



Navigating Software Development Skills Shortages: Scale Fast with Global Talent

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The global labor markets have been in turmoil ever since the pandemic started. To meet the rapid rise in demand, hyperscale companies had to recruit talent en masse, which initially led to massive salary growth and acute skills shortages. At the same time, other industries battled **“The Great Resignation”** – a wave of voluntary quitting across sectors from healthcare and transportation to finance and tech.

In 2023, we see yet another disruption unfolding. Ambitious over-hiring has led to a rampant wave of layoffs across the US, with Europe and APAC being slightly less affected. Contracting economies and concerns over uncertain growth have prompted companies to trim headcounts in certain functions while increasing in others.

Still, tech skills shortages remain acute in almost every region. Competent tech specialists successfully settled into new roles. The demographic trends substantially reduced the number of experienced professionals in developed markets. The number of new tech graduates isn’t sufficient to compensate for the ongoing demand. Although tech careers are perceived to be a good choice, most students indicate that they would not pursue one. Only half of the US college students indicate confidence in their ability to learn computer science if they wanted to¹.



There’s been a shift with this new generation and what people want to do and the jobs they’re excited about. As employers and leaders, we have to start thinking about how we’re going to build pipelines into these more traditional jobs, how we’re going to attract people into the industries that maybe don’t seem as exciting.

Bonnie Dowling
Expert Associate Partner at McKinsey

¹“Willingness to be paid: Who trains for tech jobs?”. ScienceDirect. Accessed 27 Mar. 2023

Key Tech Talent Hiring Trends

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Key Tech Talent Hiring Trends

Substantial tech talent shortages are to remain for at least several years. Gartner expects that the demand will outweigh the supply **until at least 2026**. Companies behind the 10 largest layoffs in tech talent still employ over 150,000 more specialists in total than they did at the beginning of 2020².

The current wave of layoffs didn't fully offset the pre-existing demand in other industries (or markets) but rather rebalanced the talent distribution. Some former "Big Tech" employees joined smaller startups and traditional firms, who have continuously struggled to hire the people they need, while others were successfully rehired by competing entities. Among the recently laid-off tech workers in the US, 37% found a new job within a month, and another 79% – within three months³.

30% of US companies⁴

Struggled to hire software engineers, data scientists, and DevOps professionals despite layoffs.

56% of global digital leaders⁵

Expect their technology headcounts to increase in 2023.

85% of global CEOs⁶

Intend to increase investments in digital capabilities (and therefore – will require new hires).

3,495% increase in demand⁷

For "hybrid remote developers" in the UK.
+962% for "Chief Software Engineer" roles in the US.

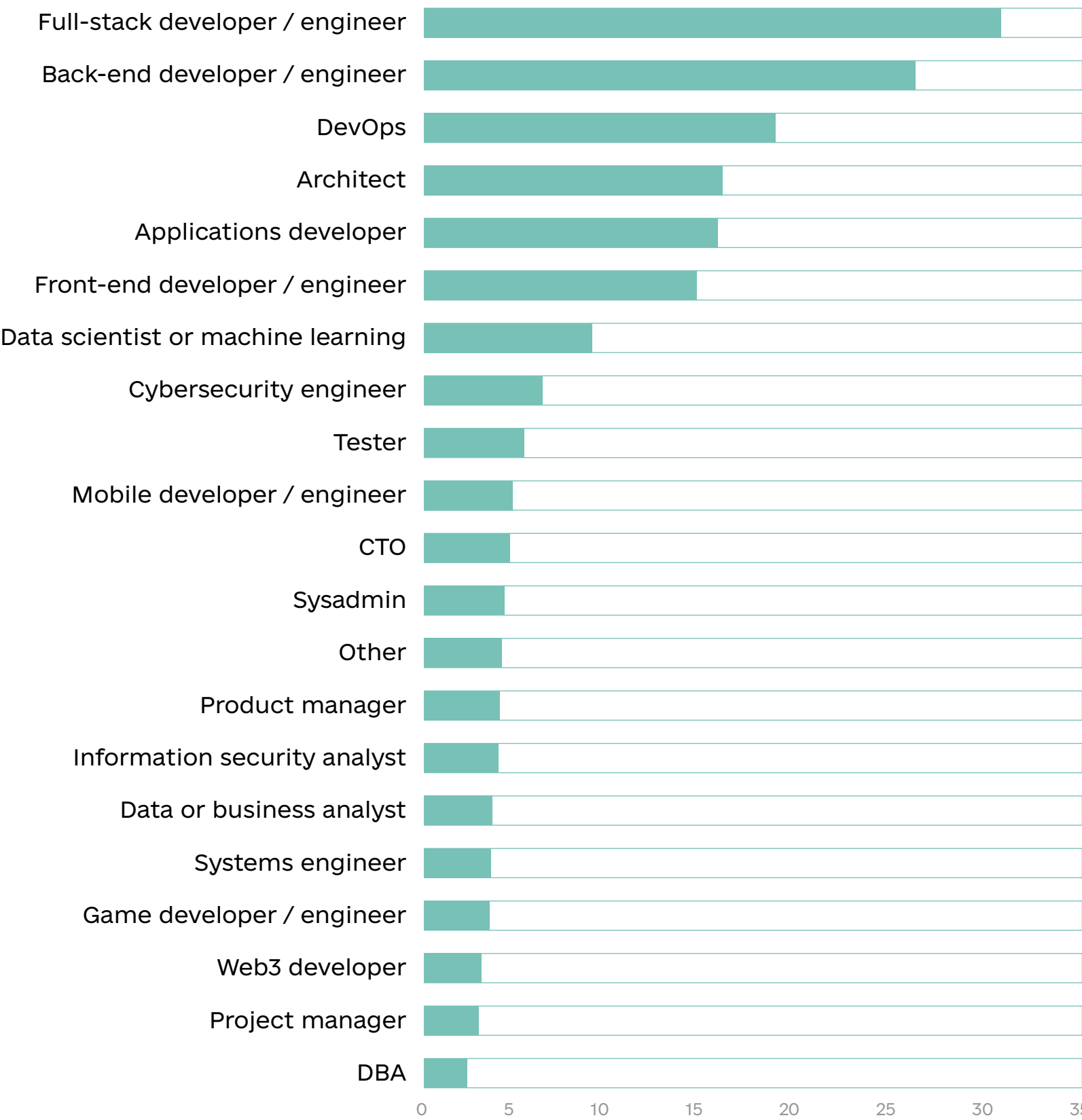
²"Do Recent Layoffs Mean the Tech Talent Crunch Is Over?" Gartner. Accessed 27 Mar. 2023
³"What is Next for Laid-Off Tech Workers?" ZipRecruiter. Accessed 27 Mar. 2023

⁴"State of Tech Hiring 2023". CodinGame. Accessed 27 Mar. 2023
⁵"Digital Leadership Report". Nash Squared. Accessed 27 Mar. 2023

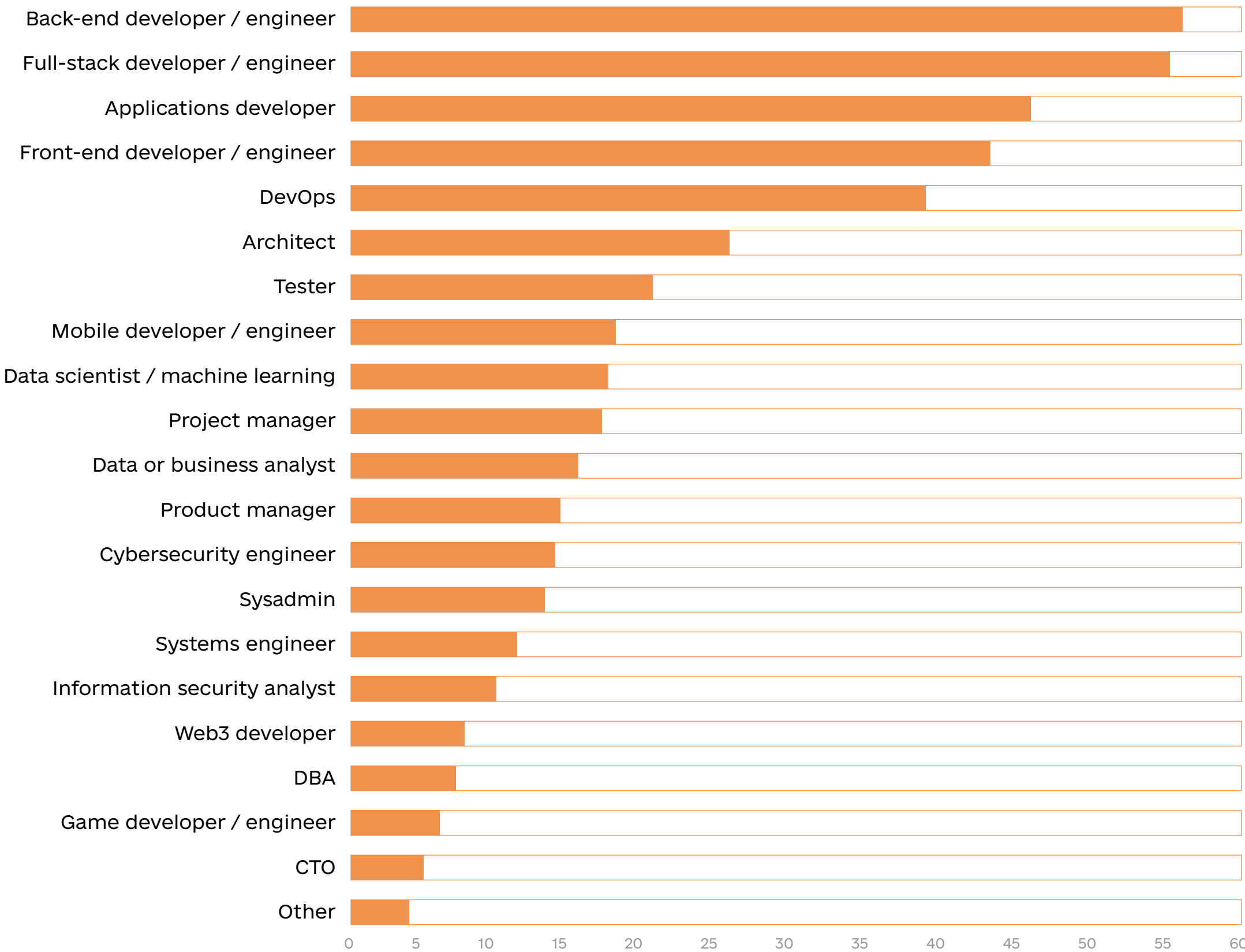
⁶"Recession Advice: Go on the Offense With IT Investments". Gartner. Accessed 27 Mar. 2023
⁷"2023 Global Talent Playbook". Lightcast. Accessed 27 Mar. 2023

The Most In-Demand Tech Roles

POSITIONS COMPANIES WILL STRUGGLE TO HIRE FOR IN 2023



IN-DEMAND TECHNICAL POSITIONS FOR 2023



*Source: [State of Tech Hiring 2023](#) report by CodinGame

Challenges Beyond Talent Acquisition: Software Development Strategy Alignment, Operational Management, and New Product Development

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Challenges Beyond Talent Acquisition: Software Development Strategy Alignment, Operational Management, and New Product Development

Sourcing software development team is just part of the deeper problem most businesses are facing. At the end of the day, companies not just need the right people – they also require lean operational flows and a viable strategy to deliver on their digital goals.

Lack of experience in digital product development, inefficient operational workflows, and inability to align new tech investments with wider objectives in business model transformations often stall the leaders’ growth prospects. Even when companies manage to successfully deliver ambitious tech projects, the outcomes often don’t match the initial expectations. On average, companies capture only 31% of the full revenue benefits that their recent transformations could have achieved⁸.

Source: [McKinsey](#).

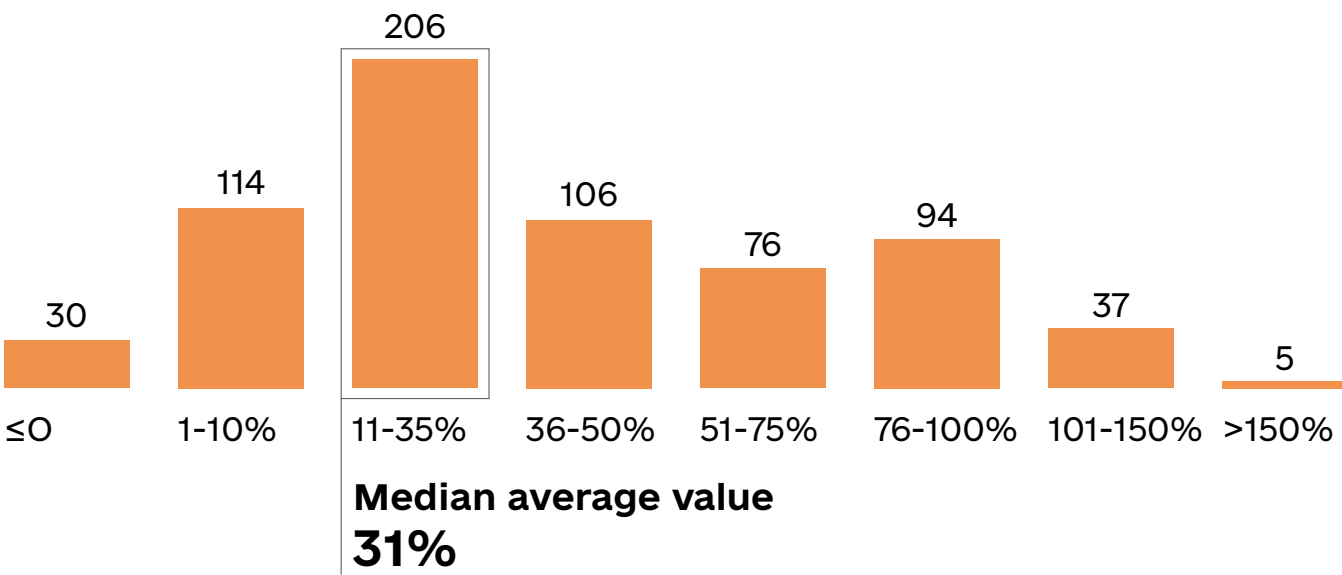
Lack of ROI eventually prompts leaders to trim their R&D budgets, reduce the workforce size, and seek other cost containment measures (which can affect their future growth prospects).

Smarter technology leaders, however, pursue an alternative strategy. They address the above challenges by gaining agility in resourcing costs, team performance levels, and business outcomes with the help of outsourcing.

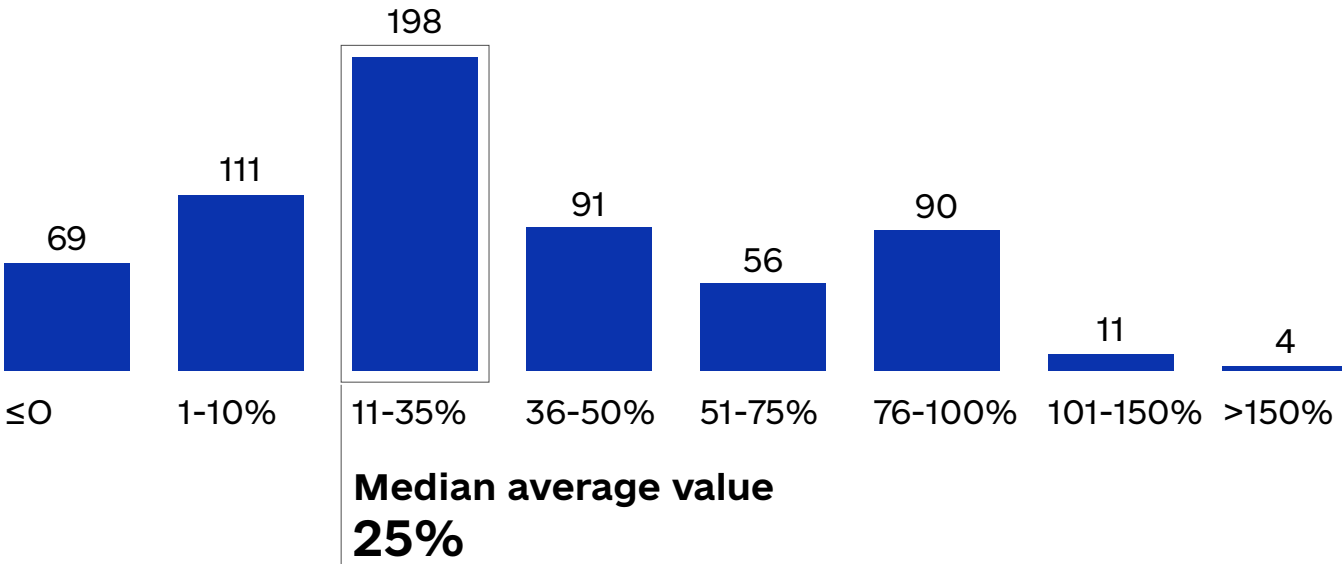
Organizations capture less than one-third of the value that respondents expected to see from recent digital transformations and initiatives.

Reported share of realized and sustained best-case financial benefits from digital transformations, number of respondents

Expected revenue increase (n = 668)



Expected cost reduction (n = 630)



⁸"Three new mandates for capturing a digital transformation's full value". McKinsey. Accessed 27 Mar. 2023

Subpar Digital Transformation Strategy

Every company is now a “tech” company. To stay competitive and avoid profit erosion by digital-first counterparts, heritage organizations must strategically invest in new technologies and modernize their IT infrastructure. Forty percent of global CEOs believe that their companies won’t be economically viable in 10 years if they stay on the current course⁹.

Yet, pivoting to digital-led growth is a challenging mission. Traditional organizations often struggle to differentiate between the “hype” and the “feasibility” of putting emerging technologies (big data analytics, artificial intelligence, machine learning, etc.) at the service of their business. When leaders lack first-hand experience with specific technologies, they struggle to right-size the available solutions to the company’s needs and accurately estimate the tech adoption costs.

Over 70% of digital transformation efforts fail. Moreover, it takes around three years for organizations to even begin competing in the digital market, even when they get it right.

[Deloitte](#)

Companies often become "Nokias" in the smartphone business due to slow speed and high failure rates. That is, progressively lose market share due to low competitiveness. To avoid such scenarios, smart leaders engage external IT consultants to facilitate the business case formalization, product strategy development, and ROI modeling for new tech acquisitions.

At the same time, leaders must ensure that their workforce is conversant in new technologies – possess the right tech competencies and strong digital skills, required to successfully pull off ambitious transformation projects. To compete, your company must hire, retain, and nurture talent with the required tech skills. When such talent isn’t available locally, consider exploring international talent pools.

⁹ “PwC’s 26th Annual Global CEO Survey”. PwC. Accessed 27 Mar. 2023

Accelerated Time to Market for New Products

Companies need to move at warp speed to capture new growth opportunities before learner (or bigger) competitors move into the target market or the customer demands change once again. Ninety-five percent of global leaders agree that rapid and effective innovation is critical for ongoing growth¹⁰.

The banking sector is a great example of the above market dynamic. FinTech companies and digital banks managed to bring new financial products to the market at a 2X-4X speed of the incumbents, chirping one profitable revenue line at a time – digital payments, wealth management, and retail investing among others. In 2019, only 12% of banks globally were said to be fully committed to digital transformation¹¹. Yet by 2030, 80% of heritage financial institutions are at risk of being commoditized or existing only formally as digital players gain greater market share¹² unless they transform.

Compared to startups, enterprises often have better financial resources for new product development but often lose the time-to-market race due to ineffective software development processes, missing tech competencies, and overall corporate inertia.

“When organizations choose to do an industrialization type of transformation, which involves upgrading the tech backbone first, there are very few early rewards, It’s kind of a difficult slog to get through, and if you don’t have a vision in mind and you can’t communicate that, it makes it hard for your people until you hit some productivity gains.

[Stephanie Woerner](#)
[Director of the MIT Sloan Center](#)
[for Information Systems Research \(CISR\)](#)

Many incumbents also lack expertise with digital product development and struggle to formalize digital product requirements, establish a solid product-market-fit, and develop new solutions iteratively. Other heritage firms also face difficulties when it comes to change management – a strategy, which lays out how your day-to-day operations will run when you’re rolling out new technology.

¹⁰ “HLB Survey of Business Leaders 2022”. HLB Global. Accessed 27 Mar. 2023

¹¹ “Only Half of Banks Globally Are Making Significant Advancements in Digital Transformation”. Accenture. Accessed 27 Mar. 2023

¹² “Digitalization Will Make Most Heritage Financial Firms Irrelevant by 2030”. Gartner. Accessed 27 Mar. 2023

Legacy IT Systems and Technology Components

Legacy IT systems are expensive and difficult to maintain. Sixty percent of business leaders describe their current IT landscape as complex, and three-quarters of this group said it was so complex as to be unmanageable¹³.

High overhead costs and inefficiencies associated with maintaining outdated IT systems restrain a company's ability to channel resources (human and finance) toward innovative projects. Internal IT teams, tasked with supporting the legacy components, also lack the time (and often skill sets) to work with newer technologies. If your current talent is unfamiliar with the AWS infrastructure, cloud migration will be an uphill battle (unless your company engages an external workforce).

“ People fix technology and processes; they can’t fix themselves. And unless a company is led by people who embrace innovation and change, it will remain stuck in a legacy state.

[Avid Larizadeh Duggan](#)
[Senior Managing Director of TVG and Investor](#)

Another common problem is that legacy systems limit the businesses' ability to scale transformative efforts. Constraints in load tolerance, interoperability, and overall legacy systems' performance force leaders to pause promising pilots. Likewise, short-staffed software development teams often struggle to balance system modernization projects with digital product development. Occupied with day-to-day operational support, software development teams have no extra capacity to handle cross-functional activities, keep up with the changing tech landscape, and fluctuating customer demands.

Aging technology also represents ample security threats. Software nearing end-of-support (EOS) is a prime vector of attack for cyber-hackers as breaking into these is easier than penetrating modern, cloud-based systems. That said, even newer software requires proactive monitoring and vulnerability management. After five years in production, 70% of applications contain at least one security flaw¹⁴. If left unaddressed, such flaws can be easily exploited to access corporate applications, communication systems, and data storage.

¹³ “The digital dilemma | Why companies struggle to master digital transformation”, Robert Half. Accessed 27 Mar. 2023


¹⁴ “State of Software Security 2023 report”, Veracode. Accessed 27 Mar. 2023

Constrained Time and Human Resources

In-house software development teams are constantly involved in a tough balancing act. They must maintain the growing IT infrastructure (including its legacy components) to ensure high system availability, security, and performance. And, at the same time, are expected to also handle new R&D and product development.

Such a dual focus on business continuity and growth is hard to maintain as software development teams remain understaffed. Almost 60% of CIOs name “understaffed internal team and talent shortage” as their biggest operational challenge for 2023¹⁵, followed by “personal time constraints”, selected by 40% of respondents. As the acceptable time-to-market has shortened, tech leaders must not only produce innovation at a faster pace but also do so with fewer available resources, which reflects poorly on the workforce.

Consistently high workloads and mounting pressure to deliver new initiatives result in spreading employee burnout, and dwindling personal productivity, and engagement. Over 60% of global IT professionals report being "physically and emotionally drained"¹⁶. They also doubt their abilities and lose motivation. All of these soft factors eventually result in resignation.

2 in 5 

of the workers surveyed show
a high risk of burnout.

42% of IT professionals
with high levels of burnout
risk are considering quitting
their company in the
next 6 months

*Source: [State of Tech Hiring 2023](#) report by CodinGame

¹⁵ “2023 CIO Sentiment Survey”. Top1000funds. Accessed 27 Mar. 2023

¹⁶ “2022 State of Burnout in Tech”. Yerbo. Accessed 27 Mar. 2023

Maintaining High Pace and Quality of Software Engineering

Even when companies have talented tech people in place, they often struggle to put their skill sets to the best use. Inexperienced managers cannot provide the guidance and support their teams need to deliver on the imposed objectives, while leadership continues to issue conflicting directives.

94% of organizations in EMEA struggle to develop a vision for digital change, often due to competing expectations from different stakeholders.

[Gartner](#)

Operationally, companies struggle to establish an effective cadence for digital product development. Mid-management lacks critical knowledge and experience with implementing software development best practices such as continuous integration (CI), continuous delivery (CD), DevOps, and data management. Only 47% of organizations indicate that DevOps or DevSecOps is their current methodology of choice¹⁷.

Operating workflows lack standardization and, by proxy, efficiency. Over 70% of businesses rely on ten or more applications to execute one process and 72% still use manual methods, which limit process visibility¹⁸. Data management is another complex area. Only 32% of organizations admit to having a data strategy, whereas 42% have no data owners and expect IT to take this key role (even though this area is outside of their competency)¹⁹.

Due to constrained resources, leaders continue to add more tasks on top of other priorities to in-house teams, who struggle to maintain a high pace and quality of work. Overburdened tech teams fail to meet the original timelines and/or cannot take on extra projects. Respectively, the company cannot scale its operations to meet the increased demand or access new revenue streams, which stagnates growth.

¹⁷ "2022 Global DevSecOps Survey". GitLab. Accessed 27 Mar. 2023

¹⁸ "Trends in Process Improvement and Data Execution". Celonis. Accessed 27 Mar. 2023

¹⁹ "The State of Data Maturity". Cognopia. Accessed 27 Mar. 2023

Global Talent Acquisition: A Path Forward for Growth-Driven Leaders

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Global Talent Acquisition: A Path Forward for Growth-Driven Leaders

Constrained talent acquisition, operational limitations in product development speed, and subpar IT portfolio management prompt leaders to consider alternative talent sourcing strategies: cross-border expansion via branch openings, remote in-house hiring, and M&A activity. Each option, however, also comes with inherent constraints when it comes to costs, speeds, and flexibility of execution. That's why the majority of leaders consider the fourth option – software development services from external vendors.

Seventy-six percent of global executives now have their IT services delivered via third-party models.
[Deloitte Global outsourcing survey 2022](#)

Leaders choose to partner with third-party vendors to gain access to new tech competencies and capabilities, plus execute business strategy shifts, rather than to merely save costs. Deloitte has christened this new synergetic partnership model as **Operate Services**.

Operate Services are highly collaborative. Progressive organizations are building out an integrated ecosystem of internal and external talent. The majority also seeks out extra insights from their vendors when it comes to technology and process guidance, plus industry knowledge third-party providers are well-positioned to supply.

Companies that have successfully embraced distributed operations are also better positioned to circumnavigate local talent shortages, rising hiring, and overhead costs, plus gain the much-needed acceleration in digital product development.

Businesses are also increasingly satisfied with their software development partners, whose capabilities have grown more mature over the years. In the UK, the average client satisfaction with the tech providers is at 73% – the highest up to date – with 91% of all relationships rated as satisfactory²⁰.

Similar to Deloitte's global findings, “cost reduction” is no longer the primary driver for seeking third-party partnerships among UK companies. The majority (57%) delegate auxiliary functions to the external workforce to maintain a greater focus on the core business, whereas 56% choose this strategy to access the required human resources²¹.

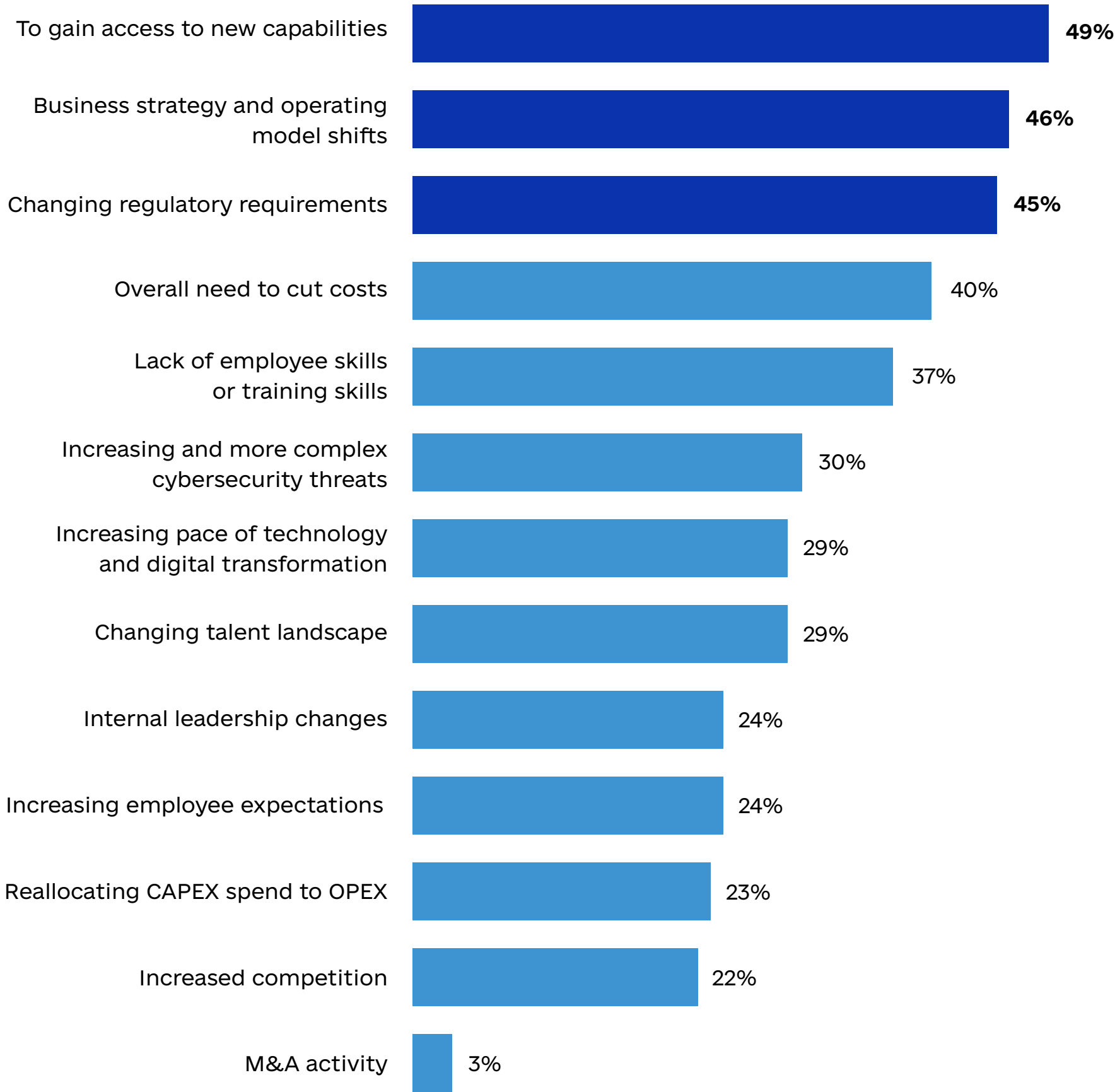
As digital transformation continues to pick up pace, companies realize that strategic partnerships offer a leaner path to getting the technical competencies and operational practices for succeeding in the current markets. Paired with the ongoing talent crunch, these factors are driving further reliance on software engineering partners.

4 in 5 global CIOs say they will likely outsource any tech-related or other functions within their company’s technology department in the next six months, with 34% saying it’s a very likely strategic action.

[CIO Outlook: Economic Challenges and Outsourcing](#)

²⁰ “UK IT sourcing study 2022”. PA Consulting. Accessed 27 Mar. 2023
²¹ “UK IT sourcing study 2022”. PA Consulting. Accessed 27 Mar. 2023

OPERATE SERVICES



Source: Deloitte Global Outsourcing Survey 2022 (% respondents)

The background of the slide features a photograph of three individuals—two men and one woman—collaborating at a desk. They are all smiling and looking at their laptops. The image is covered with a semi-transparent purple filter. A thin white rectangular border is positioned over the image, framing the text and the logo.

Software development partners
can help you strengthen your
operations in the following areas:

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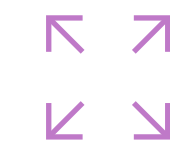
Global Talent Acquisition

Gain the missing skill sets, unavailable in your local market. Software development vendors help staff your team with the right talent at least 2X faster, compared to traditional hiring. Benefit from scalable, on-demand access to new competencies.



Project Initiation & Ramp-Up

Accelerate time-to-market for upcoming projects by augmenting the in-house workforce with external engineering talent, fully integrated into your operations. Delegate entire project or IT functions to an experienced partner to focus on core business operations.



Operational Scalability

Adjust your workforce composition, based on your business cycle. Add extra talent to accelerate during critical growth stages and reduce your headcount to power through slower periods without worrying about employee retention and engagement.



IT Advisory

Navigate digital product development with greater confidence by leveraging the vendor's experience in project planning, software development life cycle setup, and development process optimization. Gain second opinions on new tech investments.



Project Delivery Outcomes

Use a vendor with mature project management processes and product delivery experience to minimize schedule and budget overruns. Improve your standard operating workflows with extra recommendations and best practices.



Cost Management

Maintain leaner budgets by dynamically adjusting your team's size and composition. Get preliminary cost estimates upfront to develop better budgets and balance the costs against other priorities.

Integrating a Technology Partner into Your Operations

Technology partners can provide access to hard-to-source talent, as well as extensive operational support and technology know-how. That said, strategic alliances require a strong commitment on both sides to transform from standard delegation to outcome-driven collaboration.

Managers cite several core reasons for joint-venture success and failure.



¹Respondents' top choices out of a list of 10 components whose presence could have a favorable effect on their partnerships (n = 708).

²Respondents' top choices out of a list of 10 components whose absence could have a negative effect on the partnership (n = 262).

³Key performance indicators.

Source: 2015 McKinsey Joint Ventures and Alliances Survey

Source: [McKinsey](#).

Lack of alignment, trust, effective communication, and constructive governance are the main reasons behind failed strategic partnerships²². To ensure the effective integration of an external software development partner, smart leaders focus on creating the right operational dynamics.

Prior to signing the deal, you should

- Determine how the new technology partner fits into your general business strategy and what outcomes you expect them to deliver.
- Clarify the service(s)' scope, delivery conditions, and service level agreements (SLAs); establish the key areas of responsibility for both parties.
- Estimate your overall capacity needs for a specific project, as well as future dynamics.

The above steps will help your organization create a strong foundation for future partnership, where each party's capabilities are well-recognized, main goals are captured, and responsibilities are properly distributed. To achieve better outcomes involve business-unit executives and team leads in the vendor negotiation and onboarding process, rather than the upper C-suite alone. This way, you can start building a better rapport from the bottom up and minimize internal resistance to change.

²² "Improving the management of complex business partnerships". McKinsey. Accessed 27 Mar. 2023

Strengthen Your IT Function
with 8allocate

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We're the engineering force behind the most successful digital companies. From tech advisory to end-to-end software development, we're helping global businesses improve their software development capabilities with the right people, technologies, and processes.

OUR SERVICES

<p>Dedicated Team</p> <p>Accelerate time-to-market for new projects with a team of competent software engineers and IT professionals managed to deliver consistent results.</p>	<p>Team Augmentation</p> <p>Get extra tech talent as and when you need them. With team extension services, your business can maintain high product development speeds without any hiring constraints.</p>	<p>Technology Consulting</p> <p>Scale your IT function with personalized guidance on digital transformations, software development, cybersecurity, data management, and other strategic initiatives.</p>	<p>Product Discovery</p> <p>Go from a rough 'concept' to a validated 'market-ready' product with expert support on user research, product validation, and tech stack selection.</p>
BENEFITS			
<ul style="list-style-type: none">• Flexible team composition• Fast team staffing• Accelerated time-to-market• Predictable team performance• Effective team management	<ul style="list-style-type: none">• Access to specialized skills and expertise• Seamless integration with in-house team• Extra capacities for critical projects• On-demand staffing• Proactive knowledge sharing	<ul style="list-style-type: none">• Advice from senior IT practitioners• Improved project management• Better operational workflows• Lower tech budget waste• Higher ROI on tech investments	<ul style="list-style-type: none">• Market and user research services• Validated digital product use cases• Risk reduction through better planning• Accurate project timeline & budget estimates• Higher product adoption rates

Let's Bring Your Idea to Life

Pursue new growth opportunities with 8allocate's infinite potential for finding top tech talent. Get started with new product development faster and with fewer operational constraints.

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