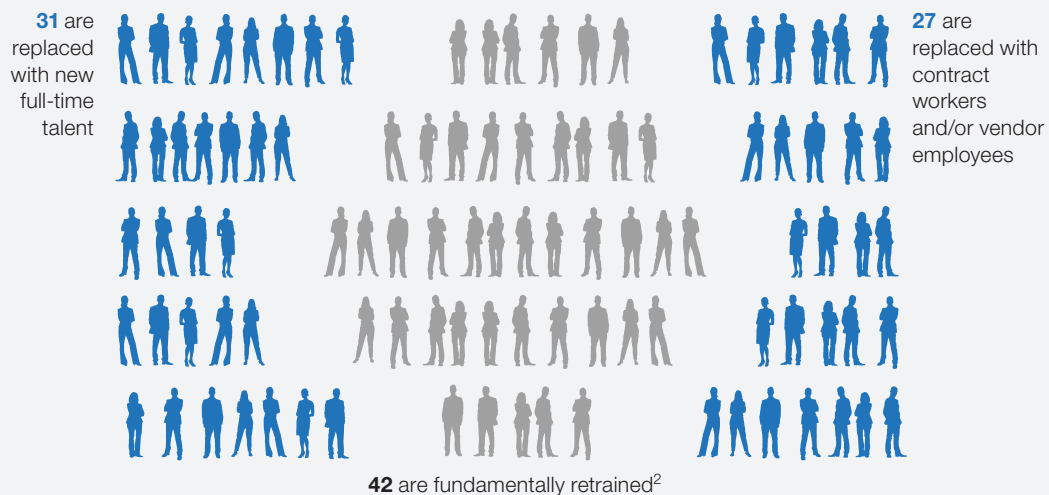
While the best IT performers are demonstrating better talent-management practices than their peers, even these respondents are struggling to keep up. When asked outright about the obstacles they've already seen in their digital transformations, the top-quartile IT respondents cite skill gaps on traditional teams as often as all others do. Like their peers, these respondents also say they expect significant disruptions ahead. On average, the top-quartile group predicts that 29 percent of their IT employees will need to be replaced or fundamentally retrained (that is, undergo six months or more of training) over the next three years. Among all respondents, that estimate is 40 percent, with respondents expecting that most of those workers will be replaced altogether (Exhibit 5). Moreover, nearly one-quarter of all respondents expect that 60 percent or more of their IT workforces will need to change.

These results may not be surprising, given that talent issues have become an increasingly common explanation for IT's shortcomings in performance overall. Only 5 percent of all respondents say their IT organizations are effective at all of the core IT activities we asked about. One-quarter of respondents now cite talent issues as a root cause of this poor performance, up from 21 percent in 2016 and 10 percent the year before.

Exhibit 5

### Of the IT jobs that will require retraining or replacement, respondents expect **most of their current IT workers will be replaced.**

Staff expected to be retrained or replaced out of every 100 IT employees,<sup>1</sup> next 3 years



<sup>1</sup> This question was asked only of respondents who said they expect IT employees to be replaced or retrained in next 3 years; n = 383.

<sup>2</sup> That is, 6–12 months of reeducation.



What, exactly, is behind the ongoing talent challenge? According to respondents, many organizations have yet to pull several talent-management levers. First, talent-focused transformations are relatively rare (Exhibit 6). Just 27 percent of all respondents say their companies have pursued large-scale change efforts in recent years to transform their talent strategy, a much smaller share than those that have pursued digitization (51 percent) and the modernization of infrastructure (63 percent). In addition, influential leaders are not seen as talent advocates. Of the skill sets that respondents say contribute most to their IT leaders' success, talent management ranks very low on the list.

Exhibit 6

## According to respondents, transformations and leaders at their organizations are rarely focused on **talent management**.

### Types of transformations pursued by organizations in past 2 years, % of respondents (n = 567)

Modernizing infrastructure <sup>2</sup>	63
Redesign of IT organization or operating model	52
Digitization	51
Changes to IT's delivery model	44
Simplifying architecture <sup>3</sup>	42
Transforming talent strategy <sup>4</sup>	27

### Skills that contributed most to success of most influential leaders of organizations' digital agendas,<sup>1</sup> % of respondents

Strategic thinking	60
Communication/collaboration with other leaders	38
Change management	28
Technical expertise	22
Inspiring others	22
Managing relationships with external partners	21
Analytical thinking	19
Project and/or program management	17
Data-driven mind-set	15
Talent management	9
Problem management	8

<sup>1</sup> This question was asked only of respondents who identified the most influential leaders of their organizations' digital agendas; n = 547. Respondents were able to select up to 3 options.

<sup>2</sup> For example, cloud migration, infrastructure automation, infrastructure as a service, and integration of legacy and digital components or functions.

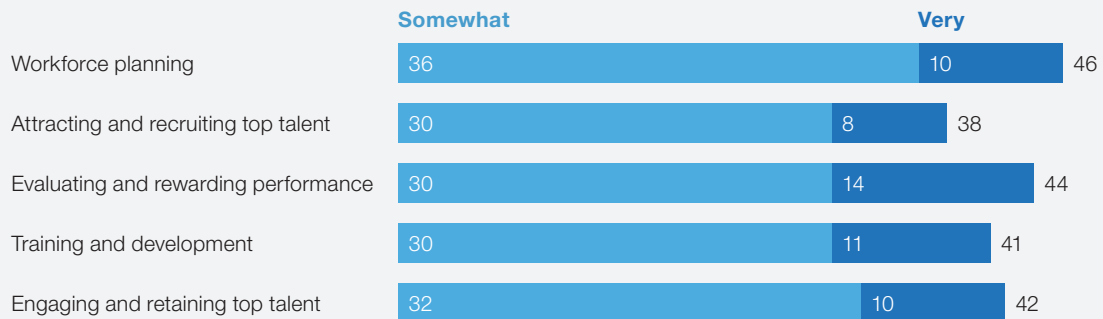
<sup>3</sup> For example, rationalizing organization's application portfolio.

<sup>4</sup> For example, changing hiring processes and compensation practices to attract talent with new digital skills.

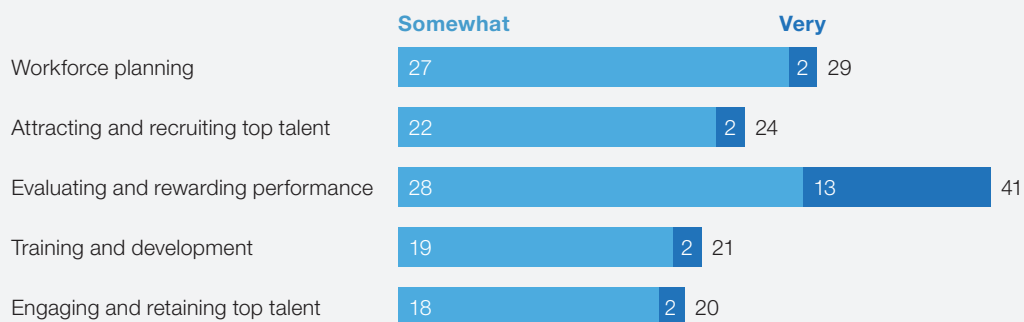
## Exhibit 7

### Few companies are effective at the basic practices of talent management.

**Effectiveness of organizations' talent activities, % of all respondents<sup>1</sup> (n = 567)**



**% of respondents who cite talent as top root cause for their IT organizations' shortcomings (n = 72)**



<sup>1</sup> Respondents who answered "very ineffective," "somewhat ineffective," "neutral," or "don't know" are not shown.

What's more, most companies are ineffective at the basic practices of talent management (Exhibit 7). Only 10 percent of respondents say their organizations are very effective at either workforce planning or engagement and retention of top talent; the shares are even smaller among respondents who cite talent issues as the root cause of IT's poor performance.

### Looking ahead

The survey results suggest three key ways that IT organizations can improve their overall performance and effectiveness:

- **Keep score.** Despite the proliferating demands on IT and the declining performance in the core areas of its work, organizations are still letting performance management go by the wayside. Only 15 percent of all respondents say their IT organizations are very effective at evaluating their own performance, down from 23 percent previously. With an incomplete picture of performance, organizations tend to rely

instead on anecdotal and superficial evidence to assess IT, which increases the risk of undervaluing the scope of IT's responsibilities. This can also lead organizations to focus too much on front-end improvements that, while visible, do not address the most critical issues in IT's work. IT leaders must develop their own scorecards—and then use them—to illuminate the breadth of the function's priorities and, more particularly, to focus on the successes to celebrate as well as the challenges that they can partner with the business to address.

- **Balance the recipe.** No matter how high an organization's digital aspirations are, improving core IT performance must be a part of the IT organization's agenda. A strong set of core practices (for example, evaluating performance and delivering IT projects on time and within budget) is the foundation of IT's long-term success, overall and with respect to digitization. IT and business leaders alike must be careful not to focus too much energy or too many resources on new digital efforts without giving equal due to IT's fundamental activities, which not only keep the overall business running but also enable the achievement of the digital goals they are pursuing.
- **Size up the talent challenge.** The challenge of finding technology and digital talent persists and is only growing in scale. With the IT function at the helm, organizations must evaluate and understand the magnitude of potential changes and take proactive steps to get in front of their future workforce needs. One way to do this is bringing together multiple parts of the business to establish a holistic, organization-wide technology-workforce strategy. Another is significantly building up the organization's talent-management muscle and capabilities, especially in the areas of workforce planning and attracting talent, to prepare for the enormous task ahead. ■

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<sup>1</sup> The online survey was in the field from October 17, 2017, to October 27, 2017, and garnered responses from 567 participants. Of these, 303 have a technology focus, and the remaining 264 are C-level executives representing other functions. The participants represent the full range of regions, industries, company sizes, and tenures. To adjust for differences in response rates, the data are weighted by the contribution of each respondent's nation to global GDP.

<sup>2</sup> "IT's future value proposition," July 2017, McKinsey.com; Pedja Arandjelovic, Libby Bulin, and Naufal Khan, "Why CIOs should be business-strategy partners," February 2015, McKinsey.com; "IT under pressure: McKinsey Global Survey results," March 2014, McKinsey.com.

<sup>3</sup> Naufal Khan, Gautam Lunawat, and Amit Rahul, "Toward an integrated technology operating model," October 2017, McKinsey.com.

<sup>4</sup> We define a digitally successful organization as one that, according to respondents, has pursued some digital transformation in the past two years and has been somewhat or very successful at both improving the organization's performance and sustaining the improvements over time.

<sup>5</sup> We define a top-quartile core IT organization as one for which respondents report an average effectiveness score in the top 25 percent of the sample, based on the ratings of 12 key IT activities that were tested in the survey. For each activity, respondents were asked to rate their IT organizations as very ineffective, somewhat ineffective, somewhat effective, or very effective; the other answer choices were neutral, don't know, or their IT organizations aren't involved in that activity.

<sup>6</sup> Among the best IT performers, 66 percent of respondents say they have pursued digitization transformations in the past two years (compared with 46 percent of all other respondents), 60 percent (compared with 49 percent) report redesigns of the IT organization or operating model, and 52 percent (compared with 41 percent) report changes to the IT delivery model.

<sup>7</sup> Forty-five percent of respondents at the best IT performers say their organizations have a chief technology officer, compared with 35 percent of all other respondents. The best IT performers are also more likely than others (26 percent, compared with 8 percent) to say they have a chief digital-marketing officer.

<sup>8</sup> "IT's future value proposition," July 2017, McKinsey.com.

The contributors to the development and analysis of this survey include **Anusha Dhasarathy, Naufal Khan, Amit Rahul,** and **Jason Reynolds,** McKinsey partner, senior partner, associate partner, and partner, respectively, in McKinsey's Chicago office.

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