Learning from Women Who've Made It to the Top in Tech

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The technology industry has a challenge—but also an opportunity—when it comes to gender diversity. The challenge: just as they are in many sectors, women are underrepresented in tech leadership. Women make up almost half (47%) of the US workforce, but they hold less than one-third (28%) of the leadership positions in tech. That low level of representation predates COVID-19. Add the pandemic and women shouldering a disproportionate share of the increased childcare burden, and women's career gains could be seriously undermined down the road.

But there's also an opportunity here: tech companies that are able expand the roster of women leaders stand to reap tangible benefits. Firms where 30% of leaders are women have a 15% increase in profitability (a net profit margin that is more than 1 percentage point higher) compared with similar firms with no female leaders, according to research from the Peterson Institute for International Economics.[1]

So, what propels women ahead in tech—and how can tech firms expand the ranks of female leaders? BCG and Heidrick & Struggles set out to answer those questions, surveying more than 750 female and male tech leaders and conducting in-depth interviews with more than 70 women in tech leadership positions. Among the findings:

- There is no ambition gap. Roughly the same percentage of women and men— 62% and 67% respectively—were trying for a promotion.

- Women cite early promotions as critical—more so than men do.

- Women in our survey approached the risk associated with pursuing a promotion or new job differently from men—and women are more likely to see their technical skills as critical to their advancement than men do.

- Although both men and women surveyed agreed that changing employers was a powerful driver of advancement in tech, men changed jobs more frequently than women did.

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Our research also identified actions that C-suite executives and hiring managers can take to support women in rising through the ranks at tech companies, as well as actions women themselves can take to improve the odds of advancement.

THE CAREER PATH FOR WOMEN IN TECH

BCG and Heidrick & Struggles cast a wide net to understand the path to success for women in tech. BCG surveyed 457 female tech leaders and 300 of their male counterparts. This included both technologists (chief information officers, technology and engineering leaders, and other executives in tech functions across multiple industries) and business leaders (business unit and sales leaders in the technology industry specifically). Of the 70 in-depth interviews that the two firms conducted with women in technology, most were just one or two levels down from the CEO. Moreover, the interviewers also drew on findings for 147 female and 435 male leaders in technology from the Heidrick & Struggles Leadership Accelerator Questionnaire (LAQ), a tool that allows companies to assess individual leaders within their organization. That research revealed that while men and women are similar in their ambition, the factors that influence their advancement, the skills and capabilities that power their ascent, and the manner in which they assess and manage risk often differ.

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For female tech leaders in our survey, breakthrough opportunities often came early.

Breakthrough Opportunities. Most female interviewees could point to one, pivotal breakthrough role in their career. That's hardly surprising given that leadership potential is often developed through new challenges. Changing one's role within a company builds a greater breadth of skills and adaptability, as well as visibility and better understanding of the company as a whole.

For female tech leaders in our survey, those breakthrough opportunities often came early. Some 44% of women said their first promotion was the most important, versus 32% of men. The men tended to point to later promotions as the most pivotal. (See Exhibit 1.)

Exhibit 1 - Unlike Men, Women Believe Early Promotions Mattered Most to Their Careers

"Which promotion in your career do you consider most pivotal?"[1]
(% of respondents)

Gender gap:
−24 percentage points

	Men	Women
First	32	44
Second	24	36
Third and later	44	20
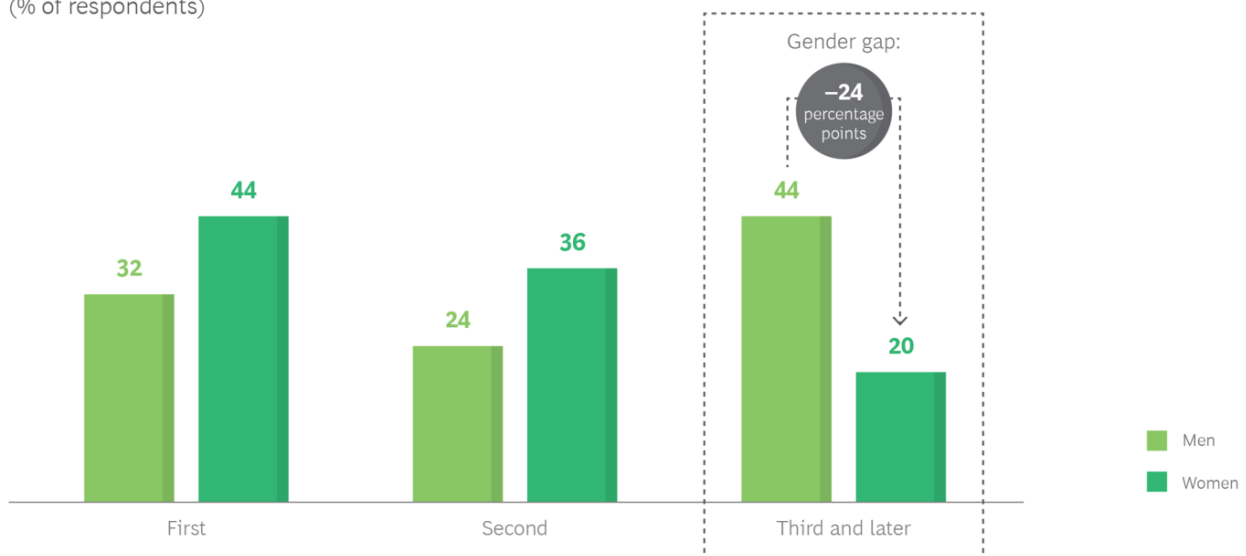
Source: BCG survey analysis.
[1]Question on survey; men N = 249, women N = 449.

The story recounted by Stephanie Carullo, chief operating officer at Box, highlighted the importance of early promotions. "I go back to the beginning of my career, in my early 20s, when I took a first-time management role for IBM in Australia," she recalls. Her boss, a woman, promoted her and two other women at around the same time. "Those women became some of my best friends in life. We all stayed at least a decade at IBM. Our boss encouraged all of us to take our first line-manager role, and then after 18 months pushed us to take second line-management roles. She encouraged all of us right at the beginning of that journey. If not for her initial nudge, I'm not sure if any of us would have done it on our own."

Capabilities and Strengths. There are significant similarities in the capabilities and strengths women and men see as driving their career advancement—but also some notable differences.

In interviews, successful female and male leaders told us they had gotten feedback that they were quick studies, adaptive, and always scouting out ways to improve what they or their team did. In the BCG survey, both men and women cited "setting a vision" as the single most important factor in reaching their senior position. They also cited an ability to motivate their teams as critical.
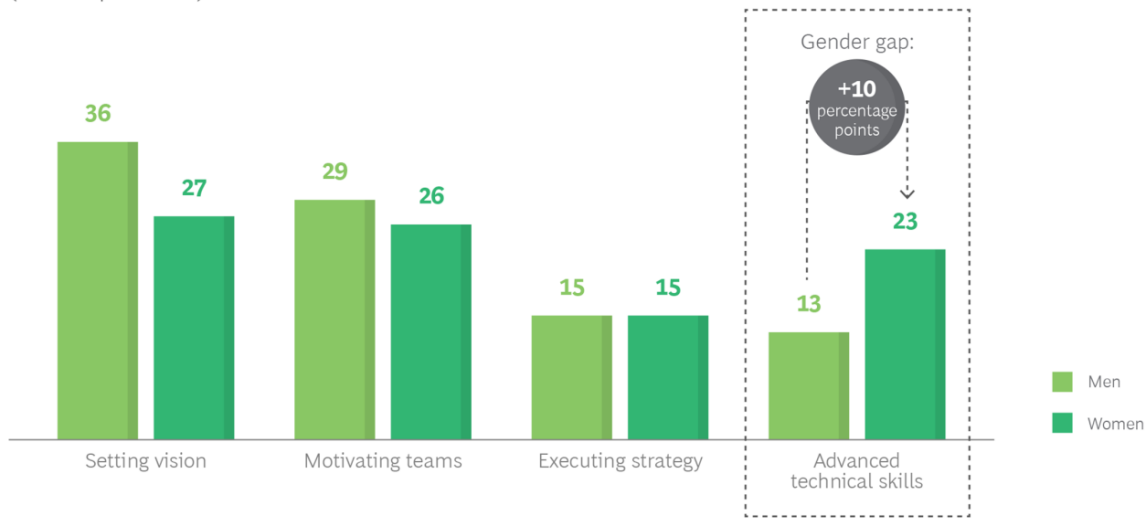
However, the Heidrick & Struggles LAQ data found that men tend to score higher on capabilities related to envisioning the future while women tend to excel on capabilities related to engaging and energizing the organization.

Women's strength in motivating teams likely stems in part from their ability to communicate effectively. In fact, many women spoke about the importance of honing a successful communication style. Pratima Arora, head of Confluence at Atlassian, recounted how she adjusted her approach to communication after asking a hiring manager why she had been passed over for a new role. The manager told her it was because she "didn't speak enough." She elaborated: "She said I had 'good ideas, but they didn't come through.' At that time, I had to be 90% sure before I opened my mouth. But this manager was telling me that voicing my opinions was a good thing—even if I'm only 70% sure I'm correct."

The survey also found interesting dynamics when it comes to perceptions of the role of technical skills in women's advancement. Some 23% of women cited advanced technical skills as the most important factor in their success, versus just 13% of men. (See Exhibit 2.)

Exhibit 2 - Women See Technical Skills as More Important Than Men Do

The capability that respondents ranked as most important in reaching their senior-level role[1]
(% of respondents)

Gender gap: **+10** percentage points

	Setting vision	Motivating teams	Executing strategy	Advanced technical skills
Men	36	29	15	13
Women	27	26	15	23

Source: BCG survey analysis.

[1]Respondents were asked "How would you rank the importance of the following capabilities in reaching your senior-level role?"; 'Displaying empathy' and 'Exhibiting grit' answer choices are excluded from exhibits; men N = 300, women N = 457.

> **Many women reported that a subtle but nonetheless real bias persisted that women were less technically inclined.**

Interviews revealed that women felt significant pressure to prove their technical prowess, with many reporting that a subtle but nonetheless real bias persisted that women were less technically inclined. One interviewee recalled her boss giving her a compliment—but one that had a decidedly backhanded quality to it. "He said, 'You aren't the most technical person, but you can still have [effective] conversations with senior engineers.' I had the capabilities to do the job, but I was still being held to a [technical] standard that wasn't meaningful."

Interviews also illuminated another factor related to the engineering path in companies that may be playing into the issues related to women and technical

skills. A number of interviewees noted that they see women shifting off the technical track into management at higher percentages than men, most likely because they exhibit strong team-building skills. Some women say, however, that the result is a vicious cycle: there are limited numbers of women in prominent technical roles such as fellows, distinguished engineers, and principal engineers, making earlier-career women in engineering or R&D roles more inclined to shift to the management career path.

Risk Management. Managing risks associated with new roles and employers is critical for both men and women. Here too our research and interviews showed telling differences between men and women.

On the issue of overall risk tolerance, our survey found that 66% of men were very comfortable taking risks and managing ambiguity, versus 56% of women. For example, while only 41% of women surveyed went for multiple promotions where they did not meet all the qualifications, 51% of men sought multiple promotions even if they weren't fully qualified.
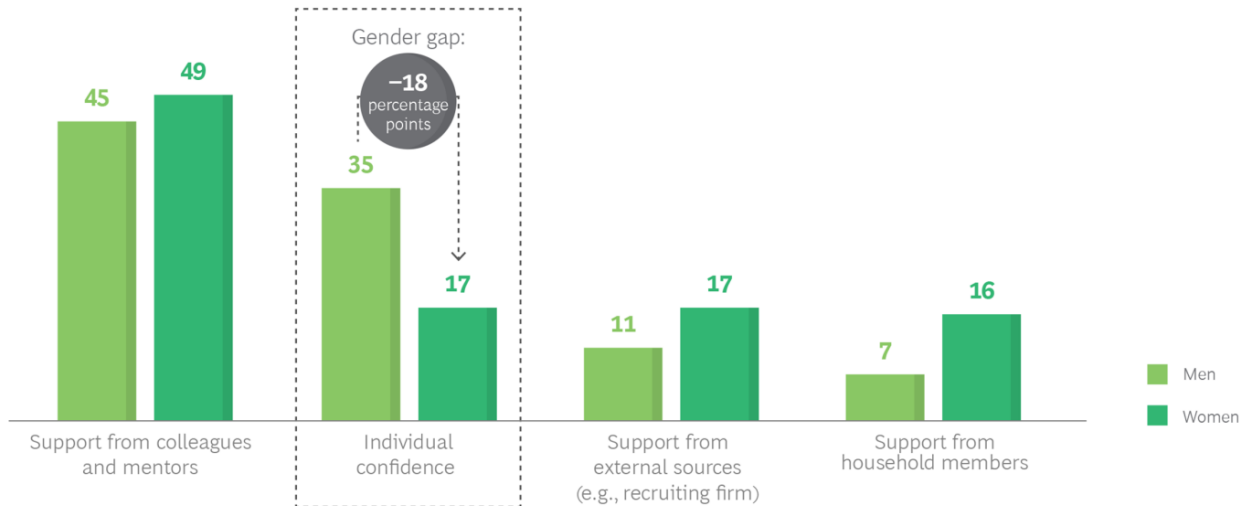
But digging a bit deeper reveals that the risk tolerance story is a bit more complex. When we looked at technologists—respondents who were leaders in technology, R&D, or engineering functions—only 55% of women were very comfortable taking risks and managing ambiguity, versus 70% of men. For those in other leadership roles, for example business unit leaders or senior sales executives, there was virtually no difference in risk tolerance between men and women. This finding may stem in part from the perceived emphasis on women's technical skills in general, a factor that could make women in highly technical roles more concerned about failing.

Our research also found that men and women approach risk management in their careers differently. Consider how men and women approach those promotions for which their experience doesn't check all the boxes. (See Exhibit 3.) In those cases, women rely more on the advice of members of their household, colleagues, and mentors while men were more likely to rely solely on personal confidence. Debbie

Dunnam, chief sales officer at Dropbox, stressed the importance of supportive partners, recalling, "My husband said, 'I think you should take the jobs that scare you the most, because I've never seen you fail.'"

Exhibit 3 - Women Rely More on Support from Colleagues and Mentors Than Men Do

"Which factor made you feel comfortable pursuing a promotion without meeting all of the position qualifications?"[1]
(% of respondents)

Gender gap: **−18** percentage points

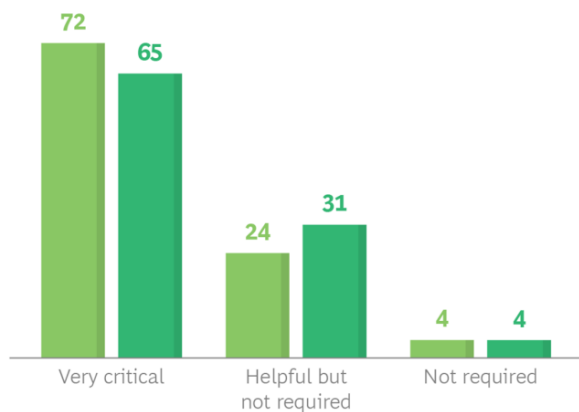|	Men	Women
Support from colleagues and mentors	45	49
Individual confidence	35	17
Support from external sources (e.g., recruiting firm)	11	17
Support from household members	7	16

Source: BCG survey analysis.
[1]Question on survey; men N = 222, women N = 364.

Colleagues and mentors in particular seem to play a central role in risk management for aspiring female tech leaders. Fiona Tan, global head of customer and supplier technology at Wayfair, described how encouragement from a mentor changed the way she approached going for a new job or role. "It helped to have someone say, 'You can take this much bigger role—you should be thinking leaps as well as incremental steps.' Someone told me I could make that leap—then I started thinking in leaps versus middle steps."
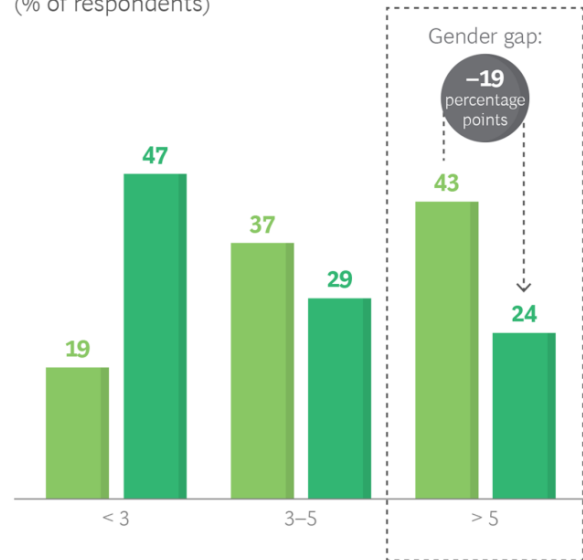
Differences in risk management between men and women are also evident in their approach to changing employers. Although both men and women agree that changing companies can be a critical factor in advancement, women changed employers less often than men. (See Exhibit 4.) Why the difference? Our research revealed a couple of clues.

Exhibit 4 - Women Are Less Likely to Pursue Changes That Leaders Agree Are Critical for Advancement

"Do you believe changing employers was critical for your career advancement?"[1]
(% of respondents)

	Very critical	Helpful but not required	Not required
Men	72	24	4
Women	65	31	4

"How many employers have you had, including your current employer?"[2]
(% of respondents)

Gender gap: **−19** percentage points

	< 3	3–5	> 5
Men	19	37	43
Women	47	29	24

■ Men   ■ Women

Source: BCG survey analysis.
[1]Question on survey; men N = 278, women N = 369.
[2]Question on survey; men N = 300, women N = 457.

First, it became clear in our interviews that women not only drew on support of colleagues and family in going for promotions—but they also considered how such moves could affect those closest to them. Many women spoke explicitly about factoring in the effect a promotion would have both on their family (including partners and children) and on their current team.
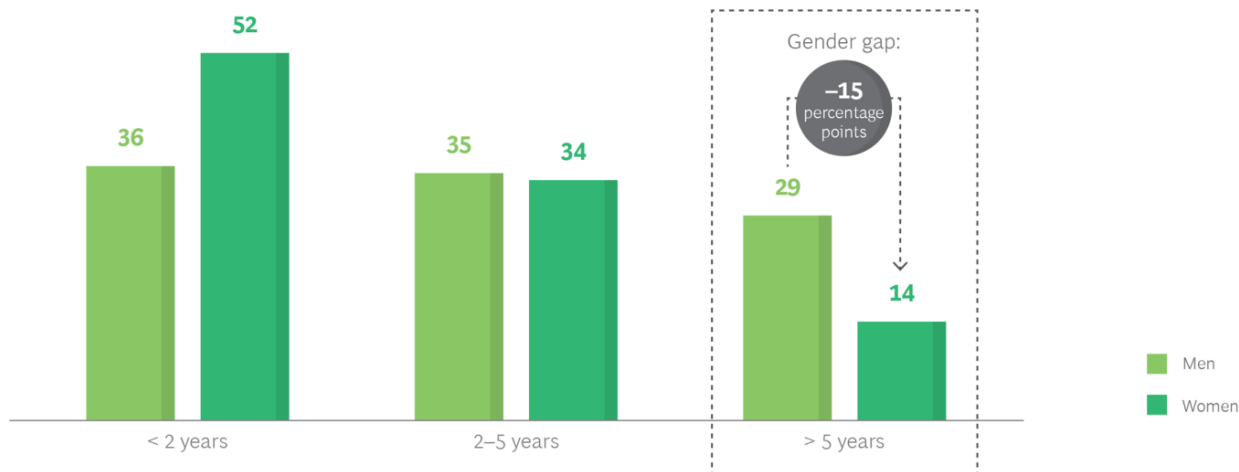
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Many women spoke explicitly about factoring in the effect a promotion would have both on their family (including partners and children) and on their current team.

The story of Ashley Still, senior vice president and general manager of digital media at Adobe, underscores the dynamic. Still was up for a major promotion but had to think through the implications of the new role on her family. "My kids were four- and six-years old at the time," she recalls. "And a part of me asked what I was doing [considering a big change] because I was in a safe and comfortable space." But as she assessed her track record of managing both the demands of her family and her job, she gained confidence to make the leap. "If my [first child] was just one-year old, the story might have been different," she recalled. "But if I was going to crumble, that would have happened already." Encouragement from her spouse and a mentor helped further tip the scales, and she took the promotion that ultimately gave her critical strategic and operational experience.

A second possible reason for the differences between men's and women's approaches to changing employers was that, according to the survey, women were less likely than men to stay connected with mentors over a prolonged time period. (See Exhibit 5.) Maintaining such connections can have long- term repercussions: external opportunities often surface thanks to a mentor (and former colleague) who has landed at a new company. Fewer long-term mentors may be translating into fewer employer changes for women. "I think you're more likely to make disruptive moves with people who know you and trust you," explained Sue Barsamian, former chief sales and marketing officer of Hewlett Packard Enterprise's software division and a director on the boards of several tech companies. "It's the trust network that pulls you into disruptive moves, whether in your current company or across companies."

Exhibit 5 - Men Stay Connected to Mentor Relationships Longer Than Women Do

"How long has your most influential mentor supported you?"[1]
(% of respondents)

Gender gap:
−15 percentage points

	< 2 years	2–5 years	> 5 years
Men	36	35	29
Women	52	34	14

Men
Women

ACTIONS TO BUILD GENDER DIVERSITY

The experiences of female tech leaders we just recounted yield powerful insights for individual women and offer lessons on approaches that might aid women's advancement. (See "Learning from Female Tech Leaders.")

LEARNING FROM FEMALE TECH LEADERS

The female tech leaders we interviewed had varied stories and experiences. But they often highlighted similar themes in what they had learned throughout their career. Among the insights:

- **Hone an effective communication style**. Many had developed a confident and effective communication style. Some said they'd worked to drop their voices to a lower speaking register. Women also said they had learned to start with the conclusion or takeaway of the point they'd like to make, rather than first circling around it with context and

information. "Start with the headline—don't think you have to build to your conclusion," explained Julie Larson-Green, former chief experience officer at Qualtrics and a member of a public company board of directors. "Start there, then back it up. Their ears get tired—they want the punch line." And the tech leaders we spoke to said women need to skip the apologies. "I see many women apologizing on Zoom, especially in everyday moments when home and work life collide, and it does them a disservice," Integral Ad Science's Lisa Utzschneider explained. "Meanwhile, their male colleagues and team members are not apologizing for their kids in the background. This is a dynamic that we need to change together."

- **Push for constructive feedback**. The successful women we interviewed sought and acted on constructive criticism and feedback from their managers, colleagues, sponsors, and mentors. These women were not afraid to take a hard look at their performance and talk about the areas where they could improve. One interviewee recalled going back to the hiring manager to ask why she was passed for the role. The manager explained she had some good ideas but didn't seem to have the right level of conviction. "Asking for that feedback was the best decision I ever made," she contends.

- **Master the art of the humble brag.** Many women said they struggled initially to tout their own accomplishments. But the tech leaders we interviewed had learned how to do that. "Conditioning yourself to express your achievements and humble brag is important," explained Hilarie Koplow-McAdams, venture partner at New Enterprise Associates and former president of New Relic, who wrote out a narrative of her own accomplishments in the third person in order to get herself to explicitly share her achievements. For some women, the trick was to focus on the accomplishments of their team rather than their own achievements. After an executive coach told Atlassian's Pratima Arora to talk about her team's track record, she says "that

flipped the switch. When it was [talking about] me, I thought it was BS."

- **Embrace who you are.** The successful women we interviewed were comfortable bringing their authentic self to the office. "[When you're] insecure, you make yourself into what you think they want. It's exhausting," Julie Larson-Green explained. "Maybe it was the confidence that came with growing success, but I stopped trying to conform. I changed my style of dress, I became less formal in communications, and success came faster." As Lynne Doherty, executive vice president, global sales and marketing-enterprise at McAfee advised, "As a woman in technology, I've had moments of being the 'one and only' in a room, and I always viewed it as a positive thing. Don't shy away from showing up as YOU and use it as an advantage to show your skills and a differentiated point of view."

- **Embrace the stretch role.** Successful women became comfortable in moving into positions that would stretch, and even test, them. Such roles helped change their trajectory and were a source of constant learning and growth. "People look for the perfect job with the least risk," observed Jacqui Guichelaar, group chief information officer at Cisco. "I take the ones that are difficult because those are the ones that will stretch me. And I believe in my abilities enough that I can get it done."

At the same time, our research can also inform company strategy for enhancing gender diversity, and it offers a few basic principles. First, there must be clear leadership from the top around expanding gender diversity at the highest levels. Second, while female tech leaders should play a central role in the push for diversity, the onus to solve the problem should not be solely on women. Third, diversity efforts must be comprehensive and integrated fully into the company's

operations and HR practices. "The conversation used to be around fixing women," said one interviewee. "But now we need to focus on fixing the system."

With those principles in mind, there are concrete steps that C-suite executives and hiring managers can take to expand gender diversity in tech.

Tasks for C-Suite Executives. The CEO and other top executives need to make gender diversity in leadership a clear priority in both message and action. And that commitment should extend well beyond an office tasked with driving diversity and inclusion: CEOs need to take an active role as well. Many CEOs in tech today are leading on this, establishing diversity as a key company value and holding leaders across the company accountable for identifying, supporting, and advancing talented women.

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In cases where a senior female executive is being brought in from the outside, those in the C-suite need to publicly support that person. In particular, they need to push back against any bias that exists that the hire was made solely to boost diversity. "The CEO has to be extremely effusive in setting women up for success and giving them the limelight," contended one of our interviewees.

Ultimately, the commitment of senior leaders to diversity is one of the most critical factors in success. "So much depends on whether senior leadership comes across as personally involved," noted Dropbox's Debbie Dunnam. To that end, she said, leaders should identify groups of talented women and "invest in them—give them

special projects of high visibility, assign executive coaches outside of the company, offer special training, and really create a concrete path of support and nurturing."

Tasks for Hiring Managers. Managers who lead or play a key role in hiring for their department or unit have a major part to play in expanding diversity.

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> When filling a new role, hiring managers should focus on what the person in the position needs to accomplish, and as a result, what skills and capabilities they really need, rather than what the résumé of past hires might have looked like.

First, they need to be sure they have hiring and promotion practices that don't put women at a disadvantage. This effort is particularly critical as evidence emerges that some of the automated hiring tools being developed by large tech companies in recent years may inadvertently favor male candidates over female candidates. When filling a new role, hiring managers should focus on what the person in the position needs to accomplish, and as a result, what skills and capabilities they really need, rather than what the résumé of past hires might have looked like. To this end, they should map the skill sets of peers and other team members to understand what specific skills and capabilities the new leader needs to bring. That can help ensure the job criteria is not set in a vacuum and that it does not simply reflect traditional career pathways of previous jobholders. Moreover, hiring managers should identify potential bias when promotion committees are majority male and set up hiring-process checkpoints to ensure diversity in promotions.

One hiring manager at a tech company explained her approach of putting the emphasis on leadership potential rather than on specific types of experience. "You always look for domain expertise, functional experience, and leadership," she explained. "To give more opportunity to women…we might do better to anchor towards fundamental leadership, rather than overemphasizing domain expertise or functional experience." Kelly Breslin Wright, former executive vice president of sales at Tableau and a director on the boards of several tech companies, echoed the point, noting, "Companies tend to overindex on prior work experience. This not only limits the candidate pool, but also narrows the areas where directors can add value. Of course work experience is important, but behavioral traits and culture impact are also essential for companies to foster great workplaces and build connections with all stakeholders."

A second role that hiring managers can play is to proactively look for the next generation of female leaders. They must identify talented women and encourage them to go for a new opportunity or position. And they should have open and candid conversations with women about factors that shape their risk tolerance and ways to mitigate the career risk associated with a new job. Wayfair's Fiona Tan recounted the power of such a nudge from her boss, encouragement that led her to take on a new, more expansive role. "I wouldn't have put my hand up," she says now. "Sometimes it's that push and having someone pull you along" that makes all the difference.

Third, hiring managers must put the right mechanisms in place to help female leaders succeed, including smart onboarding plans, the promotion of long-term relationships with sponsors and mentors, and support in understanding the context of the overall organization. Says one senior female tech executive, "If you are going to hire a female executive, you need to have the full commitment across the executive team to make her successful."

For example, Lisa Utzschneider, chief executive officer of Integral Ad Science, recalled that when she took on a new leadership role during her years working at Amazon in New York, her boss mapped out critical stakeholders based at the

headquarters in Seattle with whom she needed to meet and build key relationships early on. "Together, we developed a game plan for me to set critical meetings and build those connections," the executive recalls. "Every time I traveled to Seattle, I reviewed that list and systematically worked through it. Building these long-term relationships helped to set me on a successful path in my new role." In addition, sponsors—executives within the company who take on a more active role than a mentor normally would to support and advance another executive's career—can be particularly valuable. In interviews, women spoke often of the impact sponsors had on their career, including through the provision of direct, constructive criticism and their willingness to expend some of their own political capital to help women advance. "Sponsors put their badge on the table for you," Dropbox's Debbie Dunnam explained.

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Interviewees frequently noted the importance of helping women understand context—things like how the company works, the priorities of various stakeholders, and the way their role fits into the overall organization. Among women in the tech world, "there is more often a context gap than a confidence gap," explained Adobe's Ashley Still.

The benefits of a diverse leadership team are well-established. But tech companies have yet to fully tap into that opportunity. And although the underrepresentation of women in tech leadership is long-standing, it is not inevitable. Committed action

from all stakeholders can help women in tech realize their full potential and create a win-win for companies and their female leaders.

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1   Marcus Noland, Tyler Moran, and Barbara Kotschwar, "Is Gender Diversity Profitable? Evidence from a Global Survey" (working paper 16-3; February 2016), Peterson Institute for International Economics.

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