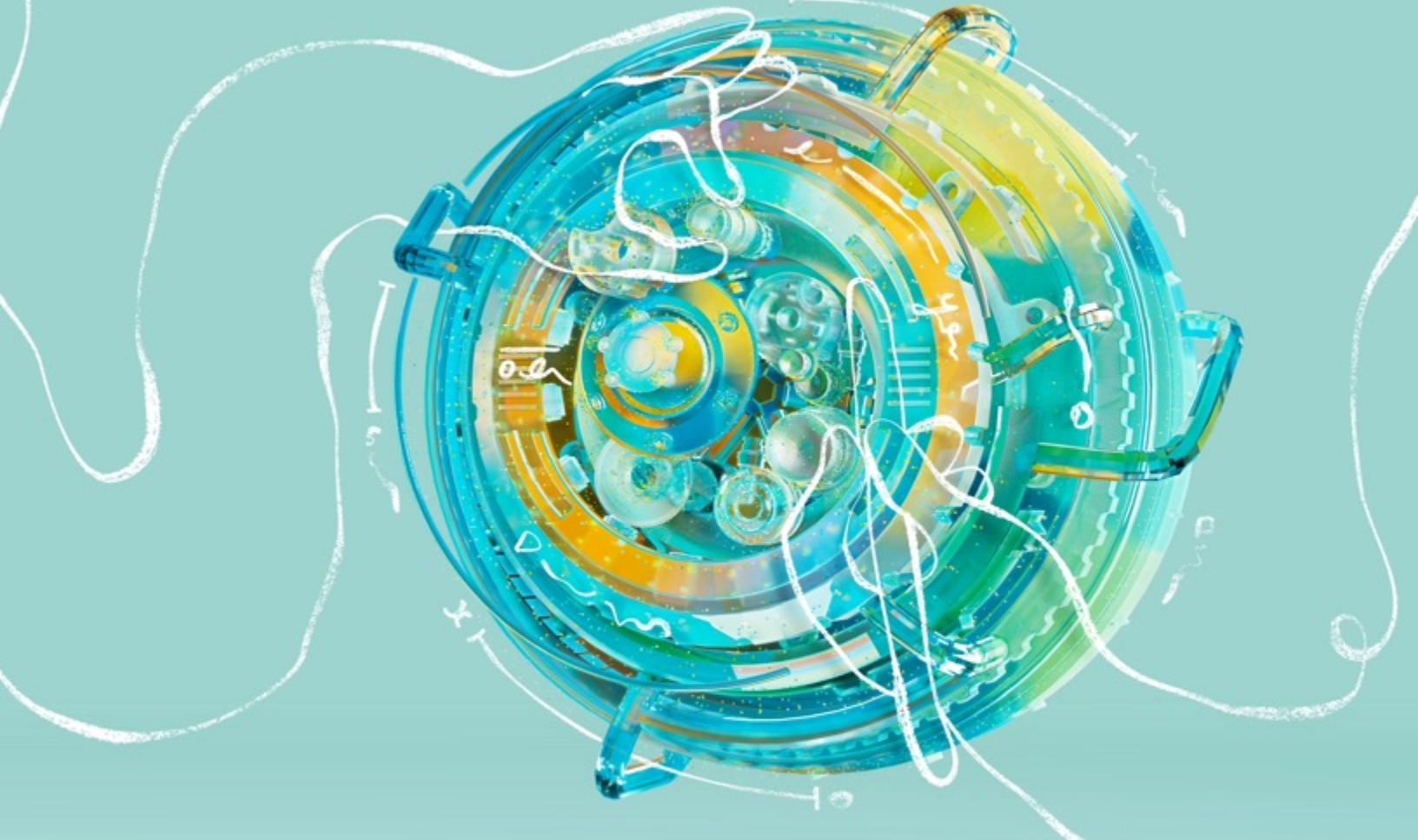# Building a Robust Tech Workforce

Effective Solutions and Approaches for addressing a
Cross-Industry Business Imperative

# Executive Summary

The technology talent shortage has become one of the defining business challenges of our time. Even with the recent technology layoffs, organizations globally and cross-industry are grappling with its strategic complexity and how to tackle it. **The technology talent workforce is unique. It requires constant upskilling and reskilling to maximize its value, combined with nontraditional ways of working and career models to attract and keep talent.**

To develop an effective technology talent strategy, organizations must address the complexity and nuances of the challenge. There is no single approach, and tailoring a strategy starts with determining the root cause of technology talent challenges and identifying where to invest.

Leading organizations align their technology strategy with their broader business and technology strategies, keep workers at the center of the design, and innovate across three primary levers:

- Attracting and accessing the right technology talent
- Building a high-performing workforce
- Creating engaging work experiences to keep talent.

Technology and human resources (HR) leaders must have a strong relationship and robust coordination and alignment. Technology leaders create the branding around what they are offering the technology talent and the strategy for developing and retaining them. However, technology leaders need HR leaders' partnership and expertise to enable their strategy and drive execution. Together, technology and HR leaders can mix levers across the talent life cycle to create meaningful solutions and close the loop of attracting, upskilling, and retaining talent.

Organizations that cannot close this loop potentially risk suffering severe business and financial impacts and could lose their edge and cede ground to competitors.

This paper explores how organizations can develop an effective technology talent strategy, attract and access the right talent, and build and retain a high-performing workforce.

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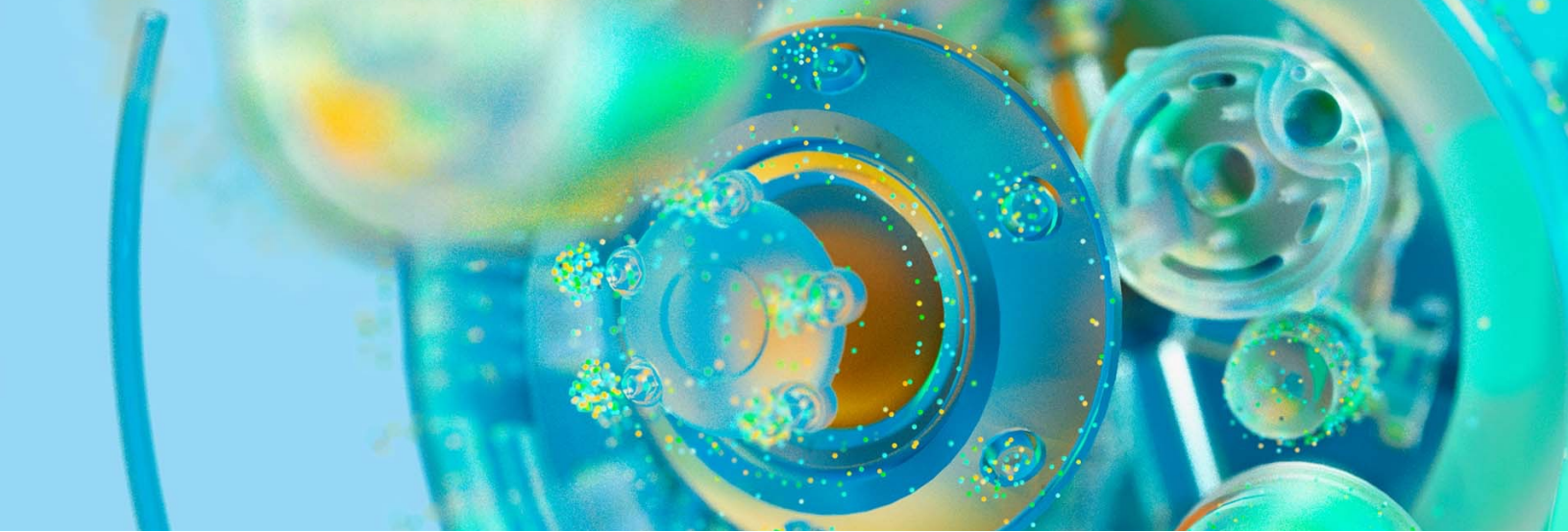
# Introduction

The struggle for technology talent continues to be a global, cross-industry problem, even despite recent technology layoffs in response to macroeconomic conditions.

*69% of global employers claim they struggle to find workers with the right mix of technical skills and human capabilities[1]*

**Demand for technology talent remains higher than supply** (1.6x higher for software engineers than overall supply[2]), and

*Unemployment rates of 1.8% for technology talent are below the national rate of 3.5% as of March 2023[3]*

UNEMPLOYMENT RATES: NATIONAL VERSUS TECHNOLOGY TALENT

1.8%   3.5%

TECH TALENT UNEMPLOYMENT      NATIONAL UNEMPLOYMENT
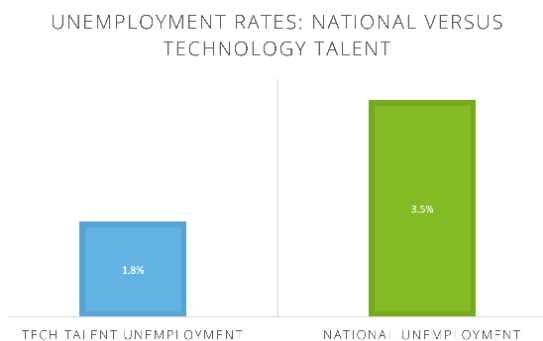
While many organizations identify as having a technology talent problem, fewer recognize the complexity of that problem and how to tackle it. Technology talent as a workforce is unique. It requires constant upskilling and reskilling to maximize its value, combined with non-traditional ways of working and career models to attract and keep talent.

The challenge for technology organizations is to upskill and retain their existing workforce as

they compete for talent in a shifting market. For non-technology organizations that modernize and digitize their business models, the challenge is attracting and retaining talent when big technology brands have historically offered a more attractive value proposition. Note: while the current turbulence in the big technology market is driving layoff headlines, these organizations are still pursuing engineering talent as aggressively as ever. Regardless of organization type, these talent shortages create severe business and financial impacts.

*82% of enterprises were prevented from pursuing digital transformation projects due to lack of resources, skills, and complexity of the technologies[4]*

**Organizations that cannot close the loop of attracting, upskilling, and retaining talent could lose their edge, cede ground to competitors, and risk fading away.**

As a result, organizations across all sectors seek answers to attracting, optimizing, and keeping workers with the right mix of technical skills and human capabilities.

This paper explores how organizations can:

- Develop an effective technology talent strategy (Part 1)
- Attract and access the right tech talent (Part 2)
- Build a high-performing workforce (Part 3)
- Retain their tech talent workforce (Part 4)

# Part 1:
## The Building Blocks of an Effective Technology Talent Strategy

There is no single approach to building the perfect technology talent strategy. It starts with determining the root cause of your talent challenge and identifying where you will invest.

**Leading organizations align their technology strategy with their broader business and technology strategies.** They innovate across three primary levers: attracting the right technology talent, building a high-performing workforce, and creating engaging work experiences.

### Develop a Workforce Strategy that Considers the Entire Workforce Ecosystem

Organizations increasingly rely on nontraditional talent, yet their workforce strategies and practices are still designed for traditional workers. The need for agility, talent shortages and rapidly changing technology skills has increased the need for organizations to look beyond traditional full time roles for technology talent. This goes beyond just how to access non-traditional talent, organizations need to consider how their workforce strategies, processes, systems, and programs will maximize the unique contributions of different worker types while supporting them all in a more consistent way.

### Defining a Technology Strategy Led by the C-Suite

Technology and HR leaders must have a strong relationship and robust coordination and alignment to solve the technology talent challenge. Technology leaders create the branding around what they're offering the technology talent and the strategy for developing and retaining them. However, technology leaders need HR leaders' partnership and expertise to enable their strategy and drive execution.

Building this strong C-Suite relationship is critical to solving technology talent challenges. Despite talent management being a top strategic priority in the C-Suite,

> *only 56% of surveyed CIOs say they have an effective relationship with the CHRO[5]*

Together, technology and HR leaders can drive talent management and speed up decision making and approvals. By pooling their expertise and sharing success and accountability, they can ensure the workforce strategy is aligned with the direction of the business and changing technology landscape.

By helping business leaders understand the complexity and nuances of the technology talent challenge, technology and HR leaders can make solving it a top strategic priority, securing the budget and prioritization it requires.

### Takeaways

- As business strategies evolve, Technology and HR leaders need to work in partnership to address the changing needs of the organization

- Honing in on and clearly articulating the unique needs of the technology workforce segment provides fuel to both Technology and HR leaderships' ability to gain alignment with their strategic priorities

# Part 2:
## Attracting and Accessing the Right Technology Talent

Organizations should develop a tailored, insights-driven sourcing and recruiting approach to attract and access the right technology talent. High-performing organizations focus on several critical areas: getting the Employee Value Proposition (EVP) right, broadening the sourcing strategy, and delivering a personalized and competitive recruitment experience.

### Getting the EVP Right: Tailoring Messaging to Resonate with Top Technology Talent

IS TECHNOLOGY STRATEGY THE MOST IMPORTANT FACTOR IN EVALUATING A POTENTIAL JOB OFFER? [6]

**56%**
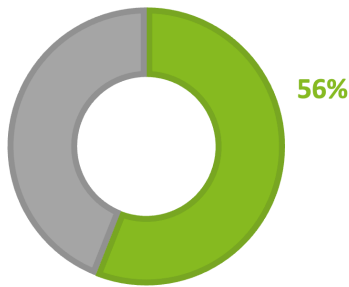
Building a strong EVP to attract technology talent in the door for an interview starts with getting compensation and benefits right. It must include targeted messaging focused on what the technology workforce cares about, including areas such as:

- Offering stimulating work
- Providing the opportunity to work on leading-edge technology and transforming the business in a significant way
- Offering logical, predictable, and merit-based career progression plans that tie to a fair performance management process
- Offering flexible and hybrid work arrangements

Non-technology organizations that are becoming as tech-savvy as traditional technology companies should seek to amplify their new image by, for example:

- Launching relevant work activities in open-source forums
- Showcasing technology innovations at conferences
- Rebranding; for example, a life sciences organization might customize its technology recruitment and marketing materials to showcase its targeted value proposition

### Broadening the Sourcing Strategy: Targeting Traditional and Non-Traditional Talent Pools and Hiring Practices



*Non-traditional pathways, such as certifications offer a new talent source for technology talent with more people in 2020 and 2021 having obtained certificates compared to Associate degrees[7]*

Organizations can widen their funnel for top technology talent by expanding their recruitment strategies away from traditional talent pools and hiring practices. Key focus areas might include:

- Leverage external tech talent accelerators and AI technology to modernize and support talent access requirements
- Investments in interal sourcing strategies and focus on upskilling/reskilling (as explored in

part 3)

- Consider untraditional pipelines such as partnering with governments and civic organizations — more communities are committing to growing tech talent to lure companies

- A talent search for the skills and experience that match requirements instead of a candidate's minimum qualifications. This approach might divert organizations from traditional criteria like a four-year degree and toward candidates with the requisite technical proficiencies who don't fit the archetypal mould

- Pivoting to a skills-centred hiring strategy anchored on critical future-oriented skills is essential to optimizing outcomes

- The skills of creativity, cognitive flexibility, and emotional intelligence have become more significant from a technology leadership perspective since technology's role is so integral to collaboration and integration within the business. CIOs are hiring for human skills and train those individuals in specific technical skills instead of the other way around

- Building stronger partnerships among universities, businesses, and cloud providers to help develop up-to-the-minute learning

- Engaging with technologist forums, certification programs, equity-based partnerships and apprentice programs

To identify and capture top technology talent, technology recruiting organizations are rethinking traditional recruiting models. They are transforming the end-to-end recruitment experience from skills to assessment and placement to onboarding to deliver a high-touch and engaging experience by, for example:

- Rethinking the assessment approach to include a streamlined set of technical, behavioral, cultural, and application-based assessment tools delivered by a pool of trained assessors across different modalities, including hybrid and cohort-based assessment forums

- Redefining candidate placement to be more collaborative and enabling hiring managers and candidates to leverage assessment outcomes and engagement platforms to place candidates in roles suited for the business and candidate career goals. Placement approaches may also provide certain post-hire upskilling to access pools of nearly qualified talent

- Delivering a high-touch onboarding experience that immerses new hires in the culture, connects them with the workforce, and allows them to own their development journey through personalized onboarding programs and tailored learning pathways
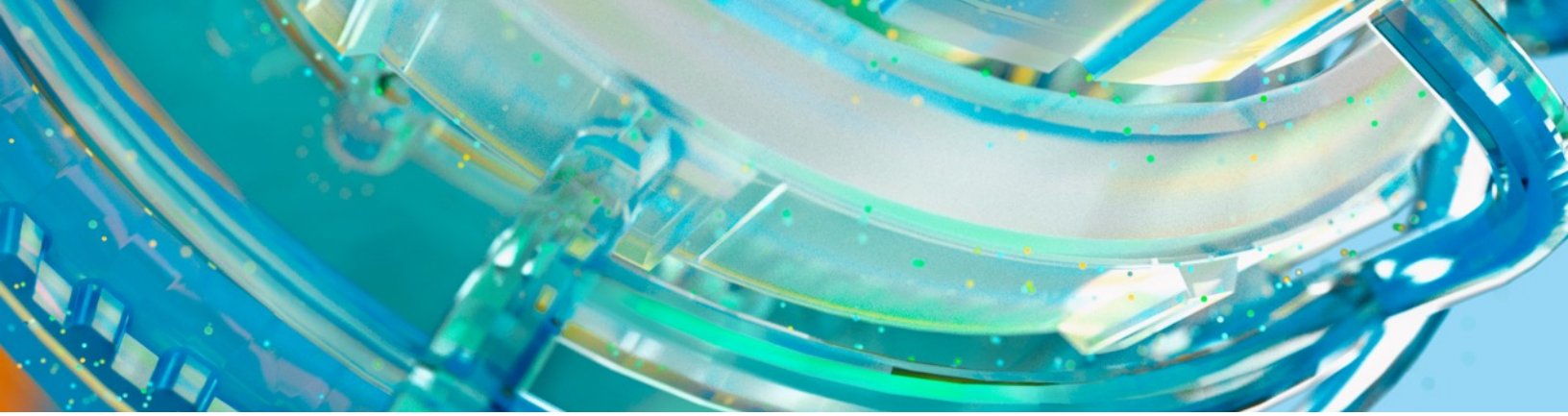
## Delivering a Personalized and Competitive Recruitment Experience

**60%** *of candidates have a poor recruiting experience[8]*

### Takeaways

- Clearly define the technology talent-specific EVP

- Take a skills-centric approach to the sourcing strategy across all channels

- Tailor talent attraction to create a personalized, targeted experience

# Part 3:
## Building a High-Performance Workforce

The ability to hire experienced people at scale is gone–it's not a viable acquisition strategy. **Given the constant innovation, the technology workforce must be reskilled every five years.**

*An estimated 50% of the technical workforce must be reskilled by 2025[9].*

A better path to building a high-performing workforce is a diversified talent access strategy combined with proven approaches to upskilling and reskilling your workforce, including:

- Providing contextualized, skills-based learning and development experience
- Fostering a culture of engineering excellence and continuous learning
- Aligning career models, performance, and rewards to drive rapid skills development

## Provide Contextualized, Skills-Based Learning and Development Experience

WHAT IS THE TOP REASON FOR TECH TALENT JOB CHOICE AFTER SALARY AND BENEFITS?

58%
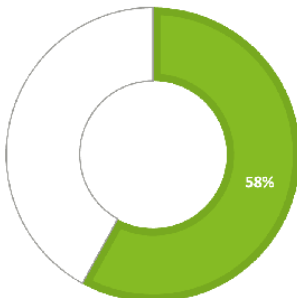
*Skills development is the top reason for technology talent to choose a job after salary and benefits with 58% of workers considering it a top criteria[10]*

To prepare technology employees for ongoing technology disruption, organizations must upskill them in a way that is cohesive, specific, prioritized, and applied in context. Leading organizations pursue experiential learning methods mapped to future skills, proficiencies, and business priorities. A skills-based learner experience should be multidisciplined, comprising, for example, bite-sized content, collaborative cohort learning, self-guided and instructor-led learning, and apprenticeship models for high-potential, low-experience employees.

Other leading avenues for training and upskilling employees include investing in hackathons, taking part in open-source technology development, and building technology communities. These experiences contribute to a satisfying work experience.

Organizations can leverage ecosystem partners for support with internal training and scaling new capabilities and ways of working fast through:

- Build-Operate-Transfer models (that transition new service centers and talent back to your organization)
- Capacity Models—buying in capacity and skills on an as-needed basis for or where it is not considered essential to have an in-house skill set (for example, cybersecurity)
- Pairing new hires with an experienced "learning coach" from an enlisted external partner
- If your strategy focuses on upskilling, invest in a subset of external resources to support their development as apart of your overall tech investment and strategy

## Foster a Culture of Engineering Excellence and Continuous Learning

A successful engineering excellence strategy is about a culturally aligned workforce designed, deployed, adopted, and enforced throughout an organization's strategic and operational layers. There are a few core components to consider when building a culture of engineering excellence:

- Clear engineering principles and values: automate and develop frameworks and processes to promote principles and encourage talent.
- Whole life cycle engineer experience: reward during "moments that matter" to drive desired behaviors and stimulate continuous learning.
- Skills-based career progression: pursue experiential learning methods mapped to future skills and proficiencies and the priorities of the business.

A thriving engineering culture will combine cultural principles and talent practices to sustain organizations throughout a complex and competitive technical landscape against internal and external disruptions.

## Align Career Model, Performance, and Rewards to Drive Rapid Skills Development

*Skills-based organizations are:*

## 100%
*more likely to place talent effectively*[11]

## 98%
*more likely to retain high performers*[11]

It is a leading practice for the business and HR to cocreate and deploy talent processes that anchor into well-defined job architectures and skill-based mobility models. Rigid work title structures influenced by traditional performance management can demotivate technology talent.

A talent model that allows for flexibility is a differentiating element of forward-looking companies. Talent models with different career pathways can allow technology talent to upskill, reskill, and develop through various project work, rotational programs, shadowing, or internal talent marketplaces. Career pathways should align with forward-thinking technology strategies to drive excitement within the workforce about where the company is going. Organizations need strong people leaders to champion and provide career guidance for technology talent throughout these different career models.

Organizations should seek ways to differentiate compensation packages and break the conventional mould. Reward strategies can include skills-based pay or team-based bonuses and recognition programs, including more frequent and consistent compensation periods that reward technology talent for high performance. When considering recognition, organizations should establish various levels of exposure from leadership to team or individualized acknowledgements.

The Product Oriented Delivery model is another shift from traditional working methods to a more flexible one. The model promotes innovation and improves workflows and efficiencies by bringing together different people disciplines—HR, finance, marketing, engineering, strategy etc.—to deliver a particular outcome. Non-technology companies competing with technology companies for talent need to embrace a mindset shift towards agile working methods—encouraging employees to work within the guidelines of a particular task but without boundaries (and layers of bureaucracy) limiting how they achieve it.

## Takeaways

- Ongoing skill development in table stakes for developing/maintaining a high-performing technology workforce

- Culture needs to evolve to accommodate both new ways of working and the core identity of the organization

- Career paths and internal mobility must be clear internally and in the market

# Part 4:
## Keeping Your Technology Talent Workforce

You may present as an exciting technology organization with an innovative and disruptive value proposition. Still, your talent will not stay long if you are not providing an environment for them to thrive. Technologists and engineers want to perform impactful work, solve interesting problems worth solving, and see their work in the solutions. A common challenge for many organizations is a low retention rate for their technology talent. However, there are ways to create an engaging work experience to encourage retention, including:

- Building strong engineer-led communities to drive peer learning in the flow of work
- Resetting cultural norms to adopt new ways of working aligned with technology talent expectations
- Providing a great digital experience for technology talent to achieve their best work
- Create career paths that create opportunities to move up as individual contributors without managerial duties

## Build Engineer-Led Communities of Practice to Drive Peer Learning and Coaching in the Workflow

Communities are not only useful for upskilling people. Sponsoring the development of communities of practice makes work more meaningful and engaging for technology talent. It builds stickiness in an organization and a sense of belonging. Organizations should embed coaching within the workflow to grow talent rather than treating education as a separate activity.

Repositioning your organization's culture to have a technology subculture can confer competitive advantages beyond attracting and keeping technology talent. However, changing your organization's culture is a long process, far more than just labelling.

*59% of Technology professionals who switched jobs within the past year did so due to lack of growth and development opportunities[12]*

## Reset Cultural Norms to Adopt New Ways of Working in Line with Technology Talent Expectations

The opportunity for organizations to form a unique subculture and EVP opportunity for technology is widely recognized. After COVID-19, work for the entire workforce changed and sped up the use of digital solutions. Technology workers can perform their work anywhere, and this flexibility is something technology talent expects:

*46% of technology talent would consider leaving a company that stopped offering flexible work[13]*

However, many commercial leaders have grown up in a strong culture of shared experiences and values that occurs "in the office." Organizations must have an open debate to identify a flexible, hybrid way of working while maintaining the critical aspects of their culture and new operating environment.

Some virtual organizations operate a "together when it matters" hybrid working model, budgeting

to fly people to a central location for "purposeful togetherness" once a month or a quarter.

## Provide a Great Digital Experience for Technology Talent to Achieve their Best Work

There is more to the digital workplace than providing workers with online access to office applications. The digital workplace confers various benefits, from business continuity to workforce engagement and retention.

*Organizations with solid worker experience are 1.6x more likely to achieve better customer outcomes[14]*

A seamless digital experience puts humans at the center of the design. It focuses on key factors driving an excellent workforce experience, including work, people, places, well-being, mission, growth, and belonging. Adopting a human-centered approach and digital experience applies to the entire workforce, and technology talent is no exception. In a Deloitte study, 56% of technologists responded that an organization's overall technology strategy was the most important factor in evaluating a job offer[15]. Making this shift is about going from appearing digital to operating digitally. We must redesign the workplace to connect all workers to those they work with when, where, and how they need it—regardless of location, device, or time zone.

### Takeaways

- Increasing workforce interactions and peer-led communities help drive stickiness for technology talent

- Leaders need to clarify and maintain new norms related to hybrid work

- Clearly defined and well-executed digital experiences reduce friction and enable better customer outcomes

# Looking Ahead
## What will it take to win the technology talent challenge?

Technology and non-technology organizations can pull different levers to address the complexity and nuances of the technology talent challenge.

There is no single approach to building an effective strategy, but organizations must start by determining the root cause of their technology talent challenge and identifying where to invest.

Technology talent as a workforce is unique. It requires constant upskilling and reskilling to maximize its value, combined with non-traditional ways of working and career models to attract and retain talent.

Leading organizations align their technology strategy with their broader business and technology strategies, keep workers at the center of the design, and innovate across three primary levers: attracting the right technology talent, building a

high-performing workforce, and creating engaging work experiences to keep talent.

Technology and human resources leaders must have a strong relationship and robust coordination and alignment. Technology leaders create the branding around what they're offering the technology talent and the strategy for developing and retaining them. However, technology leaders need HR leaders' partnership and expertise to enable their strategy and drive execution.

Together, technology and HR leaders can pull levers across the talent life cycle highlighted in this paper to close the loop of attracting, upskilling, and keeping talent to win the tech talent challenge.

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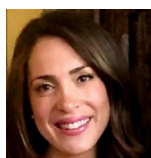
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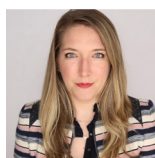
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# Acknowledgements